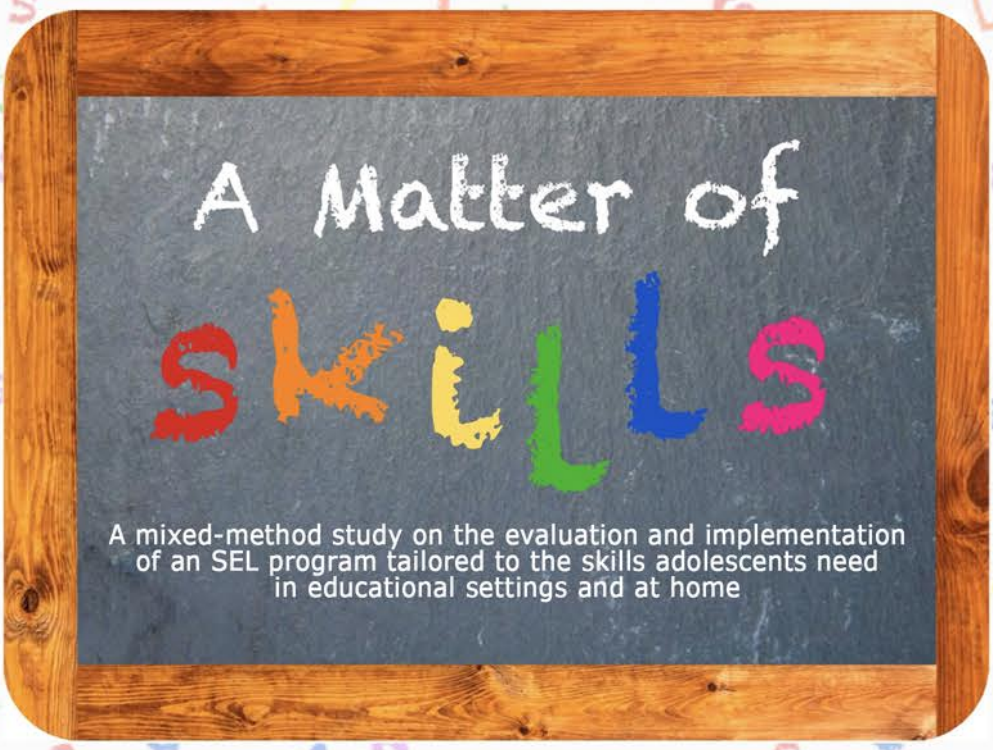
A matter of skills: a mixed-method study on the evaluation and implementation of an SEL program tailored to the skills adolescents need in educational settings and at home

Sande, M.C.E. van de



Marion van de Sande

A Matter of Skills

A Mixed-Method Study on the Evaluation and Implementation of an SEL Program Tailored to the Skills Adolescents Need in Educational Settings and at Home

---

Maria Cornelia Engelina van de Sande

A Matter of Skills. **A Mixed-Method Study on the Evaluation and Implementation of an SEL Program Tailored to the Skills Adolescents Need in Educational Settings and at Home**

Maria Cornelia Engelina van de Sande, 2024

Faculty of Social Work and Education, The Hague University of Applied Sciences.

ISBN : 78-94-6506-192-4
Cover design : Ricco van Nierop
Lay-out and printing : Ridder Print l www.ridderpint.nl

The studies presented in this thesis were funded by SIA, the Taskforce for Applied Research in the Netherlands (Grant number PRO-4-43).
Financial support for printing of this thesis was kindly provided by the Department of Social Work of The Hague University of Applied Sciences.

A Matter of Skills

A Mixed-Method Study on the Evaluation and Implementation of an SEL Program Tailored to the Skills Adolescents Need in Educational Settings and at Home

Proefschrift
ter verkrijging van
de graad van doctor aan de Universiteit Leiden,
op gezag van rector magnificus prof.dr.ir. H. Bijl,
volgens besluit van het college voor promoties
te verdedigen op dinsdag 10 december 2024
klokke 14.30 uur

door

Maria Cornelia Engelina van de Sande
geboren te Tilburg
in 1959

Promotor

Prof. Dr. R. Reis

Copromotoren

Dr. C. Gravesteijn, Hogeschool Leiden
Dr. P. L. Kocken, Erasmus Universiteit Rotterdam

Leden promotiecommissie

Prof. Dr. M.E. Numan
Prof. Dr. J. Mesman
Prof. Dr. M.R. Crone, Universiteit Maastricht
Dr. D. Graas, Hogeschool Windesheim

Voor alle jeugdigen, hun ouders en docenten, hier en daar.

Contents

Chapter 1

General introduction

Social and emotional learning is the process in which young people acquire the skills they need to participate in and contribute positively to the settings in which they live and learn (Zins & Elias, 2007). This learning is associated with youngsters' future (psychosocial) health, education, and work prospects. To promote young people's prospects, around the world many people invest in projects that are designed to enhance youngsters' social and emotional skills, including persevering on tasks and establishing healthy relationships. Scholars worldwide put effort into developing the theory of social and emotional learning and the practice of promoting these skills on the basis of research-based knowledge (e.g., Durlak et al., 2015; Jones et al., 2019; Matson, 2018).

The studies in this thesis examine the evaluation and implementation of universal school-based Social Emotional Learning (SEL) programs for adolescents, and the Dutch Skills4Life (S4L) program, in particular. In theory and practice, various definitions are used for SEL and the social-emotional skills addressed in programs and measurement instruments (e.g., Duckworth & Yeager, 2015; Durlak et al., 2015). For most of the studies in this thesis, we used the domains comprised in the framework of the Collaborative for Academic, Social, and Emotional Learning (CASEL) as a reference to identify the social-emotional skills taught in SEL programs and perceived relevant teaching by students and parents (Weissberg et al., 2015; CASEL, 2020). Examples of these domains and skills are: Self-awareness (e.g., self-esteem and self-efficacy); 2. Social awareness (e.g., empathy and perspective-taking); 3. Self-management (e.g., self-regulation and goal setting); 4. Relationship skills (e.g., collaboration and social problem solving); 5. Responsible decision making (e.g., considering the consequences of and taking responsibility for actions). The CASEL framework is a frequently used framework in SEL program development and research all over the world (See, for more details on this framework, p. 21-22 in this Introduction).

In this introduction, we first discuss the background and problem statements of the thesis, starting with an introduction of the concept of social and emotional learning. Subsequently, we describe a number of crucial settings for social and emotional learning. As the studies in this thesis focus on adolescent students, the chapter then goes into developmental aspects regarding social and emotional learning in this particular life stage. Next, after a discussion of school-based SEL programs designed to enhance social-emotional skills, the Dutch universal secondary education Skills4Life program is introduced. To understand the population of students referred to in most of our studies, we give a brief description of the Dutch secondary education system, and its goals related to SEL. Following this, the CASEL framework for supporting SEL program implementation

is presented. Finally, the context, the methodology used, and the structure of the thesis are described.

Social and emotional learning

Social and emotional learning is part of the socialization process in which young people learn to participate in and contribute positively to the settings in which they live and learn, such as home, school, and the workplace. "Socialization" refers to the acquisition and transfer of social-emotional skills, behaviors, attitudes, beliefs, values, behavioral norms, and goals that are common in a social-cultural group or setting (Maccoby, 2015). These skills are socio-culturally rooted, and young people develop these in daily interactions with adults and peers across settings (e.g., Bronfenbrenner & Morris, 2006; Grusec, 2011; Osher et al., 2020; Thompson & Meyers, 2007). In these interactions, social-emotional skills, such as emotion regulation, empathy, and social problem solving are taught, modeled, and transferred. Ongoing communication and interactions, based in responsive and nurturing relationships, are necessary to provide opportunities for acquiring and practicing the social-emotional skills required in different settings (e.g., Cunha & Heckman, 2006; Sanders & Turner, 2018; Wentzel, 2015). Social and emotional learning and acquiring relevant skills enable young people to develop and maintain positive relations with others and to adapt to different tasks and demands within the groups and settings they live and learn in.

In all societies, young people live and learn across different groups and settings, e.g., at home, at school, and in the workplace. The social-emotional skills they develop vary depending on differences in individual and environmental features, such as age, sex, learning and emotional-behavioral abilities, family income, sociocultural background, and the context in which they are raised (e.g., Dawes et al., 2020; Goodman & Scott, 2012; Kagitibaci, 2012; West et al., 2020). As a result of such differences, significant disparities exist in young people's social-emotional skills. Participating in and contributing successfully to various settings requires adaptive skills and understanding the underlying beliefs, values, behavioral norms, and goals (e.g., Jones et al., 2017; Zins & Elias, 2007). Therefore, social and emotional learning is a lifelong process distinct from cognitive, physical, and psychological learning. Young people and the adults guiding them at home, at school, and in the workplace are considered active participants in this process.

Social and emotional learning at home

Social and emotional learning starts from birth in interactions at home with parents, siblings, family, and community members. Throughout the lifespan, parents play a

core role in helping their children acquire the social-emotional skills appropriate for contributing and participating at home and in their sociocultural group (e.g., Sorkhabi-Middaugh, 2019; Steinberg & Silk, 2002; Zins & Elias, 2007). In socialization theory, dimensions and domains related to transferring and learning social-emotional skills are distinguished (e.g., Calders et al., 2020; Grusec, 2011; Smetena, 2017). Grusec (2011) describes skills in five socialization domains. The protection domain (1) refers to caring for children, providing safe and secure environments, helping them, and providing emotional support. In the (mutual) reciprocity domain (2), children learn to interact positively with others and develop egalitarian relationships. The control domain (3) refers to modifying, disciplining, and monitoring child behavior, providing structure, and supporting autonomy related to societal standards. The domain of group participation (4) refers to learning social customs and conventions that reflect the general group skills. Unlike the other four domains, in which social-emotional skills are modeled and transferred, social-emotional skills are taught intentionally in the guided learning domain (5). Although these domains refer to parent-child interactions, they are considered relevant in other socialization domains as well (Smetena, 2017).

It is assumed that, in families all over the world, social and emotional learning is geared at regulating interactions, social expectations, and standards; however, researchers identify differences between families worldwide (e.g., Grusec et al., 2011; Malti & Cheah, 2021; Patterson et al., 2015). Skills socialization at home is rooted in parents' beliefs, values, behavioral norms, and goals regarding child development, which vary according to their sociocultural and -economic background (e.g., Dinallo, 2016; Oberle et al., 2016; Smetena, 2017). Researchers often distinguish two approaches to teaching skills, an individualistic and a collectivistic approach (e.g., Chen et al., 2015; Fu & Markus, 2014; Kağitçibaşi, 2012; Matsumoto et al., 2006; Oyserman & Lee, 2008). An individualistic approach focuses more on independence, autonomy, and self-oriented skills, such as self-assertion and emotional expression. In comparison, a collectivistic approach is focused on interdependence, relatedness, and other-oriented skills, such as group confirmation and emotional inhibition. However, these are general distinctions.

Social and emotional learning is not only determined by individual features. Social, cultural, economic, and ecological factors that impact the families, neighborhoods, and societies where young people are raised determine the skills they develop (e.g., Chang et al., 2022; Duchesneau, 2020; Powell et al., 2019; Wang et al., 2020). Besides the home, educational settings such as school and during adolescence workplace settings are crucial for social and emotional learning.

Social and emotional learning at school and at work

The school and workplace setting provide opportunities for acquiring social-emotional skills that promote youngsters' academic and work prospects (e.g., Eccles & Roeser, 2011; Wentzel, 2015; Zigler & Bishop-Josef, 2006). Students learn the social-emotional skills required at school in daily interactions with peers and adults from diverse backgrounds. Learning these skills at school is associated with providing equal opportunities for all students to participate in those systems (Onderwijsraad, 2017; Jagers et al., 2019a). Besides, schools are considered gateways for learning the skills necessary to navigate the dominant society's social, medical, digital, legal, and economic systems. Studies show that many teachers, principals, parents, and adolescents believe that schools can add to learning the social-emotional skills young people need (e.g., Atwell & Bridgeland, 2019; Bridgeland et al., 2013; DePaoli et al., 2019; Hubbard et al., 2019; Jones & Cater, 2019; Wentzel et al., 2017). A safe and supportive classroom atmosphere, clear social-emotional and academic expectations, and support from teachers and classmates are crucial for acquiring the skills necessary for success in education and work (Wentzel, 2015). However, meeting the skills needs of students from families unfamiliar with dominant societal systems and navigating them can be challenging for schools (e.g., Elias, 2019; Jagers et al., 2018).

As young people grow older, interactions with peers and adults, in sports-, leisure-, and online activities also become crucial for acquiring the social-emotional skills common in those settings (e.g., Bukowski et al., 2015; Pratt et al., 2015; Paus-Hasebrink et al., 2019). Most young people start as paid employees and/or internship trainees in a workplace setting during adolescence. When entering a new workplace, they enter a process of socialization and becoming acquainted with the vocational- and social-emotional skills that are common and expected. This socialization is associated with organizational knowledge and (social-emotional) skills, such as job clarity and expectations regarding, for example, communication and cooperation (Ellis et al., 2015). However, perceived differences between themselves and their colleagues can limit the socialization of new employees (Kammeyer-Mueller et al., 2011). Therefore, it is not surprising that governments require schools to take on the task of teaching social-emotional skills (e.g., National Research Council, 2012; Organization for Economic Cooperation and Development (OECD), 2015). Secondary and, particularly, (pre)vocational schools are supposed to prepare their students for work and their interactions with colleagues, as they learn at school and the workplace simultaneously (e.g., Elksnin & Elksnin, 2001; National Research Council, 2012; OECD, 2015).

School and the workplace are crucial settings for adolescent social and emotional learning. Positive interactions between youngsters and adults contribute to their social and emotional learning in these settings. As the number of settings for living and learning expands, adolescents need an increasing variety of social-emotional skills and need to learn to balance the skills required at school, at work, and at home.

Adolescent social and emotional learning

Adolescence is considered a sensitive period for social and emotional learning. Adolescents must accomplish central developmental tasks such as forming an integrated self-identity, becoming independent from their parents, establishing (intimate) relationships with peers, and making important choices in education and work (e.g., Lerner & Steinberg, 2009; Crone & Fuligni, 2020; Jones et al., 2018; Napolitano et al., 2021). An integrated self-identity indicates a sense of internal consistency across multiple social identities, such as race/ethnicity, profession, culture, sex, and religion, through which adolescents know who they are across time and settings (e.g., Galliher et al., 2017; Umaña-Taylor et al., 2014; Wang et al., 2020). For accomplishing their developmental tasks, they need advanced and complex social-emotional skills, such as self-knowledge, emotion regulation, and balancing multiple perspectives and interests in decision making. The development of such skills is associated with enhanced resilience and the prevention of psychosocial health problems that increase or emerge during adolescence, such as depression, aggression, and substance use (e.g., Calear & Christensen, 2010; Laible et al., 2014; Ma et al., 2020; National Research Council, 2012; Wright et al., 2021).

Adolescents' social-emotional skills are "under construction". Skills such as empathy, perspective-taking, and self-regulation diminish in early adolescence (11 to 15 years) to develop to sophisticated levels later (e.g., Crone, 2017; Güroğlu et al., 2013; Ross et al., 2019; West et al., 2020; Soto et al., 2023; Young et al., 2019). Social interactions with peers and others are inevitable for social and emotional learning, practicing social-emotional skills, and accomplishing adolescents' developmental tasks (e.g., Crone, 2017; Dalen, 2014; Smetena et al., 2015). Adolescents are highly occupied with and put much effort into figuring out what is going on inside themselves and others, which motivates them to practice alternative skills in their interactions with peers (e.g., Crone & Fuligni, 2020; Schraube & Højholt, 2016; Yeager, 2017). Their occupation with others and their increasing cognitive, social, and emotional capacities enable them to develop complex and advanced social-emotional skills (e.g., Blakemore & Mills, 2015; Crone, 2017; Liebermann, 2012). However, peer relationships can also challenge the development of social-emotional skills, as adolescents fear being excluded or feeling lonely in a group.

Adolescents' social-emotional skills vary depending on individual and environmental features. Recent studies, for instance, point to differences in skills between male and female adolescents (e.g., Gaspar et al., 2018; Gordon et al., 2022; Van der Graaff et al., 2014). For example, male adolescents gave themselves higher scores on self-esteem and self-regulation, whereas females scored higher on social problem solving. Young people in marginalized positions related to, for instance, cognitive, emotional-behavioral, and learning difficulties, and/or a low-income and minority family background, reported lower scores on these skills compared to their counterparts in more privileged positions (e.g., Elias, 2007; Cook & Gresham, 2008; West et al., 2020; Wiley & Siperstein, 2015; Hecht & Shin, 2015).

Adolescents are active participants in giving meaning to and co-constructing the skills they develop, guided by their growing capacities and developmental tasks (e.g., Smetena, 2015; Steinberg, 2015; Yeager, 2017). They are crucial partners in their own social and emotional learning process. As such, they are responsible for enhancing their social-emotional skills and promoting their prospects in education and work, as well as their psychosocial health. Therefore, they are valuable resources regarding the skills they perceive to have and need to learn.

Adolescent social and emotional learning across settings

Since social-emotional skills are still developing during adolescence, adult guidance and support remain necessary (e.g., Crone & Dahl, 2012; Ross et al., 2019; Sanders & Turner, 2018). Depending on young people's socioeconomic- and/or sociocultural family background, the social-emotional skills required at home, at school, and at work, including the beliefs, values, behavioral norms, and goals rooting them, may differ (Grusec & Hastings, 2015). Therefore, parent-school collaboration on social and emotional learning is indicated (Bronfenbrenner & Morris, 2006). However, such collaboration seems to focus on parental support concerning the social-emotional skills required at school; little attention is paid to parents' perspectives on social and emotional learning at home, school and work (Bjorklund et al., 2014; Meyers et al., 2019; Oberle et al., 2016). Taking account of these perspectives is particularly important, as the social-emotional skills learned at school and home do not necessarily match up. Such a mismatch can harm young people by confusing them regarding the skills they have and need and pressures parent-school collaboration (e.g., Dinallo, 2016; Duchesneau, 2020; Evans, 2017; Gresham, 2015; Jagers et al., 2019b; McCallops et al., 2019). Research shows that adolescents' social-emotional skills are malleable and teachable at school and that collaboration between schools and parents improve student outcomes (e.g., Clarke et al.,

2021; Durlak et al., 2015; Goldberg et al., 2019; Mahoney et al. 2018). The decreasing involvement of parents in secondary education challenges parent-school collaboration (e.g., Epstein et al., 2009; Park & Hollaway, 2018; Tan et al., 2020).

Parents do not only guide adolescents' social and emotional learning but are also important informants and role models regarding the career choices of their children (e.g., Diemer, 2007; Ginevra et al., 2015). However, not all parents may be familiar with the social-emotional skills required at work. Skills in all CASEL's competency domains are associated with socialization in the workplace (e.g., Kammeyer-Mueller et al., 2011; Napolitano et al., 2021; Oliveira et al., 2023). For example, self-awareness is associated with the promotion of role expectations, information seeking, and optimism in the workplace setting. Social awareness and relationship skills are associated with asking and receiving feedback from supervisors and colleagues. Employers experience that students from minority groups, such as those identified with learning difficulties and/or from migrant and low-income family backgrounds, applying for an internship often lack such skills (e.g., Andriessen et al., 2020; Bisschop et al., 2021; OECD, 2021). Prevocational education schools are responsible for teaching social-emotional skills to prepare students for future education and the workplace. As the skills students learn and need at home, at school, and at work may vary, collaboration with parents on social and emotional learning at school seems necessary.

School-Based SEL programs

As the development of social-emotional skills is associated with students' psychosocial health, education, and life prospects, it is unsurprising that SEL programs aiming to enhance these skills are implemented in schools worldwide. Around the world, various types of SEL programs exist, including stand-alone and whole-school SEL programs, as well as those that are integrated into academic curricula. In some countries, governments have generated educational standards for SEL (e.g., Durlak et al., 2015; Cipriano et al., 2023 Dusenbury et al., 2020; Jones et al., 2019). Universal SEL programs aim to promote positive outcomes for all students. Selective and indicated programs target subgroups of and/or individual students with severe social, emotional-behavioral, and/or learning difficulties (Wiley & Siperstein, 2015). Programs and standards vary in their conceptualizations of SEL and the definitions of the social-emotional skills taught. Differences in conceptualizations and definitions are related to a particular focus on health, educational, and/or life goals, such as prevention of depression, aggression, or substance use, and the promotion of academic achievements, citizenship, and work

prospects (e.g., John & De Fruyt, 2015; Jones et al., 2019; National Research Council, 2012; OECD, 2021).

Teachers implementing SEL programs are supposed to adapt them to their students' needs associated with individual and environmental features (e.g., Bernal et al., 2006; Biesta, 2007; Gutman et al., 2015). To support program implementation providing teacher manuals and training is recommended (Durlak, 2016). Students facing multiple disadvantages, such as learning difficulties and/or growing up in low-income and minority families, face challenges in developing the social-emotional skills necessary at school and work (e.g., Cipriano et al., 2022; Daley et al., 2021; Duchesneau, 2020; Elias et al., 2019). Therefore, these students are expected to profit most from SEL programs (e.g., Diekstra, 2008; Gresham, 2015; McCormick et al., 2015).

Meta-analysis studies on universal school-based SEL programs show positive effects on social-emotional skills, psychosocial health outcomes, and academic achievement in students with varying background characteristics (e.g., Durlak et al., 2011; Sklad et al., 2012; Taylor et al., 2017; Wiglesworth et al., 2016). However, these studies did not distinguish effects in children and adolescents, and they used a composite measure of several social-emotional skills in analyzing summary effects. Therefore, insight into the effects of SEL programs on the individual social-emotional skills of adolescents is limited. Taylor et al. (2017) identified positive effects of SEL programs on students, independent of their sociocultural and socioeconomic family background. In analyzing effects at the school population level and not on the individual student level, they did not provide insight into effects in subgroups of students from varying backgrounds. Such insight is necessary as today's diverse and inclusive schools serve students with varying social-emotional skills and needs (Armstrong & Armstrong, 2019; Aronson & Laughter, 2016).

Another factor to consider in relation to the effects of SEL programs is the interrelation between skills and psychosocial health outcomes. Although social-emotional skills are interrelated, knowledge of these interrelations and the relationships between these skills and health outcomes is limited (e.g., Durlak et al., 2011; Weissberg et al., 2015). Such knowledge, however, is crucial for understanding which skills to target in order to establish SEL programs' intended effects.

Students with learning difficulties and those from low-income and minority families show lower scores on individual social-emotional skills outcomes than their more affluent peers

(Gresham, 2015; West et al., 2020). Focusing SEL programs on these students in particular is addressed in the literature (e.g., Bailey & Jones, 2019; Evans & English, 2002; Halfon et al., 2018; Raver, 2012). However, recent reviews and meta-analyses identified that students facing individual and environmental adversities are hardly identified as subgroups in universal SEL program evaluation studies (e.g., Cipriano et al., 2022; Daley et al., 2021; Hassani & Schwab, 2021). Therefore, insight into such programs' effects related to students' varying background characteristics, such as cognitive, social-behavioral, and learning abilities, as well as family income and sociocultural background, is limited. More knowledge is needed about the effects of SEL programs on the social-emotional skills of students facing disadvantages related to (multiple) background factors.

Scholars emphasize the importance of engaging students facing disadvantages and their parents in SEL program implementation, as this will provide equal opportunities for acquiring the skills that promote their future health, education, and work prospects (e.g., Cipriano et al., 2023; Elias, 2019; Jagers et al., 2018). However, knowledge of *how* to engage these students and their parents is hardly provided in SEL research. Besides, little is known about these students' and their parents' perspectives on SEL and enhancing social-emotional skills at school. To contribute to the knowledge on adolescent SEL program evaluation and implementation we conducted six studies. Two of these studies evaluate the Dutch secondary education Skills4Life program.

The Skills4Life program

Skills4Life (S4L) is a Dutch universal classroom-based program for secondary schools. The program aims to enhance social-emotional skills in all CASEL's domains, such as self-efficacy, self-regulation, empathy, and social problem solving. The program was developed based on more than twenty years of ongoing evaluation and implementation research involving students, teachers, principals, and other relevant school staff (Gravesteijn, 2010). This research also informed the development of student workbooks and manuals as well as teacher training. Evaluation studies on S4L reported significant positive short- and long-term effects on adolescents' social-emotional skills and psychosocial health outcomes (e.g., Gravesteijn et al., 2004; Gravesteijn, 2010). However, insight into differences in effects related to varying individual and environmental features is limited. Teachers and students indicated that the program asked too much of the intellectual and language needs of students in preparatory vocational secondary education (PVSE, vmbo in Dutch) (Kocken et al., 2011). Students in the Practical Education (PrE) track (Praktijkschool in Dutch), moreover, were not included in the earlier evaluation studies.

To meet the needs of students in the preparatory vocational secondary education basic track (PVSE-b in Dutch) and the PrE track the S4L program was adapted. As these students learn simultaneously at school and the workplace, an additional module was developed to prepare them for workplace learning. The *adapted* S4L program consists of a basic and an internship module (see **Chapter 4** for more details on program content and adaptations). Additional teacher training and manuals were developed for the *adapted* S4L program. To provide insight into the population of students in these tracks, the highly stratified Dutch secondary education system and the SEL requirements Dutch schools need to meet are described in the next section.

SEL and the Dutch secondary education context

Students in the Netherlands enter secondary education at the age of eleven or twelve. The mainstream educational system consists of two levels of general secondary education (known in Dutch as HAVO and VWO) and five qualitatively different prevocational secondary education tracks (PVSE), i.e., the theoretical, combined, advanced and basic vocational track (Dutch Organization for Internationalization in Education (NUFFIC), 2015). The PVSE-basic (PVSE-b) track is the least selective of these four tracks. The PrE track is for students with additional educational needs (European Centre for the Development of Vocational Training, 2013). Eight percent of adolescents (aged 12-19) are in the PVSE-b track, and two percent are in the PrE track. In grades 9 and 10 students in PVSE-b and PrE tracks learn at school and workplace internships for several days a week. Besides these mainstream education tracks, the Dutch system has separate schools for students with special educational needs related to severe intellectual, social, and/or emotional-behavioral problems.

PVSE-b and PrE students have learning difficulties related to mild intellectual, emotional-behavioral and/or learning problems. Students on both tracks have I.Q.s varying from 55-90 (based on I.Q. tests). PVSE-b students have two years' delay in reading and mathematics, and PrE students have three years' delay in those subjects. Additionally, they have difficulties regarding, for instance, attention span, working memory, and processing of (new) knowledge and skills. However, differences in educational performance levels between students in these tracks appear to be large (Fazekas & Litjens, 2014; NUFFIC, 2015). These differences seem to be associated with students' varying background characteristics. The proportion of students from low-income and/or migrant families in these tracks is high compared to students from Dutch/Western-European families (Korpershoek et al., 2016). Due to their family backgrounds and learning difficulties, and because they live in deprived neighborhoods, many students in the PVSE-b and PrE tracks and their parents are

in marginalized social positions. As a result, students do not necessarily acquire the social-emotional skills they need for success in education and work. Therefore, these students are particularly in need of learning relevant skills at school.

The Netherlands is an immigration country. More than 25% of the population, and 28% of young people, are from migrant family backgrounds (Statistics Netherlands, 2022[1]). Most of these citizens have family roots in Turkey, Morocco, Surinam, Netherlands Antilles, or other countries of origin such as Syria, Somalia, and Afghanistan. In large cities in the western Netherlands, more than 66% of young people have roots in such countries. Schools in these cities have an elevated level of inequality regarding the incomes and sociocultural backgrounds of the families in which students grow up (Oppers & Zevenbergen, 2022).

Based on the Appropriate Education Act of 2014, schools have a legal "duty of care" (zorgplicht) to all students and are required to offer them education at a school that suits their qualities and abilities (Staatscourant 20 juni, 2014). Secondary schools have the task of providing equal opportunities and appropriate education in order to prepare students for their future (Oppers & Zevenbergen, 2022). Regarding this task, the Dutch Education Council distinguishes three domains of education: qualification, socialization, and character-building or citizenship education (Onderwijsraad, 2016). Teaching relevant social-emotional skills, such as knowledge of strengths and weaknesses, collaboration, social problem solving, and managing diversity, is part of both the socialization and citizenship education tasks schools are required to take on (Nieuwelink et al., 2016). The increasing complexity of society demands that individuals possess these skills in order to be able to participate at all levels in future education, work, and life (Dolman et al., 2015).

Implementing an SEL program to equip students with the social-emotional skills they need is particularly indicated in socio-culturally diverse and inclusive schools with students in marginalized positions. It is evident that universal SEL programs, such as S4L, cannot compensate for the skills needs of all PrE and PVSE-b students. However, all students in Dutch secondary education are entitled to acquire the social-emotional skills that promote their education and work prospects. Therefore, implementing S4L in all educational tracks is relevant.

[1] Statistics Netherlands switched recently to a new classification of the population by origin. The categorizations of Western vs. non-Western are no longer used. To indicate people's background, the country of people born abroad (the first generation) and those born in the Netherlands and of whom at least one of their parents was born outside Europe (the second generation) are used. These students' families often have their origin in Morocco, Netherlands-Antilles, Turkey, Surinam, and increasingly also in unsafe countries such as Iran and Afghanistan. In this thesis, the classification 'migrant students' refers to these students as a group, compared to their Dutch/Western-European counterparts. However, some studies in this thesis, which were submitted before the recent switch of Statistics Netherlands, use the former classification of Western vs. non-Western.

The CASEL framework

To foster SEL program implementation, various professional frameworks have been designed. These frameworks aim to provide a common language and to support collaboration on SEL, including roles and tasks for different stakeholders involved across settings (e.g., Berg et al., 2017; Denham, 2006; John & DeFruyt, 2015; Jones et al., 2019; Soto et al., 2021). These frameworks comprise social-emotional skills in various domains and have a wide range of theoretical foundations, e.g., social learning theory, cognitive-behavioral theory, systems theory, and theories on development (Brackett et al., 2015; Humphrey, 2013). The definitions used for skills and the domains in which skills are collected vary widely across these frameworks. As a result, issues concerning clarity and interpretation are articulated in SEL literature (Denham, 2015; Duckworth & Yeager, 2015).

The framework frequently referred to in (international) SEL literature is developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL) (Weissberg et al., 2015) (see Figure 1).

Figure 1 CASEL's framework for SEL (CASEL, 2020).

As illustrated in Figure 1 and described above, the CASEL framework for SEL focuses on enhancing social-emotional skills in five interrelated SEL competency domains, i.e., self-awareness, social awareness, self-management, relationship skills, responsible decision making.

The five competency domains are at the center of the framework and social-emotional skills in these domains are taught in SEL programs at the classroom level. The framework seems to assume that social-emotional skills in all five domains are relevant to learn for all students independent of their background characteristics (Durlak et al., 2015). However, the notion of teaching several skills simultaneously, and independent of students' learning abilities and sociocultural and family income backgrounds, is a matter of debate in SEL literature (Chorpita et al., 2005a; Jones et al., 2017; Ross & Tolan, 2018; Weisz et al., 2012).

The skills in the CASEL domains are assumed to be interrelated and associated with psychosocial health outcomes. However, much is unknown about the relationships between individual skills and between those skills and psychosocial health outcomes (Durlak et al., 2011/2022). Research shows that teachers, principals, employers, students, and their parents recognize and view the skills comprised in the CASEL framework as relevant for children and adolescents to learn (e.g., Bridgeland et al., 2013; DePaoli et al., 2018; Hubbard et al., 2019; National Commission on Social, Emotional, and Academic Development, 2018).

SEL program implementation

In addition to the five competency domains, the CASEL framework contains other components considered contributive to SEL program implementation at the classroom and school levels. Beside quality instruction of social-emotional skills, a supportive climate and schoolwide positive culture, and practices and policies for integrating SEL in student support services are required in program implementation. Additionally, authentic partnerships for collaboration with parents, families, and communities are recommended. For strengthening students' social-emotional skills, such partnerships require mutually equal relationships, common and aligned goals, and clear and supportive roles for parents, teachers, and students. These conditions are necessary to align learning opportunities at home and at school. As the studies in this thesis focus on classroom-based programs, we focus on collaboration with students and their parents in particular.

Despite the emphasis on establishing parent-school collaboration, knowledge on how to engage parents and students in SEL school programs is limited (Durlak et al., 2015).

This knowledge is required, however, as parents and students are active agents in social and emotional learning and in the development of social-emotional skills. CASEL's framework addresses the alignment of goals and parents' support regarding the skills taught at school. However, neither the social-emotional skills students learn at home nor the alignment of these skills and those taught at schools seem articulated in the framework.

Besides the engagement of teachers, students, and their parents, other factors are associated with quality implementation, e.g., program dosage, fidelity to the "working elements" responsible for effects on outcomes, differentiation for meeting varying students' needs, quality of delivery, and program reach across contexts (e.g., Dowling & Barry, 2020; Durlak et al., 2015; Shoesmith et al., 2021). Dosage and adherence are most often included in SEL program evaluation studies. Teacher engagement appears to be a highly influential factor in an intervention's effects (Wanless & Domitrovich, 2015). However, knowledge on the working elements of SEL programs associated with student outcomes is limited (e.g., Embry & Biglan, 2008; Durlak et al., 2011/2015; Rotheram-Borus et al., 2012).

Other factors associated with quality implementation also remain underexposed in SEL literature. SEL program differentiation is supposed to be significant for making programs valuable for students with varying background characteristics (Barnes & McCallops, 2019; Wigelsworth et al., 2022; Vroom et al., 2020). Various studies stress the importance of balancing adherence and differentiation for meeting students' needs in SEL program implementation (Durlak et al., 2015; Humphrey et al., 2018; Low et al., 2016; Sundell et al., 2016). However, insight into how teachers balance adherence and differentiation is limited. Therefore, more knowledge is necessary concerning what works and what does not work in universal school-based SEL programs for secondary education, and, importantly, for whom these programs work.

SEL programs adapted to the needs of students from particular sociocultural family backgrounds or with additional educational needs demonstrate promising results (e.g., Clarke et al., 2021; Castro-Olivio, 2014; Hecht & Shin, 2015; Wiley & Siperstein, 2015). Nevertheless, such programs do not provide insight into how to engage students and parents in program differentiation to meet varying students' needs. To inform SEL program implementation in diverse and inclusive tracks in Dutch prevocational secondary education, therefore, more insight is required into the perspectives of these students and their parents.

Problem statement

In this study, social and emotional learning is defined as the process of acquiring the social-emotional skills necessary to contribute to and participate successfully in settings such as home, school, and the workplace. Both individual and environmental features, such as age, sex, learning abilities, family background, and neighborhood features determine the skills acquired across settings. During the lifespan, parents play a core role in social and emotional learning and developing the skills necessary at home. Besides parents, adolescents are active participants in co-constructing this learning process and the skills developed. Schools are considered crucial settings for teaching and learning the social-emotional skills necessary for success in education and work.

During adolescence, social and emotional learning is associated with psychosocial health outcomes and future life prospects. Adolescents' skills learned at home depend on parental developmental beliefs, values, goals, behavioral norms, and goals. These beliefs, values, norms and goals vary according to sociocultural and socioeconomic background characteristics, such as family income and social position. Based on such differences, the social-emotional skills students learn and need at home do not necessarily match those required for success in education and work and that are taught in SEL programs. Therefore, parent-school collaboration is indicated to support social and emotional learning. For establishing such collaboration, parents and adolescents are valuable resources for information on the social-emotional skills they need in different settings.

Universal SEL programs designed to enhance students' social-emotional skills are developed and implemented in schools worldwide to promote positive student outcomes. Such programs show positive effects on adolescents' skills and psychosocial health outcomes. However, more needs to be known about SEL programs' effects on individual social-emotional skills within subgroups of students, varying in terms of individual and environmental features. SEL program implementation in diverse and inclusive schools is associated with engaging students and their parents to provide equal opportunities for them to acquire the skills they need. Therefore, gaining insight into their perspectives on SEL and the skills they believe should be enhanced at school is crucial, both to engage students and parents and to adapt programs to students' needs. To understand which skills need to be enhanced, additional research needs to be done on the interrelations between students' different social-emotional skills and between these skills and psychosocial health outcomes.

The studies in this thesis aim to add to the existing knowledge on the evaluation and implementation of SEL programs for adolescents. We were particularly interested in

adolescent students in prevocational secondary education tracks, who vary broadly in terms of their learning abilities and regarding the incomes and sociocultural backgrounds of their families. These background characteristics are associated with the skills developed; students in these tracks do not necessarily have the skills they need for success in education and work. Teaching skills that are relevant for education and work is important, as most students in prevocational secondary education learn at school and the internship workplace simultaneously.

The aims, methodology and structure of the studies

To better understand the factors that impact the evaluation and implementation of SEL programs implemented in diverse and inclusive schools, this thesis builds on a mixed-method approach (Hesse-Biber et al., 2015). The studies included in this thesis aim to provide insight into: 1. The effects of universal SEL programs on the individual social-emotional skills and psychosocial health outcomes of adolescents; 2. The interrelations between social-emotional skills as well as between those skills and the psychosocial health outcomes of students in the PrE and PVSE-b tracks; 3. The effects of the Dutch S4L program on the social-emotional skills and psychosocial health outcomes of students in marginalized positions; 4. The perspectives of students in the PrE and PVSE-b tracks on social-emotional skills for managing interactions with classmates; 5. Parents' perspectives on SEL and strengthening social emotional learning at schools; particularly of parents of students in the PrE track. To achieve these goals, a review and meta-analysis study, three quantitative and two qualitative studies were conducted. Using a sequential approach, the findings of the review study reported on in **Chapter 2** and the evaluation study of the *original* S4L program for preparatory vocational education and the general secondary education tracks described in **Chapter 3** drove the designs and analyses of the other studies (see Figure 2). The findings in this latter study indicated adaptations to S4L were necessary, to tailor the program to the intellectual and learning abilities of PVSE-b and PrE students. To better understand the pre-test data of the social-emotional skills reported by students in the evaluation study of the *adapted* S4L program, we conducted cross-sectional and mediation analyses, which are delineated in **Chapter 4**. The evaluation study of the adapted S4L program, including students from the PVSE-b and PrE tracks (N = 739), is described in **Chapter 5**. The findings of these studies revealed the need for a better understanding of PVSE-b and PrE students' social-emotional skills and for exploring their and their parents' perspectives on SEL at school to inform program implementation tailored to their needs. Therefore, we applied additional and more in-depth data analyses from interviews with PVSE-b

and PrE students (N = 22), using CASEL's skills as sensitizing concepts (**Chapter 6**). These interviews were initially conducted and used to inform the *adapted* S4L program concerning relevant themes. To gain insight into which social-emotional skills parents considered crucial for their children to learn, and which skills they believed to be required at home, we explored the perspectives of PrE students' parents (N = 31) on SEL and teaching these skills at school. Insights resulting from these explorations that will benefit the further development of the (*already adapted*) S4L and other SEL programs are reported on in **Chapter 7**. Lastly, **Chapter 8** discusses the main findings of the studies, their strengths and limitations, and the implications for research and practice resulting from the implementation and evaluation of the adapted S4L program, and adolescent SEL programs in general. The studies in this thesis add to the knowledge on SEL program evaluation and implementation and focus, particularly, on students in marginalized positions, such as those in the PVSE-b and PrE tracks, as was called for recently in SEL literature (e.g., Cipriano & McCarthy, 2023; Dailey et al., 2021).

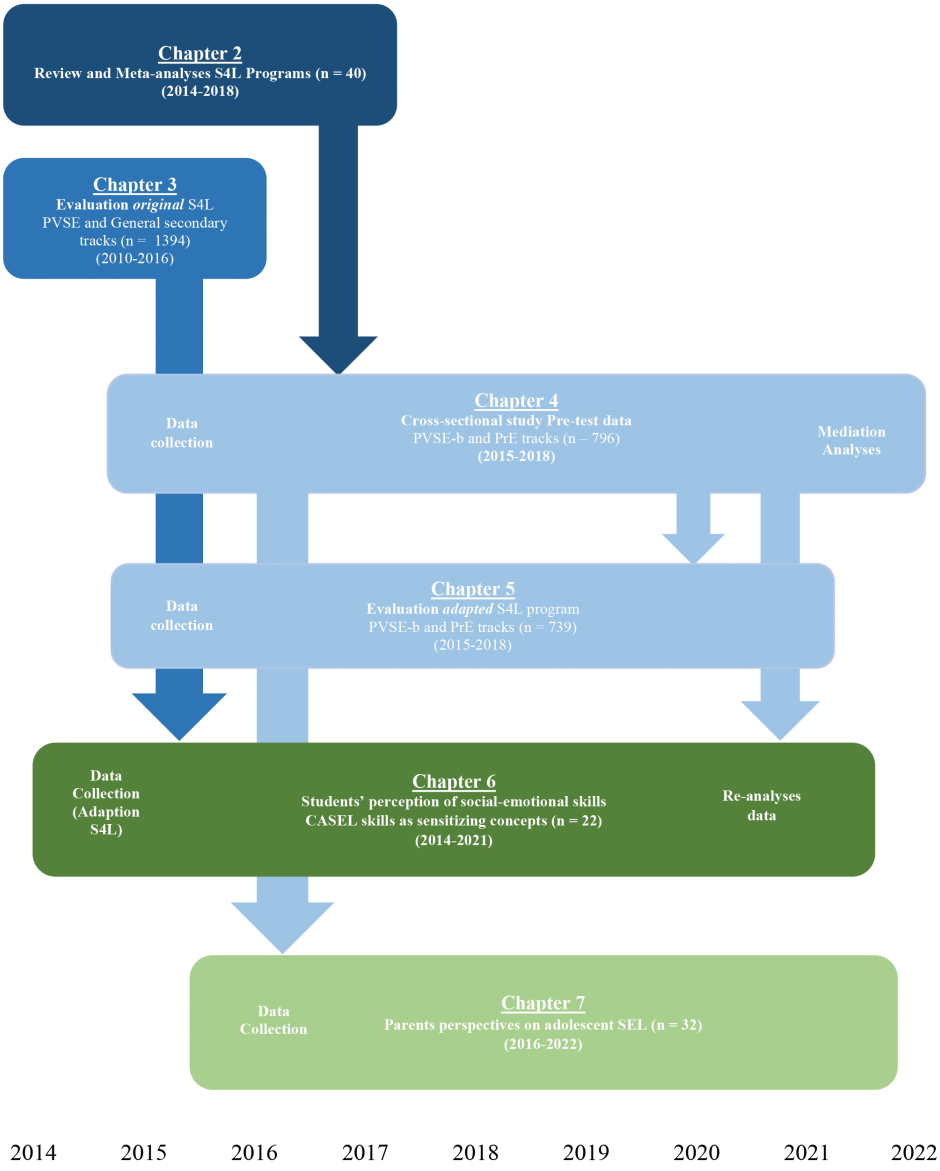


Figure 2 Sequence of quantitative (blue) and qualitative (green) studies driving the study designs.

Chapter 2

Do universal social and emotional learning programs for secondary school students enhance the competencies they address?

A systematic review

M.C.E. Van de Sande
M. Fekkes
P.L. Kocken
R.F.W. Diekstra
R. Reis
C. Gravesteijn

Psychology in the Schools (2019), 56, 1545-1567.

ABSTRACT

While universal school-based social and emotional learning (SEL) programs claim to target various SEL competencies, earlier reviews have not provided a clear overview of the competencies in question. We therefore wished to identify the competencies targeted in SEL programs for secondary school students. We also aimed to examine the effects of these programs on SEL competencies and psychosocial health oucomes. The specific SEL competencies directly addressed in the programs' primary learning targets were identified based on the Collaborative for Academic, Social, and Emotional Learning (CASEL) framework for SEL.

Five bibliographic databases (Pubmed, PsychInfo, Education Resources Information Centre (ERIC), Applied Science Premier (ASP) and Web of Science were searched for relevant research papers published between 2004 and 2018. We included 40 studies that investigated 32 programs focusing on two or more SEL competencies.

While most programs targeted four or five of the SEL competencies, many of the included studies did not measure the programs' effects on all the competencies targeted. Our results showed that the SEL programs had substantial effects on the SEL competencies they addressed and on psychosocial health. Although the programs focused predominantly on self-management and relationship skills, the largest summary effects were found for self-awareness and social awareness.

INTRODUCTION

Adolescence is a sensitive period for brain maturation and behavioral and affective development (Steinberg et al., 2010). Social and emotional learning competencies are important for preventing or reducing psychosocial problems in adolescents (Elbertson et al., 2010; Lerner & Steinberg, 2009; World Health Organization, 2003b; Zins & Elias, 2007). As adolescents become independent of their parents and make important choices regarding education and work, their social, emotional and cognitive development is challenged (Lerner & Steinberg, 2009; Pokhrel et al., 2013; Steinberg et al., 2010). During adolescence, some psychosocial health problems—such as depression, violence, and substance use—increase or first emerge (Calear & Christensen, 2010; Foxcroft & Tsertsvadze, 2011; Laible et al., 2014; Moffitt, 1993). To cope with the developmental tasks and challenges that are associated with this life stage, young people need to develop advanced and complex cognitive, social and emotional skills (Steinberg et al., 2010; Eccles & Roeser, 2011).

School-based programs to enhance social and emotional competencies

Schools are seen as a natural setting to teach and learn not only cognitive but also social and emotional skills and to promote students' psychosocial health (Davidson et al., 2012; Eccles & Roeser, 2011; Kidger et al., 2012; World Health Organization, 2003a). A safe and supportive school climate is an important condition for reinforcing students' development (Osher et al., 2010; Rutter et al., 1979; Seligman et al., 2009). To improve young people's psychosocial health, many universal school-based programs focusing on SEL have been developed in recent decades (Beelmann & Lösel, 2006; Corrieri et al., 2014; Durlak et al., 2011; Faggiano et al., 2008).

Recent reviews and meta-analyses have shown that such programs produce medium to large positive effects on social, emotional and psychosocial health outcomes (Durlak et al., 2011; Sklad et al., 2012; Taylor et al., 2017). In their meta-analysis, Durlak et al. (2011) found that 213 SEL programs had significant positive effects on social-emotional skills, attitudes, behavior, academic achievement, mental health and conduct problems. A review study by Sklad et al. (2012) showed that 75 programs had significant positive effects on self-image, prosocial behavior, substance use, social-emotional skills, academic achievement, antisocial behavior and mental health outcomes. Although the effect sizes in both of these studies were lower at follow-up than at posttreatment, they remained significant. Taylor et al. (2017) demonstrated significant positive long-term effects on

social-emotional skills, attitudes, behavior, academic achievement and psychosocial health outcomes in 82 programs. All three of these meta-analyses included studies on school-based programs for children and early adolescents. However, insight into the effects of those programs on the full range of secondary school students is limited.

In addition, none of the three meta-analyses focused on the SEL content addressed in the school programs' primary learning targets. Further, they did not investigate whether the included studies examined effects with regard to the programs' SEL targets. Therefore, it is still uncertain whether universal school-based programs contribute effectively to the different SEL targets they address. To gain insight into the content of the SEL targets in the school programs and the outcomes on those targets in the studies reviewed, the SEL framework of the Collaborative for Academic, Social, and Emotional Learning (CASEL) (2003) was used.

Social and emotional learning (SEL)

The Collaborative for Academic, Social, and Emotional Learning (CASEL, 2003) defined a comprehensive set of five key competencies that constitute SEL: 1. self-awareness, i.e., identifying and recognizing one's own emotions and strengths and having a sense of self-efficacy and self-confidence; 2. social awareness, i.e., showing empathy and respect for others and being able to take different perspectives; 3. self-management, i.e., being capable of impulse control, stress management, goal-setting, persistence, and motivation; 4. relationship skills, i.e., being able to cooperate and communicate with others and to seek and provide help when needed; and 5. (responsible) decision-making, i.e., being capable of evaluation and reflection regarding one's behavior and taking personal and ethical responsibility for one's own behavior. In the past decades, these SEL competencies have often been seen as capturing what is essential to young people's positive development and psychosocial health (Brackett et al., 2012; Durlak et al., 2015; Weare & Nind, 2011).

Scientific evidence for the relevance of the five SEL competencies during adolescence has been found in the association between psychosocial health and the specific competencies in question. Thus, for example, a higher level of self-awareness is positively related to psychosocial health (Brackett et al., 2012; Mohammadiary et al., 2012). Similarly, social awareness supports the development of positive relationships and constructive communication with others (Allemand et al., 2015). The enhancement of self-management in youth not only contributes to academic achievement (McClelland et al., 2015) and positive behavior but also protects against psychosocial health problems (Eisenberg et

al., 2010) and aggression (Moffitt et al., 2011; Pokhrel et al., 2013). Relationship skills protect adolescents effectively against violence, psychological stress and substance use (Bierman et al., 2010; Faggiano et al, 2010; LeBlanc et al., 2011). Similarly, responsible decision-making is supposed to protect adolescents against engaging in substance use and sexual risk behavior (Tibbits et al., 2011).

The purpose of the current study

As indicated above, two matters are still unclear with regard to universal school-based SEL programs: which specific SEL competencies are targeted in these programs and whether all the competencies are actually enhanced. We had two reasons for limiting the focus of this study to the SEL targets addressed in school-based programs for secondary school students: 1. the developmental tasks and challenges during adolescence require SEL programs to focus on specific, advanced and complex SEL targets, and 2. as the majority of school programs focus on children and early adolescents, insight into the efficacy of SEL programs for the full range of students in secondary schools is limited.

To our knowledge, this systematic review is the first to provide insight into the specific SEL competencies that school-based programs for secondary school students target and the effects of the programs on these competencies. We aimed to establish the following: 1. the SEL competencies targeted in universal SEL programs for secondary school students and 2. the effects of school SEL programs on students' SEL competencies and psychosocial health outcomes.

METHODS

Data extraction and information synthesis

Using the PICOS strategy (i.e., Population, Intervention, Comparison, Outcome, Study), we selected and reported the outcome measures for relevant studies on adolescents (Population) in school-based programs (Intervention) that included a comparison group exposed to care as usual or a waitlist control group and that had study designs with at least pre- and posttest measures (Higgins & Green, 2011). We electronically searched five databases (PubMed, PsychInfo, Web of Science, Applied Science Premier (ASP), and Education Resources Information Centre (ERIC)) for studies published between 2004 and 2018. The reason for choosing this period was that the use of the term 'SEL competencies' has become common in the field of health promotion (Gresham, 2015; Kimber, 2011) since the publication of *'Safe and Sound. An Educational Leader's Guide to Evidence-Based Social and Emotional (SEL) Programs'* (CASEL, 2003). The

following key terms were used in the search: “randomized controlled trial”, “evaluation studies”, “pre-post-test”, “adolescent”, “school-based”, “education”, “social”, “moral”, “emotional”, “skill”, “behavior”, “mental health” and related terms. The authors can be contacted for more details.

We selected studies that evaluated the effectiveness of universal school-based programs that targeted SEL competencies. Only peer-reviewed studies that were published in scientific journals in English, Dutch or German were eligible for inclusion in our study. RefWorks was used to organize and review the search results and to delete duplicates. The search process produced a total of 2518 unique articles.

To identify potentially relevant citations, two researchers (MF and MS) independently hand searched the titles and abstracts of the selected reviews and studies for inclusion and exclusion. This strategy led to the exclusion of 2397 abstracts, and 121 abstracts remained for full-text screening. After any disagreements about which of the 121 manuscripts to include or exclude were resolved through discussion, a further 83 manuscripts were excluded. A search of the references lists of the remaining 38 manuscripts produced seventeen new manuscripts for consideration, fifteen of which were excluded after full-text screening. Forty manuscripts were ultimately included. The same two reviewers (MF and MS) independently extracted information from the full texts of the included studies. They used a coding scheme to identify the following components: a. program goals; b. theoretical base of the program; c. dosage and length; d. facilitator; e. SEL targets; f. student age; g. outcomes on SEL competencies and psychosocial health; and h. study quality.

To identify the SEL targets addressed in the programs evaluated in the studies reviewed, operationalizations of the CASEL group (2003) definitions of the SEL competencies were used, e.g., “awareness of feelings and thoughts” and “self-efficacy” (self-awareness), “empathy” and “perspective taking” (social awareness), “self-regulation” and “goal-setting” (self-management), “negotiating on conflicts” and “resistance to peer pressure” (relationship skills), and “considering consequences of actions” and “taking responsibility for actions” (responsible decision-making). The concordance between the two researchers in coding the SEL targets addressed in the programs was 84%.

As the focus of our study was to establish the effects of school programs on the students’ SEL competencies, we were interested in the content of the outcome measures used in the studies reviewed. To identify this content information on the items and/or subscale levels of the assessment instruments was determined. Based on this information and the operationalizations of the SEL competencies described above, the same two researchers

(MF and MS) independently identified the outcomes for the different SEL targets measured in the studies. The concordance in coding the outcomes of the SEL targets between the two researchers was 88%. Divergent ratings for both the SEL targets content and outcomes were discussed until definitive ratings were agreed upon. The authors can provide a list of the SEL competencies, and the corresponding outcomes measured based on the subscale- and/or item-level information from the assessment instruments used in the studies reviewed. Appendix 1 including this information is additionally included for this thesis.

To rate the study quality, the Quality Assessment Tool for Quantitative Studies (QATQS) of the Effective Public Health Practice Project was used (Tong et al., 2012). The studies were rated on their quality by the same two researchers (MF and MS), with concordance of almost 90%. Any divergent quality ratings were discussed until a definitive rating was agreed upon (strong, moderate, or weak).

Inclusion and exclusion criteria

In all, there were six inclusion criteria. Any study had to concern a. universal secondary education; b. a school-based program; c. intervention participants who were adolescents aged between 11 and 19; and d. an intervention that was part of a program that targeted two or more SEL competencies. No program that targeted only one SEL competency was identified as an SEL program. A study also had to e. measure effects based on a randomized control trial or a quasi-experimental or pre-posttest design including a control group and f. be published in a scientific journal in English, Dutch or German.

The outcome measures of interest were any type of objective measures that corresponded to the five SEL competencies or measures related to psychosocial health (i.e., depression, anxiety, substance use, or aggression).

The following studies were excluded: studies of a school program that focused on students aged under 11 or above 19 years, focused on targeted or selected populations, included students in primary or tertiary education or an out-of-school setting, and/or concerned only one SEL competency or no SEL competencies, as well as studies with a design rated as weak. We excluded studies that focused only on a single problem, e.g., bullying, substance use, obesities, autism, attention deficit hyperactivity disorders (ADHD) or diseases, such as diabetes or HIV/aids. This process yielded a total of 40 studies on 32 different school programs for inclusion in this review (see Figure 1 for flow chart).

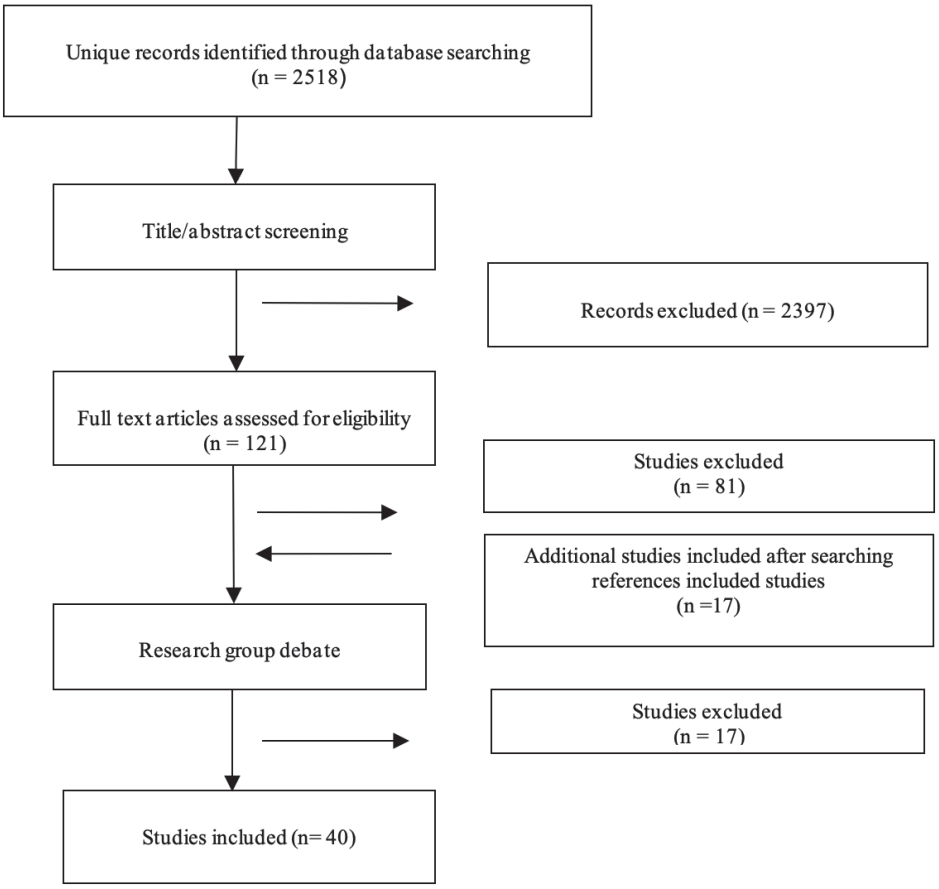


Figure 1 Flow diagram of included references

Calculation of effect sizes and meta-analysis

Cohen's *d* was used to calculate the effect sizes for the posttest measures, either from the means and standard deviations, an independent t-test, or an F-test from an analysis of variance, or univariate *β*s. The effect sizes at follow-up were not included, as a limited number of studies measured long-term effects, and this follow-up period differed substantially, i.e., from a few months to several years. We noted whether the follow-up effects were measured and whether these effects had been significant.

To calculate the summary effect sizes of specific SEL competencies and psychosocial health outcomes identified in the studies, we used analyses performed with Comprehensive Meta-Analysis (CMA) software (Borenstein et al., 2009). The data were analyzed using

a random effects model because this model does not assume a common underlying effect size for all included studies. We used the *Q* test to establish the heterogeneity of the effect sizes, as the significance of the *Q* test results indicates true heterogeneity. To quantify the heterogeneity of the effect sizes, I^2 was calculated, which can be interpreted as the percentage of total variability in effect sizes due to true heterogeneity (Higgins et al., 2003). The Q-statistic was also used to test the significance of some moderators. In the pooled effect sizes, we included posttest effects and no follow-up effects.

RESULTS

The SEL targets addressed in the school programs that were evaluated in the studies reviewed are described. To provide insight into the programs' content, some general characteristics of the programs and studies are reported. Next, the effects provided by the school programs on students' SEL competencies and psychosocial health outcomes are reported. Finally, insight into the summary effects of the outcomes is provided.

Characteristics of the programs and studies

The CASEL framework for SEL was used to identify the SEL competencies targeted by the school programs evaluated in the studies reviewed (CASEL, 2003). The SEL competencies that were targeted in the programs included self-awareness (SeA), social awareness (SoA), self-management (SM), relationship skills (RS), and responsible decision-making (DM) (see Table 1). Most of the programs targeted four or all five SEL competencies. The competencies most addressed in the programs were relationship skills and self-management (see Table 2).

A majority of programs aimed to enhance SEL competencies as a means of protecting students from psychosocial health problems, such as depression, anxiety, aggression and/or substance use. The main objective of ten of the programs was only to enhance students' SEL competencies.

More than half of the programs targeted young adolescents aged eleven to fourteen, and only a few targeted only older adolescents. All programs had an order of activities and promoted students' active participation. A majority of the programs were administered by trained classroom teachers; other facilitators were researchers or master's students. While the program duration ranged between ten lessons to more than 200, most programs consisted of between ten and 21 lessons in a single school year, and the lessons lasted between 45 and 90 minutes.

Table 1 Characteristics of the universal SEL programs for secondary school students examined in the review study

Name of the first author and year and country of publication	Intervention	Objective	Theoretical Basis[1]	Student age	SEL competencies targeted[2]	Duration[3]	Deliverer[4]
Botvin et al. (2006). USA.	Life skills training	Prevention of problem behavior	CBT; TTI	11-12	SM; RS; DM	15; 25w; 45m	T
Burckhardt et al. (2016). Australia.	Strong Minds	Depression prevention	CBT, ACT-mindfulness	11-18	SeA; SM; RS	16; 12w; 60m;	NT
Cardemil et al. (2007); Chaplin et al. (2006); Gillham et al. (2007). USA.	Penn Resilience Program (PRP)	Depression prevention	CBT	10-14	SeA; SM; RS; DM	12; 12w; 90m	T+NT
Cheung & Lee (2010). China.	Character education	Social competence	CE	13-15	SeA; SM; RS; DM	16; 16w; 60m	T
Coelho et al. (2015). Portugal.	Positive Attitude	Enhancement of SEL skills	CBT/SLT	11-16	SeA; SoA; SM; RS; DM	12; 12w; 60m; 3 y	NT
Espada et al. (2012). Spain.	Saluda: Social Skills and Problem Solving	Substance use prevention	CBT	12-15	SeA; SoA; RS; DM	10; 10w; NM	NT
Espelage et al. (2013). USA.	Second Step: Student Success Through Prevention	Violence reduction	NM	11-12	SeA; SoA; SM; RS	15; 40w; 50m	T
Frank et al. (2017). USA.	Transformative Life Skills	Reduction in stress, promotion of psychosocial health and prosocial behavior	Mindfulness	10-14	SeA; SM; RS	48; 20w; 25m	NT
Garaigordobil et al. (2009). Spain.	Society that Builds Peace	Violence prevention	CBT; PYD	15-16	SeA; SoA; SM; RS; DM	10; 12w; 90m	T
Gomes & Marques (2013). Portugal.	Promotion of positive experiences	Learning of life skills in different contexts	NM	11-12	SoA; SM; RS	34; 36w; 90m	NT
Gravesteijn et al. (2004). Netherlands.	Life Skills	Intra- and interpersonal skills training	SLT; RET	13-17	SeA; SoA; SM; RS; DM	16; 16w; 90m	T

Table 1 Continued

Name of the first author and year and country of publication	Intervention	Objective	Theoretical Basis[1]	Student age	SEL competencies targeted[2]	Duration[3]	Deliverer[4]
Griffin et al. (2009). USA.	Building Resiliency and Vocational Excellence	Substance use and violence prevention	SLT	13	SeA; SM; RS; DM	18; 9w; 90m	T
Gueldner et al. (2011). USA.	Strong Teens	Resilience enhancement	CBT	11-13	SeA; SoA; SM; RS	12; 12w; 50m	T
Hanewinkel & Aßhauer (2004). Germany.	Life skills prevention training	Social competencies and smoking prevention	CBT	11-12	SeA; SoA; SM; RS; DM	21; 16w; NM	T
Huang et al. (2012). Taiwan.	Life skills training	Violence and drug prevention	SLT; TPB	11-13	SeA; SoA; SM; RS; DM	10; 16w; 45m	T
Kimber et al. (2008, 2009). Sweden.	Social Emotional Training and Resilience Program	Development of social and emotional skills	CBT	7-14	SeA; SoA; SM; RS; DM	80/40; 40w; 45m; 5 y	T
Kindt et al. (2014). Tak et al. (2016). Netherlands.	Op Volle Kracht (PRP)	Depression prevention	CBT	11-16	SeA; SM; RS; DM	16; 16w; 45m	T
Koglin et al. (2010). Germany.	Job-fit training	Personal development and job preparation	CBT	13-20	SeA; SoA; SM; RS	10; 5w; 70m	NT
Lemberger et al. (2015). USA.	Student Success Skills Program	Enhancement of social skills and academic achievement	CBT	11-12	SeA; SM; RS	8; 40w; 60m	NT
Lewis et al. (2013a). Lewis et al. (2013b). Lewis et al. (2016). USA.	Positive Action Program	SEL and prevention of problem behavior	SET	11-13	SeA; SoA; SM; RS	140/70; 35w; 20m; 3 y	T
Merry et al (2004). Rivet-Duval et al. (2011). New-Zealand.	Resourceful Adolescents Program-Kiwi	Depression prevention	CBT	12-16	SeA; SoA; SM; RS	11;11w; NM	T

Table 1 Continued

Name of the first author and year and country of publication	Intervention	Objective	Theoretical Basis[1]	Student age	SEL competencies targeted[2]	Duration[3]	Deliverer[4]
Metz et al. (2013). USA.	Learning to Breath	Awareness and emotion regulation	Mindfulness	16-18	SeA; SM	18/16w; 20m	NT
Pössel et al. (2011). Germany. Pössel, et al. (2013). USA.	Lars und Lisa	Depression prevention	CBT; SIPM; MT	12-17	SeA; SoA; SM; RS	10; 10w; 90m	NT
Roberts et al. (2010). Australia.	Aussie Optimism Program	Depression and anxiety prevention	CBT	11-13	SeA; SoA; SM; RS; DM	20; 20w; 60m	T
Rose et al. (2014). Australia.	Resourceful Adolescents Program + Peer Interpersonal Relatedness	Depression prevention	CBT	9-14	SeA; SoA; SM; RS	20; 20w; 45m	NT
Sawyer et al. (2010). Australia.	Mind Matters	Depression prevention	CBT	12-13	SeA; SoA; SM; RS	10; 10w; 45m; 3 y	T
Schonert-Reichl & Lawlor (2013). Canada.	Mindfulness education .	Social and emotional skills and optimism	PP; Mindfulness	9-14	SeA; SoA; SM; RS	10; 10w; 45m	T
Simons-Morton et al. (2005). USA.	Going Places	Substance use and violence prevention	SLT; PBT	11-14	SM; RS; DM	18/12/6; 18/12/6w; 3 y	
Sullivan et al. (2017). USA.	Second Step + Bullying prevention	Violence prevention	NM	11-15	SoA; SM; DM	13; 13w; 35m	T
Thompkins et al. (2014). USA.	Violence Prevention Program	Violence prevention	NM	15-16	SoA; SM; RS	12; 12w; 45m	NT
Tomyn et al. (2016). Australia.	Think Health and Well-being	Depression prevention and improvement of change agents	CBT	13-17	SeA; SoA; SM; RS	6; 6w; 45m	NT
Wigelsworth et al. (2013). Great Britain.	Social and Emotional Aspects of Learning	Social and emotional skills training	EI	11-12	SeA; SoA; SM; RS	NM	T

Table 1 Continued

[1] Theoretical basis: CBT=cognitive behavioral theory (Beck, 1979); ACT = acceptance and commitment therapy (Hayes, Luoma, Bond, Masuda, & Lillis, 2006); PBT = problem behavior theory (Jessor & Jessor, 1977); CE = character education (Berkowitz, Battistich & Bier, 2008); SLT = social learning theory (Bandura, 1977); RET = rational emotive therapy, Ellis, 1996); EI = emotional intelligence (Goleman, 1995); TTI = theory of triadic influence (Flay, Snyder & Petraitis, 2009); TPB = theory of planned behavior (Ajzen, 1991); SIPM = social information processing model (Dodge,1986); MT = motivation theory (Kanfer, 1990); PYD = positive youth development (Lerner, Almerigi, Theokas, & Lerner, 2005); PP = positive psychology (Seligman, 2002); Mindfulness (Kabat-Zinn, 1990); TRA = theory of reasoned action (Fishbein & Ajzen, 2011); SET = self-esteem enhancement theory (DuBois, Flay & Fagen, 2009).

[2] Social and emotional learning (SEL) skills focus: SeA = self- awareness; SoA = social awareness; SM = self-management; RS = relationship skills; DM = (responsible) decision-making.

[3] Duration: number of lessons in year 1/number of lessons in year 2-3; w = weeks; m = minutes per lesson; y = years; NM = not mentioned.

[4] Deliverer: T = teacher; NT = not teacher (psychologist, graduate/master students, or school counselor).

The theoretical basis for the majority of the programs was the cognitive behavioral model (Beck, 1979). The theoretical bases for other programs included a range of sources, including social learning theory (Bandura, 1977), the theory of reasoned action (Ajzen, 1991), problem solving theory (Jessor & Jessor, 1977) and mindfulness (Kabat-Zinn, 1990).

The majority of the studies were conducted on programs administered in North America and Europe. The remainder were conducted on programs in Australia or Asia.

Although all the studies suggested that there was a relationship between the enhancement of SEL competencies and psychosocial health outcomes, only three studies of two programs explicitly described a model of change with regard to this relationship (Griffin et al., 2009; Pössel, et al., 2011; Pössel et al., 2013) (not in Table 1).

Outcome measures in studies on SEL competencies and psychosocial health

Although all the programs under study were focused on training for SEL competencies, only five studies described effect measures for all the SEL targets of the program under evaluation (see Table 3). Most studies measured the effects on only a selection of the SEL competencies targeted. Measurements of self-management were included in less than half of the studies (17/39) that evaluated a program targeting this competency. With regard to the other SEL targets, outcome measurements were included for less than a third of the programs that addressed these targets: 12/38 studies of the programs addressing relationship skills, 10/36 studies of programs addressing self-awareness, 5/23 studies of programs addressing social awareness, and 7/26 studies of programs addressing responsible decision-making (Table 3).

Almost all studies (36/40) reported measures for one or more of the psychosocial health outcomes, i.e., depression, anxiety, aggression, and substance use. In the majority of the studies (35/40), the outcomes were measured based only on student self-reports. Five studies included multiple informants to assess outcomes (Coelho et al., 2015; Garaigordobil et al., 2009; Saywer et al., 2010; Schonert-Reichl & Lawlor, 2010; Sullivan et al., 2017; Roberts et al., 2010). Additionally, none of the studies included multiple methods to assess outcomes.

Table 2 Characteristics of the 32 universal SEL programs for secondary-school students

SEL competencies targeted in programs	**N**	**%**
Self-awareness.	27	84
Social awareness.	20	63
Self-management.	31	97
Relationship skills.	30	94
Decision-making.	15	47
Facilitators		
Teachers.	20	63
Others (researchers, master students).	12	37
Participants		
Young adolescents (11-14).	18	56
Older adolescents (14-19).	4	13
Broad age group (11-19).	10	31
Demographic area (one program was implemented in USA and Europe)		
North America.	14	41
Europe.	11	34
Australia/Asia.	8	25

In more than half of the studies (14/26) that measured program effects on SEL competencies, one or more of the effects were medium to large (Cohen, 1988; Lipsey & Wilson, 2001). Only twelve studies measured follow-up effects (3-24 months) on one or more of the SEL competencies. Seven of the studies found significant follow-up effects (see Table 3). Significant effects were reported in more than half (23/37) of the studies that included measures of psychosocial health. The effect sizes remained significant over time in almost half of the studies that measured follow-up effects on these outcomes (Table 3).

Most of the studies (31/40) did not report analysis of any moderating or mediating effects of SEL competencies on psychosocial health outcomes. One study analyzed self-management as a mediator of the effects found for psychosocial health outcomes (Lewis et al., 2013a). Seven studies reported that effects on outcomes were moderated by students' demographics, including gender (Chaplin et al., 2004; Coelho et al., 2015; Pössel et al., 2011a; Simons-Morton 2005; Sullivan et al., 2017), age (Schonert-Reichl & Lawlor, 2010), learning problems (Sullivan et al., 2017) and ethnicity (Cardemil et al., 2007)

Table 3 Design characteristics of studies and effect sizes for the SEL competencies and psychosocial health outcomes of the SEL programs included in review study

					Psychosocial health Outcomes[1]						SEL competencies Outcomes[2]				
Name of the first author, year of publication	**Intervention**	**Design[3]**	**N[4]**	**Q[5]**	**Dep**	**Anx**	**Agg**	**SU**	**Original measure[6]**	**SEL competencies addressed in program[2]**	**SeA**	**SoA**	**SM**	**RS**	**DM**
Botvin et al. (2006).	Life skills training	RCT	4858	1	-	-	**.69**	-	(OR)	SM; RS; DM	-	-	-	-	-
Burckhardt et al. (2016).	Strong Minds	Quasi	296	1	**1.44**	**.54**	-	-	*d*	SeA; SM; RS	-	-	-	-	-
Cardemil et al. (2007).	Penn Resilience Program	RCT, 24 m fu	168	2	**fu**	-	-	-	(t)	SeA; SM; RS; DM	-	-	-	-	-
Chaplin et al. (2006).	Penn Resilience Program	RCT, 12 m fu	273	2	**.55** fu	-	-	-	(M+SD)	SeA; SM; RS; DM			.28 fu		
Gillham et al. (2007).	Penn Resilience Program	RCT, 3 y fu	697	2	.17 **fu**	-	-	-	(F)	SeA; SM; RS; DM	-	-	-	-	-
Cheung & Lee (2010).	Character Education	Quasi	920	2	-	-	-	-	(M+SD)	SeA; SM; RS; DM	-	-	-	**.12**	-
Coelho et al. (2015).	Positive Attitude	Quasi, 6 m fu	1091	1	-	.21			*d*	SeA; SoA; SM; RS; DM	**.32 fu**	**.20 fu**	**.14** fu	**.25 fu**	**.10** fu
Espada et al. (2012).	Saluda: Social Skills and Problem Solving	Quasi, 12 m fu	341	1	-	-	-	**.60** fu	(F)	SeA; SoA; RS; DM	-	-	-	**.41** fu	**.68 fu**
Espelage et al. (2013).	Second Step: Student Success Through Prevention	RCT	3616	1	-	-	**.66**	-	(OR)	SeA; SoA; SM; RS	-	-	-	-	-
Frank et al. (2017).	Transformative Life Skills Programme	RCT	159	2	.04	-	**.29**	-	*d*	SeA; SM; RS	.11	-	**.12**	-	-
Garaigordobil et al. (2009).	Society that Builds Peace	RCT	285	2	-	-	**.24**		(F)	SeA; SoA; SM; RS; DM	-	**.71**	**.27**	-	**.48**
Gomes & Marques (2013).	Promotion of positive experiences	Quasi	84	2	-	-	-	-	(M+SD)	SeA; SM; RS; DM	**.83**	-	**.98**	**.60**	.41

Table 3 Continued

					Psychosocial health Outcomes[1]					SEL competencies Outcomes[2]					
Name of the first author, year of publication	**Intervention**	**Design[3]**	**N[4]**	**Q[5]**	**Dep**	**Anx**	**Agg**	**SU**	**Original measure[6]**	**SEL competencies addressed in program[2]**	**SeA**	**SoA**	**SM**	**RS**	**DM**
Gravesteijn et al. (2004)	Life skills	Quasi, 12 m fu	958	2	-	-	-	-	(M+SD)	SeA; SoA; SM; RS; DM	**.78 fu**	**.54 fu**	**.82 fu**	**.66 fu**	-
Griffin et al. (2009).	Building Resiliency and Vocational Excellence	RCT	179	2	-	-	.17	**.60**	(F)	SeA; SM; RS; DM	-	-	-	-	-
Gueldner & Merrel (2011).	Strong Kids	Quasi	125	2	**.20**	-	-	-	(M+SD)	SeA; SoA; SM; RS	-	-	**.89**	-	-
Hanewinkel & Aßhauer (2004).	Life skills prevention program training	Quasi, 15 m fu	936	1	-	-	-	.06	(OR)	SM; RS; DM	-	-	-	.02	-
Huang et al. (2012).	Life skills training +	RCT	441	1	-	-	-	**.38**	(F)	SeA; SoA; SM; RS; DM			**.62**		
Kimber et al. (2008).	Social Emotional Training and Resilience Program	Quasi	1003	1	**.56**	-	**.42**	-	*d*	SeA; SoA; SM; RS; DM	**.54**		**.36**	.15	
Kimber & Sandell (2009).	Social Emotional Training and Resilience Program	Quasi	1003	1	-	-	-	**.49**	(*β*)	SeA; SoA; SM; RS; DM	-	-	-	-	-
Kindt et al. (2014).	Op Volle Kracht (PRP)	RCT, 6 m fu	1343	1	.02 fu	-	-	-	*d*	SeA; SM; RS; DM	-	-	-	-	-
Tak et al. (2016).	Op Volle Kracht (PRP)	RCT	1390	1	.01 fu	-	-	-	*d*	SeA; SM; RS; DM	-	-	-	-	-
Koglin et al. (2010).	Job-fit training	Quasi, 6 m fu	104:	2	**.58 fu**	-	-	-	(M+SD)	SeA; SoA; SM; RS	-	-	-	-	-
Lemberger et al. (2015).	Student Success Skills Program	Pre-post	193	2	-	-	-	-	*d*	SeA; SM; RS	-	**.42**	**.42**	-	-
Lewis et al. (2013a).	Positive Action Program	RCT, 12 m fu	1040	1	**.14 fu**	**.26 fu**	-	-	(*β*)	SeA; SM; RS; DM	.17	-	**.12 fu**	-	-

Table 3 Continued

					Psychosocial health Outcomes[1]						SEL competencies Outcomes[2]				
Name of the first author, year of publication	**Intervention**	**Design[3]**	**N[4]**	**Q[5]**	**Dep**	**Anx**	**Agg**	**SU**	**Original measure[6]**	**SEL competencies addressed in program[2]**	**SeA**	**SoA**	**SM**	**RS**	**DM**
Lewis et al. (2013b).	Positive Action Program	RCT, 12 m fu	1040	1	-	-	**.39**	-	(*β*)	SeA; SM; RS; DM	-	-	-	-	-
Lewis et al. (2016).	Positive Action Program	RCT, 5 y	1170	1	-	-	-	-	(Cox'd)	SeA; SoA; SM; RS; DM	**.29**	**.26**	**.50**	**.46**	**.40**
Merry et al. (2004).	Resourceful Adolescents Program-Kiwi	RCT, 6 m fu	392	1	**.38** fu	-	-	-	(M+SD)	SeA; SoA; SM; RS	-	-	-	-	-
Metz et al. (2013).	Learning to Breath	Quasi	213	1	-	**.28**	-	-	(M+SD)	SeA; SM	**.62**	-	**.33**	-	-
Pössel et al. (2011).	Lars und Lisa	RCT, 12 m fu	292	1	**.30 fu**	.02	-	-	(M+SD)	SeA; SoA; SM; RS	-	-	**.93 fu**	-	-
Pössel et al. (2013).	Lars und Lisa	RCT, 4 m fu	301	1	**.27 fu**	-	-	-	(M+SD)	SeA; SoA; SM; RS	-	-	-	-	-
Rivet-Duval et al. (2011).	Resourceful Adolescents Program	RCT, 6 m fu	160	2	**.32** fu	-	-	--	(M+SD)	SeA; SoA; SM; RS	-	-	**.32 fu**	-	-
Roberts et al. (2010).	Aussie Optimism Program	RCT, 18 m fu	496	2	.14 fu	.19 fu	-	-	(F)	SeA; SoA; SM; RS; DM	-	-	-	**.17** fu	-
Rose et al. (2014).	Resourceful Adolescents Program + Peer Interpersonal Relatedness	RCT, 12 m fu	210	1	.58 fu	-	-	-	*d*	SeA; SoA; SM; RS	-	-	-	**.33 fu**	-
Sawyer et al. (2010).	Mind Matters	RCT, 24 m fu	3512	1	**.20** fu	-	-	-	(t)	SeA; SoA; SM; RS; DM	-	-	-	.09 fu	.04 fu
Schonert-Reichl & Lawlor (2010).	Mindfulness education	Quasi	246	2	-	-	**.43**	-	(M+SD)	SeA; SoA; SM; RS	**.65**	-	**.34**	-	-

Table 3 Continued

					Psychosocial health Outcomes[1]						SEL competencies Outcomes[2]				
Name of the first author, year of publication	**Intervention**	**Design[3]**	**N[4]**	**Q[5]**	**Dep**	**Anx**	**Agg**	**SU**	**Original measure[6]**	**SEL competencies addressed in program[2]**	**SeA**	**SoA**	**SM**	**RS**	**DM**
Simons-Morton et al. (2005).	Going Places	RCT, 3 y	1328	2	-	-	.02 fu	**.44 fu**	(F)	SM; RS; DM	-	-	-	-	-
Sullivan et al. (2017).	Second Step + Bullying prevention	RCT	237	1	-	-	.04	-	(β)	SoA; SM; DM	-	-	.09	-	-
Thompkins et al. (2014).	Violence Prevention Program	Quasi	1112	1	-	-	.03	-	(M+SD)	SoA; SM; RS	.01	-	-	-	-
Tomyn et al. (2016).	Think Health and Well-being	Quasi	252	2	.05 fu	-	-	-	*d*	SeA; SoA; SM; RS	-	-	.02 fu	-	-
Wigelsworth et al. (2013).	Social and emotional aspects of learning	Quasi	4443	1	.09	-	-	-	(M+SD)	SeA; SoA; SM; RS	-	-	-	-	-

(Continues)

Psychosocial health: Dep = depression; Anx = anxiety; Agg = aggression; SU = substance use
[2] SEL competencies outcomes SeA = self-awareness; SoA = social awareness; SM = self-management; RS = relationship skills; DM = decision-making.
[3] Design of study: RCT = randomized control trial; Quasi = quasi-experimental design; Pre-post = pre-post-test design; Solom = Solomon 4-group design; m = months; y = years; fu = follow-up.
[4] Number of students
[5] Quality of design: 1 = strong design; 2 = moderate design; 3 = weak design.
[6] *d*-scores mentioned in the study or otherwise specified in the column. Original measure: M+SD: *d*-scores calculated from the means and standard deviations; F: *d*-scores calculated from the F measures; t: *d*-scores calculated from the t-test; OR = *d*-scores calculated from the odds ratio; *β:* *d*-scores calculated from univariate regression coefficient; Cox logit **.**XX = Cohen's *d* sign; **fu** = follow-up significant; .XX = Cohen's *d* not significant; fu = follow-up not significant.

Summary effects found for separate SEL competencies and psychosocial health

CMA showed significant summary effect sizes on all five SEL competencies and psychosocial health outcomes (Table 4). The highest pooled *d*-scores were found for social awareness and substance use. The pooled effect sizes were small to medium (Cohen, 1988; Lipsey & Wilson, 2001). Differences in the effectiveness of the programs with regard to their outcome measures were indicated by the large degree of variance in the study effect sizes for all SEL competency outcome measures (which ranged from Q = 143203 and I^2 = 99.99 for self-awareness, to Q = 1545 and I^2 = 99.741 for social awareness) and for all psychosocial health outcome measures (which ranged from Q = 211511 and I^2 = 99.99 for depression to Q = 1441 and I^2 = 99.65 for substance use). The differences in effectiveness found in the studies may be attributable to the systematic effects of the covariates (Higgins et al., 2003). Our analyses of random effects for three covariates—student age, number of lessons and quality of study design—found that none of these covariates significantly affected the outcomes measured.

Table 4 Program efficacy for SEL competencies and psychosocial health outcomes

Outcomes	Number of studies (Number of students)	Effect size *d*[1] (Standard error)	95% Confidence Interval	*Q*[2] (Degrees of freedom)	*I*[2,3]
SEL Competency Outcome Measures					
Self-awareness	9 (7078)	**.424** (.090)	.248 - .600	143203 (8)	99.994
Social awareness	5 (2562)	**.579** (.119)	.345 - .813	1545 (4)	99.741
Self-management	17 (8823)	**.387** (.047)	. 294 - .479	102154 (16)	99.984
Relationship skills	11 (11588)	**.242** (.028)	.188 - .297	21030 (10)	99.952
Decision-making	6 (6316)	**.335** (.088)	.163 - .506	1552 (5)	99.678
Psychosocial Health Outcome Measures					
Depression	19 (19408)	**.310** (0.54)	.205 - .416	211511 (18)	99.991
Anxiety	8 (5808)	**.266** (.041)	.186 - .345	24238 (7)	99.971
Aggression	11 (15315)	**.326** (.049)	.230 - .421	50418 (10)	99.980
Substance use	6 (4061)	**.385** (.124)	.142 - .629	1441 (5)	99.653

d = Cohen's *d*.
[2] Q = measure of the heterogeneity of the studies (all significant).
[3] I^2 = percentage of variation across studies that is due to heterogeneity rather than chance.

DISCUSSION

In this systematic review of universal SEL programs for secondary school students, we wished to 1. identify the specific SEL competencies the programs targeted and 2. examine the effects of the programs on the competencies in question and psychosocial health outcomes. By focusing on SEL programs' effects on social and emotional skills, attitudes, behaviors and psychosocial health outcomes, earlier reviews did not provide information about the content of the programs' SEL targets and the program effects measured on SEL competencies targeted. To identify the SEL targets addressed in these programs and the effects measured in the studies, the SEL competencies defined by the CASEL group (CASEL, 2003) were used, i.e., self-awareness, social awareness, self-management, relationship skills and responsible decision making.

Effects found for SEL competencies and psychosocial health outcomes

Our review included 40 studies that evaluated 32 SEL programs for secondary school students published between 2004 and 2018. The findings of our review study indicate that most of the programs targeted three of the CASEL competencies: self-awareness, self-management and relationship skills. Social awareness was included in more than half of the programs, and responsible decision-making was addressed in fewer than half.

Most of the studies that evaluated these programs did not include measures of the effects on all the SEL competencies that the programs targeted. Fewer than half of the studies on programs that targeted self-management measured the outcomes for self-management. Even fewer studies included outcome measures for any of the other SEL targets. A majority of the studies that measured program effects on SEL competencies targeted found positive effects on the competency in question. The pooled effect analyses showed that significant effect sizes were found for all of the SEL targets addressed in the programs for secondary school students. While the largest summary effects were found for self-awareness and social awareness, the smallest effect was found for relationship skills.

The majority of the studies that measured outcomes for psychosocial health problems found decreases in those problems in students who participated in the evaluated SEL programs. The pooled effect analyses identified significant positive outcome measures for depression, anxiety, aggression and substance use. The highest summary effect was reported for substance use, and the smallest summary effect was found for anxiety.

Although the number of studies that provided data on SEL targets was limited, ranging from five to seventeen programs depending on the SEL target, the number of students included in the studies per outcome measure was quite substantial, ranging from 2562 to 19408 students. These numbers were sufficient to calculate significant summary effect sizes for each of the separate outcome measures.

Mediation and moderation between the SEL targets and psychosocial health were reported to a limited extent in the studies reviewed. The lack of knowledge of the moderating and/or mediating effects of SEL competencies on psychosocial health outcomes that has been noted in former research on SEL programs still remains (Durlak et al., 2011).

Effectiveness of universal secondary school programs on SEL targets

An important result of this review study is that all five SEL competencies, which we used to identify the programs' SEL targets, were effectively enhanced by the SEL programs. Although self-management and relationship skills have been assumed to be the core targets in school programs to promote young people's psychosocial health (Botvin, 1996; Botvin & Griffin, 2014; Greenberg et al., 2015), our analyses showed that the largest summary effect sizes were found for self-awareness and social awareness. SEL programs for secondary school students are able to influence self- and social awareness to a larger extent than more action-focused competencies, i.e., self-management and relationship skills. This finding may indicate that the development of awareness is preconditional for the development of action-focused competencies. Long-term participation might be necessary to improve action-focused competencies.

There are some theoretical indications to explain the effects found for awareness competencies. Self-awareness and social awareness may support the development of self-management and relationship skills (Domitrovich et al., 2007; Gravesteijn, 2010; Rieffe et al., 2008; Silvia & O'Brien, 2004). In the summary effect analyses, we used posttest and not long-term effects. If the development of self-awareness and social awareness indeed precede the development of self-management and relationship skills, effects on the latter two competencies should be measured at a later stage. Support for this recommendation in the current review might be that most of the significant follow-up effects in the studies reviewed were found for self-management and relationship skills. From this perspective, self-awareness and social awareness can be intervening variables that predict the development of other SEL competencies, i.e., self-management and relationship skills.

A remarkable finding of this study is that although most of the included school programs targeted four or five of the SEL competencies, most of the studies evaluating these programs did not measure effects on all of the competencies targeted. Without separate evaluations of different competencies, it is unclear whether a program that aims to enhance these competencies actually improves them. Especially because many of the evaluation studies found positive program effects on psychosocial health outcomes, it would be valuable to know which SEL competencies targeted in the programs led to these positive effects. Such information might indicate which competencies need to be targeted in school programs to improve psychosocial health outcomes.

Strengths and limitations

A methodological strength of this review is its use of standardized protocols for study selection, i.e., PICOS, (Higgins et al., 2011), and its determination of the quality of the study designs, i.e., QATQS (Tong et al., 2012). Another strength is that we developed a protocol for the systematic classification of the programs' primary targets on SEL. The operationalizations used to identify the SEL targets addressed in the programs and to identify the corresponding outcome measures for those targets were based on the CASEL definitions of the SEL competencies (CASEL, 2003). Although these definitions are often referred to in the literature on SEL, problems regarding the clarity and interpretation of those definitions have also been articulated (Denham, 2015; Duckworth and Yeager, 2015). Both the programs' SEL targets identified in our study and the outcomes measured for those targets are not free from those problems, which must be considered a limitation of our study.

Another limitation is that, for reasons of efficiency, we have based our program information not on the program manuals but on the texts of the studies reviewed. Another possible limitation is publication bias, as studies with positive effects are more often accepted for publication (Borenstein et al., 2009). This bias may have caused the number of studies with significant positive effects to have been overrepresented.

The variety in the pooled effect sizes found for the SEL targets may be a consequence of the incongruence between the actual SEL targets of the programs and the outcomes we identified for those targets. As we described above, the operationalizations of the SEL targets we used and the outcomes found for those targets are not free from interpretation and/or validation problems (Bridges et al., 2004; Crowe et al., 2011; Denham, 2015; Humphrey et al., 2011). Future research must validate the examination of

the operationalizations of the SEL targets used in this study. In addition to this, validated assessment instruments corresponding to these targets are needed.

Implications for research and practice

Although the results of our review study do not unravel the relationship between psychosocial health outcomes and the SEL competencies targeted in the programs, they do shed some light on the enhancement of these competencies. Self-management and relationship skills were the competencies measured to the largest extent in the studies reviewed, and the largest summary effect sizes were found for self-awareness and social awareness. Further research is necessary to confirm the possibility raised in earlier studies (Domitrovich et al., 2007; Gravesteijn, 2010; Rieffe al., 2008; Silvia & O'Brien, 2004) that the development of some SEL competencies targeted in school programs—e.g., self-awareness and social awareness—precedes the development of other competencies. Such research might contribute to insights into the optimal sequence in which SEL competencies should be targeted in school-based programs for adolescents (Durlak et al., 2011).

As most of the studies reviewed used self-report measures only, the results of our study are limited to the SEL competencies the students perceived to have. Future research should use various assessment methods, including behavioral observation/skill performance, self-report, and informant-report to gain insight into the performance of secondary students' SEL competencies (Duckworth & Yeager, 2015).

In their meta-analyses on SEL programs, Taylor et al. (2017) identified that an increase in social and emotional skills at posttest predicted the positive effects found for psychosocial health outcomes at follow-up. More insight is still needed to understand the relationship between the different SEL competencies and psychosocial health and between the SEL competencies themselves (Domitrovich et al., 2017; Durlak et al., 2011; Gravesteijn, 2010). Such insights could help to ensure that school programs focus on those targets that are vital for achieving the effects they intend and to reduce students' exposure to programs and program targets that are ineffective (Chorpita et al., 2005b; Embry & Biglan, 2008; Rotheram-Borus et al., 2012).

As the current study was limited to SEL programs for secondary school students, future research is necessary to gain insight into the SEL targets addressed in programs for younger students (in elementary schools, for example) and to examine the efficacy of those programs on the SEL competencies they target.

CONCLUSION

Universal school-based programs for secondary school students contribute both to the effective enhancement of SEL competencies addressed in programs' primary learning targets and to psychosocial health. Although most of the programs evaluated in the studies reviewed focused on various SEL competencies, few studies measured effects on all the specific competencies the program claimed to target. The studies also did not fully investigate whether the enhancement of SEL competencies was associated with positive effects on psychosocial health outcomes. The summary effect sizes show that the largest effects at posttest were found for self-awareness and social awareness. Finally, we recommend that future studies should 1. measure the effects of all the SEL competencies addressed in SEL programs' primary targets, 2. further explore the relationships between the SEL competencies enhanced in school programs and 3. evaluate the extent to which the enhancement of SEL competencies contributes to psychosocial health.

Funding

This work was supported by SIA, the Taskforce for Applied Research in the Netherlands, under Grant number PRO-4-43.

Appendix 1 Measures used in studies included in Review Study on Universal SEL programs for Adolescents (additional appendix added to the thesis)

Name of the first author, year of publication	Intervention	Dependent variables (Psychosocial Health Measures, Acronyms)	Proposed links to SEL competencies	SEL Measures in study*				
				SeA	SoA	SM	RS	DM
Botvin et al. (2006).	Life skills training	Verbal aggression (RC)[1] Delinquency (RC)	SM; RS; DM	-	-	-	-	-
Burckhardt et al. (2016).	Strong Minds	Depression (DASS)[2] Anxiety (DASS)[2]	SeA; SM; RS	-	-	-	-	-
Cardemil et al. (2007).	Penn Resilience Program	Depression (CDI)[3]	SeA; SM; RS; DM	-	-	-	-	-
Chaplin et al. (2006).	Penn Resilience Program	Depression (CDI)[3]	SeA; SM; RS; DM			CASQ[4]		
Cheung & Lee (2010).	Character Education		SeA; SM; RS; DM	-	-	-	TSBI[5]	-
Coelho et al. (2015).	Positive Attitude		SeA; SoA; SM; RS; DM	GSES[6]	RC[1]	RC[1]	RC[1]	RC[1]
Espada et al. (2012).	Saluda: Social Skills and Problem Solving	Substance use (SUQ)[7]	SeA; SoA; RS; DM	-	-	-	IPDQ-A[8]	SPSI-R[9]
Espelage et al. (2013).	Second Step: Student Success Through Prevention	Aggression (ATVS)[10]	SeA; SoA; SM; RS	-	-	-	-	-
Frank et al. (2017).	Transformative Life Skills Programme	Depression (CBCL)[11] Aggression (ATVS)[12]	SeA; SM	PANAS-C[13]	-	RSQ[14]-emotion regulation	-	-
Garaigordobil et al. (2009).	Society that Builds Peace	Aggression concepts and prejudices (RC)[1]	SeA; SoA; SM; RS; DM	-	QUSOA[15]	CT[16]	-	RC[1]
Gillham et al. (2007).	Penn Resilience Program	Depression (CDI)[3]	SeA; SM; RS; DM	-	-	-	-	-
Gomes & Marques, (2013).	Promotion of positive experiences	Life Satisfaction (SWLS)[17]	SeA; SM; RS; DM	LOT-R[18]	-	Yes 2.0[19]	Yes 2.0[19]	Yes 2.0[19]

Appendix 1 Continued

Name of the first author, year of publication	Intervention	Dependent variables (Psychosocial Health Measures, Acronyms)	Proposed links to SEL competencies	SEL Measures in study*				
				SeA	SoA	SM	RS	DM
Gravesteijn et al. (2004)	Life skills		SeA; SoA; SM; RS; DM	GSES[20]	SIG-A[21]	RC[1]	SES[22]	-
Griffin et al. (2009).	Building Resiliency and Vocational Excellence	Alcohol Use (RC)[1] Aggression (RC)[1]	SeA; SM; RS; DM	-	-	-	-	-
Gueldner & Merrel, (2011).	Strong Kids	Depression (CDI)[3]	SeA; SoA; SM; RS	-	-	SKSEC[23]	-	-
Hanewinkel & Aßhauer, (2004).	Life skills prevention program training	Tabaco use (STSM)[24]	SM; RS; DM	-	-	-	RC[1]	-
Huang et al. (2012).	Life skills training +	Substance use (RC)[1]	SeA; SoA; SM; RS; DM	Broad measure (RC)[1]				
Kimber et al. (2008).	Social Emotional Training and Resilience Program	Depression (YSR)[25] Aggression (YSR)[25]	SeA; SoA; SM; RS; DM	ITIA[26]		Mastery [27]	SSRS[28]	
Kimber et al. (2009).	Social Emotional Training and Resilience Program	Substance use[29]	SeA; SoA; SM; RS; DM	-	-	-	-	
Kindt et al. (2014).	Op Volle Kracht (PRP)	Depression (CDI)[3]	SeA; SM; RS; DM	-	-	-	-	-
Tak et al. (2016).	Op Volle Kracht (PRP)	Depression (CDI)[3]	SeA; SM; RS; DM	-	-	-	-	-
Koglin et al. (2010).	Job-fit training	Depression (SDQ)[30]	SeA; SoA; SM; RS	-	-	-	-	-
Lemberger et al. (2015).	Student Success Skills Program		SeA; SM; RS	-	CASSA[31]	BRIEF-SR[32]	-	-
Lewis et al. (2013a).	Positive Action Program	Depression (BASC)[33] Anxiety (BASC)[33]	SeA; SM; RS; DM	PANAS-C[12]	-	SECD[34]	-	-
Lewis et al. (2013b).	Positive Action Program	Aggression (AS)[35]	SeA; SM; RS; DM	-	-	-	-	-
Lewis et al. (2016).	Positive Action Program		SeA; SoA; SM; RS; DM	SECD[34]	CEA[36]	SECD[34]	SSPM[37]	EBMO[38]

Appendix 1 Continued

Name of the first author, year of publication	Intervention	Dependent variables (Psychosocial Health Measures, Acronyms)	Proposed links to SEL competencies	SEL Measures in study*				
				SeA	SoA	SM	RS	DM
Merry et al. (2004).	Resourceful Adolescents Program-Kiwi	Depression (BDI-II)[39]	SeA; SoA; SM; RS	-	-	-	-	-
Metz et al. (2013).	Learning to Breath	Anxiety (CBCL)[10]	SeA; SM	ASRES[40]	-	DERS[41]	-	-
Pössel et al. (2011).	Lars und Lisa, Model of Change	Depression (SBB-DES)[42]	SeA; SoA; SM; RS	-	-	RC[1]	-	-
Pössel et al. (2013).	Lars und Lisa	Depression (CDI)[3]	SeA; SoA; SM; RS	-	-	-	-	-
Rivet-Duval et al. (2011).	Resourceful Adolescents Program	Depression (RADS-2)[43]	SeA; SoA; SM; RS	-	-	YCI[44]	-	-
Roberts et al. (2010).	Aussie Optimism Program	Depression (CDI)[3] Anxiety (RCMAS)[45]	SeA; SoA; SM; RS; DM	-	-	-	MESSY[46]	-
Rose et al. (2014).	Resourceful Adolescents Program + Peer Interpersonal Relatedness	Depression (RADS-2)[43]	SeA; SoA; SM; RS	-	-	-	CAIR[47]	-
Sawyer et al. (2010).	Mind Matters	Depression (CES-D)[48]	SeA; SoA; SM; RS; DM	-	-	-	AICQ[49]	CAS-P[50]
Schonert-Reichl & Lawlor, (2010).	Mindfulness education	Aggression (TRSC)[51]	SeA; SoA; SM; RS	PANAS-C[12]	-	RI[52]	-	-
Simons-Morton et al. (2005).	Going Places	Aggression (RC)[1] Substance Use (RC)[1]	SM; RS; DM	-	-	-	-	-
Sullivan et al. (2017).	Second Step + Bullying prevention	Aggression (PBFS)[53]	SoA; SM; DM	-	-	CAMS[54]	-	-
Thompkins et al. (2014).	Violence Prevention Program	Aggression (IPA-P)[55]	SoA; SM; RS	RC[1]	-	-	-	-
Tomyn et al. (2016).	Think Health and Well-being	Depression (SMFQ)[56]	SeA; SoA; SM; RS	-	-	RS[57]	-	-
Wigelsworth et al. (2013).	Social and emotional aspects of learning	Depression (SDQ)[30]	SeA; SoA; SM; RS	-	-	-	-	-

Appendix 1 Continued

*SEL measures: SeA = self-awareness; SoA = social awareness; SM = self-management; RS = relationship skills; DM = responsible decision-making.

[1] RC = Researcher Created Scale

[2] Depression Anxiety and stress scale (DASS) Lovibond, S. H., & Lovibond, P. F. (1995). Manual for the depression anxiety stress scales (2nd ed.). Sydney: Psychology Foundation. Marsh, H. W., Relich, J.D., & Smith, I.D. (1983). Self-concept: the construct validity of interpretations based upon SDQ. *Journal of Personality and Social Psychology*, 45, 173-187.

[3] Child depression Inventory (CDI). Kovacs, M. (1985). The Children's Depression Inventory (CDI). Psychopharmacology Bulletin, 21, 995–1124.

[4] Children's Attributional Style Questionnaire (CASQ). Seligman, M.E.P., Peterson, C., Kaslow, N.J., Tanenbaum, R.L., Alloy, L.B., Abramson, L.Y. (1984). Attributional style and depressive symptoms among children. *Journal of Abnormal Psychology*, *93*, 235-238.

[5] Texas Social Behavior Inventory (TSBI). Helmreich, R., & Stapp, J. (1974). Short forms of the Texas social behaviour inventory: An objective measure of self-esteem. Bulletin of Psychonomic Society, 4, 473–475.

[6] Global Self-Esteem Scale (GSES), Portugese version: Fontaine, A.M. (1991). Desenvolvimento do conceito de si proprio e realizaçao escolar na adolescencia. *Psychologica*, 5, 13-31.

[7] Substance use Questionnaire (SUQ): Espada, J.P., Méndez, X., Griffin, K.W., & Botvin, G J. (2003). Adolescencia: Consumo de alcohol y otras drogas [Adolescence:
Alcohol and other substances use]. *Papeles del Psicólogo*, 23, 9–17.

[8] Interpersonal Difficulties Questionnaire for Adolescents (IPDQ-A) : Inglés, C.J., Hidalgo, M.D., & Méndez, F.X. (2005). Interpersonal difficulties in adolescence. *European Journal of Psychological Assessment*, *21*(1), 11-22.

[9] Social Problem-Solving Inventory—Revised (SPSI-R): Maydeu-Olivares, A., Rodríguez-Fornells, A., Gómez-Benito, J., & D'Zurilla, T. J. (2000). Psychometric properties of the Spanish adaptation of the social problem-solving inventory-revised (SPSI-R). *Personality and Individual Differences*, *29*(4), 699-708.

[10] Attitudes Toward Violence Scale (ATVS): Bosworth, K., & Espelage, D. (1995). Teen conflict survey. Bloomington: Center for Adolescent Studies, Indiana University.

[11] Child-Behavior Checklist (CBCL): Achenbach, T.M., & Edelbrock, C.S. (1983). Manual for the child behavior checklist and revised behavior profile. Burlington: University of Vermont Department of Psychiatry

[12]See Endnote 10

[13] Positive and Negative Affect Schedule for Children, (PANAS-C): Laurent, J., Catanzaro, S.J., Joiner, T.E., Rudolph, K.D., Potter, K.I., Lambert, S., et al. (1999). A measure of positive and negative affect for children: scale development and preliminary validation. *Psychological Assessment*, 11, 326–338. https://psycnet.apa.org/doi/10.1037/1040-3590.11.3.326

[14] Responses to Stress Questionnaire (RSQ). Connor-Smith, J.K., Compas, B.E., Wadsworth, M.E., Tomsen, A.H., & Saltzman, H. (2000). Responses to stress in adolescence: measurement
of coping and involuntary stress responses. *Journal of Consulting and Clinical Psychology*, 68, 976–992.

[15] Moraleda M, Gonza´lez J, Garcı´a-Gallo J, AECS. Attitudes and Social Cognitive Strategies. Madrid, Spain, Te´cnicos Especialistas Asociados (TEA), 1998/2004.

[16] Conflict Talk (CT): Kimsey W.D., Fuller R.M. (2003). Conflictalk: An instrument for measuring youth and adolescent conflict management message styles. Conflict Resolution Q; 21:69–78.

[17]Satisfaction With Life Scale (SWLS): Diener, E., Emmons, R., Larsen, R., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment* 49: 71–5.

[18]Life Orientation Test-revised Optimism (LOT-R); Cruz, J.F., and A.R. Gomes. 2007. Teste de Orientação de Vida (TOV-R) [Life Orientation Test (LOT-R)] (Universidade do Minho). Braga: Manuscrito não publicado. Portugese version of Scheier, M.F., C.S. Carver, and M.W. Bridges. 1994. Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the life orientation test. *Journal of Personality and Social Psychology*, 67: 1063–78.

Appendix 1 Continued

[19] Youth Experiences Survey, basic skills and leadership (YES 2.0): Hansen, D.M., a& R. Larson. 2005. The youth experience survey 2.0. Unpublished manuscript, University of Illinois at Urbana-Champaign.
[20] Generalized Self-Efficacy Scale (GSES): Teeuw, B., Schwarzer, R., & Jerusalem, M. (1994). Dutch adaptation of the general self-efficacy scale. Germany.
[21] Scale for interpersonal behavior of adolescents (Schaal voor Interpersoonlijk: Gedrag voor Adolescenten (SIG-A): Bijstra, J. O., & Oostra, L. (1995). Sociale vaardigheid van adolescenten in kaart gebracht. *Kind en Adolescent*, 16, 244-253.)
[22] School Experience Scale -relationships with peers (SES): Stoel, W.G.R. (1980). De relatie tussen de grootte van scholen voor voortgezet onderwijs en het welbevinden van de leerlingen. Deel I: Resultaten van een empirisch onderzoek in de Nederlandse onderwijssituatie. Deel II: De ontwikkeling van een schoolbelevingsschaal. Haren: RION.
[23] Student Knowledge of Social and Emotional Coping Strategies (SKSEC): Merrell, K.W., Juskelis, M.P., Buchanan, R., & Tran, O.K. (2008). Social and emotional learning in the classroom: Evaluation of Strong Kids and Strong Teens on students' social-emotional knowledge and symptoms. *Journal of Applied School Psychology*, 24, 209–224.
[24] Susceptibility To Smoking (STSM) (Pierce et al., 1996) Pierce, J.P., Choi, W.S., Gilpin, E.A., Farkas, A.J., & Merritt, R.K. (1996). Validation of susceptibility as a predictor of which adolescents take up smoking in the United States. *Health psychology*, *15*(5), 355.
[25] Youth Self-Report (YSR): Lindberg, L., Larsson, N., & Bremberg, S. (1999). *Ungdomars psykiska hälsa: utvärdering av ett mätinstrument*. Centrum för barn-och ungdomshälsa. Achenbach, T., & Edelbrock, C. (1987). Manual for the Youth Self-Report and Profile. Burlington, VT: Department of Psychiatry, University of Vermont.
[26] I Think I Am (ITIA): Ouvinen-Birgerstam, P. (1985). Jag tycker jag ar [I Think I Am]. Stockholm, Sweden: Psykologiforlaget.
[27] Mastery: Pearlin, L.I., Menaghan, E.G., Lieberman, M. A., & Mullan, J.T. (1981). The stress process. *Journal of Health and Social behavior*, 337-356.
[28] Social Skills (SSRS): Gresham S, Elliott S. Social Skills Rating System Manual. Circle Pines, MN: American Guidance Service, 1990. 28. Field A. Discovering Statistics Using SPSS, (2nd ed.).
[29] Council for Information on Alcohol and Other Drugs (CAN): Hibell, B., Andersson, B., Bjarnason, T., Kokkevi, A., Morgan, M., Narusk, A., & Ahlström, S. (1997). The 1995 ESPAD report. Alcohol and other drug use among students in 26 European countries.
[30] Strengths and Difficulties Questionnaire (SDQ) Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry, 38,* 581–586.
[31] Child and Adolescent Social Support Scale (CASSA): Malecki, C. K., Demaray, M.K., & Elliot, S. N. (2000). *The Child and Adolescent Social Support Scale.* DeKalb: Northern Illinois University.
[32] Behavior Rating Inventory of Executive Function (BRIEF-SR): Guy, S.C., Isquith, P.K., & Gioia, G.A. (2004). *Behavior Rating Inventory of Executive Function-Self-Report Version*. Odessa, Psychological Assessment Resources.
[33] Behavior Assessment System for Children (BASC): Reynolds, C.R., & Kamphaus, R.W. (2002). *The clinician's guide to the Behavior Assessment System for Children (BASC)*. Guilford Press.
[34] Social-emotional and Character Development Scale (SECD): Ji, P., Flay, B.R., & DuBois, D. L. (2013). Social-emotional and character development scale: Development and initial validation with urban elementary school students. *Journal of Character Education*, *9*(2), 121.
[35] Aggression Scale (AS) Orpinas, P., & Frankowski, R. (2001). The Aggression Scale: A self-report measure of aggressive behavior for young adolescents. *The Journal of Early Adolescence*, *21*(1), 50-
[36] Childrens' Empathic Attitude (CEA): Funk, J., Fox, C., Chan, M., & Curtiss, K. (2008). The development of the Children's Empathic Attitudes Questionnaire using classical and Rasch analyses. *Journal of Applied Developmental Psychology*, 29, 187–196.
[37] Social Skills Problem Solving Measure (SSPM): Aber, J.L., Brown, J.L., Jones, S., & Samples, F. (1995). Adapting measures of children's beliefs, attributions and skills for use in the evaluation of violence prevention projects. New York: National Center for Children in Poverty, Columbia University.
[38] Ethics, Belief in Moral order Scale (EBMO): Arthur, M.W., Hawkins, J.D., Pollard, J.A., Catalano, R.F., & Baglioni, A.J. (2002). Measuring risk and protective factors for use, delinquency, and other adolescent problem behaviors: The communities that care Youth Survey. *Evaluation Review*, 26, 575–601.

Appendix 1 Continued

[39] Beck Depression Inventory (BDI-II) : Beck, A.T., Steer, R. A., & Brown, G. (1996). Beck depression inventory–II. *Psychological Assessment.*
[40] Affective Self- regulatory Efficacy Scale (ASRES): Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Rudan (Eds.), *Adolescence and education, Volume V, Self-efficacy beliefs of adolescents* (pp. 307–338).
[41] Difficulties in Emotion Regulation Scale (DERS): Gratz, K.L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, *26*(1), 41-54,
[42] Self-Report Questionnaire - Depression (SBB-DES): Döpfner, M., Götz-Dorten, A., & Lehmkuhl, G. (2008). Diagnostik-System für Psychische Störungen im Kindes- und Jugendalter nach ICD-10 und DSM-IV, DISYPS-II. [Diagnostic system for mental disorders in children and adolescents based upon the ICD-10 and DSM-IV]. Bern, Huber.
[43] Adolescent Depression Scale-2 (RADS-2): Reynolds, W. M. (2002). *Reynolds Adolescent Depression Scale – 2 nd Edition: Professional manual.* Lutz, FL: Psychological Assessment Resources.
[44] Self-management Youth Coping Index (YCI): McCubbin, H.I., Thompson, A.I., & McCubbin, M.A. (Eds.) (1996). Family assessment: Resiliency, coping and adaptation. Inventories for research and practice. Madison, University of Wisconsin.
[45] Revised Children's Manifest Anxiety Scale (RCMAS): Reynolds, C.R., & Richmond, B.O. (1985). Revised children's manifest anxiety scale manual. Los Angeles, Western Psychological Services.
[46] Matson Evaluation Social Skills with Youngsters (MESSY): Matson, J.L., Macklin, G.F., & Helsel, W.J. (1985). Psychometric properties of the Matson Evaluation of Social Skills with Youngsters (MESSY) with emotional problems and self-concept in deaf children. *Journal of Behavior Therapy and Experimental Psychiatry*, *16*(2), 117-123.
[47] Clinical Assessment of Interpersonal Relations scale (CAIR): Bracken, B.A. (2006). Clinical Assessment of Interpersonal Relationships. Professional Manual. Psychological Assessment Resources, Inc.
[48] Center for Epidemiological Studies Depression Scale (CES-D): Radloff, L.S. (1991). The use of the Center for Epidemiologic Studies Depression Scale in adolescents and young adults. *Journal of Youth and Adolescence*, 20:149–66.
[49] Adolescent Interpersonal Competence Questionnaire (AICQ): Buhrmester D. (1990). Intimacy of friendship, interpersonal competence, and adjustment during preadolescence and adolescence. *Child Development*, 61:1101–11.
[50] Coping Actions Scale – Positive Coping (CAS-P): Beyondblue. Measures developed for the beyond blue initiative [Online].
[51]Rating Scale of Social Competence (TRSC): Kam, C., & Greenberg, M.T. (1998). Unpublished technical report, Prevention Research Center for the Promotion of Human Development, The Pennsylvania State University
[52] Resilience Inventory (RI): Song, M. (2003). Two studies on the Resiliency Inventory (RI): toward the goal of creating a culturally sensitive measure of adolescent resilience. Unpublished doctoral dissertation, Harvard University.
[53] Problem Behavior Frequency Scales (PBFS) : Farrell, A.D., Sullivan, T. N., Goncy, E.A., & Le, A.T.H. (2016). Assessment of adolescents' victimization, aggression, and problem behaviors: Evaluation of the Problem Behavior Frequency Scale. *Psychological Assessment, 28*(6), 702–714.
[54] Coping Subscale of the Children's Anger Management Scale (CAMS): Zeman, J., Shipman, K., & Penza-Clyve, S. (2001). Development and initial validation of the children's sadness management scale. *Journal of Nonverbal Behavior*, 25(3), 187–205.
[55] Internal problem-Solving Analysis – Physical (IPA-P): Marsh, D. T. (1982). The development of interpersonal problem solving among elementary school children. *The journal of genetic psychology*, *140*(1), 107-118.
[56] Short Mood and Feelings Questionnaire (SMFQ). Angold, A., Costello, E. J., Messer, S.C., Pickles, A., Winder, F., & Silver, D. (1995). Development of a short questionnaire for use in epidemiological studies of depression in children and adolescents. International *Journal of Methods in Psychiatric Research*, 5(4), 237–249.
[57] Resilience Scale (RS): Wagnild, G., & Young, H. (1993). Development and psychometric evaluation of the resilience scale. *Journal of Nursing Measurement*, 1, 165–178.

Chapter 3

Effects of the Dutch Skills for Life program on the health behavior, bullying, and suicidal ideation of secondary school students

M. Fekkes
M.C.E. Van de Sande
C. Gravesteijn
F.D. Pannebakker
G.J. Buijs
R.F.W. Diekstra
P.L. Kocken

Health Education (2016), 116(1), 2-15.

ABSTRACT

The purpose of this paper is to evaluate the effects of the Dutch "Skills for Life" programme on students' health behaviours, bullying behaviour and suicidal ideation.

The effectiveness of the "Skills for Life" programme on health behaviour outcomes was evaluated at three points in time in using a cluster randomized controlled study design with a follow-up of 20 months. In total, 27 schools and 1,394 students were included.

The programme was judged to be well implemented in just under half of cases. The outcome results for the experimental group (EG) compared with controls present a complex picture at the three different time points used for evaluation. There was a clearly positive effect on levels of alcohol consumption and a clearly negative effect on smoking across time. There was a mixed picture over time for suicide ideation and for bullying including sexual bullying (although the prevalence rates for bullying were low and thus results should be treated with caution).

There were generally more positive impacts on students with lower educational levels including less suicidal ideation and less bullying. Limitations were the dropping out of several schools during the study and the low level of fidelity of the curriculum. Social emotional learning (SEL) programs can be part of a health promoting school framework but should be more tailored to disadvantaged school populations.

The findings indicate that students with a less optimal starting position, when it comes to health related behaviours, benefit most from a SEL programme. This indicates that schools with disadvantaged school populations could benefit most from a Health Promoting School approach.

INTRODUCTION

Estimates indicate that each year 20 percent of adolescents in the world suffer from mental health problems, such as aggression, depression and anxiety (WHO, 2012).

Mental health and well-being in adolescence have implications for self-esteem, school attendance, academic achievement, social cohesion and future health and life chances and vice versa (Zins et al., 2006; WHO, 2012). Support from, and feelings of connectedness with, social contexts at home, at school and in the community are important in this age group for the development of healthy behaviours (WHO, 2003a; Atkins et al., 2010; Weist et al., 2010; Trickett and Rowe, 2012; Busch et al., 2013). Schools should therefore not only aim their efforts at improving academic achievement of students, but also pay attention to the social-emotional and moral development by teaching students appropriate skills that they can use during the course of their life (Onderwijsraad, 2013a; Eccless and Roeser, 2011; Stewart and Wang, 2012; Langford et al., 2014).

Several social emotional learning (SEL) programs have been developed to address this issue. Meta-analyses and systematic reviews with regard to universal school based SEL programmes delivered by regular classroom teachers, show significant positive effects on social-emotional skills and attitudes about self, others and schools (Durlak et al., 2011; Sklad et al., 2012; Weare and Nind, 2011). These interventions also contribute to behavioural adjustment, pro-social behaviours and academic achievement and help decrease externalising and internalising problems (Gravesteijn et al., 2011). SEL programmes realise these effects by aiming at the integrated promotion of important life skills. The following life skills have been defined by the World Health Organization (WHO) and others (Collaborative for Academic, Social, and Emotional Learning, 2005; WHO, 2003b; Zins et al., 2004), and include: self-awareness, social awareness, self-control and social relationships, decision-making skills and stress management.

A Health Promoting School is one that constantly strengthens its capacity as a healthy setting for living, learning and working. In order to achieve this goal, activities can be focussed on the curriculum, school environment and health services and community partners of the school. When schools embrace a Health Promoting School approach they can include a SEL programme in order to strengthen their effort to improve the social, emotional, li and health behaviour problems of school students. In the Netherlands, a "Skills for Life" programme called "Levensvaardigheden", is available for 13-17 years

old secondary school students (Diekstra, 2008; Gravesteijn and Diekstra, 2013). When schools introduce this programme, their teachers are extensively trained to convey the principles and ideas of the "Skills for Life" curriculum. This programme is aimed at the development of social, emotional, and moral skills among adolescents through a school curriculum with weekly lessons. The programme addresses general skills such as self-awareness, handling of thoughts, feelings and behaviour of self and others. In addition, the lessons focus on themes from adolescents' daily life such as substance use, norms, values and friendships, bullying, sexuality and teen pregnancy, conflicts with teachers and peers, and depression. Studies have indicated that these themes address health issues and problems that can play an important role in the life of adolescents.

Both alcohol and tobacco use rise substantially during adolescent years, and bullying is found to be a widespread problem among school children in many countries (Craig et al., 2009). Furthermore, studies indicate that in The Netherlands a substantial number of teenagers report suicidal thoughts (11.2 per cent) or suicide attempts (6.6 per cent) (Ten Have et al., 2006).

The intention is also that the "Skills for Life" programme contributes to a positive school climate. In this light the "Skills for Life" curriculum can be seen as a strong part of a Health Promoting School approach. It is presumed that stimulating the positive development of social, emotional and moral skills will influence health behaviour related to substance use, sexual behaviour and bullying. Therefore, it will be interesting to investigate what effects the "Skills for Life" curriculum has on several of these health issues that the programme aims at. In this study we aimed to investigate the effects of the "Skills for Life" programme in a real-life setting. Schools that participated in the research project received the same type of support as regular part of their curriculum during the study as non-participating schools. Therefore, a realistic setting for implementation of the programme was created and the study can be considered an effectiveness study.

The main goal and research question of the current study was to explore: what is the effect of "Skills for Life" on health behaviours, such as alcohol and tobacco use, sexual harassment, suicidal ideation and bullying behaviour?

METHODS

The "Skills for Life" programme

"Skills for Life" is a Dutch universal school based prevention programme aimed at reducing behavioural and health problems in adolescents between 13-16 years of age

and enhancing pro-social behaviour, self-awareness, social awareness, self-control, interpersonal skills and ethical decision making. The programme was developed by Diekstra and Gravesteijn (Diekstra, 1996; Gravesteijn and Diekstra, 2013) at the Rotterdam Municipal Health Centre between 1996 and 2010 and evaluated in several studies regarding its effects (Gravesteijn et al., 2004, 2010).

Teachers deliver the programme after following two periods of three-day training, each followed by two follow-up booster sessions. "Skills for Life" is based on the Social Learning Theory and Rational Emotive Behavior Therapy (REBT) and focuses on enhancing social, emotional and moral skills. The application of REBT-principles in educational interventions, increases cognitive self-control, rationality and leads to increased adaptive behaviour in problem situations. Students learn from each other in the classroom setting through social modelling and vicarious learning techniques. They learn problem specific skills such as resisting peer pressure and moral decision making.

The programme consists of 25 lessons given during the course of two school years. The first four lessons are aimed at the awareness and handling of thoughts, feelings and address general skills such as interpersonal problem solving skills, emotion regulation skills and critical thinking. The remaining twelve additional lessons during the first year, and nine during the second year focus on skills for specific situations, such as giving and seeking help, dealing with bullying, setting and respecting boundaries, substance use, norms, values and friendships, sexuality, suicidal thoughts and conflicts with teachers and peers. These lessons are also built on the principles of the first four basic lessons. The programme uses different teaching methods including active enactment, modelling with the use of DVD extracts, role play, discussion, feedback and making commitments to engage in healthy behaviour.

Study design

The effectiveness of the "Skills for Life" programme on health behaviour outcomes was evaluated using a cluster randomized controlled study design with a follow-up of 20 months. School locations were allocated to the experimental and the control condition. The teachers in the experimental school locations were trained to present the "Skills for Life" curriculum to their school classes. Teachers in the control school locations were allocated to a waiting list control group (CG). The curriculum was presented to the students in two consecutive school years: in the first school year they received the basic lessons and in the second school year the follow-up lessons.

Randomisation and drop-out

A total of 26 schools were randomized, and assigned to either the experimental group (13 schools) (EG) or the CG (13 schools). In addition, there were 11 schools who strongly indicated a preference for the EG, and one school who strongly indicated a choice for the CG. Because the 13 vs 13 schools would not create enough power for analysis to compare main effects, we decided to include those schools that were not randomized. This resulted in a total of 24 experimental schools and 14 control schools. We studied possible differences in background variables between the randomized and non-randomized schools. There were no differences at a student level, such as the baseline measure of the outcome measures. However, non-randomized schools had lower education level classes (χ^2: 31.76; $p < 0.01$), were more often from a urban environment χ^2: 27.35; $p < 0.01$) and included more grade seven classes χ^2: 9.19; $p < 0.01$) than the randomized schools. In the analyses has been accounted for differences in these characteristics.

There were several apparent reasons for drop-out both at an individual level and at class/school level. Reasons for individual students not to participate in follow-up measures were first, not being present at school or at the lesson, at the time of the follow-up measurement, second, having changed classes or schools which was fairly often the case especially for the follow-up measurement of the second study year when a substantial number of students had changed classes or schools. At a school level there was a substantial number of classes and schools that were not able to perform the follow-up measurements because these took place just before summer recess. This is a very busy time for schools, and several schools were not able to schedule an hour where the questionnaires could be filled out.

Programme implementation

To assess the completeness and fidelity of programme implementation, teachers kept a log of the “Skills for Life” lessons given and project assistants carried out observations in the class room. Students from grades 7-9 (age 13-16 years) participated by filling out paper and pencil questionnaires at three points in time. This was supervised by the schoolteacher who gave the lessons. Students filled out questionnaires at the start of the first year (T0), a (short-term) follow-up measurement at the end of the first year (T1), and a (long-term) follow-up measurement at the end of the second year (T2).

Outcome measures

Self-report questionnaires were used, aimed to measure health behaviours among the students, such as alcohol use, tobacco use, sexual harassment behaviour, suicidal ideation and bullying behaviour. The questionnaires included standard measures derived from questionnaires used in previous studies. The outcome measures were standard questions on health behaviour from the Dutch local and national health monitor (National Institute for Public Health and the Environment, 2011). The following questions were included.

Alcohol use: did you ever drink alcohol, even if it was only a few sips? Answer options: No, never (0) – yes (1). Tobacco use: did you smoke a cigarette the last month, even if it was only one puff? Answer options: No (0) – yes (1).

Cannabis use: have you ever been offered cannabis (hashies or weed)? Answer options: No, never (0), yes at school (1), yes, at home or at friends' home (2), yes, on the street, in a park or at a hangout (3), yes, in a café or disco, at a party or concert (4), somewhere else (5).

Sexual harassment behaviour: being forced: the last six months, did someone force you to do sexual things or to allow you to do sexual things that you did not want to? Sexual things are kissing, stroking or sexual intercourse. Forcing others: the last six months, did you force someone to do sexual things, or did you force someone to allow you to do sexual things that he or she did not want to? Answer options: no (0), yes, a few times (1), yes, repeatedly (2), yes, often (3).

Bullying: how often have you been bullied at school the last three months? How often have you been bullied on the internet or via SMS the last three months? How often have you been involved in bullying other students at school the last three months? Answer options: never (0), less than twice a month (1), two or three times per month (2), about once a week (3), more times per week (4).

Suicidal ideation: have you thought to make an end to your life the last 12 months? Answer options: never (0), once in a while (1), occasionally (2), often (3), very often (4). Have you attempted to make an end to your life the last 12 months? Answer options: no (0), yes (1). All items were asked at the three time points of measurements, except for suicidal ideation, which was asked at T0 and T2. The duration of the self-reported behaviours differed in the questionnaire and was dependent on their prevalence. For instance, suicidal ideation is known to be less prevalent and was therefore measured

over the last year, while tobacco use is more prevalent and was therefore asked over the last month.

The student questionnaire was pre-tested among students of lower education levels. A Dutch review board assessed that the study was in accordance with the Dutch act on medical research involving human subjects. Medical ethical approval was not required. Students were guaranteed anonymity when filling out questionnaires. Therefore, individual care was not offered when students gave specific answers in the questionnaire. Teachers and a project assistant were available when the questionnaires were filled out, to assist the students and in case they indicated that they needed care.

Statistical analysis

t-Tests were used to investigate the differences in background characteristics between experimental (EG) and control group (CG). Outcome measures were dichotomized. Intra class correlation varied from 0.01 for the variable "being bullied" to 0.04 for "alcohol use". Therefore, multilevel logistic regression analysis was used to calculate the effects of the "Skills for Life" programme on the health outcome variables, whereby the individual level and the school class level were included. Because we measured the outcomes at the individual level, these are also the results that are reported. Baseline levels of the outcome variable were included in the analysis as independent factors to correct for possible initial differences between the EG and CG. Also, differences in background characteristics were controlled for in the analyses. Stratified analyses were carried out in subgroups of students with low and high educational levels. All analyses carried out in SPSS 17.0 (Chicago, IL: SPSS Inc.).

RESULTS

Participating schools and students

A total of 27 (18 experimental and nine control schools) out of 38 (24 experimental and 14 control schools) schools who participated at the start of the evaluation study, were left at the last post-test, resulting in a loss to follow-up of 29 per cent. Some reasons for this loss to follow-up were change of school class teachers, breaking up of school classes in the second school year when the follow-up lessons should be given, and the large workload of the evaluation study for teachers due to many measurement rounds.

In all there were 1,394 students (EG: 913, CG: 481) participated at the start of the study at T0. See Figure 1 for the flowchart. At T1 995 of them remained (EG: 663, CG: 332) and

at T2 a group of 511 students participated (EG: 283, CG: 229) in the research population. The study groups differed significantly with regard to age and educational level. The mean age was 14.0 (SD = 0.8) for the EG and 14.4 (SD = 0.9) for the CG. The students of the EG were more often of higher educational level schools than the CG (Table 1) (EG: 48 percent higher educational level school vs CG 32 percent; χ^2 35.0, df = 1, $p < 0.01$).In the statistical analyses has been accounted for these differences in background characteristics.

Programme implementation

On average, 11.5 of the 16 basic lessons of the first school year (range 4-17) were given. Five out of 28 teachers had given all 16 lessons and ten teachers conducted less than ten lessons. The first seven basic lessons were given by 85 percent of the teachers, while the last five basic lessons were given by 50 percent of the teachers. Project assistants who observed lessons in the school class rated the teachers' performance related to assignments given in the school class as "good" for 85 percent of the assignments. The lessons were evaluated similarly in the teachers' log. On a scale from 1 to 3, the teachers rated the conduct of the lessons to a mean of 1.5 (SD = 0.2), from 1.2 (SD = 0.3), evaluated the goal achievement of the lessons to a mean score of 2.4 (SD = 0.2) on a scale from 1 to 5. The project assistants counted 48 percent of the 25 goals of the observed lessons as "well achieved", four percent as "more or less achieved" and 48 per cent as "not achieved". No results can be given with regard to the implementation of the follow-up lessons in the second school year, due to the low number of teachers that filled out the logs.

Effects on health behaviour

Results on differences between the EG and CG are presented in Table 2. With regard to alcohol use there was a positive effect of the programme at the end of the second year (T2). Fewer students from the EG reported use of alcohol comparing T0 and T2, than students form the CG. From T0 to T2 more students in the CGs reported that they ever used alcohol, while in the EG there was no increase in alcohol use.

This difference was statistically significant after control for the pre-test score and background characteristics (T0 vs T2: OR = 0.25, CI= 0.07 - 0.84). Negative effects were found on tobacco use. Students in the EG reported more often that they had smoked compared to students in the CG (T0 vs T2: OR = 3.42, CI = 1.26 - 9.30).

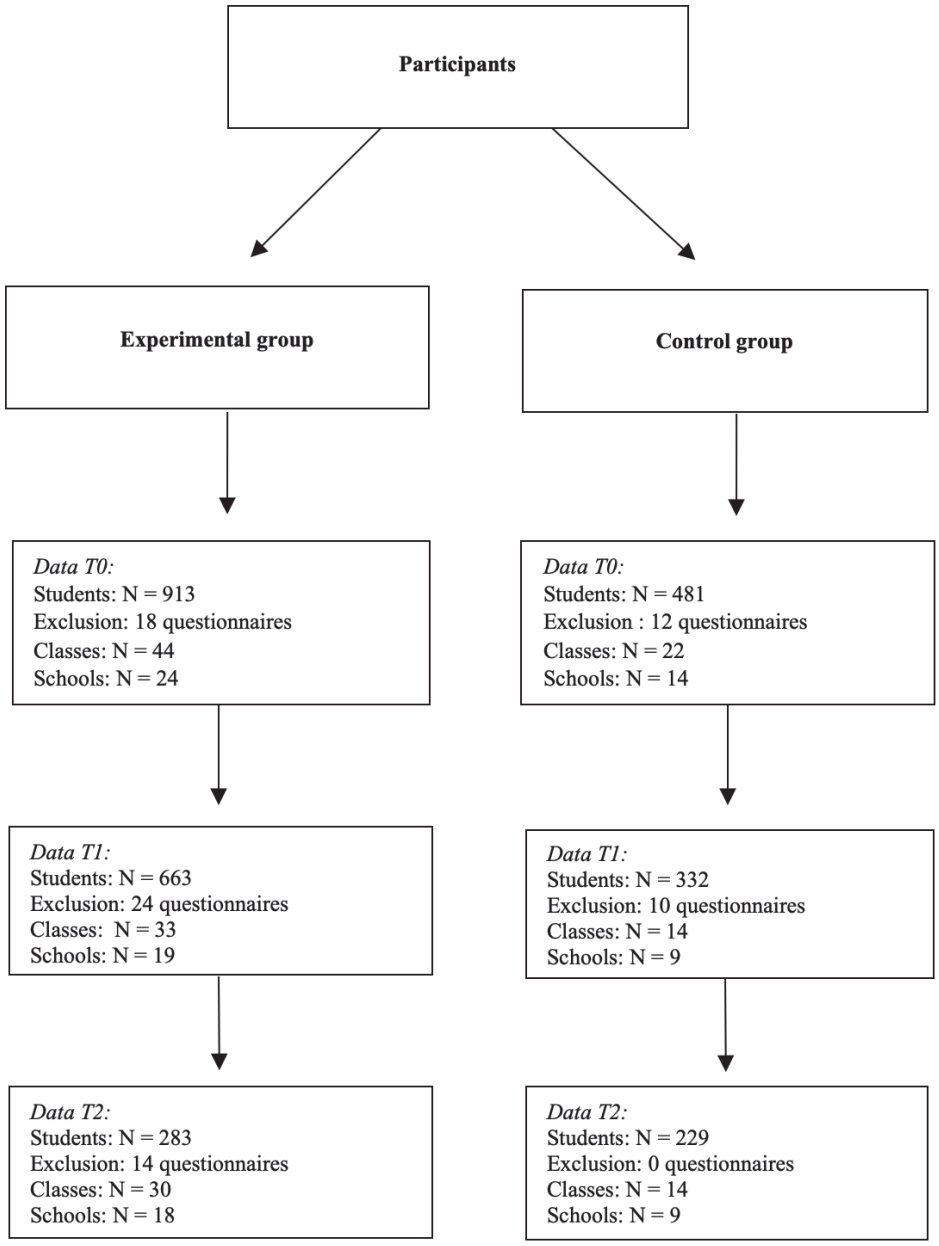


Figure 1 Flow chart of participating schools and students

Table 1: Background characteristics of students in experimental and control group.

	Variable	Control group (N = 481) %	Experimental group (N =1107) %	Chi-square	*p*
Mean age in years (SD)		14.4 (0.9)	14.0 (0.8)	10.08	**<.000**
Gender	Boy	51	53	0.64	0.44
	Girl	49	47		
Educational level	Lower level	68	52	35.00	**<.000**
	Higher level	32	48		
Urbanisation school area,	<100.000 inhabitants	63	65	0.56	0.46
	>100.000 inhabitants	37	35		
Country of birth	Netherlands	95.0	93.6	3.01	0.69
	Surinam	0.2	0.1		
	Dutch Antilles	0.4	0.6		
	Turkey	0.4	0.6		
	Maroc	1.0	0.7		
	Other country	2.9	4.5		

With regard to general bullying behaviour a significant difference between the EG and CG was found at T1 (T0 vs T1: OR = 0.30, CI = 0.10 - 0.92). In the multilevel model students who had followed the "Skills for Life" programme, reported less often being bullied at the end of the first year (T1), compared to those in the control schools. At the end of the second year (T2) fewer students in the EG reported that they bullied other students compared to the CG (T0 vs T2: OR = 0.08, CI = 0.02 - 0.30). However, at T1 more students in the EG reported being digitally bullied compared to the CG (OR = 20.19, CI = 1.20 - 338.92). Students in the EG were more likely to report that they forced other people to do sexual things than were students in the CG (OR = 24.31, CI = 1.84 - 320.23).

However, it should be noted that for both outcome variables (being digitally bullied and sexual harassment) the prevalence rates were at some time measurements very low and therefore caused statistically a wide range of the confidence interval. Therefore, these results should be interpreted with caution. No main effects between the EG and CG were found on use of cannabis and suicidal ideation.

Lower educational level vs higher educational level students

Stratified analyses in subgroups of educational level indicated that there were several effects for students in the lower educational levels of our study sample that were not present among the higher educational levels. Fewer students in lower educational levels

in the EG reported suicidal thoughts compared to the CG at the end of the second year. (T0 vs T2: OR = 0.43, CI = 0.19-0.95). Lower educational level students in the EG also indicated that they were less likely to bully other students compared to the CG at the end of the second year (T0 vs T2: OR = 0.05, CI = 0.01-0.25).

Tabel 2 Experimental versus control group – percentage (%) at T0, T1, T2, and effects at T1 and T2 (odds ratio's) for the main outcome measures [1]

Outcome	**Group**	**Percentage (%)**			**Effects at T1**			**Effects at T2**		
0 = no 1 = yes		**T0 %**	**T1 %**	**T2 %**	**Adj. Odds Ratio**	**95% CI**	***p***	**Adj. Odds Ratio**	**95% CI**	***p***
Alcohol										
Ever used	CG	77	72	87	0.78	0.32-1.91	.59	.25	.07-0.84	**.03**
	EG	69	63	70						
Tobacco use										
Smokes now	CG	27	26	33	1.50	0.65-3.47	.34	3.42	1.26-9.30	**.02**
	EG	17	19	24						
Cannabis use										
Ever proposed	CG	34	31	38	0.78	0.31-1.63	.50	1.09	.46-2.59	.84
	EG	30	25	30						
Sexual harassment										
Ever forced by another	CG	7	5	10	1.03	0.20-5.39	.97	1.22	.21-7.08	.83
	EG	6	6	7						
Ever forced another	CG	4	1	6	10.28	0.48-218.42**	.14	24.31	1.84-320.23**	**.02**
	EG	2	2	4						
Bullying										
Being bullied	CG	9	10	12	0.30	0.10-0.92	**.03**	.34	.06-1.75	.20
	EG	10	12	6						
Being digitally bullied	CG	4	1	7	20.19	1.20-338.92**	**.03**	4.73	.62-35.97	.13
	EG	2	4	5						
Bullying others	CG	8	9	13	1.08	0.35-3.30	.90	.08	.02-0.30	**<.01**
	EG	10	11	7						
Suicide										
Suicidal thoughts	CG	26	-	26	-	-		.90	.47-1.72	.70
	EG	21	-	19	-	-				
Suicide attempt	CG	7	-	10	-	-		.64	.09-4.46	.92
	EG	3	-	4	-	-				

** Due to low percentage, the upper level of the CI is very high.
[1] In the analyses was controlled for the following background variables: age, gender, educational level, urbanisation

DISCUSSION

The main goal of the current study was to evaluate the effects of the Dutch "Skills for Life" programme on health behaviours. The "Skills for Life" programme aims to improve students' social and emotional skills and the teachers' ability to transfer these skills.

The results of our randomised controlled trial were mixed.

Students from schools who followed the "Skills for Life" programme used less often alcohol after two years. The number of students who ever used alcohol had risen in the control schools but had not risen in the intervention schools. Students in the intervention schools were less often bullied at the end of the first year and students bullied others less often at the end of the second year.

However, students in the EG reported over time that they more often forced others to do sexual things and that they were digitally bullied. We found a negative effect on smoking, with students in the EG used more often tobacco compared to the CG (the effect on tobacco use could be explained by the lower levels of use in the EG at the beginning of the study. These initial low levels gave more room for an increase in tobacco use).

There was evidence for a greater impact on a specific subgroup of students, those from lower educational levels. These students in the EG reported that they bullied other students less often. We also found that these students experienced less often suicidal thoughts. Other studies among disadvantaged schools have also found positive effects of SEL programs on interpersonal antisocial behaviour such as bullying (Lewis et al., 2013b) and a positive impact on physical activity, BMI, psychosocial outcomes and grade performance in high school adolescents (Melnyk et al., 2013). With regard to the effects on suicidal ideation, it is promising that a general SEL programme such as the "Skills for Life" programme can lower these strong negative feelings among disadvantaged adolescents. Other more specific depression prevention programs have also shown to be able to lower negative feelings (Calear and Christensen, 2010).

These results indicate that the "Skills for Life" programme has the ability to have a beneficial impact on different health outcomes, particularly for disadvantaged students. This is in line with several reviews that conclude that many SEL programs can have positive effects on a wide variety of social and emotional skills and other health outcomes (Durlak et al., 2011; Payton et al., 2008).

Strengths and limitations

Strengths of our current study are the randomisation of most of the schools, the large number of participating students and broad variety of outcome measures. Limitations are the drop-out of several schools during the study and the low level of implementation of the curriculum. Some of the results on health behaviour have to be interpreted carefully because of the low prevalence of risk behaviours among secondary school students which leads to broad confidence intervals and some unstable odds ratios.

Implications for practice

The Dutch "Skills for Life" curriculum is a promising programme that could be integrated in a Health Promoting School approach. By extending the programme with a whole school approach, by for example including parents and school facilities, the programme can become part of the school culture. Involvement of all teachers at a school in teaching the "Skills for Life" lessons contributes to opportunities for true support of the "Skills for Life" aims and ideas. In such a culture many teachers are trained to support SEL. As students receive lessons on different subjects from various teachers, they will come across the "Skills for Life" ideas in various manners during their school day. Integration of "Skills for Life" in the school culture can contribute to a SEL approach of students, teachers, parents and even the larger community around a school, such as social health workers.

A Health Promoting School approach offers an excellent framework for involving every member of the school staff, every student and even every parent or other member of the school community to behave in a health promoting way. Since there are very few comparable programs available for Dutch high school students, the "Skills for Life" programme is a promising option to be included in the Health Promoting School framework that is currently under development in the Netherlands.

In The Netherlands the high schools are divided into different levels, based on the cognitive abilities of the students. Our results show that the "Skills for Life" curriculum enhances children's health promoting skills whereby the strongest effects are found among the children in the lower educational levels. This sheds an interesting light on the implementation of such a programme within a Health Promoting School context. Many studies have shown that a lower social economic status is related to less health promoting behaviour and more health problems (Pampel et al., 2010). Children from these households are more often educated at a lower educational level, such as vocational

training schools, in The Netherlands. These children have a less optimal starting position when it comes to health-related behaviours. This was also shown in our study sample. On many of the health outcome variables, these students indicated more health problems at the baseline measurement compared to students from higher educational levels. This means that there is more room for improvement for these lower educational level students, and as our results show, they are the ones who benefit most from the "Skills for Life" programme. Interestingly, this group of students also indicates that they experience the programme as sometimes being "too difficult". This indicates that there is room for improving the programme and tailoring the programme specifically to students from the lower educational levels. In response to these results, the Dutch government has recently granted funding to adjust the Dutch "Skills for Life" programme and make the programme more suitable for those students at lower educational levels.

Implications for research

Our current study indicated that lower-level education students, who start with a less optimal position on several health outcomes, benefit most from a programme such as "Skills for Life". It will be interesting to find out if there are other subgroups of students that benefit more from a SEL programme. Future research should be aimed at studying subgroups that benefit most from a Health Promoting School approach.

Furthermore, our results show that programme fidelity can be improved. Many teachers did not complete the full programme. It is possible that the level of implementation can be related to teacher qualities. The execution of a SEL programme includes many skills to teach. It may be that not all teachers are capable of teaching all these skills. Future research could focus on the relation between teacher qualities and the level of implementation of SEL programs. This will give more insight into what teacher qualities are beneficial for a better implementation of SEL programs.

CONCLUSION

Overall, it is concluded that the Dutch universal SEL programme "Skills for Life" has some positive effects on some health outcome measures among students especially for the disadvantaged. Universal SEL programs can be considered a promising option to be included in the Health Promoting School framework. This may benefit especially those students from a more disadvantaged background.

Chapter 4

What are the most important social-emotional skills?

Relationships between adolescents' social-emotional skills and psychosocial health variables: An explorative cross-sectional study of a sample of students in preparatory vocational secondary education

M.C.E. Van de Sande
P.L. Kocken
R.F.W. Diekstra
R. Reis
C. Gravesteijn
M. Fekkes

Frontiers in Education (2023), 8, 1225103

ABSTRACT

Universal school-based social emotional learning (SEL) programs target several social-emotional skills assuming a relationship between the skills and psychosocial health outcomes. However, greater insight into the relationship is required to clarify the skills that are most crucial to address. It will support the development and refinement of SEL programs. This study investigated 1) the relationship among the social-emotional skills, 2) the association between the skills and psychosocial health variables, and 3) the mediating effect of the skills on psychosocial variables.

Using self-report questionnaires (N = 796) completed by adolescent students (aged 14-18) in preparatory vocational tracks in Dutch secondary education, associations were identified between five SEL skills and two psychosocial health variables, emotional-behavioral difficulties, and prosocial behavior.

There was a high degree of overlap between the five skills (self-awareness, social awareness, self-management, relationship skills, and responsible decision-making). The skills were univariately associated with emotional-behavioral difficulties and prosocial behavior. In the multivariate model, self-management most strongly correlated with emotional-behavioral difficulties and mediated the relationship between self-awareness and emotional-behavioral difficulties. Social awareness showed the highest correlation with prosocial behavior and mediated the relationship between prosocial behavior and three other skills: self-awareness, relationship skills, and responsible decision-making.

Self-management and social awareness seem to be the central skills to promote the psychosocial health outcomes of students in preparatory vocational secondary education tracks. These two skills mediate the relationship between other social-emotional skills, emotional-behavioral difficulties, and prosocial behavior.

INTRODUCTION

Globally, schools have implemented universal social emotional learning (SEL) programs to improve students' psychosocial health, resilience, and academic performance. SEL programs focus on enhancing social-emotional skills based on various theoretical frameworks which assume that several socio-emotional skills are associated with psychosocial health variables (e.g., Duckworth and Yeager, 2015; Durlak et al., 2015; Jones et al., 2019a). Many SEL programs use a consensus-based concept of five interrelated social-emotional skills—self-awareness, social awareness, self-management, relationship skills, and responsible decision-making—developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL; Weissberg et al., 2015).

Meta-analyses of studies evaluating SEL programs have identified their short- and long-term positive effects on social-emotional skills and psychosocial health outcomes (e.g., Durlak et al., 2011; Ma et al., 2020; Sklad et al., 2012; Taylor et al., 2017). SEL programs often address multiple skills simultaneously, assuming that teaching them together increases their effect on psychosocial health outcomes (e.g., Durlak et al., 2015; Jones et al., 2019b; Sancassiani et al., 2015). However, social-emotional skills are separately associated with psychosocial health variables. For example, improved relationship skills are related to less aggression, and a higher-level of self-management skills protect adolescents against substance use and criminal behavior (e.g., Burke and Loeber, 2016; Moffit et al., 2011). Although the studies cited above provide evidence that social-emotional skills are associated with psychosocial health variables, insights into these associations are limited (Durlak et al., 2011/2022; Sancassiani et al., 2015; Ura et al., 2020).

A better understanding of the associations between individual social-emotional skills and between combinations of skills and psychosocial health variables is necessary. In addition, more insight into the social-emotional skills that are most strongly associated with psychosocial health variables is required. This knowledge can refine the theoretical models used in developing and improving SEL programs and understanding their effects.

Young people's social-emotional skills vary with background characteristics, such as developmental stage, learning abilities, and family background (e.g., Cook et al., 2008; Gaspar et al., 208; Hecht and Shin, 2015; Wiley and Siperstein, 2015). Implementing SEL programs considering the students' skills and tailored to their needs are recommended

to achieve the intended outcomes (Durlak et al., 2015). Recently, it has been particularly emphasized for students with multiple adversities, such as learning difficulties and low-income family backgrounds (e.g., Elias, 2019; Jagers et al., 2019a).

Adolescence is a sensitive period for the development of advanced social-emotional skills. Development of these skills is associated with central developmental tasks such as acquiring autonomy and developing self-identity (Blakemore and Mills, 2014; Casey, 2015; Lerner and Steinberg, 2009). During adolescence, social-emotional skills first decrease, then develop to adult levels in later adolescence; moreover, these skills vary with sex and family background as shown by Ross et al. (2019) and West et al. (2020). These studies showed that girls scored higher in some social-emotional skills than boys did. Students who grew up in low-income and/or minority-group families scored lower than those raised in more affluent and majority-group families.

The literature shows that adolescents' social-emotional skills are associated with psychosocial health variables. For example, greater self-awareness protects young people from developing aggression (e.g., Brackett et al., 2012; Bierman et al., 2010; Mohammadiarya et al., 2012). Increased self-awareness is also associated with prosocial behavior (PSB) (e.g., Allemand et al., 2015; Crone and Fuligni, 2020; Trentacosta and Fine, 2010; Zaki, 2020). Similarly, improved relationship skills have been associated with lower substance use (Faggiano et al., 2010). Although adolescents are assumed to develop several social-emotional skills, emotional-behavioral difficulties (EBD) are mainly associated with self-management (e.g., Casey, 2015; Laible et al., 2015; Miller et al., 2015; Polan et al., 2015; Van Genugten et al., 2017). Social awareness is mainly associated with PSB and the establishment and maintenance of positive relationships with others outside the family (e.g., Carlo et al., 2003; Crone, 2017; Eisenberg et al., 2010; Lerner and Steinberg, 2009; McClelland et al., 2018). In addition, social-emotional skills are interrelated and foster each other (Oberle et al., 2016; Weissberg et al., 2015). However, knowledge about the correlation between skills and their association with psychosocial health variables in adolescents is limited. Recently, it is suggested to restrict the social-emotional skills targeted in SEL programs for adolescents to those most indicated to meet their needs to prevent them from getting tired and teachers from having to teach skills the students already possess or will develop anyway (e.g., Bailey and Jones, 2019; Ross et al., 2019; Yeager, 2017).

To contribute to the refinement of the theoretical models of SEL used to develop and improve school-based programs, the current study aimed to 1) investigate the extent

to which the five social-emotional skills (self-awareness, social awareness, self-management, relationship skills, and responsible decision-making) are interrelated; 2) examine the extent of association between combinations of social-emotional skills and psychosocial health variables; and 3) identify the mediating role of social-emotional skills related to psychosocial health variables.

This study is part of a larger research project evaluating and implementing the Dutch Skills4Life (S4L) program for students in preparatory secondary education (PVSE in Dutch). These tracks prepare students for vocational education and vocational jobs. Almost half of the students in Dutch secondary education are on PVSE tracks (Statistics Netherlands, 2020). Teachers and students involved in a previous study evaluating S4L indicated that the program demanded high intellectual and learning abilities from the PVSE students (Kocken et al., 2011; Pannebakker et al., 2019). The S4L program was adapted to meet the students' needs. To indicate the students in this study requires insight into the Dutch secondary education system.

The Dutch mainstream secondary education system is highly stratified and consists of a general secondary education track (HAVO in Dutch) and a pre-university track (VWO in Dutch) and five qualitatively different PVSE tracks. Significant differences exist in performance levels of students in these PVSE tracks (OECD, 2016). In addition to mainstream education, the Dutch secondary education system also features schools for students with special educational needs.

MATERIALS AND METHODS

To explore the associations between different social-emotional skills and psychosocial health variables, we conducted an exploratory cross-sectional study. For this, we used baseline data (N = 796) from a longitudinal study on the effects of the Dutch S4L program adapted to the needs of PVSE students (Van de Sande et al., 2022). The data used in this study are available at https://doi.org/10.17026/SS/DNOJRU

Participants and Procedure

The participants were students aged 14-18. They were in two of the five PVSE tracks—the PVSE basic (PVSE-b, *vmbo-basis* in Dutch) or Practical Education (PrE, *Praktijkschool* in Dutch). Ten percent of Dutch secondary education students are in the PVSE-b and PrE tracks. Many of these students grow up in families with low-income and/or from migrant-background and poor neighborhoods (Statistics Netherlands, 2016;

Korpershoek et al., 2016). They learn both at school and workplace internships and need additional educational support based on their intellectual capacities (varying from 60-90 on the IQ scale), learning abilities (more than two years of delay in reading Dutch and in learning mathematics), and/or emotional-behavioral difficulties (Hop and van Boxtel, 2013; Koopman et al., 2015).

We approached twenty schools with 3024 students in the Netherlands to participate in this study. Twelve schools (1233 students) agreed to participate. Classroom teachers introduced the study and distributed information letters to the students and their parents. Parents and students were asked to inform the school if they wished to refuse to participate. Written passive consent was declined by two percent of the parents, while students gave verbal consent.

Data were collected during regular classes using self-report questionnaires. Students were guaranteed confidentiality and were told that only the researchers would read their responses to prevent social desirability bias. Research assistants were available to clarify the questionnaire items, if necessary.

Instruments

Three self-report instruments were used to measure adolescents' social-emotional skills and psychosocial health. A pilot version of the questionnaire measuring social-emotional skills was pre-tested among 50 students whose school tracks were comparable to those of the study population. Based on this pilot study, we adapted some statements in the questionnaires to the language abilities of the study population.

We used the self-reported version of the Strengths and Difficulties Questionnaire for Adolescents (SDQ-A; Van Widenfelt et al., 2003) to measure the psychosocial health variables. The SDQ-A comprises 25 statements: 20 related to emotional-behavioral difficulties (EBD) and five related to prosocial behavior (PSB). The SDQ-A has demonstrated satisfactory psychometric properties. The SDQ-EBD subscale contains statements such as "I worry a lot" and "I fight a lot." The SDQ-PSB subscale uses statements such as "I try to share with other people" and "I often volunteer to help others." The responses were obtained on a three-point Likert scale ("Not true," "Somewhat true," "Certainly true"). Higher SDQ-EBD and SDQ-PSB scores indicate higher degrees of psychosocial difficulties and PSB, respectively (Van Widenfelt et al., 2003). In this study, Cronbach's α was .80 for SDQ-EBD and .59 for SDQ-PSB.

Four social-emotional skills were measured using a self-reported version of a Dutch questionnaire (the Questionnaire Psychosocial Skills) for young people aged 8-19 (Van der Ploeg and Scholte, 2013). This questionnaire comprises 36 statements distributed equally in four subscales measuring self-awareness, social awareness, self-management, and relationship skills. Items are measured on a five-point Likert scale ranging from 1 ("Do not agree at all") to 5 ("Entirely agree"). Self-awareness is measured based on items such as "I am quiet and easy to get on with" and "I think before I do something" (α = .85). The social awareness subscale includes items such as "I can see how other people feel" and "I know what I can say to someone and what I cannot" (α = .82). The self-management skills subscale comprises items such as "In my free time, I do useful and meaningful things" and "I can concentrate on my schoolwork" (α = .86). Relationship skills are measured by items such as "I talk about my problems with my friends" and "I stand up for myself in an argument" (α = .86).

The Dutch Life Skills Questionnaire (Diekstra and Gravesteijn, 1998) was used to measure responsible decision-making. It comprises five items on a four-point Likert scale ranging from 1 ("Strongly agree") to 4 ("Strongly disagree") and includes statements such as "I hold people to their agreements" and "I can imagine several reactions in a difficult situation" (α = .71).

Data Analyses

To gain insight into the relationships between adolescents' background characteristics, social-emotional skills, and psychosocial health variables, we analyzed the following descriptive statistics: frequencies, means (M), and standard deviations (SD). We used t-tests to determine whether social-emotional skills and psychosocial health variables were differentially distributed based on background characteristics. Correlation coefficients were calculated to identify associations between the five social-emotional skills. Factor analyses provided no reason to define the subscales differently from those used in the validated measurement instruments.

To explore the relationships between the five social-emotional skills and two psychosocial health variables (EBD and PSB), we performed backward elimination regression analyses. This stepwise approach was used to identify the social-emotional skills, or combinations of skills, most strongly associated with EBD and PSB. In the first step, all five skills were included in the (full) model. Thereafter, skills that were not

significantly associated with the full or further models were eliminated. The final model included only those skills that remained significantly associated with psychosocial health variables. We assumed that these skills had the strongest association with these variables. To identify the differences based on students' backgrounds, we performed interaction analyses between background characteristics and different social-emotional skills in the full and final models with EBD and PSB. The criterion for eliminating and maintaining a skill in the backward elimination model was set at $p > .10$ (P Out) and $p < .05$ (P In), respectively (Henderson and Denison, 1989; Stevens, 2012). In the next step, we tested the elimination of variables with $.05 < p < .10$. When another variable was no longer significantly associated with EBD or PSB we eliminated both variables. We consider the remaining skills are most strongly associated with EBD or PSB. The final model included all predictors with $p < .05$. Subsequently, we analyzed the interactions between background characteristics and each social-emotional skill included in the final EBD and PSB models to identify differences in skills according to sex, sociocultural background, and school track. We did not analyze these interactions according to age as the majority of students (91%, Table 1) were aged 14–18 years.

Finally, mediation analyses were performed to unravel the relationships between the five social-emotional skills and two psychosocial health variables. We included only those skills that had shown significant correlations ($\beta \geq .30$) with the psychosocial health variables in the backward elimination analyses. A straightforward mediation model was used, defined by four paths according to the steps indicated by Baron and Kenny (1986; see Figure 1). In the model, social-emotional skills are either an independent variable or a mediator. The steps in this model assume that when, in a multivariate regression analysis, variable M is included to predict Y controlled for X, a mediating function of M is identified when coefficients *a, b,* and *c* indicate significant and independent correlations between Y, M, and X, and when the relationship X-Y (*c*) decreases to almost zero (*c'*).

First, univariate regression analyses were used to calculate the respective associations between the five skills (self-awareness, social awareness, self-management, relationship skills, and decision-making) (Figure 1, path *a*). Second, the univariate associations between the skills and psychosocial health variables were calculated (Figure 1, paths *b* and *c*). Finally, the multivariate associations between each social-emotional skill and psychosocial health outcomes with the three variables X, Y, and M were calculated. In these analyses, we controlled for the independent variable (X) (Figure 1, path *c*').

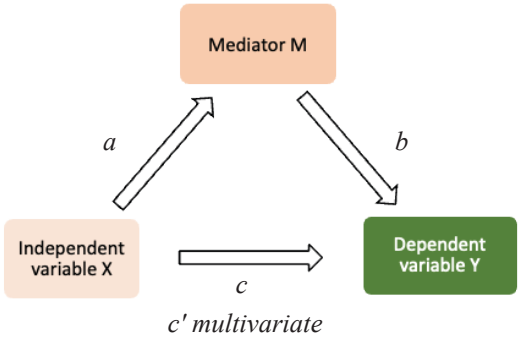


Figure 1 Straightforward Mediation Model (Baron and Kenny, 1986).

RESULTS

The background characteristics of the study population are shown in Table 1. The study sample comprised 54% boys and 46% girls. Sixty-one percent of students were aged 15 years or above (M = 15.8). Half (51%) were on the PrE track and the remaining (49%) were on the PVSE-b track. The sample composition was 49% Dutch or other Western European backgrounds (Dutch/WE) and 51% migrant backgrounds, as identified by self-reports.

Table 2 shows the interrelations among the five social-emotional skills. The correlation coefficients ranged from strong for self-awareness and self-management (r = .75) to weak for relationship skills and responsible decision-making (r = .29). A higher score for each skill was related to milder EBD. The correlation coefficients between the skills and EBD ranged from r = -.47 for self-management to r = -.30 for social awareness and responsible decision-making. Higher PSB scores were associated with better social-emotional skills. The correlation coefficients between skills and PSB ranged from r = .51 for social awareness to r = .35 for responsible decision making.

Table 1 Participants' Background Characteristics and the Relationship between the Characteristics and Participants' Social-Emotional Skills and Psychosocial Health Variables (means: M, and standard deviations: SD)

		N[1] (%)	Self-awareness[2] M (*SD*)	Social awareness M (*SD*)	Self-management M (*SD*)	Relationship skills M (*SD*)	Responsible decision-making M (*SD*)	Psychosocial health[3]	
								SDQ-EBD Mean (*SD*)	SDQ-PSB M *(SD)*
Sex	**Male**	433 (54)	24.13 (6.0)	22.94 (5.2)**	23.93 (6.3)	25.26 (5.4)**	8.54 (3.1)**	12.79 (6.2)	6.73 (2.0)**
	Female	363 (46)	24.07 (5.5)	24.11 (5.1)	24.41 (6.1)	26.32 (4.9)	9.19(3.0)	12.79 (6.4)	7.45 (2.0)
	Total	796	24.10 (5.7)	23.47 (5.2)	24.14 (6.2)	25.74 (5.2)	9.53 (3.4)	12.79 (6.3)	7.06 (2.0)
Age	**13**	59 (8)	25.72 (6.1)**	24.21 (5.5)	26.44 (6.0)**	26.51 (5.8)	9.53 (3.4)	13.25 (5.7)	6.82 (2.2)
	14	243 (31)	23.59 (5.7)	23.38 (5.0)	23.46 (6.3)	25.63 (5.1)	8.45 (2.8)	13.02 (6.2)	7.05 (2.1)
	15	326 (42)	24.00 (5.3)	23.31 (5.0)	24.01 (6.0)	25.60 (5.0)	8.86 (3.0)	12.43 (6.2)	7.18 (2.0)
	16	142 (18)	24.04 (6.6)	23.43 (5.8)	24.05 (6.4)	25.95 (5.3)	9.03 (3.1)	12.92 (6.6)	6.97 (2.0)
	17	13 (1)	25.62 (7.7)	25.18 (4.4)	27.15 (5.9)	24.77 (4.6)	8.31 (3.5)	13.38 (6.1)	6.69 (1.8)
	Total	783	24.04 (5.7)	23.45 (5.2)	24.08 (6.2)	25.73 (5.2)	8.75 (3.0)	12.73 (6.3)	7.09 (2.0)
School Track[4]	**PrE**	404 (51)	24.89 (6.2)**	23.63 (5.6)	25.81 (6.2)**	25.71 (5.3)	9.21 (3.2)**	12.61 (6.1)	7.04 (2.1)
	PVSE-b	394 (49)	23.27 (5.1)	23.30 (4.7)	22.40 (5.7)	25.75 (5.0)	8.44 (2.8)	13.01 (6.4)	7.07 (2.0)
	Total	798	24.09(5.7)	23.47(5.2)	24.13 (6.2)	25.73 (5.2)	8.83 (3.0)	12.81 (6.3)	7.06 (2.0)
Back-ground[5]	**Dutch/WE**	392 (49)	23.37 (5.6)**	23.05 (5.2)**	22.97 (6.0)**	25.78 (4.9)	8.49 (2.9)**	13.05 (6.3)	6.91 (2.0)**
	Migrant	404 (50)	24.80 (5.9)	23.89 (5.2)	25.26 (6.2)	25.72 (5.4)	9.17 (3.2)	12.59 (6.3)	7.21 (2.0)
	Total	796	24.09 (5.7)	23.48 (5.2)	24.13 (6.2)	25.75 (5.2)	8.83 (3.0)	12.81 (6.3)	7.06 (2.0)

* $p < .05$ and ** $p < .01$; SDQ, Strength and Difficulties Questionnaire.

[1] Due to missing values, the total values may vary.

[2] The higher the score, the more developed the social-emotional skill (self-awareness, social awareness, self-management, relationship skills, responsible decision-making).

[3] Psychosocial Health: Two subscales of the SDQ were used: Emotional and Behavioral Difficulties (EBD) and Prosocial Behavior (PSB). The higher the score on SDQ-EBD, the greater the EBD (lower is better). Similarly, the higher the score on SDQ-PSB, the greater the PSB (higher is better).

[4] The PrE is a practical education track for students with additional educational needs (IQ from 60-85 on a 100-point IQ scale; delays in reading and mathematics > 3 years); the PVSE-basic track is for students with additional education needs (IQ from 75-90 on a 100-point IQ scale; delays in reading and mathematics > 2 years).

[5] Dutch/WE: Native Dutch and Western European backgrounds, e.g., German, British, and Spanish; Migrant: e.g., Turkish, Moroccan, Cape Verdean, and Somali.

Table 2 Correlation Coefficients (r) between the Five Social-Emotional Skills and the Two Psychosocial Health Variables

		Self-awareness	Social awareness	Self-management	Relationship skills	Responsible decision-making	Psychosocial health variables[1]	
							SDQ-EBD	SDQ-PSB
Self-awareness		1	-	-	-	-	-	-
Social awareness		.74**	1	-	-	-	-	-
Self-management		.75**	.66**	1	-	-	-	-
Relationship skills		.62**	.70**	.59**	1	-	-	-
Responsible decision-making		.47**	.44**	.43**	.29**	1	-	-
Psychosocial health variables	**SDQ-EBD**	-.43**	-.30**	-.48**	-.34**	-.30**	1	-
	SDQ-PSB	.46**	.51**	.38**	.45**	.35**	-.28**	1

*p < .05; ** p < .01.

[1]Psychosocial health variables: Two subscales of the Strengths and Difficulties Questionnaire (SDQ) were used: Emotional and Behavioral Difficulties (SDQ-EBD) and Prosocial Behavior (SDQ-PSB). The higher the score on SDQ-EBD, the greater the EBD (lower is better). Similarly, the higher the score on SDQ-PSB, the greater the PSB (higher is better).

Using backward elimination, we analyzed the multivariate associations between social-emotional skills, EBD, and PSB (Table 3). The full EBD model shows that four skills—self-awareness, social awareness, self-management, and responsible decision making—were significantly related to EBD. Relationship skills were not significantly related to EBD and therefore, were excluded from the model. In the EBD model, self-awareness, self-management, and responsible decision-making, but not social awareness, remained significantly associated with EBD. The final EBD model showed associations between the three social-emotional skills that remained significantly associated with EBD after excluding relationship skills and social awareness.

Furthermore, we included all five social-emotional skills in the backward elimination analyses, with PSB as the dependent variable. This full PSB model showed that four skills—self-awareness, social awareness, relationship skills, and responsible decision making—were significantly associated with PSB (Table 3). Self-management was not significantly associated with PSB. The final PSB model showed that the four skills remained significantly related to PSB after excluding self-management.

We analyzed the interaction effects between the social-emotional skills included in the final EBD and PSB models and the background variables of sex, sociocultural background, and school track. We found no significant differences in the interactions between the four skills—self-awareness, social awareness, relationship skills, and responsible decision-making–and sex, sociocultural background, or school track in the final PSB model. The final EBD model showed no significant differences in the included skills (self-awareness, self-management, and responsible decision-making) based on sex. However, we found a significant interaction effect of sociocultural background on self-awareness ($F = 53.81$, $p = .000$) and of school track on self-awareness ($F = 57.90$, $p = .000$) and self-management ($F = 56.65$, $p = .000$). No interaction effects of sociocultural background and school track were found on responsible decision-making.

Additional analyses showed that EBD was significantly associated with self-awareness and self-management (Table 4), in Dutch/Western students. In migrant students, EBD was significantly associated with self-management, but not with self-awareness. Regarding school track, EBD was significantly associated with self-management but not with self-awareness among PrE students. In PVSE-b students, EBD was significantly associated with self-awareness and self-management. Additional analyses were not conducted

for responsible decision-making as no significant interaction effects of background characteristics were found on this skill.

Table 3 Backward Elimination Analyses: Associations (standardized *β*'s) Between Social-Emotional Skills (independent variables) and EBD and PSB (dependent variables)

	SDQ-EBD[1]				SDQ-PSB[1]			
	Full EBD model		Final EBD model		Full PSB model		Final PSB model	
	β	p	*β*	p	*β*	p	*β*	p
Self-awareness	-.16	.003**	-.13	.004**	.15	.005**	.13	.008**
Social awareness	.11	.037*	-	-	.26	.000**	.26	.000**
Self-management	-.33	.000**	-.34	.000**	-.46	.321	-	-
Relationship skills	-.09	.053	-	-	.16	.000**	.15	.000**
Responsible decision-making	-.11	.002**	-.10	.005**	.11	.000**	.12	.005**

*p < .05; ** p < .001.
[1]Two subscales of the Strengths and Difficulties Questionnaire SDQ were used: Emotional and Behavioral Difficulties (EBD) and Prosocial Behavior (PSB). The higher the score on SDQ-EBD, the greater the EBD (lower is better). Similarly, the higher the score on SDQ-PSB, the greater the PSB (higher is better).

We performed mediation analyses to determine the extent of any overlap between 1) the social-emotional skills most strongly related to EBD and PSB in the backward elimination analyses (Table 3), and 2) one or more other social-emotional skills. Self-management—the skill with the most significant association with EBD—was treated as a mediator. At the univariate level, self-awareness and self-management were significantly correlated (Table 2). At this level, each skill was significantly associated with EBD. After including self-management as a mediator variable in the model, the association between self-awareness and EBD decreased but was still significant (Figure 2, Model 1). In addition, the association between EBD and self-awareness was significant in Dutch/Western and PVSE-b students, but not in migrant and PrE students (Table 4). Therefore, we assumed that the association between self-awareness and EBD was mediated by self-management for migrant and PrE students, but not for Dutch/Western and PVSE-b students. Responsible decision-making was significantly associated with EBD in the backward elimination analyses (Table 3, Final EBD model). Further analysis did not indicate a mediating function of self-management in the relationship between responsible decision-making and EBD.

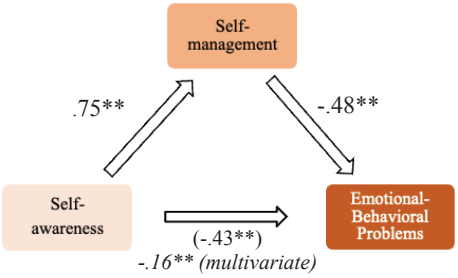
Table 4 Final EBD Model: Associations (standardized β's) of Self-awareness and Self-management (independent variables) and EBD (dependent variable), in of Student Subgroups after Interactions with Sociocultural Background and School track

	Final EBD[1] model				Final EBD[2] model			
	Dutch/Western		Migrant		PrE		PVSE-b	
	β	*p*	*β*	*p*	*β*	*p*	*β*	*P*
Constant		.000**		.000**		.000**	29.660	.000**
Self-awareness	-.23	.001**	-.022	.747	-.02	.839	-21	.001**
Social awareness[3]	-	-	-	-	-	-	-	-
Self-management	-.34	.000**	-.35	.000**	-.38	.000**	-.37	.000**
Relationship skills[3]	-	-	-	-	-	-	-	-
Responsible decision-making[3]	-	-	-	-	-	-	-	-

* p < .05; ** p < .01.
[1] Final Emotional and Behavioral Difficulties (EBD) Model related to Sociocultural background. The higher the score on SDQ-EBD, the greater the EBD (lower is better). Dutch/Western: Native Dutch and Western European backgrounds, e.g., German, British, and Spanish; Migrant: e.g., Turkish, Moroccan, Cape Verdean, and Somali.
[2] Final Emotional Behavioral Difficulties (EBD) Model related to School track. Practical Education (PrE) track students with additional educational needs (IQ from 60-85 on a 100-point IQ scale; delays in reading and mathematics > 3 years); Preparatory Vocational Secondary Education-basic (PVSE-b) track students with additional education needs (IQ from 75-90 on a 100-point IQ scale; delays in reading and mathematics > 2 years).
[3] Social awareness and Relationship skills are not included in the final EBD model resulting from backward elimination analyses. Responsible decision-making was not included in this model, as no significant interaction effects were found of this skill with either sociocultural background or school track.

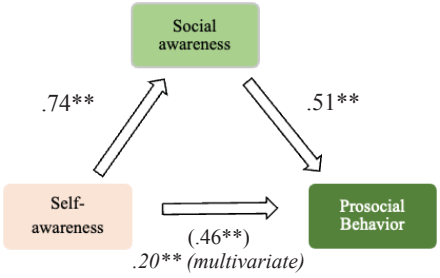
The four skills that were significantly associated with PSB in the backward elimination analyses—self-awareness, social awareness, relationship skills, and responsible decision-making—were included in the mediation analyses (Table 3). These skills were also significantly associated at the univariate level (Table 2). No differences were identified in the associations between PSB and these skills based on students' background characteristics. Social awareness, the skill with the strongest association with PSB, was treated as the mediator in three models: self-awareness, relationship skills, and responsible decision-making. These models showed that the associations between self-awareness, relationship skills, and responsible decision-making and PSB decreased substantially (Figure 2, Models 2, 3, and 4). Based on these findings, it was assumed that social awareness partly mediates the following associations: self-awareness and PSB, relationship skills and PSB, and responsible decision-making and PSB.

Mediation Model 1 The Relationship between Self-Awareness and Emotional and Behavioral Difficulties Partially Mediated through Self-Management (*β*'s), in migrant and PrE students.



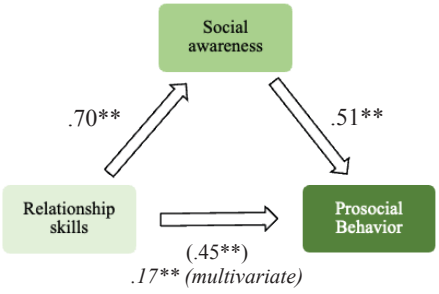
* p < .05; ** p < .01

Mediation Model 2 The Relationship between Self-Awareness and Prosocial Behavior Partially Mediated through Social Awareness (*β*'s), in all students' independent of sociocultural background and School type.



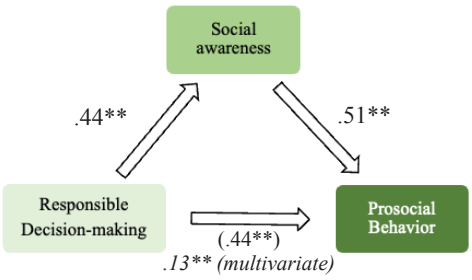
* p < .05; ** p < .01

Mediation Model 3 The Relationship between Relationship Skills and Prosocial Behavior Partially Mediated through Social Awareness (*β*'s), in all students' independent of sociocultural background and School type.



* p < .05; ** p < .01

Mediation Model 4 The Relationship between Responsible Decision-Making and Prosocial Behavior Partially Mediated through Social Awareness (*β*'s), in all students' independent of sociocultural background and School type.



* p < .05; ** p < .01

Figure 2 Mediation models 1-4 of the relationships between social-emotional skills and psychosocial health variables (based on Baron and Kenny, 1986)**.**

DISCUSSION

This study explored the relationships between five social-emotional skills and two psychosocial health variables in PrE and PVSE-b students. The results showed significant medium-to-large correlations ($r > .50$) between the five social-emotional skills (study aim 1). These findings are partly consistent with those of studies involving self-report instruments to assess social-emotional skills. Van der Ploeg and Scholte (2013) used the same questionnaire as in the current study and found medium-to-large correlations between self-awareness, social awareness, self-management, and relationship skills in a sample of adolescents from different school tracks in Dutch mainstream secondary education. Gresham et al. (2020) and Mantz et al. (2018) used other skill-related questionnaires and identified large correlations ($r > .65$) between all social-emotional skills in students from pre- to high-school. Ross and Tolan (2018) identified significantly large correlations between a composite measure of five social-emotional skills and each of the five skills.

In our study, each social-emotional skill was independently related to two psychosocial health variables—EBD and PSB (study aim 2). Consistent with previous studies, in this study, self-management was most strongly related with EBD (e.g., Brackett et al., 2012; Bierman et al., 2010; Moffit et al., 2011; Mohammadiary et al., 2012), and social awareness was most strongly related to PSB (e.g., Allemand et al., 2015; Crone and Fuligni, 2020; Trentacosta and Fine, 2010; Zaki, 2020).

We found that the combination of three skills—self-awareness, self-management, and responsible decision-making—was negatively associated with EBD. This finding suggests that enhancing these skills may contribute to the prevention or reduction of EBD. However, we also identified differences in the association between EBD and social-emotional skills based on students' sociocultural backgrounds and school track. The mediating function of self-management confirms the relevance of this skill in the association between self-awareness and EBD among migrant and PrE students. It suggests that, for these students, improving self-management will increase self-awareness and decrease EBD. This importance of self-management in relation to EBD in adolescents is consistent with the findings of other studies (e.g., Burke and Loeber, 2016; Greenberg et al., 2015; Pokhrel et al., 2013) and with that in other student populations (Keogh et al., 2006; Moffit et al., 2011).

Our finding that the combination of four skills—self-awareness, social awareness, relationship skills, and responsible decision-making—is positively associated with PSB suggests that enhancing these skills promotes PSB. Mediation analyses confirmed the relevance of social awareness in the association between social-emotional skills, except self-management, and PSB. The mediating function of social awareness suggests that improving this skill will enhance self-awareness, relationship skills, and responsible decision-making, and promote PSB (study aim 3).

The finding that some social-emotional skills are more strongly associated with psychosocial health variables than others is a valuable contribution to the CASEL framework and other theoretical models used in SEL programs (e.g., Lewis et al., 2013; Pössel et al., 2011; Weissberg et al., 2015).

The finding that social awareness is a central skill related to PSB is partly consistent with the findings of earlier research showing that social awareness is positively associated with PSB and negatively associated with EBD (Allemand et al., 2015; LeBlanc et al., 2011; Laible et al., 2015). Malti et al. (2021) found that social awareness fosters the development of self-awareness, relationship skills, and PSB in adolescents. Contrary to our findings, Vestad et al. (2021), using structural equation modeling, found that self-awareness mediated the relationship between self-management, relationship skills, and EBD among students in PVSE tracks. In this study, PSB was not used as a dependent variable. However, further robust research is required to support these findings. Mediation analyses regarding the relationships between different social-emotional skills and between these skills and psychosocial health variables are limited in the SEL literature (Durlak et al., 2011/2022).

We found remarkable results concerning the relationship between the outcomes of skills measures and background characteristics of the sample. For example, students in the PrE track and those from migrant family backgrounds scored higher on some social-emotional skills than those in the PVSE-b track and those from Dutch/Western European backgrounds. Differences in skills associated to students' backgrounds are also identified. These findings may be attributed to the students' overestimation of their social-emotional skills. It is possible that PrE students have better social-emotional skills than PVSE-b students. Migrant students might have been allocated to the PrE track because of their limitations in Dutch language proficiency and not because they suffered from intellectual, emotional-behavioral, and/or learning difficulties, similar to their Dutch/Western counterparts in the PrE track.

Strengths and Limitations

Research on social-emotional skills is often limited to a small number of skills or composite measures of these skills (Durlak et al., 2022; Ura et al., 2020). Therefore, the strength of our study is the inclusion of five social-emotional skills individually and in-combination and two psychosocial health outcomes in the correlation and multiple regression analyses. Moreover, the study had a large and diverse student population. The use of self-reporting instruments is both a strength and limitation. While self-report instruments provide insights into students' perceptions, they may not accurately reflect their skills because of social validity and/or social desirability biases (Duckworth and Yeager, 2015; Kimberlin and Winterstein, 2008; Podsakoff et al., 2003). The questionnaires used to measure social-emotional skills were not validated for students from various sociocultural family backgrounds (Diekstra and Gravesteijn,1998; Van der Ploeg and Scholte, 2013).

The study has several limitations. It provided insights into the relationships between social-emotional skills and psychosocial health outcomes in a particular subgroup of adolescent students. Therefore, the findings cannot be generalized to other students. Another limitation is the use of cross-sectional data. While it enabled us to identify associations between variables, it limited the determination of causal relationships between the outcomes of social-emotional skills and psychosocial health. There was a risk of self-selection, as the schools included in this study participated because they thought that investing in students' social-emotional skills was important. Therefore, the findings are not generalizable to all PVSE-b and PrE track students. Finally, we used backward elimination analyses to explore the social-emotional skills most strongly associated with EBD and PSB. Statistical biases are associated with these analyses, therefore the analyses have to be treated with caution (Heinze et al., 2017; Olusegun et al., 2015).

Implications for Practice, Policy, and Research

Research on SEL aims to identify the most crucial components of school-based programs that enhance students' socioemotional skills and psychosocial health outcomes (Durlak et al., 2011; Dymnicki et al., 2020; Embry and Biglan, 2008; Jones et al., 2017). Identifying these components is important to prevent students' exposure to less relevant components and save time and money.

This study explored the associations between psychosocial health variables and different social-emotional skills to help develop and refine SEL programs and theoretical

frameworks. It identified specific combinations of social-emotional skills associated with psychosocial health variables in PVSE students. The findings suggest that specific social-emotional skills may be more relevant to psychosocial health outcomes for students and that these skills vary depending on students' characteristics such as sociocultural background (Dutch/Western vs. migrant) and school track (PrE vs. PVSE-b).

For the students in our study, self-management was most strongly related to EBD and mediated the relationship between self-awareness and EBD in PrE and migrant students. Social awareness was most strongly related to PSB and mediated the relationship between PSB and self-awareness, relationship skills, and responsible decision-making, independent of students' sex, sociocultural background, and school track. Therefore, we recommend focusing on enhancing self-management and social awareness when developing and refining SEL programs aimed at decreasing EBD and improving PSB, respectively, among these students.

Furthermore, schools and teachers aiming to promote students' psychosocial health should select SEL programs focusing on self-management to prevent or decrease EBD and programs focusing on social awareness to promote PSB. Taking differences in background characteristics into account is indicated in enhancing these skills.

The two central social-emotional skills identified in this study are also relevant to policymakers in education and youth mental health fields. Based on our analyses, self-management and social awareness are central skills for improving the psychosocial health of migrant and PrE students. Enhancing skills that are most adaptive to students' needs has recently been emphasized in the SEL literature and is associated with providing equal opportunities for students facing educational and health adversities to benefit from SEL programs (e.g., Elias, 2019; Jagers et al., 2019). Therefore, educational and mental health policymakers should consider differences in backgrounds when improving adolescents' social-emotional skills, to promote psychosocial health and to provide equal opportunities for all students to profit from SEL programs.

Future SEL research should focus on measuring the psychosocial health and social-emotional skills of various student populations to analyze the relationship between these skills and the associations between these skills and more distal outcomes. It can be used to conduct more advanced analyses to identify the mediating functions of separate social-emotional skills (Fairchild and McQuillin, 2010). We recommend that future research conduct advanced mediation analyses to identify the central social-emotional skills that promote the psychosocial health of students. Differences between students

(e.g., age, sex, sociocultural background, and school track) should be considered, as these factors impact the social-emotional skills students possess and those they need. Finally, research using longitudinal data can also provide additional insights into the mediating role of social-emotional skills in varying distal outcome measures such as academic achievement and general health.

CONCLUSION

Preparatory vocational secondary education students' social-emotional skills are highly interrelated. Two skills, self-management and social awareness, are particularly important for their association with psychosocial health. Self-management is a mediator in the relationship between self-awareness and emotional-behavioral difficulties. Social awareness mediates the relationship between prosocial behavior and self-awareness, relationship skills, and responsible decision-making. Differences in students, background characteristics are associated with the relationships between their skills and psychosocial health variables. Therefore, developers of social and emotional learning programs intending to improve specific health variables should consider the relationships between social-emotional skills and the potential mediating functions of separate skills related to students' backgrounds. To provide equal opportunities for students facing multiple adversities to benefit from social emotional learning programs, policymakers and schools should focus on improving the social-emotional skills most central to promoting psychosocial health. Understanding the essential skills for improvement of psychosocial health outcomes in particular student populations requires knowledge of students' social-emotional skills and needs.

Data availability statement

The datasets presented in this study can be found in online repositories. The names of the repository/repositories and accession number(s) can be found below
https://doi.org/10.17026/SS/DNOJRU

Human subjects approval statement

The studies involving humans were approved by the Dutch Central Committee on Research Involving Human Subjects (CCMO). The studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation in this study was provided by the participants' legal guardians/next of kin.

Funding

This work was supported by SIA, the Taskforce for Applied Research in the Netherlands, under Grant number PRO-4-43.

Author Contributions

MV and MF contributed to the conception and design of the study and performed the statistical analyses. MV organized the database and wrote the first draft of the manuscript. MF and PL contributed to this draft. All authors contributed to the manuscript revision, and read and approved the submitted version.

Chapter 5

Do SEL Programs Meet All Students' Needs?

Effects of an SEL Program in a diverse population of low achieving secondary education students

M.C.E. Van de Sande
M. Fekkes
R.F.W. Diekstra
C. Gravesteijn
R. Reis
P.L. Kocken

Frontiers in Education (2022), 6, 744388

ABSTRACT

Adolescents' social-emotional skills are associated with positive outcomes in psychosocial health and success in education and work. In this study, we examined the effectiveness of Skills4Life, a Social Emotional Learning program for prevocational secondary education aimed at enhancing self-awareness, social awareness, self-management, relationship skills, and responsible decision making.

Low-achieving students with additional educational needs participated in a quasi-experimental study, with an intervention (N=465) and a control group (N=274). We assessed the outcomes on social-emotional skills and psychosocial health using self-report questionnaires at pre-test (T0), after finishing the basic module (T1), and after finishing the internship module (T2).

Multi-level regression analyses indicated no overall effects on the outcomes at T1 and T2. After completing the entire program at T2, students from non-western backgrounds had significantly unfavorable lower scores on social awareness and relationship skills. Positive effects were found on self-management and preparation for internships in students taught by experienced professional trainers compared to students taught by regular classroom teachers at T2. Alterations in the socio-cultural approach of the Skills4Life program and teacher training are needed to support all students in developing the social-emotional skills that they need for success at school and the workplace.

INTRODUCTION

The 21st-century's complex and dynamic society challenges adolescents' cognitive skills and their social-emotional skills. The enhancement of these skills, such as self-regulation, self-efficacy, and goal-setting, is associated with young people's success in education and work (e.g., Ananiadou and Claro, 2009; National Research Council, 2012). Additionally, strengthening social-emotional skills is also associated with preventing psychosocial health problems, such as depression, anxiety, and aggression (e.g., Botvin and Griffin, 2006; Lewis et al., 2013b; Moffit et al., 2011). Social-emotional skills teaching contributes to the health and life prospects of adolescents.

Schools are natural settings for teaching social-emotional skills (e.g., Brackett et al., 2011; Durlak et al., 2015; Kidger et al., 2012). Several Social Emotional Learning (SEL) programs aiming to enhance those skills have been developed worldwide (e.g., Durlak et al., 2015; Humphrey, 2013). Although those programs use varying definitions of skills, the SEL literature often refers to a comprehensive set of five key skills domains (Berg et al., 2017; John and DeFruyt, 2015). These domains are 1. Self-awareness (e.g., self-esteem and self-efficacy); 2. Social awareness (e.g., empathy and perspective-taking); 3. Self-management (e.g., self-regulation and goal setting); 4. Relationship skills (e.g., collaboration and social problem solving); 5. Responsible decision-making (e.g., considering consequences of and taking responsibility for actions) (Weissberg et al., 2015). When evaluating SEL programs, measuring the impact on these specific skills is important to understand their effectiveness. However, effect studies often report on broad measures of social-emotional skills and do not measure the skills targeted in SEL programs (Ura et al., 2020). Meta-analyses of evaluation studies of SEL programs have identified positive short and long-term effects on such generalized social-emotional skills and psychosocial health outcomes (e.g., Durlak et al., 2011; Sklad et al., 2012; Taylor et al., 2017).

Social-emotional skills development starts at home, in parent-child interactions (Grusec, 2011; Sanders and Turner, 2018). The skills young people develop are rooted in the values, practices, and beliefs of the socio-cultural context in which they grow up (e.g., Bradley and Corwyn, 2002; Chen and Eisenberg, 2012). In non-western socio-cultural contexts, SEL tends to be more aimed at interdependency and focused on others, whereas in Western-European contexts, SEL is more associated with independence and a more self-oriented approach (e.g., Armenta et al., 2011; Kagitibaci, 2012). Moreover, during

adolescence, initial differences in social-emotional skills between students, related to their socio-cultural background, disappear (Aber et al., 2003; West et al., 2020). This disappearance may be the reason for mixed findings in studies on SEL programs that account for differences in students' socio-cultural backgrounds. Meta-analyses found no differences in the effects of SEL programs related to students' socio-cultural backgrounds (Domitrovich et al., 2017; Taylor et al., 2017). Another meta-analysis shows that students from low socioeconomic families, in particular, benefit from SEL programs (Wilson and Lipsey, 2007). Nevertheless, considering the socio-cultural contexts in which students live and learn will be important when targeting social-emotional skills.

Other crucial conditions to look at are adolescents' intellectual, emotional-behavioral, and learning problems, as these problems are supposed to impede social-emotional skill development (Elias, 1997; Goodman and Scott, 2012; Wiley and Siperstein, 2015). Review studies on SEL programs for low achieving students suffering from such problems show positive effects on social-emotional skills outcomes (Cook et al., 2008; Garrard and Lipsey, 2007). These students are supposed to benefit in particular from intrapersonal skills (e.g., self-awareness and self-management) taught in universal SEL programs (Osher et al., 2010). Minor improvement is seen in their interpersonal skills (e.g., relationship skills and social awareness) because of difficulties in transferring them to new contexts (Gresham, 2010).

Considering the variations in the mastery of social-emotional skills amongst students and the variety in effects of SEL programs, a better understanding is required of enhancing social-emotional skills. In SEL program implementation, students' intellectual, emotional-behavioral, and learning problems and socio-cultural backgrounds need to be considered.

In the current study, we evaluated Skills 4 Life (S4L). S4L is an evidence based Dutch SEL program for adolescents. The S4L-program is focused on acquiring social-emotional skills based on two theories: the social cognitive learning theory (Bandura, 1977), and the rational-emotive therapy (Ellis, 1996). The program teaches all five CASEL competencies. Evaluation studies showed significant positive effects on self-awareness, social awareness, self-management, relationship skills, and substance use (Fekkes et al., 2016; Gravesteijn et al., 2004; Pannebakker et al., 2019). However, teachers and students involved in the study of Pannebakker et al., (2019) indicated that its content demanded too much from low-achieving students with limited intellectual and learning abilities. These students more often dropped out of the program. In the previous studies on the S4L program, students' socio-cultural background was not included as a moderator. We adapted the program to the

needs of low-achieving students from varying socio-cultural backgrounds who learn both at school and in workplace internships. In adapting the program, these students' limitations in vocabulary, attention span, and working memory and their need to acquire the relevant social-emotional skills for workplace internships were considered. We evaluated the effectiveness of the adapted S4L-program to test the following two hypotheses: 1. The adapted S4L-program increases all five SEL competencies and psychosocial health outcomes in low-achieving students in preparatory vocational secondary education, learning at school and in the internship workplace; and 2. The increase of the SEL competencies is independent of students' gender, age, educational track, and ethnic background.

MATERIALS AND METHODS

The effectiveness of the adapted S4L program was evaluated using a quasi-experimental pre-test, post-test design. The study was approved by the Dutch Central Committee on Research Involving Human Subjects (CCMO). If parents and students wished to refuse participation, they were asked to inform the school. Participation was declined by two percent of parents and students from of a group of 1233 students eligible for the study.

Study sample and procedure

We aimed to adapt the program to low-achieving students in the minor selective tracks in Dutch prevocational education, i.e., the Preparatory Vocational Secondary Education Basic (PVSE Basic) track and the Practical Education (PrE) track. In these tracks, students learn both at school and in the workplace. These students require additional education support (Hop and van Boxtel, 2013; Koopman et al., 2015) due to intellectual, emotional-behavioral, and learning problems. In the PVSE Basic and PrE tracks, the proportion of students from low-income families and non-western backgrounds is high (Statistics Netherlands, 2016; Korpershoek et al., 2016). These students might experience an accumulation of different forms of deprivation based on the intersection of their personal and background characteristics (e.g., Grollman, 2012; Jagers et al., 2019a).

We approached 20 schools with 3024 students in relevant prevocational-education tracks in the urban western Netherlands for participation in the study. Twelve schools eventually agreed to participate (enrollment, 1233 students). All schools were interested in participating in the intervention. Some schools preferred to start later with the intervention. Reasons were a relatively large number of new and young classroom teachers in a school, change of school management, and moving to another school building. We allocated those six schools to the waiting-list control group; the other six schools were allocated to the intervention

group. We included a pre-measurement to control for possible initial differences between the two groups in this quasi-experimental design.

To underpin the adaptation of the S4L program to this target group, individual and focus group interviews were conducted with various stakeholders (i.e., relevant teachers, students, and people from internship workplaces such as shops, restaurants, and cleaning companies) (Bernal et al., 2009). Based on these interviews, several modifications were made, including the use of icons instead of descriptions for social-emotional skills; more straightforward language; more behavioral instruction in S4L lessons; a reduction in the number of exercises per lesson (3–4); more experiential learning exercises; and the inclusion of social-emotional skills relevant for workplace-internships. However, adaptations were kept limited to adhere to the original programs' core elements (Falicov, 2009; Kreuter et al., 2003).

The adapted program consisted of two sequential modules, a basic module (S4L-basic, consisting of eleven 45-minute lessons) and an additional internship module to support workplace learning (S4L Internship module, consisting of six 45-minute lessons) (see Appendix 1 for information on the content of the S4L program). Manuals for teachers, student worksheets and video clips were made available for both S4L modules. Teachers administered the modules in weekly sessions during one school year. For the current study, teachers (N = 19) were experienced in working with students in PVSE Basic and PrE tracks. Some were professional trainers of social-emotional skills (N = 4); others were regular classroom teachers (N = 15). The professional trainers were social workers qualified for teaching social-emotional skills. All the teachers who provided the program were trained in the S4L-basic module (2 days) and the -internship module (1 day). Two 2-hour booster training sessions were organized and attended by ten providers (all regular classroom teachers) to ensure program fidelity.

Data collection

Data were collected during three school years (2014–2017) at three time points (T0-T1-T2). A total of 739 students in grades 10 and 11 (aged 14-19 years), from whom we had complete data at T0, participated in our study (see Figure 1 and Table 1). Out of 739 participants, 56% were boys, and 44%, girls. Forty-six percent were in the PVSE-Basic track, and the other 54% were in the PrE-track. We used self-reported ethnicity as an indicator of ethnic background. Forty-eight percent of the students were from Western-European backgrounds (Western-European students) (e.g., native Dutch, or, e.g., Belgian or German). Fifty-two percent of the students were from non-western backgrounds (non-western students) (i.e., Moroccan, Turkish, or others, such as Somalian, Antillean, or Pakistani).

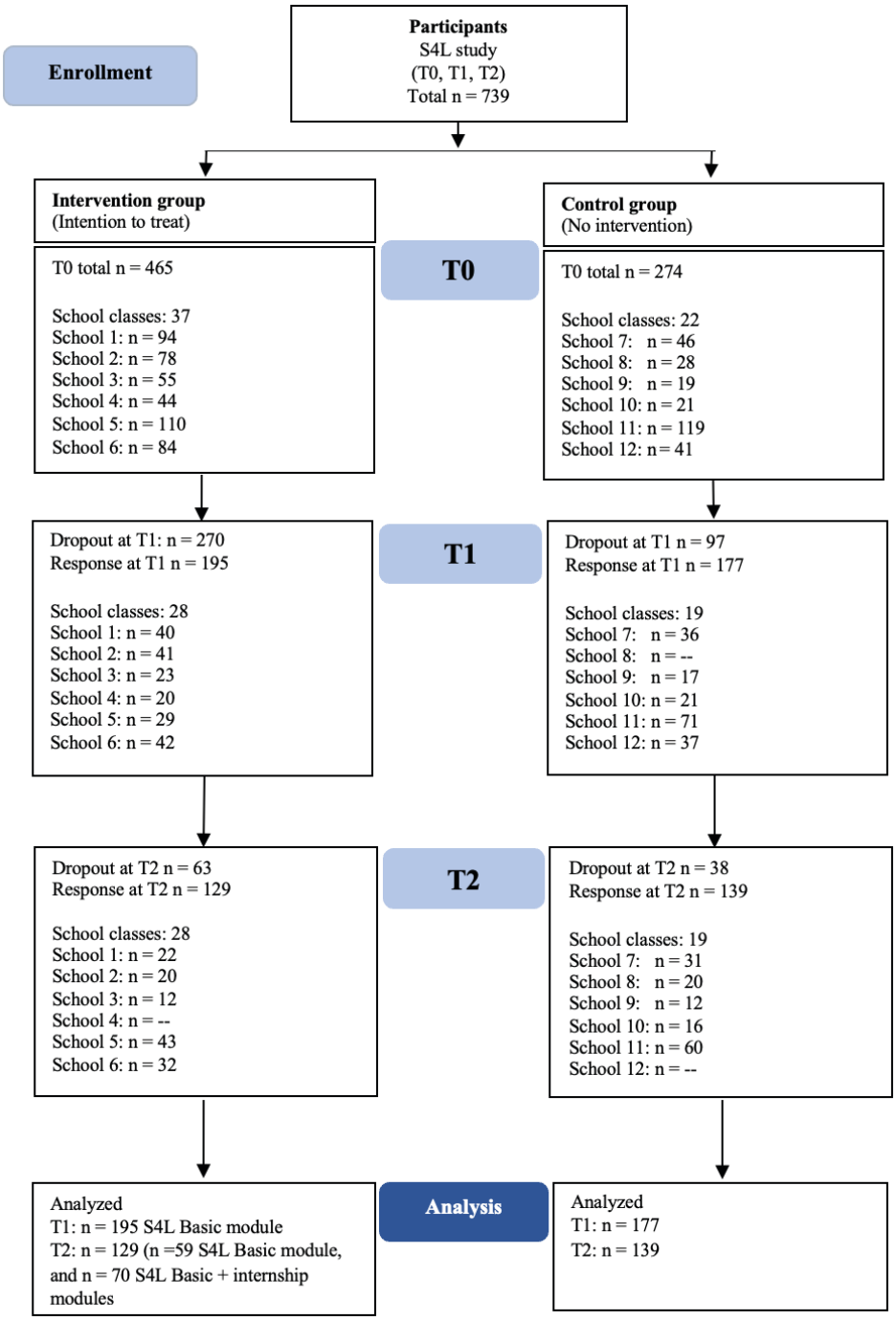


Figure 1 Flowchart of Participants, Sample Sizes, Dropout of Students, School Classes, and Schools

The majority of these non-western students were from second- or third-generation migrant backgrounds. Dutch was the language of instruction, and all students were able to express themselves in Dutch. For the majority of these students, Dutch was their first language, and some were bilingual. At T0 and T3 the intervention and control groups were homogeneous in terms of gender but heterogeneous in terms of age, educational track, and ethnic background (see Table 1). In the analyses, we controlled for these differences.

Table 1 Background Characteristics Participants at T0, T1, and T2

	T0				T1				T2			
Demographic Characteristic	**Intervention group**		**Control group**		**Intervention group**		**Control group**		**Intervention group**		**Control group**	
	n +	**%**	**n +**	**%**	**n +**	**%**	**n +**	**%**	**n +**	**%**	**n +**	**%**
Gender												
Male	251	54	162	59	96	50	110	63*	63	49	81	58
Female	212	46	112	41	96	50	66	37	65	51	58	42
Age												
<15	361	80	220	81	144	63	144	82*	107	86	107	78*
>16	91	20	54	19	45	37	32	18	17	14	30	22
Educational track												
Practical Education[1]	311	67	93	34*	145	75	53	30*	85	66	63*	45
PVSE-Basic[2]	154	33	181	64	48	25	123	70	43	34	76*	55
Ethnic background												
Western-European[3]	197	43	161	59*	79	41	102	58*	51	40	77*	55
Non-western[4]	266	57	113	41	113	59	74	42	76	60	62*	45

+ Due to missing values, actual numbers may vary.
* $p < .05$
[1] Practical Education (PrE) track for students with additional educational needs due to intellectual, emotional-behavior, and learning problems (IQ varying from 60-85, on a 100-point IQ scale).
[2] PVSE-Basic track for students with additional education needs due to intellectual, emotional-behavior, and learning problems (IQ varying from 75-90, on a 100-point IQ scale).
[3] Western-European background: students who identified themselves as, e.g., native Dutch, Belgian, or German.
[4] Non-western background: students who identified themselves as, e.g., Turkish, Moroccan, Cape Verdean, Pakistani or Somali.

Of the 739 students in our study at T0, 372 participated at T1, and 268 participated at T2 (see Figure 1 and Table 1). Between T0 and T1, 270 students dropped out of the intervention group (59%), and 97 (36%) fell out of the control group (36%). Between T0 and T2, 336 students fell out of the intervention group (73%), and 135 dropped out of the control group (49%). The main reason for dropout was that many classroom teachers had difficulty organizing the measurements in classrooms. In addition, one school did not participate at T1, and two schools did not participate at T2. Other reasons for dropout

were individual students changing school or dropping out from school. Non-response analyses indicated no overall differences between dropout and response, except for age (see Table 2). Younger students dropped out more often compared to older students. Differences in the attrition of students taught by professional trainers or taught by regular classroom teachers were not identified.

Table 2 Dropout T0 – T1 and T0 – T2

	T0 - T1				T0 - T2			
Demographic Characteristic	**Drop-out**	**Response**	***p***	**Chi square #**	**Drop-out**	**Response**	***p***	**Chi square #**
Gender			.371	.162			.230	.664
Male	207 (57%)	210 (55.5%)			267 (57.4%)	150 (54.3%)		
Female	156 (43%)	168 (44.4%)			198 (42.6%)	126 (45.7%)		
Total n ##	363	378			465	276		
Age			.044*	12.922			.006*	18.238
< 15	297(81.6%)	299 (79.1%)			367 (79%)	229 (83%)		
>16	67 (18.4%)	79 (20.9%)			99 (21%)	47 (17%)		
Total n ##	364	378			466	277		
Educational track			.378	.148			.307	.338
Practical Education[1]	202 (55.5%)	205 (54.1%)			252 (54%)	155 (56.2%)		
PVSE-Basic[2]	162 (44.5%)	174 (45.9%)			215 (46%)	121 (43.8%)		
Total n ##	364	379			467	276		
Ethnic background			.420	.75				
Western-European[3]	174 (47.9%)	185 (48.9%)			230 (49.4%)	129 (46.9%)	.285	.415
Non-western[4]	189 (52.1%)	193 (51.5%)			236 (50.6%)	146 (53.1%)		
Total n ##	363	378			466	275		

* $p \leq .05$.
# Uncorrected.
Due to missing values actual values may vary.
[1] Practical Education (PrE) track for students with additional education needs due to intellectual, emotional-behavior, and learning problems (IQ varying from 60-85, on a 100-point IQ scale).
[2] PVSE-Basic track for students with additional education needs due to intellectual, emotional-behavior, and learning problems (IQ varying from 75-90, on a 100-point IQ scale).
[3] Western-European background: students who identified themselves as, native Dutch, and e.g., Belgian or German.
[4] Non-western backgrounds: students who identified themselves as, e.g., Turkish, Moroccan, Cape Verdean, Pakistani or Somali.

Students who dropped out of the study before T1 were not included in the analyses at post-test (n = 367). Students who dropped out of the study before T1 and before T2 (n = 471) were not included in the analyses at T2. Students of four intervention schools

started with the S4L-basic module and continued with the -internship module within one school year (n = 70). Students from two intervention schools were only exposed to the S4L-basic module and did not take the internship module due to timetable problems (n = 59). These students were included in the analyses at T2 (see Figure 1).

Measurements

Students in the intervention and control groups were exposed to the same self-report questionnaires, including similar items from the pre-test. Data were collected during regular classes three times, i.e., before the first lesson of the S4L-basic module, after the last lesson of the S4L-basic module (T1), and after the last S4L-internship module lesson (T2). We informed students in both the intervention and control groups neutrally and identically about the study objectives to minimize responder bias. Both groups were exposed to the same questionnaires, including similar items from the pre-test. We also applied standard procedures such as using robust scales with multiple items and alternating positively and negatively formulated scale items. Students were guaranteed confidentiality and told that only the researchers would read their answers to the questionnaire to prevent socially desirable answering. Research assistants were available to provide clarity on items in the questionnaires if necessary.

The effects of the S4L modules were measured on psychosocial health and the five SEL competencies described by the CASEL group (CASEL, 2003; Zins and Elias, 2007). The significance of high and low total scores and the possible range of these scores per subscale are included in table 3.

Psychosocial health

To measure psychosocial health, we used the self-reported version of the Strengths and Difficulties Questionnaire for Adolescents (SDQ-A) (Van Widenfelt et al., 2003), which comprises 25 statements measuring mental health and behavior (e.g., emotional symptoms, conduct problems, and prosocial behavior). SDQ-A has three answer categories: “not true,” “somewhat true,” “certainly true” (Cronbach’s $\alpha = .80$). Examples of statements were “I get a lot of headaches,” “I am often unhappy,” and “I fight a lot.”

Social and Emotional Learning (SEL) competencies

We used a Dutch questionnaire measuring four SEL competencies (VPV) (Van der Ploeg and Scholte, 2013). This questionnaire comprised 36 statements distributed equally over four subscales measuring self-awareness, social awareness, self-management, and

relationship skills. Items are measured on a five-point Likert scale that ranges from 1 (do not agree at all) to 5 (entirely agree).

Self-awareness is measured based on items such as "I am quiet and easy to get on with" and "I think before I do something" (α = 0.85). Social awareness included items such as "I can see how other people feel" and "I know what I can say to someone and what I cannot" (α = .82). The self-management-skills subscale comprised items such as "In my free time I do useful and meaningful things" and "I can concentrate on my schoolwork" (α = .86). Relationship skills are measured based on items such as "I talk about my problems with my friends" and "I stand up for myself when I argue" (α = .86).

A scale for measuring responsible decision-making was based on the Dutch life-skills questionnaire (Diekstra and Gravesteijn, 1998). This scale comprises five items on a four-point Likert scale ranging from 1 (strongly agree) to 4 (strongly disagree) and included statements such as "I hold people to their agreements" and "I can invent several reactions in a difficult situation" (α = .71).

Self-esteem

Self-esteem was measured using a Dutch adaptation of the Rosenberg Self-Esteem Scale (Van der Linden et al., 1983), which consisted of ten items such as "I can do things as well as most other people." The items are answered on a four-point scale ranging from 1 (strongly agree) to 4 (strongly disagree) (α = .89).

Self-efficacy

The general belief in self-efficacy was measured using the Dutch adaptation of the General Self-Efficacy Scale (Teeuw et al., 1994), which assesses an individual's ability to manage or control external and internal threats. It consisted of ten items, for example, "If I'm in a mess, I usually know what to do," which were measured on a four-point scale ranging from 1 (completely untrue) to 4 (completely true) (α = 0.87).

Skills 4 Life Internship

Two subscales were developed to assess internship preparation and -involvement. In close collaboration with the program developers, we constructed 28 items that matched the S4L internship-module goals. The internship-preparation subscale consisted of 21 items, covering knowledge of work application (6 items), self-presentation (4 items), work-orientation (6 items), and initiative-taking at work (5 items) (full subscale

α = .87). Examples of items were, e.g., "I am aware which of my traits are relevant for an internship";" I know what I want to learn during my internship"; and "I will wait and see what to do when I arrive at work." The internship-involvement subscale consisted of seven items on attitudes towards internships, such as "I am proud of my internship" and "I enjoy my internship" (α = .75). A five-point Likert scale ranging from 1 (never) to 5 (always) was used to score all the 28 items on this scale.

Implementation and program dosage

To examine program completeness, we used teacher reports on the number of S4L lessons and the exercises per lesson provided. Additionally, two observers randomly and independently observed 20% of the S4L lessons (researchers and trained bachelor students) using predesigned observation protocols containing detailed descriptions of the instruction for each element of a lesson. The mean inter-rater reliability per lesson was 77% (ranging from 63%–89%).

The completeness of the lessons was 75% for the S4L-basic module and 66% for the S4L-internship module. Experiential learning exercises, in particular, were often omitted in the lessons provided. Only 46% of the experiential learning exercises of the S4L-basic- and 45% of the experiential learning exercises from the S4L-internship module were executed.

In total, 465 students in the intervention group were exposed to the S4L-basic module (T0). All the five SEL competencies are taught in the first five lessons of the S4L-program. We, therefore, dichotomized the number of lessons in 1-5 versus five lessons or more for the analyses on dosage. The number of students exposed to 1-5 lessons was 91, and 204 students were exposed to five or more lessons. The S4L-internship module was taught to 199 students, of whom 97 were exposed to five or all six lessons of this module and 102 to only one lesson. We, therefore, dichotomized the exposure to one lesson versus 5-6 lessons.

Analyses

Based on a prior study of the original program (Pannebakker et al., 2019), the following were needed to detect a medium effect size: a power of .80 and an alpha < .05, and a population of 155 students both in the intervention group and non-intervention control group.

At T0, T1, and T2, we used Crosstabs and Chi-square analyses to compare the intervention and control group students concerning the four demographic characteristics: age, gender, educational track, and self-identified ethnic background (Western-European vs. non-western).

Analyses of variance (ANOVA) were performed to identify differences in means and standard deviations in outcomes between students in the intervention group and those in the control group at T0, T1, and T2. As described above we corrected for these differences in the analyses.

Using a multi-level model scores were nested within individuals and within classes. As a classroom was the smallest cluster in the sampling design, intra-class correlations (ICC) at the classroom level were analyzed to compare the variation between classroom level and the total variance (Berry et al., 2016). ICC at classroom level varied from .017 for self-esteem to .118 for self-management.

Multi-level regression analyses were performed to evaluate the programs' effectiveness at T1 and T2. In the analyses, two levels were included: classroom and individual. Additional analyses were performed to assess potential moderating effects, including interactions between condition, time, and potential moderators. As a second step, all significant interactions were included in a final model.

Additional analyses were performed on the outcome measures only in the intervention group students to investigate a dose-response effect and an effect of teacher experience. All statistical tests were two-sided and deemed to be significant at $p < .05$. All analyses were performed with SPSS 23.0 (IBM Corp., 2015).

RESULTS

Effects of the S4L-program

At T1, there were no significant differences between students in the intervention and control groups on the outcome measures (see Table 3, for estimates of multi-level, models, see Appendix 2, tables 1 and 2).

At T2, significant negative effects were found on three outcome measures: self-management, social awareness, and relationship skills (see Table 3). It seemed that between T0 and T2, the self-ratings of students in the control group on those outcomes improved. In the intervention group, students' self-ratings on self-management, social awareness, and relationship skills either decreased or increased to a lesser extent than in the control group.

Significant interaction effects of intervention and ethnic background were found on social awareness (d = .26, p = .039) and relationship skills (d = .33, p = .009) (for estimates of multi-level models, see Appendix 3, Table 1). In non-western students who completed the S4L-program, additional analyses at T2 (i.e., after exposure to both the S4L-basic and S4L Internship modules) showed significant decreases in social awareness and relationship skills.

The analyses showed at T2 that non-western students who completed the S4L program reported less optimal scores than western students who had been exposed to the complete S4L-program. Also, non-western students who had been exposed to the S4L-basic module only, reported more optimal scores than non-western students who had been exposed to the entire program. Figures 2-5 show the changes in means from T0-T2 on relationship skills and social awareness for western and non-western students in the intervention and control group. Such results were also found at the item level of these scales. We found no significant interaction effects of intervention and other moderators.

Differences in effects on dosage and teachers' experience

At T1, additional analyses conducted on intervention dosage (not in a table) found no significant effects of dosage for the S4L-basic module. At T2, we found significant negative effects in the intervention group, largely in students from non-western backgrounds who had been exposed to the complete S4L-program, including the S4L internship module. In this subgroup of students, negative effects were measured on social awareness (d = -.38, p = .044) and relationship skills (d = -.46, p = .018) (for estimates of multilevel models, see Appendix 4, Table 1).

At T2 (for estimates of multi-level models, see Appendix 4, Table 2), analyses of the influence of teachers' experience showed that students who had completed the S4L-basic module only and had been taught by professional trainers showed significant positive effects on self-management (d = .54, p =.023). Significant positive effects were also measured on preparation for internship (d = .53, p = .027) in students who had completed the S4L-internship module and had been taught by professional trainers. Such positive effects were not found in students whose regular classroom teachers had taught the program.

Table 3 Means, Standard Deviations, and Multi-level Model Analyses SEL skills, Psychosocial, and Internship T1 - T0 and T2 – T0

Measure (range) [1]	N[2]	T0 M (SD)	T1 M (SD)	B[3] (T1-T0)	p	N[2]	T0 M (SD)	T2 M (SD)	B[3] (T2-T0)	d	p
Self-awareness (9-45; *higher is better*)	367			-.265	.617	264			-.892	-.18	.146
Intervention group	192	24.47 (5,84)	24.67 (5,79)			126	24.07 (5.55)	24.86 (5.49)			
Control group	175	24.10 (5,16)	24.81 (5,48)			138	24.78 (5.24)	26.23 (5.00)			
Social awareness (9-45; *higher is better*)	369			.283	.651	265			-1.104	**-.25**	**.043***
Intervention group	194	23.66 (5,10)	24,21 (5.00)			128	23.51 (4.77)	23.96 (4.71)			
Control group	175	23.23 (5,03)	24.00 (4.77)			137	23.47 (5.20)	25.07 (4.69)			
Self-management (9-45; *higher is better*)	368			-.531	.394	267			-1.337	**-.31**	**.043***
Intervention group	193	24.90 (6.26)	25.02 (6.03)			128	25.24 (5.49)	24.54 (5.87)			
Control group	175	23.73 (6.16)	24.47 (6.00)			139	24.75 (6.14)	25.78 (5.77)			
Relationship skills (9-45; *higher is better*)	369			-.288	.606	267			-1.406	**-.25**	**.013***
Intervention group	193	25.90 (4.86)	25.83 (4.78)			128	25.99 (4.74)	25.41 (4.81)			
Control group	176	25.52 (4.84)	26.33 (4.89)			139	26.18 (4.48)	27.27 (4.96)			
Responsible decision-making (4-20; *higher is better*)	372			-.105	.746	270			.061	.00	.881
Intervention group	195	8.85 (3.14)	9.15 (3.25)			129	8.88 (2.86)	8.90 (3.09)			
Control group	177	8.73 (2.95)	9.24 (3.02)			141	8.83 (3.00)	8.90 (3.28)			
Self-esteem (10-40; *higher is better)*	366			-.122	.868	269			-.638	-.13	.310
Intervention group	191	20.10 (5.82)	20.09 (5.22)			131	20.33 (5.40)	19.26 (5.47)			
Control group	175	20.65 (5.67)	21.04 (6.11)			138	20.54 (5.82(	20.75 (5.26)			
Self-efficacy (10-40; *higher is better)*	374			-.164	.752	271			-1.007	-.18	.149
Intervention group	198	17.69 (5.22)	18.28 (5.23)			133	17.88 (5.17)	18.43 (5.28)			
Control group	176	17.44 (5.21)	18.79 (4.40)			138	17.74 (5.30)	19.56 (5.19)			
SDQ-EBD(0-40; *lower is better*)	366			1.363	.092	261			.727	.11	.401
Intervention group	189	12.55 (6.05)	13.43 (6.00)			129	11.67 (5.99)	13.72 (6.69)			
Control group	177	12.44 (6.19)	11.89 (6.26)			132	12.08 (6.23)	12.55 (6.63)			
SDQ Prosocial behavior (0-10; *higher is better)*	366			-.347	.153	262			-.190	-.09	.498
Intervention group	189	7.04 (2.09)	6.85 (2.05)			129	7.19 (2.07)	7.05 (2.02)			
Control group	177	7.12 (1.91)	7.32 (2.00)			133	7.35 (1.72)	7.47 (2.09)			
Involvement internship (7-35; *higher is better)*						197			.271	.04	.794
Intervention group						102	19.23 (5.33)	20.47 (4.65)			
Control group						95	17.82 (5.56)	19.85 (5.77)			
Preparation internship (21-105; *higher is better)*						196			-1.945	-.14	.330
Intervention group						101	46.05 (10.81)	46.34 (9.64)			
Control group						95	45.42 (10.39)	48.50 11.06)			

* $p < .05$.

[1] Between brackets: range of scale; qualification of scores. All higher scores represent a better outcome, except for SDQ-EBD (Emotional Behavior Disorder), where lower scores are better.

[2] Due to missing values, actual values may vary.

[3] Unstandardized beta.

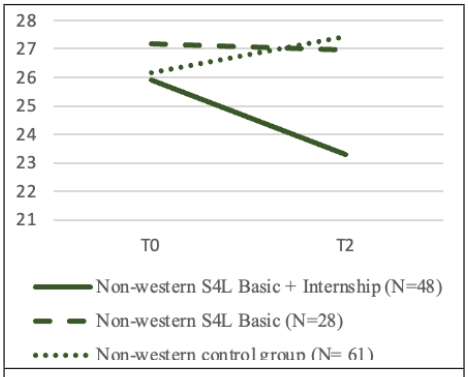


Figure 2 | Relationship skills T0 -T2 Non-Western students (Means)

Note: Non-Western : Students who identify themselves as having non-western backgrounds (e.g., Turkish, Moroccan, Cape Verdean, Pakistani, or Somali);

S4L-basc + internship: Students exposed to the S4L-basic and the S4L-intership module.

S4L-basic: Students exposed to the S4L-basic module alone.

Control group: Students in the Waitlist Control group.

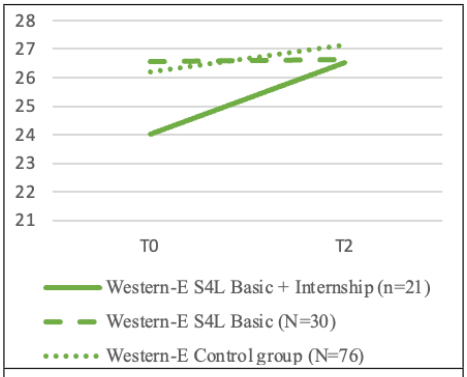


Figure 3 | Relationship skills T0 -T2 skills Western-E students (Means)

Note: Western-E : Students who identify themselves as having western backgrounds (e.g., Dutch, Belgium, or German)

S4L-basc + internship : Students exposed to the S4L-basic and the S4L-intership module.

S4L-basic : Students exposed to the S4L-basic module alone.

Control group : Students in the Waitlist Control group.

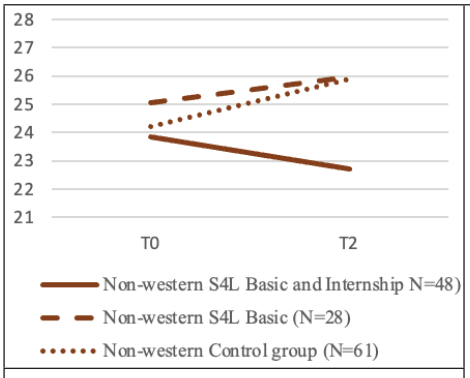


Figure 4 | Social Awareness T0 - T2 Non-Western students (Means)

Note: Non-Western : Students who identify themselves as having non-western backgrounds (e.g., Turkish, Moroccan, Cape Verdean, Pakistani, or Somali);

S4L-basc + internship: Students exposed to the S4L-basic and the S4L-intership module.

S4L-basic: Students exposed to the S4L-basic module alone.

Control group: Students in the Waitlist Control group.

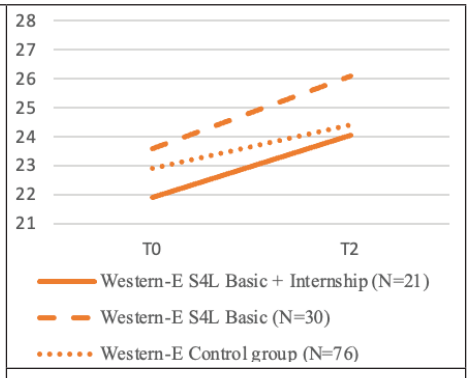


Figure 5 | Social Awareness T0 -T2 skills Western-E students (Means)

Note: Western-E : Students who identify themselves as having western backgrounds (e.g., Dutch, Belgium or German)

S4L-basc + internship : Students exposed to the S4L-basic and the S4L-intership module.

S4L-basic : Students exposed to the S4L-basic module alone.

Control group : Students in the Waitlist Control group.

DISCUSSION

The purpose of this quasi-experimental study was to evaluate the effectiveness of the school-based S4L-program for a population of low-achieving students in the minor selective tracks in prevocational education, i.e., the PVSE-Basic and PrE tracks. We hypothesized to find positive outcomes on psychosocial health and the five SEL competencies defined by the CASEL group (Weissberg et al., 2015): self-awareness, social awareness, self-management, relationship skills, and responsible decision-making. We further hypothesized that these outcomes are independent of subgroups of students according to gender, age, educational track, and self-perceived ethnic backgrounds.

Overall positive effects on the measured SEL skills in students who completed either the S4L-basic module or the complete S4L-program, including the -internship module, were absent. We found some small but significant differential negative effects in a subgroup of non-western students who completed both modules regarding social awareness and relationship skills. Significant positive effects on self-management and internship preparation were found in students taught by professional trainers compared to students taught by regular classroom teachers.

Short and long-term positive effects were lacking in our study, contrary to meta-analyses (e.g., Cook et al., 2008; Durlak et al., 2011; Garrard and Lipsey, 2007; Taylor et al., 2017). However, evaluation studies on SEL programs found varying effects on social-emotional skills related to the socio-cultural backgrounds of students (Cardemil et al., 2007; Lewis et al., 2016; O'Neil, 2011). There are several explanations as to why we found social awareness and relationship skills scores decreased in students from non-western backgrounds who had completed the S4L- program. The first explanation may be related to the dominant western attitudes, values, and behaviors steering the approach used in the S4L-program (Garner et al., 2014; Hecht and Shin, 2015). The self-oriented and independence-focused approach used to teach social-emotional skills may not match the other-oriented and interdependence-focused skills that students from non-western backgrounds possibly learned at home (Kagitcibaci, 2012; Markus and Kitayama,1991). The difference in approach may have been especially evident when the skills (such as social awareness and relationship skills) are focused on others. Such differences in the skills taught in the S4L program and those learned at home might have led to cultural dissonance and made the students from non-western backgrounds in our study reluctant to adopt the skills taught at school (Aronson and Laughter, 2016). These skills might be perceived as a violation of the values, beliefs, and practices rooting the skills learned at home (Garner et al., 2014; Lareau, 2011).

A second explanation for the adverse effects we found in non-western students who completed the whole S4L program is that these students may have compared the skills learned at home with the customs and expectations of their colleagues in the internship workplace and with these colleagues' feedback on those skills. Such comparisons may have made the students aware that they have not acquired the skills taught in the S4L-program (McClimans et al., 2013; Oort et al., 2009). The students from non-western backgrounds who were not exposed to the S4L Internship module did not experience any lack of skills since they were not exposed simultaneously to the S4L- program and the modeling of skills by their colleagues in the workplace. Consequently, they did not use the SEL skills taught at school as a frame of reference when comparing their skills with the skills of their colleagues (Heine et al., 2002).

A third explanation may be that the exposure to the complete S4L-program made students in the intervention group more aware and, therefore, self-critical about the competencies targeted than students in the control group. This awareness might have resulted in a shift in the students' perception from being "unconsciously incompetent" to being "consciously incompetent" concerning these competencies (Masters, 2012; Mezirow, 2009).

Strengths and limitations

A strength of our study is that we succeeded in including a population of low-achieving students with additional educational needs from low-income families and families from non-western backgrounds on whom skills enhancement programs would potentially have a positive impact (Iversen and Holsen, 2008; West et al., 2020).

Another strength of our study is that, unlike others, it measured effects on all the SEL competencies targeted in the S4L-program (Duckworth and Yeager, 2015; Wigelsworth et al., 2010). These measures enabled us to identify differences in the program's effects on some of the SEL competencies and then to attribute these effects to the subgroup of students from non-western backgrounds.

A potential limitation of our study could have been that the large school in the control group might have affected the analyses. However, as we applied analyses at the classroom level, students from this school were not treated as one group as they were nested in classrooms.

A limitation of our study concerns the number of dropouts. Such dropout rates are not exceptional for research in school settings. Drop-out is associated with early school leaving and the additional educational needs of students in the prevocational education

tracks (Onderwijsraad, 2013b; WRR, 2009). We found that the dropout rates in the intervention group were higher than in the control group. As only a small number of students participated in the S4L-basic and -internship modules, the negative effects found in a subgroup of these students should be interpreted cautiously. These effects may be an overestimation in students, requiring special attention for whom the school organized the skills training.

The use of self-ratings of the SEL competencies used in our study can be both a strength and a limitation. Self-report instruments are considered beneficial for providing insight into the students' perspective of their SEL competencies (Kimberlin and Winterstein, 2008; Podsakoff et al., 2003). However, the disadvantage of self-reports is that they are sensitive to subjectivity as they lack objective information on skills performance to be obtained through observations and other informants, such as teachers, peers, parents, and internship colleagues (Achenbach et al., 2008; Duckworth and Yeager, 2015).

Another limitation may be the use of instruments to measure SEL skills with a western socio-cultural approach taken in most of their items that do not match the non-western backgrounds of a substantial number of respondents (Berg et al., 2017; Markus and Kytayma, 1991).

Implications for practice and research

SEL programs should acknowledge that differences exist in the mastery of skills amongst students and provide support for low-achieving students. To meet the variety of social-emotional skills that students require, we recommend making this variety an integral part of implementing SEL programs for adolescents (Goodman and Bowman, 2014). Therefore, we recommend schools involving students and teachers, and parents from various socio-cultural groups in the ongoing adaptation and implementation of SEL programs (Falicov, 2009; Kreuter et al., 2003).

In addition to making SEL programs more socio-culturally sensitive, we recommend investing in teachers' competencies to improve program integrity. Another aim of training teachers should be improving their social-emotional skills to become excellent role models (Jennings and Greenberg, 2009; Schonert-Reichl, 2017). Besides, teacher training should focus on the awareness and openness of teachers towards the diversity in social-emotional skills of their students (Bernal et al., 2009; Larsen and Samdal, 2012).

Starting the S4L program at the age of 15-16 might be too late as developing advanced social-emotional skills starts in early adolescence (Crone, 2017; Steinberg, 2016). Coelho

& Sousa (2017) found that younger adolescents profited more from skills enhancement than older adolescents. Carrol et al. (2020) found that particularly early adolescents with lower-level skills at the start benefited from an SEL program. Therefore, we recommend beginning with the S4L program in early adolescence and delivering the Internship module when students enter internship workplaces.

Our finding that the self-reports of low-achieving students from non-western backgrounds showed a decline in some of the skills since they were exposed to the complete S4L program merits more research on SEL programs using an intersectionality approach (Jagers et al., 2019a; Nagaoka et al., 2015).

We also recommend evaluation studies to measure effects on separate social-emotional skills tailored to the aims of the SEL programs instead of using broad outcome measures comprising several skills (Durlak et al., 2011; Ura et al., 2020). Further research into the instruments used to measure specific social-emotional skills is required to provide insight into the validity of these instruments for students from diverse socio-cultural backgrounds (Duckworth & Yeager, 2015; Elliott et al., 2018).

More research is necessary to understand the consequences of inconsistencies between approaches to learning social-emotional skills used at school and those used in other settings where adolescents live and learn (Bernal et al., 2009; Brown et al., 2018).

CONCLUSION

The current study found that the S4L-program had no overall positive effects on social-emotional skills in a population of low-achieving students aged 14-19 years with additional educational needs in prevocational education. However, negative effects were found on some of the skills in students from non-western backgrounds. These findings indicate that SEL programs do not always meet the needs of all students. Enhancing the socio-emotional skills necessary for students' success in the different contexts for living and learning requires a culturally responsive and integrative approach. For meeting various students' needs, SEL program implementation needs to take account of the intersectionality of different forms of deprivation that students might experience related to their individual and background characteristics. Therefore, today's socio-culturally diverse schools need to involve students, teachers, and parents from various socio-cultural groups to implement SEL programs that meet students' needs. We found positive effects when professional trainers taught the SEL program. This finding emphasizes the importance of investing in the training of teachers who provide SEL programs.

Data availability statement

The datasets presented in this study can be found in online repositories. The names of the repository/repositories and accession number(s) can be found below
https://doi.org/10.17026/SS/DNOJRU

Ethics statement

The studies involving human participants were reviewed and approved by the Dutch Central Committee on Research Involving Human Subjects (CCMO). Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

Funding

This work was supported by SIA, the Taskforce for Applied Research in the Netherlands, under Grant number PRO-4-43.

Appendix 1 Skills 4 Life Basic- and -Internship Module, Lesson Titles, and Content

Skills 4 Life-Basic Module: Lessons and Content

Title of Lesson	Content of Lessons
1.Introduction to Skills4Life program	Awareness of personal characteristics, including similarities and differences Making agreements on interpersonal behavior in the classroom
2.Observing behaviors	Being aware of the consequences of your own reactions Observing helpful and unhelpful behavior Making agreements on interpersonal behavior in the classroom
3. Observing emotions	Being aware and recognizing your own emotions and those of others Making agreements on interpersonal behavior in the classroom
4. Recognizing behaviors; self-talk	Being aware and recognizing your own thoughts and those of others Recognizing social situations Managing your own thoughts Making agreements on interpersonal behavior in the classroom
5. Looking at yourself and managing thoughts	Being aware and recognizing your character traits and those of others Being aware and recognizing your own thoughts Managing your thoughts
6. Trust in relationships and friendships	Managing emotions and social situations Being aware of social situations and managing them well
7. Peer pressure and saying no	Being aware of and recognizing your feelings, thoughts, and reactions and their consequences to yourself and others Expressing thoughts and emotions Standing up for yourself and indicating borders Being aware and recognizing peer pressure Managing your emotions and thoughts
8. Specifying boundaries and respect in intimate relationships	Self-awareness, self-management, and social awareness Being aware of, recognizing, and managing conflict in social situations
9. Conflicts between students and teachers	Being aware of social situations Being aware of and recognizing your feelings and thoughts, your behavioral reactions, and those of others Managing conflicts Indicating, expressing, and maintaining personal borders Respecting other people's borders
10. Conflicts between students and parents	Being aware of and recognizing your feelings and thoughts, your behavioral reactions, and those of others Being aware of, recognizing and managing distress in social situations and conflicts
11. Conclusion	Being aware of, recognizing and expressing feelings and thoughts Being aware of, recognizing and managing social skills

Skills 4 Life-Internship Module: Lessons and Content

Title of Lesson	Content of Lessons
1. Internship and work	Introduction Differences between school and workplace Checklist for the first day of your internship Interviewing your parents on their own career and internships
2. Presenting yourself	My pitch: who I am? Contacting internship providers Writing a Curriculum Vitae
3. Apply for internships and demonstrating initiative at work	Managing and updating your Curriculum Vitae Learning to apply for internships Importance of demonstrating initiative at work
4. How to deal with criticism	Purposes and importance of criticism Criticizing and being criticized
5. Keeping calm and quiet during internships	Attendance Being aware of stress Relaxing
6. Networking	Importance of personal networks Extending and maintaining your network

Appendix 2 Complete report of results of multi-level models on all outcomes T1 and T2

Table 1 T1 Estimates for Received Intervention Effects on SEL skills, Self-esteem, Self-efficacy, and Psychosocial Health (SDQ-EBD and SDQ-PSB)

	Self-awareness		Social awareness		Self-management		Relationship skills		Responsible decision-making		Self-esteem		Self-efficacy		Psychosocial Health[1]			
															SDQ-PS		SDQ-PSB	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Baseline intercept	4 .990	3.650	5.167	3.844	3.564	3.972	7.240	3.655	1.459	2.421	8.469	4.451	9.441	3.762	3.460	4.810	3.934	1.666
Fixed effects																		
Intervention	.265	.524	.283	.619	-.531	.614	-.288	.551	-.105	.322	-.122	.726	-.164	.517	1.363	.784	-.347	.236
Gender	-.475	.407	.449	.424	.162	.448	-.131	.407	-.252	.288	-.126	.505	-.116	.457	-.029	.541	-.045	.192
Age	.100	.237	.427	.251	.268	.262	.251	.251	.258	.160	-.829	.297	.203	.252	.167	.324	-.038	.109
Ethnic background	-.267	-1.47	-.702	.494	.212	.520	-.452	-.452	-.684	.330	-.480	.575	-1.261	.526	.550	.629	.240	.221
Educational track	-.403	.584	-.766	-.766	.934	.695	- 1.050	-1.048	-.328	.365	-.829	.782	-1.394	.581	.276	.852	-.029	.261
Random effects																		
Classroom level	.412	.495	1.120		.866	.642	.677	.558	.000	.000	1.560	.847	.000	.000	1.752	1.079	.078	.099
ΔAIC	2020.399		2045.795		2081.518		2016.986		1787.050		2136.991		2141.621		2202.368		1455.007	

Note. N = 372.
AIC = Akaike Information Criteria.
No predictors significant at T1 $p < .05$.
[1] To measure Psychosocial health, two subscales of the Strengths and Difficulties Questionnaire (SDQ) were used:, Emotional and Behavioral Disorders (SDQ-EBP) and Pro-social Behavior (SDQ-PSB).

Table 2 T2 Estimates for received intervention effects on SEL skills, Self-esteem, Self-efficacy, Psychosocial Health (SDQ-EBD and SDQ-PSB), Internship-involvement, and – preparation

	Self-awareness		Social awareness		Self-management		Relationship skills		Responsible decision-making		Self-esteem		Self-efficacy		Psychosocial Health				Internship-involvement		Internship-preparation	
															SDQ-EBD[1]		SDQ-PSB					
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Baseline intercept	12.830	5.068	14.601	4.379	8.999	5.357	8.924	4.666	3.455	3.261	5.624	4.850	12.983	5.044	2.130	2.055	9.555	6.172	15.997	6.490	37.843	12.061
Fixed effects																						
Intervention	.892	.611	-1.104*	.542	-1.337*	.657	-1.406*	.564	.061	.406	-.638	.620	-1.007	.673	-.190	.277	.727	.851	.271	1.03	1.945	1.965
Gender	-.677	.555	-.095	.501	-.386	.601	-.842	.518	-.350	.376	-.134	.567	-.017	.593	-.310	.233	1.153	.712	-.180	.726	.809	1.293
Age	-.056	.330	-.099	.299	.052	.354	.1876	.302	.121	.221	.303	.335	-.418	.351	.129	.138	-.291	.432	-.180	.449	-1.502	.827
Ethnic Background	.788	.630	-.099	.562	.571	.682	.668	.579	.202	.414	1.181	.626	-.802	.666	-.232	.256	-1.016	.799	.733	.769	1.677	1.366
Educational track	-1.714	.638	-.499	.571	-.469	.697	-.727	.579	.051	.421	-1.763	.645	-1.469	.707	-.313	.286	2.006	.880	-.318	.980	-1.660	1.366
Random effects																						
Class-room level	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.027	.603	.197	.919	.105	.132	.823	1.334	2.382	1.757	11.144	6.576
ΔAIC	1518.655		1467.446		1579.882		1500.967		1346.586		1561.694		1608.347		1049.422		1623.897		1166.385		1377.896	

Note. N = 275.
AIC = Akaike Information.
Criteria *$p < .05$.
[1] SDQ-EBD: Emotional Behavior Disorders (EBD).
[2] SDQ-PS: Prosocial behavior (PS).

Appendix 3 Complete report of results of multi-level models Intervention x Ethnic background

Table 1 T2 Estimates Intervention X Ethnic Background on Social awareness[1], Self-management[2], and Relationship skills[3]

	Western-European students						Non-western students					
	Social Awareness		Self-Management		Relationship skills		Social awareness		Self-management		Relationship skills	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Baseline intercept	14.447	7.410	12.405	8.688	11.277	8.174	18.899	5.591	9.805	7.281	10.401	5.797
Fixed effects												
Intervention	.0534	.796	-.670	.859	-.101	.900	-1.859*	.775	-1.818	1.006	-2.706*	.790
Gender	-1.513	.692	-1.191	.812	-1.479	.754	1.234	.697	.442	.883	-.231	.705
Age	-.114	.504	-.032	.581	.188	.537	-.435	.359	-.784	.468	-.028	.368
Educational track	.633	.838	4.790	.937	-.098	.864	-1.613	.841	-1.344	1.096	-1.040	.867
Random effects												
Class-room level	.522	1.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
ΔAIC[4]	690.254		736.073		717.505		760.974		835.024		773.599	

*$P \leq .05$.
Note. N = 275.
[1] Interaction Effect Intervention X Ethnic background whole group (Western-European and Non-western students): Social awareness F = 4.297, p = .039*.
[2] Interaction Effect Intervention X Ethnic background whole group (Western-European and Non-western students): Self-management F = 1.544, p = .215.
[3] Interaction Effect Intervention X Ethnic background whole group (Western-European and Non-western students): Relationship skills F = 7.015, p = .009*.
[4] AIC = Akaike information criteria.

Appendix 4 Complete report of results of multi-level models. Effect of dosage in non-western students (Table 1) and Effect of teacher experience in intervention group only (Table 2)

Table 1 T2 Estimates for received Dosage S4L-internship module on Social awareness and Relationship skills (Intervention group non-western students only)

	Social Awareness		Relationship skills	
	Estimate	**SE**	**Estimate**	**SE**
Baseline intercept	19.809	6.667	13.493	6.970
Fixed effects				
Gender	1.097	.949	-.523	.947
Age	-3.453	.399	.131	.415
Educational track	-2.316	1.538	-1.398	1.618
Dosage S4L- internship	-2.128*	1.035	-2.689*	1.075
Random effects				
Class-room level	.000	.000	.394	1.636
Δ AIC[1]	419.766		421.938	

*$P < .05$.
Note. N = 275.
[1] AIC = Akaike information criteria.

Table 2 T2 Estimates for received Intervention and teachers' experience on Self-management and Internship preparation (Intervention group only)

	Self-management		Internship preparation	
	Estimate	**SE**	**Estimate**	**SE**
Baseline intercept	11.923	7.232	48.287	17.387
Fixed effects				
Gender	-1.184	.902	1.891	1.964
Age	.300	.454	-3.181	1.337
Educational track	-1.446	1.197	5.563	3.110
Ethnic background	.851	1.159	4.512	2.841
Teachers' experience	4.359*	1.899	9.564*	4.199
Random effects				
Class-room level	.000	.000	.000	.000
Δ AIC[1]	761.518		362.054	

*$P \leq .05$
Note. N = 275.
[1] AIC = Akaike information criteria.

Chapter 6

Low-achieving adolescent students' perspectives on their interactions with classmates

An exploratory study to inform the implementation of a Social Emotional Learning program in prevocational education

M.C.E. Van de Sande
M. Fekkes
R.F.W. Diekstra
C. Gravesteijn
P.L. Kocken
R. Reis

Children and Youth Services Review (2024), 156, 107263

ABSTRACT

Social and Emotional Learning programs, designed to enhance adolescents' social and emotional skills, are implemented in schools worldwide. One of these programs is Skills4Life (S4L), for students in Dutch secondary education. To strengthen this program and adapt it to students' needs, we conducted an exploratory study on their perspectives on their own social-emotional development, focusing on low-achieving students in prevocational education.

We interviewed eleven boys and eleven girls in five focus groups on (1) their general school life experiences, (2) their perceptions and experiences regarding interactions with peers, the problems they encountered in these interactions, and (3) the strategies and skills they used to solve these problems. Driven by findings in related studies initial thematic analyzes were extended using a three-step approach: an inductive, data-driven process of open coding; axial coding; and selective coding, using the social-emotional skills comprised in an often-used SEL framework as sensitizing concepts.

Overall, students were satisfied with their relationships with classmates and teachers and their ability to manage their daily interaction struggles. Their reflections on their interactions indicate that the skills they preferred to use mirror the social-emotional skills taught in many school programs. However, they also indicated that they did not apply these skills in situations they experienced as unsafe and uncontrollable, e.g., bullying and harassment.

The insights into adolescents' social-emotional skills perceptions and the problems they encountered with peers at school presented here can contribute to customizing school-based skills enhancement programs to their needs. Teacher training is required to help teachers gain insight into students' perspectives and to use this insight to implement SEL programs tailored to their needs.

INTRODUCTION

Social and Emotional Learning (SEL) is the process of acquiring the social-emotional skills necessary for young people to successfully participate in and contribute to the contexts in which they live and learn (Zins & Elias, 2007). Examples of such skills are, e.g., empathy, self-regulation, and problem solving. Adolescence is a sensitive period for SEL (e.g., Crone, 2017; Napolitano et al., 2021). Also, SEL is an interactive process starting at home in parent-child interactions; individual and environmental factors influence this process (e.g., Grusec, 2011; Sanders & Turner, 2018).

Growing up in poor and marginalized families challenges the development of social-emotional skills (Fletcher & Wolfe, 2016; West et al., 2020). Besides this, intellectual, emotional-behavioral, and learning problems are associated with an impeded development of these skills (Cook et al., 2008; Wiley & Siperstein, 2015). The skills young people learn at home vary depending on their parents' beliefs, values, goals, and practices regarding child development, and the context in which they raise their children (Grusec, 2011; Sanders & Turner, 2018). Besides the home, schools are considered crucial contexts for developing social-emotional skills (Durlak et al., 2015; Eccles & Roeser, 2011). Therefore, it is not surprising that schools worldwide implement SEL programs aimed at enhancing these skills.

One of these programs is the Dutch classroom-based secondary education SEL program, Skills4Life (S4L) (see Appendix 1 for more details on the S4L program). Evaluation studies of S4L found promising results on social-emotional skills and psychosocial health outcomes in students from different school types (e.g., Fekkes et al., 2016; Gravesteijn, 2010; Pannebakker et al., 2019). However, the results also showed that the program asked too much of the intellectual and language abilities of low-achieving students in the least selective tracks in prevocational secondary education, indicating the need for adaptation for this target group (Kocken et al., 2010).

The Dutch secondary education system is highly stratified. The system consists of two levels of general secondary education (known in Dutch as HAVO and VWO) and prevocational education consisting of a Practical Educational (PrE, Praktijkschool in Dutch) track training students for work and four Preparatory Vocational Secondary Education tracks (PVSE, VMBO in Dutch). The PVSE basic (PVSE-b) is the least selective of these four tracks. Eleven percent of the students in grades nine and ten in Dutch secondary education are in the PVSE-b and PrE tracks (Statistics Netherlands,

2016). Students in these tracks have additional educational needs due to intellectual, emotional-behavioral, and learning problems (Hop & Van Boxtel, 2013; Koopman et al., 2015). In this study, we use the term 'low-achieving' to indicate students in these tracks. Both of these tracks have a high proportion of students from low-income families and non-Western backgrounds (Statistics Netherlands, 2016).

The current study is part of a larger research project on the development, implementation, and evaluation of an adapted version of the original S4L program, for low-achieving students. To inform the adaptation of the program, individual and focus group interviews were conducted with various stakeholders on the themes they deemed important for students in PVSE-b and PrE tracks. Besides interviews with teachers and internship supervisors, we also conducted an exploratory study amongst the students themselves. As little is known about adolescents' own perspectives on SEL related to their school life experiences, involving them in implementing SEL programs in secondary education is recommended (Yeager, 2017).

The purpose of this exploratory study was to provide insight into students' perceptions of their daily school life, their interactions with classmates, and the social-emotional skills they felt they needed in order to manage these interactions. The following questions were addressed: 1. What are low-achieving students' perceptions and experiences regarding their school life in general?; 2. What are students' perceptions and experiences regarding their interactions with classmates and the problems they encounter in these interactions?; and 3. What strategies and skills do students use to manage these interactions and problems?

Findings from the interviews with teachers and internship supervisors informed several adaptations of S4L for low-achieving students. Examples of these adaptations are the need for more behavioral instruction exercises and the inclusion of social-emotional skills relevant to the workplace, as students in these tracks learn simultaneously at school and internship workplaces (see Appendix I for an overview of the content of S4L). The initial thematic analysis of the interviews with students did not yield new themes and skills that students considered important to target. Based on students' perceptions, only a few modifications were made, particularly regarding more straightforward language. Adaptations were kept limited to adhere to the program's core elements (Falicov, 2009; Kreuter et al., 2003). The adapted S4L program was implemented in PVSE-b and PrE tracks between 2015 and 2018.

However, an evaluation study of the adapted S4L program showed that overall positive effects on any social-emotional skill or psychosocial health outcome were absent (Van de Sande et al., 2022). These findings suggest that the adaptations made did not meet these low-achieving students' needs. To gain a more in-depth understanding of which strategies and skills students considered most relevant in different situations at school, we conducted additional analyses of the data using the social-emotional skills comprised in an often-used SEL framework (CASEL, 2003) as sensitizing concepts.

METHODS

To explore students' perspectives and strategies, we adopted a qualitative inductive approach. We conducted focus group interviews with the participants in the school context. Assuming that participants would feel more comfortable being amongst classmates and allowing them to express their views freely, we favored small-group, same-sex focus groups over individual interviews. Focus groups also allowed us to obtain in-depth data on the perceptions of a relatively large number of students in a relatively short period of time (Krueger, 2014). In principle, they also provide a broader perspective on students' interactions with peers than interviews with other stakeholders.

The research objectives, methodology, and interview protocol used in the focus groups were discussed beforehand by the first author (MS) in close collaboration with other members of the research team. MS conducted the focus group interviews in collaboration with two female social work students (LG, MH), one of whom had a non-Western background, while the other was native Dutch. All three researchers were familiar with the population under study based on their past experiences at work, internships, or school.

Sample

We recruited students from the least selective tracks of three inner-city prevocational schools in the western Netherlands.

Twenty-two students in grades 9 and 10 (eleven girls and eleven boys; age range 15-19, M = 16.6) participated in the interviews (see Table 1). The majority of the students (17/22) were from non-Western backgrounds. Most students (19/22) attended the PrE track, and three attended the PVSE-b track. The ethnic composition of the study population represents low-achieving students in prevocational education in inner-city schools in the western Netherlands.

Table 1 Background Characteristics of Students Included in the Study

Gender	Age	Ethnicity [1]	Prevocational track
Male	17	Native Dutch	PVSE-b
Male	16	Native Dutch	PVSE-b
Male	15	Native Dutch	PVSE-b
Male	17	Native Dutch	PrE
Male	18	Native Dutch	PrE
Male	18	Non-Western	PrE
Male	17	Non-Western	PrE
Male	16	Non-Western	PrE
Male	18	Non-Western	PrE
Male	17	Non-Western	PrE
Male	16	Non-Western	PrE
Female	16	Non-Western	PrE
Female	16	Non-Western	PrE
Female	16	Non-Western	PrE
Female	16	Non-Western	PrE
Female	16	Non-Western	PrE
Female	15	Non-Western	PrE
Female	16	Non-Western	PrE
Female	16	Non-Western	PrE
Female	18	Non-Western	PrE
Female	18	Non-Western	PrE
Female	X	Non-Western	PrE

[1] Non-western students were e.g., Moroccan, Turkish, Antillean, or Somali.

Procedure

Parents and students gave passive informed consent for participation in the study. Classroom teachers selected students based on the following criteria: students were in grades 9 and 10 of relevant tracks, available and willing to contribute, and considered being able to talk to strangers and to participate in a focus group with each other. Based on teachers' decisions and students' timetables, focus groups were composed of three, five, or six boys or girls. Although they were not in the same classroom, participating students had known each other since they started secondary school. Some of them were friends. Most students did not live in the same neighborhood, so they met primarily at school.

Focus groups lasted 45-75 minutes, depending on the number of students. Before the interviews, these students were again asked for oral consent, first by their teachers and then by the researchers at the beginning of the interviews. After anonymity was guaranteed, the students consented to the interviews being audio-recorded. We emphasized that they were not obliged to answer the questions and that they could leave the focus group at

any time (Guillemin & Gillam, 2004). One of the girls decided to leave the focus group as she felt uncomfortable discussing her interaction problems, despite the support of the other group members.

Interview topics

Based on the study objectives, the interview protocol included three broad topics *(a) General school experiences, (b) Interactions and interaction problems with classmates, and (c) Strategies used in solving these problems*. In addition, we identified *(d) demographics: age, gender, ethnic background (native Dutch vs. non-Western), and educational track (PVSE-b vs. PrE)*. The substantive interview topics were derived from literature surveys on health promotion and social-emotional skills development during adolescence (e.g., Bronfenbrenner & Morris, 1998; Crone, 2009; Jones & Bouffard, 2012; Reyes & Elias, 2011). The semi-structured focus group interviews enabled us to probe students' perspectives on the topics, following their answers and wording. Examples of questions used to approach the topics were: "How are you doing at school?," "How are other students doing at school?," and "How are you getting along with each other."

Analyses

For the analysis, the audio-recorded focus group interviews were transcribed verbatim into Dutch, and Atlas.ti software was used to code the transcriptions. Aiming to inform an adaptation of the S4L program, initial data analyses focused on the identification of students' own perceptions regarding skills and themes relevant to address. As explained in the introduction, findings in an evaluation study of the S4L program, adapted for low-achieving students, drove the current study's additional analyses. For these analyses, we used the skills comprised in the five competency domains targeted in the framework developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL) as sensitizing concepts for our interpretation of the data and, in particular, the strategies expressed and pointed to by students (see Table 2 and 3 for more detail on these concepts and strategies) (Bowen, 2006; CASEL, 2003). These competencies and skills are often referred to in SEL literature (e.g., Humphrey, 2013; Jones et al., 2019).

An explorative data-driven process was used in which the students' narratives and behavior were inductively coded in three steps (see Table 2), starting with open coding inspired by the interview topics. Subsequently, axial coding was conducted to combine coded text fragments which led to emerging categories, such as *academic achievements, maturation, bullying, sexual harassment*, and *unsupportive responses*. Finally, selective

coding was applied using the sensitizing concepts to interpret the strategies students articulated in their reflections in terms of the skills comprised in the CASEL framework.

Two researchers (MS and MB) independently coded two interviews. They compared and discussed their interpretations of the codes to obtain consensus; subsequently, in close collaboration with the research group, MS coded the other interviews.

Table 2 Coding scheme for the analysis of the focus group interviews.

Open Coding (Interview Topics)	Axial coding (Categories)	Selective coding (Sensitizing concepts)[1]
General school life experiences	- School achievement, future goals - Support - Self-confidence	Self-awareness - Optimism - Recognizing own emotions - Knowledge of strengths and weaknesses - Self-efficacy
Daily interactions with classmates	- Getting along well with others - Mutual trust and maturation - Knowing each other thoroughly - Daily issues at school	Social awareness - Empathy - Perspective-taking - Appreciating diversity - Understanding social norms
Severe interaction problems at school	- Unsupportive responses - Sexual harassment - Bullying - Teacher ignorance	Self-management - Self-regulation - Goal setting - Perseverance
		Relationship skills - Communication - Cooperation - Peer pressure resistance - Social problem solving - Help seeking
		Responsible decision making - Considering relevant factors and consequences of actions -Taking responsibility for decisions

[1]Competency domains and -skills comprised in the CASEL framework (CASEL, 2003).

THEORY

SEL programs teach social-emotional skills in order to promote adolescents' psychosocial health, education, and work prospects (e.g., Cefai et al., 2018; Durlak et al., 2015; National Research Council, 2012). Meta-analyses on such programs have identified positive short-term and long-term effects on social-emotional skills, psychosocial health, and academic achievement (e.g., Durlak et al., 2011; Sklad et al., 2012). Such positive effects were measured regardless of students' socio-cultural and socio-economic background (Taylor et al., 2017).

Many SEL programs and frameworks for guiding these programs' implementation have appeared over the last decades (e.g., Durlak et al., 2015; Jones et al., 2019). These programs and frameworks vary in their theoretical base and the social-emotional skills targeted (Jones et al., 2019; Van de Sande et al., 2019).

SEL program implementation

Providing a safe and supportive context is essential for SEL program implementation (e.g., Jones and Bouffard, 2012; Weissberg et al., 2015). Classroom teachers, assumed to know their students best, are the preferred providers both of such programs and safe classroom contexts (Durlak et al., 2011). Although training is recommended to support delivering a program with fidelity, teachers are also assumed to tailor programs to their students' specific needs (Biesta, 2007; Durlak, 2016; Falicov, 2009).

Young people are active participants in the development of their social-emotional skills (Bronfenbrenner & Morris, 1998; Lerner & Steinberg, 2009). Therefore, insight into adolescents' social-emotional development is informative for teachers who wish to engage students in enhancing their skills.

Social-emotional development during adolescence

Adolescents' growing cognitive and social-emotional capacities enable them to develop the advanced socio-emotional skills necessary for accomplishing developmental tasks, such as independence and high self-concept clarity (e.g., Crone, 2017; Lerner & Steinberg, 2009). Accomplishing these tasks requires various skills; some of these, such as empathy and self-control, diminish in early adolescence and develop to adult levels in late adolescence (Güroğlu et al., 2014; West et al., 2020). Although adult guidance and support remain necessary, interactions with peers are crucial for adolescents to develop their social-emotional skills (Crone, 2017).

Adolescents, in particular, are highly involved in what is going on inside themselves and others, which makes them potentially valuable informants on their SEL needs (Liebermann, 2012; Yeager, 2017). However, the personal experiences addressed in SEL programs can also cause students to experience discomfort, which may discourage them from active participation (Medin & Jutengren, 2020). Additionally, it is important for young people to learn social-emotional skills that are meaningful and connected to their real-world experiences (Phillips, 2011). In implementing and adapting SEL programs, therefore, it is crucial to take adolescents' perspectives into account.

FINDINGS

To provide insight into students' perceptions of their social-emotional functioning at school, below we structure our findings according to the interview topics, describing 1. general school life experiences, 2. daily interactions with classmates, and 3. severe interaction problems at school (see Table 2). Additionally, the strategies students indicated are presented (see Table 3). To illustrate students' perceptions and reasoning, we inserted quotes from the interviews in italics, including initials, sex and age. No differences between students related to their background characteristics were identified, which is potentially due to the skewed relationship between native Dutch and non-Western students in the sample.

General school life experiences

Almost all students enjoyed their school life and had a positive attitude towards learning. They perceived school as a community for learning and living, where they *met their friends, shared daily life events,* and *had fun*. Students associated life at school with their satisfaction with achievements, emphasizing that *life was going fine*. They talked freely about their low marks in school exams and their grief on not continuing further education due to not passing mandatory exams. In this regard, students seemed to have a realistic perspective on their low achievements and the consequences for their future school careers. They were determined that *things would turn out well in the end*, and – as the following quotes illustrate – encouraged others to stay hopeful too:

> *M (boy, 18): I would like to study too, but I do not think I will be able to. The school decides on that […]; that's just the way it is, and my grades aren't good enough to get into Senior Secondary Vocational Education [….]. It's math that's stopping me – otherwise, I would get there […].*
>
> *S (boy, 17): You will get there, you will get there […], if you do your best.*

Such faith, and the *help of friends and teachers*, motivated students to *pursue their goals at school and in future life*. Some, but not all, stressed the importance of *self-confidence* and having *the right attitude* to goal achievement. Others assured themselves they were *better at manual work than working with their heads.* These convictions seemed to encourage students to do *their best at school and workplace internships*, despite their educational disappointments, including failing exams and being in the least achieving tracks in secondary education.

Daily interactions at school

Overall, students felt comfortable among their teachers and classmates. According to them, spending several years together at school contributed to *intimate relationships, improved collaboration, developing mutual trust*, and *accepting others as they are.* Students were motivated to *solve problems with others* at school and were convinced that classmates felt responsible for this, too, as the following quotes illustrate:

> *N (girl, 16): We were in the same class last year – well, some of us. That helped us learn to trust each other, and if something happens, we know how to solve a problem together.*
>
> *R (girl, 16): Let's put it like this: we stick up for each other, so if something happens, we help each other out […] or if someone loses something in class, we all look for it.*

Students perceived *a sense of maturation* regarding their relationships with classmates. In their view, this was manifested – relative to earlier school years – in a lessening of *quietness and shyness* and *anger and fights* among classmates. Notwithstanding their social-emotional growth, they encountered issues with classmates, such as *name-calling, quarrels,* and *gossip*. Although students disapproved of such behavior, they considered it inherent to daily school life. They tended to ignore or withdraw from other people's annoying or undesirable behavior; however, they also stressed the importance of *standing up for themselves* to avoid being harassed. The following quote illustrates how a student used his perceptions of himself and others to manage and prevent interaction problems:

> *R (boy, 18): Yeah, you certainly get to know someone. I know exactly how to act with her in such situations. I know how she will behave in one case and also how she will behave in other circumstances. I always try to play jokes on her. […] I don't know exactly how everyone's mind works. However, if I don't like somebody initially, I'd rather stay out of his way […] to prevent getting into trouble.*

Despite their rejection of *name-calling, quarrels,* and *gossip* and *their attempts to withdraw from or talk about these issues*, most students had been involved – as victims or perpetrators – in such daily school life struggles. They indicated that such struggles could also result in fights among peer groups or threats *to deal with alone after school.* Some of them also reflected on their own annoying behavior towards peers. Although they downplayed the impact of this on others, they also considered the possibility that they hurt others' feelings, as the following quote shows:

> *G (girl, 16): We sometimes swear at people as a joke in our class. I mean, we don't usually intend to harm someone. Everyone laughs about it. However, we also know when it has, like, gone far enough. Then we stop straight away. That's just how we do such things.*

All students sincerely wanted to *get along well* with others and prevent problems at school. They emphasized the need to approach others *respectfully* and to *act normally*. Most students perceived themselves as having the ability to manage difficulties in their interactions with others, especially with intimate friends. Overall, students were satisfied with and proud of the strategies they used in daily interactions with classmates.

Although most students considered learning appropriate social-emotional skills essential for their future success, some were convinced that these skills are learned at home and not at school. Others were openly suspicious about learning skills relevant for interacting with others at school, as *such skills would be useless on the street*.

Severe interaction problems at school

Although students perceived themselves as being responsible for establishing positive interactions, and while *talking about issues* was the preferred skill for coping with problems, this did not always work to their satisfaction, as the following quote shows:

> *N (girl, 16): And if something is up, you have to talk it over. […]. Everyone has a picture of what is going on, which can spread into many stories that aren't even true. […] However, if it involves someone else, I will go up and tell them that I do not appreciate it. Yeah, and if they behave ordinarily, you can talk about it. However, if they react weirdly, well, that's when I get angry.*

Students got upset by such unexpected responses and perceived the other person as rejecting their attempts at problem solving, which legitimized, in their view, to start fighting. Despite their preference for talking about problems with their peers, most students regularly attempted to regulate their behavior by deciding to *stay quiet, ignore or withdraw* from severe interaction issues. They often chose to remove themselves from situations that made them feel *embarrassed, anxious,* or *angry*. When they perceived themselves as being approached inappropriately, some of them *answered back*. The following reflection displays a student's ability to distinguish between his own and others' contributions to a problem:

> *R (boy, 18): If I don't like something a guy does, I will answer back [….]. One other guy and I haven't been able to stand each other all year, right from the first day. He doesn't want to do anything about it. He can be quite a nice guy, but sometimes he can be a real pain; I'm just not in the mood then.*

In some, but not all, of the interaction problems students encountered, they relied on *help from teachers or friends*. They expected teachers and peers to help them stay out of difficulties or to offer help in solving problems with others. However, teachers' actual interventions in problems between classmates did not always meet their expectations. Students perceived it as annoying if the teacher's support failed to focus sufficiently on their attempts at problem solving, and in such cases, they interpreted the support given as intended mainly *to keep the class quiet*. The following quote illustrates such a perception:

> *F (boy, 16): […] We had a boy in class who kept on making body contact. In the end, you get fed up with it, and you do something back. And then you're the one the teachers hold responsible. If you then say, well, watch out, the issue with body contact is getting out of hand […]. What's more, it gets out of hand, and you are the one who is held responsible, not him […].*

Students were seriously concerned about some severe and recurrent problems regarding bullying and other harassment. Although they empathized with the victims and felt responsible for solving such issues, they also experienced them as being beyond their control. Girls believed that *ignoring boys or behaving unresponsively* to sexual harassment was the most appropriate thing to do; however, they did not feel confident about this approach. They were convinced that boys were *not always able to understand the impact of their harassment* on them. In her response, a girl showed empathy for boys' feelings and the ability to take their position into account:

> *N (girl, 16): It's complicated to explain to boys [that you do not like sexually charged comments], you know? Because you don't know what a boy feels […]. Some of them would understand, but others wouldn't understand a thing.*

Although students reported that bullying decreased as they matured, most of them were still concerned about it. When reflecting on how bullying might be stopped, some were convinced that *experiencing what the victims feel* would force bullies to understand the

impact of their behavior. At the same time, they considered stopping the bullies as being beyond their control. Most of them seemed to withdraw from the bullying or to avoid it. When victimized, they armed themselves by *practicing not to feel the pain* and *acting unresponsively* towards bullies. They were well aware of the power imbalance between bullies and their victims and recognized that some peers were more vulnerable to bullying *because of their appearance, clothes, or height*. Students did not seem to seek support for the victimization that deeply burdened them. Some students were disappointed by teachers' responses to their concerns about bullying, as the quote by F (boy, 16) above illustrates.

Managing school life experiences and interactions

In their reflections, students indicated several strategies for managing their daily school life, their interactions with classmates, and the problems they encountered. Using their language and wording, table 3 illustrates the strategies students said they used in the context of general school life experiences, daily interactions, and severe interaction problems at school, and the CASEL skills reflected in these strategies. The strategies mentioned by students reflect skills comprised in all five competency domains of the CASEL framework.

In their reflections on their school life students demonstrated awareness of their academic achievements and their education and work prospects. They indicated that self-confidence and perseverance were necessary to achieve their future goals and expressed their need for support from their friends and teachers in accomplishing these goals.

According to students, managing daily interactions with classmates requires talking as well as staying quiet when experiencing intense emotions and the alertness to stop when others are hurt. Establishing positive relationships requires interpersonal strategies, e.g., acting respectfully, understanding others and accepting them as they are, as well as intrapersonal strategies, e.g., self-confidence and standing up for yourself. With regards to solving daily interaction problems at school, students emphasized the importance of being able to work together.

When it came to severe interaction problems, students sometimes tried to seek help from, or provide help to, friends and teachers. However, they indicated that they often used avoidance strategies, such as ignoring or withdrawing from problematic interactions. Students were well aware that these strategies did not provide satisfactory solutions

to the severe problems they and others encountered. However, they did indicate which strategies would aid in solving such problems, e.g., knowing what others feel and understanding others' views. Despite their perceived inability to fix problematic interactions between classmates, which they regretted, students still felt responsible for solving them. Although they indicated the need for teacher support, they did not know how to establish such support.

DISCUSSION

To inform teachers implementing the Skills4Life program, we explored low-achieving adolescents' perceptions and experiences regarding their school life in general, their interactions with classmates, and the strategies and skills they used in managing these interactions. Overall, students were satisfied with their school life and experienced a sense of safety and belonging at school. They felt able to manage their interactions with peers, including the problems they encountered.

Strategies for managing interactions with classmates

Students indicated using a range of strategies, such as talking, collaboration, and being aware of others' feelings to manage their interactions with classmates. However, they did not use their preferred strategies to tackle severe interaction problems despite feeling responsible for solving them. According to them, a critical obstacle they faced in solving their interaction problems was their difficulty in controlling their emotions and behavior.

Our finding that students experienced difficulties in using their problem-solving strategies in situations perceived as emotionally intense is supported by other studies. Stapley et al. (2020) demonstrated that adolescents primarily tried to manage difficulties by disengaging or distracting from problem situations and seeking support from teachers or parents. Markova & Nikitskaya (2017) found that previous experiences of success or failure in using problem-solving skills determined whether adolescents applied these skills in new situations. For the students in our study, the characteristics of a situation, i.e., whether it was experienced as safe and supportive, determined which strategies they applied. Other research found that the experience of being respected and taken seriously is crucial for helping adolescents solve difficulties with peers (DeLara, 2012; McCluskey et al., 2013). Insight into adolescents' perceptions regarding safety and support is relevant for implementing SEL programs.

Table 3 Strategies indicated by low-achieving adolescent students related to interview topics

Interview topics	Strategies indicated by students (CASEL skills and domains[1])
General school life experiences	- Hope for the future (Optimism, self-awareness) - Insight into academic achievements and future life prospects (Knowledge of strengths and weaknesses, self-awareness) - Hope for the future (Optimism, self-awareness) - Self-confidence (Self-efficacy, self-awareness) - Pursuit of (future) goals (Goal setting and perseverance, self-management) - Help from teachers and friends (Help seeking, relationship skills)
Daily interactions with classmates	- Knowing others' feelings and thoughts (Empathy, social awareness) - Talking (Communication, relationship skills) - Knowing somebody and accepting others as they are (Perspective taking, appreciate diversity, social awareness) - Awareness of anger, sadness, irritation (Recognize emotions, self-awareness) - Acting respectfully/normally (Understand social norms, social awareness) - Staying quiet, ignoring, withdrawal (Self-regulation, self-management) - Self-confidence (Self-efficacy, self-awareness) - Standing up for yourself, boundary setting (Peer pressure resistance, relationship skills) - Collaboration on tasks and problems (Cooperation, relationship skills)
Severe interaction problems at school	- Feigning ignorance, withdrawal, frustration (Emotion regulation, self-management) - Knowing what others feel (Empathy, social awareness) - Understanding the view of others (Perspective taking, social awareness) - Helping others (Help seeking, relationship skills) - Awareness of avoidance as an ineffective problem-solving strategy (Considering factors and consequences, responsible decision making) - Feeling responsible for solving interaction problems (Taking responsibility for behavior, responsible decision making)

[1] Competency domains and -skills comprised in the CASEL framework (CASEL, 2003).

Teachers' awareness and interventions

Another finding of our study – namely, that students perceived teachers as being unaware of their difficulties in solving more severe interaction problems or unwilling to intervene, is congruent with findings in other studies on bullying. For example, students indicated that their teachers often do not notice bullying situations (Fekkes et al., 2004). According to students in a study by Wachs et al. (2019), teachers were regularly not aware of, or ignored or dismissed, bullying. This undermines their status and being respected in the eyes of others, which is so crucial for adolescents (Crone & Dahl, 2012; Yeager, 2017). As a result, students value teachers' efforts to intervene in difficult interactions less highly. When students feel that teachers do not intervene or provide support in severe interaction problems amongst students, this also diminishes students' own willingness to intervene, despite their perceived responsibility.

Students' sense of responsibility

A third notable finding of our study is that students felt responsible for, and motivated to contribute to, solving severe interaction problems and to establish a safe school context. A study by De Mooi et al. (2022) on younger students obtained similar findings. A sense of belonging and trust in others at school, both of which were experienced by students in our study, were identified as contributive to enhancing social-emotional skills, especially for marginalized youth (Korpershoek et al., 2020; Wray-Lake et al., 2016). Adolescents' sense of responsibility for solving interaction problems with classmates may be drawn on to engage adolescents in SEL program implementation.

Strengths and limitations

As far as we know our study is one of the first to explore low-achieving adolescents' perspectives on their interactions with classmates and the social-emotional skills that are meaningful and useful for them, and which should, consequently, inform SEL program implementation. A strength of our study is that it draws on students' own descriptions and behavior to outline their perceptions, experiences, and reflections regarding the social-emotional skills they preferred to use. The focus group interviews provided opportunities for most – but not all – students to interact with classmates in the safe and familiar context of school. This context allowed us to obtain a broader description of their interactions than can be gained from interviews with other stakeholders, such as teachers and parents (Krueger, 2014).

The fact that we used the CASEL competency domains and the social-emotional skills they comprise as sensitizing concepts, to conceptualize students' own perceptions of their skills and strategies for managing their school life and interactions with classmates, can be considered both a strength and a limitation of our study (CASEL, 2003). The concepts enabled us to provide insight into the social-emotional skills students perceived as relevant (Bowen, 2006). However, they might also have prevented us from indicating strategies and skills not comprised in the concepts used (Kane, 2001).

Another limitation of the study is that, despite using open-ended questions, the questions and discussions in the focus group interviews may have prompted students to present themselves favorably during the focus group discussions and to respond in socially desirable ways (Krueger, 2014). However, we made sure that students understood we were genuinely interested in their experiences and perspectives. We also made sure they felt comfortable voicing opposing opinions regarding the social-emotional skills they

perceived appropriate and their perceptions of situations for using these skills. It is also possible that their views of their problem-solving strategies were too optimistic (Compas et al., 2001; Schmidt & Čreslovnik, 2010). Similarly, the retrospective accounts provided of their interactions with peers may not have reflected their actual skill performance in interaction problems (Creswell & Miller, 2000; Norris, 1997). However, students' awareness of appropriate skills and strategies in social interactions are relevant inputs that can be used to engage students in SEL program implementation.

A final limitation is that teachers selected the students in the study based on their availability, willingness, and their ability to talk with strangers and each other about their school life experiences. These students do not represent the total population of low-achieving students in Dutch prevocational secondary education, nor students in other educational tracks. The findings cannot, therefore, be generalized to all adolescents in secondary education (Patton, 2002). However, generalization of findings was not the purpose of this study.

Implications for practice and research

Overall, our findings indicate that low-achieving adolescent students are valuable informants for those who wish to implement SEL programs tailored to their needs (De Leeuw et al., 2018; Mishna et al., 2020; Yeager, 2017). Our study has highlighted a number of factors that teachers and schools should take into account when implementing programs such as Skills4Life. For instance, we advise teachers to explore adolescents' language and their experiences concerning interactions with classmates, the strategies they perceive as useful in navigating these interactions, and the difficulties they encountered. This would provide insights that may be used to adapt an SEL program to students' needs (Burleigh & Wilson, 2021; Yeager et al., 2018). This is especially important for low-achieving students who have difficulty transferring skills learned in one context to other contexts (Gresham, 2010). (Digital) instruments are available for identifying students' skills and interactions with classmates (Ferreira et al., 2020; Thomson et al., 2018) however, classroom discussions are necessary for obtaining insight into students' lived experiences and language.

A second finding of our study pertains to students' perceptions and concerns that teachers are often unaware of the severe interaction problems students face. Insight into these perceptions and concerns can help teachers to create the safe and supportive classroom contexts necessary for social-emotional skills enhancement (McKown et al., 2019; Schonert-Reichl, 2017). Such contexts allow teachers to discuss students' interactions and

problems, and to inform them about useful (additional) social-emotional skills. Teaching these skills adapted to students' experiences and language is assumed to be conducive to engaging students in SEL program implementation (Côté-Lussier & Fitzpatrick, 2016; Meyer et al., 2020).

A third implication for practice of our study is that students felt a personal responsibility for intervening in and solving (severe) interaction problems. This is consistent with research on adolescent development (Güroğlu et al., 2014), and can be used to engage students in practicing the skills taught in SEL programs.

A fourth implication for practice indicated by our study results is that low-achieving adolescent students are valuable sources of information for SEL program implementation (Cook-Sather, 2020; Ramirez et al., 2021). Therefore, exploration of their skills, resources, and concerns on interactions with peers at school before implementing the program is indicated to provide teachers with valuable insights and opportunities to tailor SEL programs to their students' needs. To support teachers, we recommend that program developers make exploring adolescents' social-emotional skills and assets an integral part of SEL programs and provide knowledge and materials for such exploration.

Additional teacher training and support are recommended for assessing students' language, perceptions, and experiences regarding interactions with classmates and the strategies they perceive as relevant. Teachers' assessments should be used to tailor a program to students' needs while maintaining its core elements (e.g., Durlak, 2016; Rotherham-Borus et al., 2012).

As our study mainly included low-achieving students in prevocational education, future research on the perspectives and experiences of other student populations is necessary (McKenna & Millen, 2013). Future research should also focus in more detail on students' hesitancy to apply certain social-emotional skills in problematic interactions. We also recommend further research on teachers' and students' experiences regarding SEL programs that have been tailored to students' needs based on teachers' assessments of students' perceptions. Finally, additional evaluation studies are required on the effects of such programs.

CONCLUSION

Adolescents' active participation in developing their social-emotional skills makes them valuable informants for those who wish to implement SEL programs tailored to adolescents' needs. Our study indicates that low-achieving adolescent students have their

own perspectives and language regarding their interactions with classmates and their own views on how to manage these interactions. They indicated a range of strategies that they preferred to use for interaction management, such as talking, collaboration, and understanding others' views. The strategies they indicated mirror the social-emotional skills regularly targeted in SEL programs. However, students indicated that they did not apply these strategies when they felt unsafe or unsupported. Particularly when it came to severe interaction problems, such as bullying, students stated that teachers were often unaware of these difficulties. Prior experiences of disrespect or not being taken seriously by teachers contributed to students' decisions not to intervene in emotionally intense situations at school. Obtaining insight into students' perceptions of their interactions with peers, the problems they encountered, and their views on the strategies and conditions required for managing interactions is helpful for teachers implementing SEL programs, who wish to tailor these to their students' needs. Additional teacher training is required on discussing, with the students themselves, their perceptions, experiences, and strategies for managing interactions and interaction problems with classmates at school; and on how to adapt a program while maintaining its core elements.

Human subjects approval statement

The study was submitted to the Dutch Central Committee on Research Involving Human Subjects (CCMO) for ethical approval and was exempted as it did not pose a burden to participants.

Data availability

The authors do not have permission to share data.

Funding

This work was supported by SIA, the Taskforce for Applied Research in the Netherlands, under Grant number PRO-4-43.

Acknowledgements

The authors thank LG and MH for their contribution to the data collection and analyses, and SB for English language editing.

Appendix 1 Skills 4 Life Basic- and -Internship Module, Lesson Titles, and Content

Skills 4 Life-Basic Module: Lessons and Content	
Title of Lesson	**Content of Lessons**
1.Introduction to Skills4Life program	Awareness of personal characteristics, including similarities and differences Making agreements on interpersonal behavior in the classroom
2.Observing behaviors	Being aware of the consequences of your own reactions Observing helpful and unhelpful behavior Making agreements on interpersonal behavior in the classroom
3. Observing emotions	Being aware and recognizing your own emotions and those of others Making agreements on interpersonal behavior in the classroom
4. Recognizing behaviors; self-talk	Being aware and recognizing your own thoughts and those of others Recognizing social situations Managing your own thoughts Making agreements on interpersonal behavior in the classroom
5. Looking at yourself and managing thoughts	Being aware and recognizing your character traits and those of others Being aware and recognizing your own thoughts Managing your thoughts
6. Trust in relationships and friendships	Managing emotions and social situations Being aware of social situations and managing them well
7. Peer pressure and saying no	Being aware of and recognizing your feelings, thoughts, and reactions and their consequences to yourself and others Expressing thoughts and emotions Standing up for yourself and indicating borders Being aware and recognizing peer pressure Managing your emotions and thoughts
8. Specifying boundaries and respect in intimate relationships	Self-awareness, self-management, and social awareness Being aware of, recognizing, and managing conflict in social situations
9. Conflicts between students and teachers	Being aware of social situation Being aware of and recognizing your feelings and thoughts, your behavioral reactions, and those of others Managing conflicts Indicating, expressing, and maintaining personal borders Respecting other people's borders
10. Conflicts between students and parents	Being aware of and recognizing your feelings and thoughts, your behavioral reactions, and those of others Being aware of, recognizing and managing distress in social situations and conflicts
11. Conclusion	Being aware of, recognizing and expressing feelings and thoughts Being aware of, recognizing and managing social skills

Skills 4 Life-Internship Module: Lessons and Content	
Title of Lesson.	**Content of Lessons**
1. Internship and work	Introduction Differences between school and workplace Checklist for the first day of your internship Interviewing your parents on their own career and internships
2. Presenting yourself	My pitch: who I am? Contacting internship providers Writing a Curriculum Vitae
3. Apply for internships and demonstrating initiative at work	Managing and updating your Curriculum Vitae Learning to apply for internships Importance of demonstrating initiative at work
4. How to deal with criticism	Purposes and importance of criticism Criticizing and being criticized
5. Keeping calm and quiet during internships	Attendance Being aware of stress Relaxing.
6. Networking	Importance of personal networks Extending and maintaining your network

Chapter 7

Parents' perspectives on adolescent Social Emotional Learning

An explorative qualitative study amongst parents of students in prevocational secondary education

M.C.E. Van de Sande
E. Pars
R.F.W. Diekstra
C. Gravesteijn
P.L. Kocken
R. Reis
M. Fekkes

Health Education (2024), 124 (1/2), 1-19.

ABSTRACT

Worldwide, schools implement social emotional learning (SEL) programs to enhance students' social-emotional skills. Although parents play an essential role in teaching these skills, knowledge about their perspectives on social emotional learning is limited. In providing insight into the perspectives of parents from adolescent students this paper adds to this knowledge.

An explorative qualitative study was conducted to gain insight into parents' perspectives (N = 32) on adolescent social emotional learning. A broadly used professional framework for social emotional learning was used as a frame of reference in interviews with parents from diverse backgrounds. Within and across case analyses were applied to analyze the interviews.

A conceptual model of four social-emotional skills constructs considered crucial learning by parents emerged from the data: respectful behavior, cooperation, self-knowledge, and self-reliance. Parents' language, interpretations, and orderings of skills indicate that the model underlying these constructs differs from skills embedded in the professional framework. Participants were small in number and mainly female. Therefore, more research is necessary to test the model in other parent populations.

The social-emotional skills students in prevocational secondary education learn at home differ from those targeted in SEL programs. Engaging students' parents in SEL program implementation is indicated to align the skills taught at home and school. Preparing teachers to implement such programs requires training them on engaging parents from diverse backgrounds.

The study is one of the first providing insight into parents' perspectives on SEL, the social-emotional skills deemed crucial to master for adolescents, and the roles they view for themselves and school on teaching these skills.

INTRODUCTION

Social and emotional learning (SEL) matters. SEL is the process of acquiring the social-emotional skills, such as empathy, self-regulation, and problem-solving, necessary for successfully contributing to and participating in different living and learning contexts (Zins and Elias, 2007). SEL is associated with child outcomes, such as psychosocial health, resilience, academic achievements, and well-being. Developing social-emotional skills is a continuous and cumulative process, starting from birth in interactions with parents and other people at home (Grusec, 2011; Osher et al., 2020). During this socialization process, young people become familiar with the skills, behaviors, and attitudes expressed and reflected in the practices parents and others use when caring for, protecting, and guiding them to participate in the community they belong to. Schools are also considered crucial contexts for SEL and acquiring the social-emotional skills needed for success in life, education, and work (Eccles and Roeser, 2011; National Research Council, 2012).

Adolescence is considered a sensitive period for developing the advanced social-emotional skills required for accomplishing central developmental tasks, such as a differentiated self-concept and independence (Crone, 2017). However, adult guidance and support concerning SEL remain necessary. Collaboration between parents and schools is assumed to promote positive youth development (Bronfenbrenner and Morris, 2006; Garbacz et al., 2015). Teachers and parents also agree that they both have a part to play in enhancing social-emotional skills (e.g., Bridgeland et al., 2013; Hill et al., 2018).

Contextual, as well as personal, factors shape an individual's SEL. For instance, growing up in low-income and/or migrant families challenges developing the social-emotional skills required for success in education and work (Fletcher and Wolfe, 2016; West et al., 2020). Intellectual, emotional-behavioral, and learning problems similarly impede social-emotional skill development (Cook et al., 2008; Goodman and Scott, 2015). Parents and teachers perceive enhancing SEL in young people with such problems as particularly demanding (Gresham, 2015). However, in collaborating with parents, schools and teachers commonly encounter challenges related to differences in their role perceptions, goals, and expectations of students (Hornby and Blackwell, 2018; García-Carmona et al., 2020). They particularly perceive parents from poor and migrant backgrounds as hard to reach.

Over the past 30 years, a new field of research on SEL emerged. Scholars in this field develop programs and theoretical concepts to support teachers and schools in purposefully enhancing students' SEL. Although collaboration with parents is addressed and emphasized in the SEL literature in this field, insight into whether and how to engage parents in school SEL is limited.

SEL programs and frameworks

All over the world, schools implement SEL programs to enhance social-emotional skills and to improve adolescents' psychosocial health, education, and work prospects (Durlak et al., 2015). For guiding this implementation, several SEL frameworks targeting various social-emotional skills have been designed to support sharing conceptual models, develop a common language regarding skills development, and promote collaboration amongst different ecological systems, e.g., teachers, students, school staff, and parents (Jones et al., 2019). The framework developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL) is broadly used in SEL programs (Durlak et al., 2015). This framework comprises five competency domains containing behaviors, skills, and attitudes relating to SEL: self-awareness, social awareness, self-management, relationship skills, and responsible decision-making. SEL frameworks and -programs have broad theoretical foundations, being informed, for instance, by social learning theory, cognitive-behavioral theory, systems theory, and development theories. What is more, they target various social-emotional skills.

Meta-analyses and evaluation studies of SEL programs showed significant positive effects on social-emotional skills, psychosocial health, and academic achievement in diverse populations of children and adolescents (e.g., Durlak et al., 2011; Sklad et al., 2012; Taylor et al., 2017). These studies did not evaluate parent engagement. Other meta-analyses found positive effects of engaging parents on student outcomes associated with programs' responsiveness to parental developmental goals (Goldberg et al., 2019; Sheridan et al., 2019). Students facing personal and contextual adversities, such as learning difficulties and growing up in low-income families and neighborhoods, are assumed to profit most from SEL programs (Elias and Haynes, 2008; West et al., 2020). To achieve an SEL program's intended outcomes in students, a program should be implemented with fidelity, requiring teacher training (Durlak, 2016). Teachers are also assumed to tailor their lessons to meet the specific needs of their students; insight into how teachers implement programs is limited. Collaboration between parents and schools on SEL program implementation is also emphasized (Patrikakou and Weissberg, 2007;

Bronfenbrenner and Morris, 2006). Fruitful parent-school collaboration is associated with shared views and responsibilities on SEL (Garbacz et al., 2015).

However, the skills taught in SEL programs are also criticized for not necessarily matching the skills students growing up in poor and/or migrant families learn at home (e.g., Dinallo, 2016; Gillies, 2011). Such a mismatch is associated with unequal benefits of those programs for students growing up in disadvantaged circumstances and can put pressure on parent-school collaboration on SEL (Jagers et al., 2019b). Engaging these students and their parents in SEL program implementation is emphasized. Therefore, more insight is necessary into their perspectives on SEL.

Parents' perspectives on SEL during adolescence

Parents play a core role in helping their children acquire social-emotional skills. Apart from providing a safe and supportive context at home, parenting practices regarding SEL are associated with adolescents' skill development, health, and well-being (Grusec, 2011; Smetana, 2017). The skills young people learn at home depend on parents' role perceptions and practices in different socialization domains, e.g., care and protection, building reciprocating relationships, control, guided learning regarding particular skills, and (socio-cultural group) participation. Perceptions and practices in these domains vary depending on the socio-culturally and -economically determined developmental views and values parents hold, as well as the goals they desire for their children. Depending on their views, values, and goals, perceptions and practices of (in)adequate parenting and (in)appropriate social-emotional skills can vary (Smetana, 2017; Sorkhabi and Middaugh, 2019).

Adolescents' increasing independence and advancing skills also demand more egalitarian parent-adolescent interactions involving explanation, renegotiation, and advice on (appropriate) social-emotional skills (Smetana, 2017). Insight into parents' perspectives on the social-emotional skills they perceive as crucial for adolescents to master and parental practices on teaching these skills is limited.

A few small sample qualitative studies have provided insight into the skills perceptions of adolescents' parents. For instance, in one study, parents from diverse socio-economic backgrounds considered mastering self-regulation skills as conditional for responsible decision-making on health and behavior (Myntinnen et al., 2020). For adolescents with special educational needs, parents perceived skills such as empathy, self-regulation, and self-awareness as critical for maintaining positive interactions with peers (Kolb

and Hanley-Maxwell, 2003). Although parents in these studies perceived themselves as primarily responsible for teaching social-emotional skills, they also recognized that schools played a role. However, these studies did not provide insight into the perspectives on SEL of parents from various socio-cultural backgrounds. More insight into the perspectives on SEL of these parents is necessary for collaborating with them on enhancing the social-emotional skills adolescents need.

SEL program implementation and current study aims and setting

Collaboration between parents and schools in SEL programs is particularly emphasized for students growing up in low-income and/or migrant families (Jagers et al., 2019a). As parents' perceptions of skills may differ from the principles, values, and goals guiding SEL programs, such differences might threaten, particularly, the opportunities of students in growing up in poor or disadvantaged circumstances for profiting from SEL school programs. Therefore, collaboration with parents of these students is advisable for implementing SEL programs in today's diverse and inclusive schools. Establishing such collaboration requires a deeper insight into parents' perceptions of adolescents' social-emotional skills, their role in teaching these skills, and the parenting practices they use at home.

The current study is part of a larger project on implementing and evaluating an evidence-based Dutch secondary education universal classroom-based SEL program, Skills4Life (S4L). For this project, the program was adapted to the learning abilities of students with additional educational needs in prevocational education (see 3.1 Participants for more information). An evaluation study of the adapted S4L program showed no effects on outcomes in the full student population and adverse effects in a subgroup of students from migrant families (Van de Sande et al., 2022). To better understand these outcomes and to inform the implementation of the adapted S4L program, we conducted a qualitative study exploring parents' perspectives on SEL. We interviewed parents of relevant students aiming to provide insight into 1. Parents' perceptions of the social-emotional skills deemed crucial to master for adolescents; 2. The roles parents perceive for themselves and schools in teaching these skills; 3. The practices parents perceive adequate for teaching social-emotional skills at home and possible differences between parents from different backgrounds.

METHODS

In 2017, we conducted in-depth interviews with 32 parents regarding their perspectives on adolescent SEL. Parents were interviewed once, at a time and place convenient to

them, which helped them to feel confident and relaxed, and encouraged them to express their thoughts, opinions, and experiences.

Teachers and researchers invited parents to participate in the study during parent-teacher conferences at four different schools in the urban western part of the Netherlands. Researchers also used their social networks to recruit parents. The parents were not personally known by the researchers. If parents were willing to participate, they either received written information from the teacher or were orally informed about the purpose of the study by the researchers. Every interview started by informing parents of the study procedures and confidentiality and explaining the study's aim of gaining insight into parents' perspectives on SEL. Parents were offered a gift voucher of EU 20, - for participating.

Participants

The parents in our study had at least one child in grade 9 or 10 (aged 14-18 years) in the least selective track in Dutch prevocational secondary education, i.e., the Practical Education track (PrE, known in Dutch as Praktijkschool). The PrE track trains students for work. Two percent of secondary education students in the Netherlands are in the PrE track (Statistics Netherlands, 2022). All students in this track have additional educational needs, associated with IQ's varying from 60 to 85 (measured in IQ tests with a mean of 100), severe learning problems (three years delay in reading and mathematics), and/or emotional-behavioral difficulties. Students from low-income and migrant families are overrepresented in this track (Koopman et al., 2015).

Purposeful (emergent) sampling was applied to reach maximum variation in gender, socio-cultural background, family composition, and education level (see Table I). Throughout the study, we interviewed 32 parents. Data saturation was agreed upon by the research team when, in the last three interviews with parents, no new themes, patterns, or ideas emerged (Guest et al., 2006).

Data collection and interview topics

The first two authors (MS and EP) discussed the objectives and methodology of the study in close collaboration with the Skills4Life research group. This group consisted of experts in qualitative research on low-income and migrant family backgrounds, parenting and parent education, and SEL program development and research. Although the research group members were all white and Dutch, they were all parents. One of

the interviewers/coders is raised in a low-income and -educated family and knows that background well. Therefore, it can be assumed that the background differences between them and the parents they interviewed did not affect the quality and analysis of the data.

Table 1 Background characteristics of the parents included in the study

Interview	Gender		Family Background *		Education level **		Family Composition	
	Female	Male	Native Dutch	Migrant	Low	High	2-Parents	1-Parent
1	x			x	x			x
2	x		x		x		x	
3	x		x			x	x	
4	x		x			x	x	
5		x		x	x			x
6	x			x	x		x	
7		x		x	x		x	
8	x	x	x		x		x	
9		x		x	x			x
10	x			x	x			x
11	x		x		x			x
12	x		x		x		x	
13	x		x		x			x
14	x		x		x			x
15	x		x		x		x	
16	x			x		x		x
17	x		x			x	x	
18	x		x		x			x
19	x		x		x		x	
20	x		x		x		x	
21	x			x	x		x	
22	x		x			x		x
23	x			x	x		x	
24		x		x	x		x	
25	x			x		x	x	
26	x		x			x	x	
27	x		x		x		x	
28	x		x		x		x	
29	x	x		x	x		x	
30	x			x	x		x	
31	x	x		x	x		x	
32	x			x	x		x	
Total	29	7	17	15	25	7	22	10

* Migrant parents had various backgrounds, e.g., Cape Verdean, Moroccan, Polish, Turkish.
** Highly educated parents had graduated from college, and lower-educated parents had high school, vocational, or primary education levels.

A semi-structured interview protocol (see Appendix) was developed to discuss in the interviews with parents their perceptions of: (1) the social-emotional skills necessary for adolescents to master; (2) the roles and responsibilities of parents and schools in teaching these skills; and (3) the skills teaching practices they considered adequate at home.

We used the five CASEL competency domains to formulate subtopics for the semi-structured interviews. Aiming to get insight into parents' skills perceptions and to avoid them clinging to the rather abstract and unfamiliar definitions of CASEL, a list of nine skills was derived from this framework (see Table II). We operationalized these skills to make them more accessible to parents' educational and family backgrounds, considering their vocabulary. Besides these operationalizations, socialization theory, and literature on parenting were used as resources to provide insight into parents' perspectives on SEL (e.g., Grusec et al., 2011; Smetena, 2017).

All interviews were conducted in Dutch. After the first few interviews, the operationalizations of the skills were slightly adapted to match the parents' vocabulary; for example, *knowing your strengths and weaknesses* was changed to *knowing what you are good at and are not good at*. Interviewers used descriptions of skills in Dutch, English, and the most common languages of migrant parents in the Netherlands, i.e., Moroccan and Turkish. Depending on parents' preferences, interviews were conducted by telephone, at home, or at school. The interviews lasted 30-45 min. All interviews were audio-recorded, transcribed verbatim into Dutch by EP, and numbered to ensure confidentiality.

Data analyses

As the purpose of our study was explorative, data collection and analyses were performed simultaneously and iteratively (Galetta, 2013). Preliminary findings were discussed in the research group three times: after the 10th, the 22nd, and the last interview. All interviews were entered into a data processing program for qualitative research, Atlas. ti 7, and inductively coded (open coding followed by axial coding) by EP and MS. We performed within-case analyses to identify main perceptions of skills, roles, and practices used at home.

Additionally, these researchers conducted cross-case analyses to elicit commonalities and differences related to dimensions such as ethnic background (Dutch vs. migrant), family composition (single-parent vs. two-parent families), and parents' education level (low vs. high). By combining within-case with cross-case analyses, we were able to give

meaning to parents' perspectives on SEL based on identified patterns of contextualized ideas, perceptions, and experiences of individual parents and commonalities between parents (Ayres et al., 2003).

The results section includes illustrations of parents' interpretations and constructions of social-emotional skills in their own words (italicized). In addition, we included quotes that reflect parents' reasoning and arguments about the interrelations between skills, their beliefs, and perceptions regarding skill development, and the values and goals desired for their children.

Table 2 Competence domains and skills described in CASEL's SEL framework and the operationalizations used in the interviews.

CASEL competence domain.	Social-emotional skills comprised in each domain*	List of operationalized social-emotional skills (used in the interviews)
Self-awareness:	- Recognizing own emotions - Knowledge of strengths and weaknesses - Self-efficacy	- Knowing what you are good at and are not good at
Social awareness:	- Empathy - Perspective-taking - Appreciating diversity - Understand social norms	- Knowing and understanding others' feelings and thoughts - Respecting others' feelings and thoughts
Self-management:	- Self-regulation - Goal setting - Perseverance	- Managing difficult situations and emotions. - Speaking-up for yourself
Relationship skills:	- Communication - Cooperation - Managing peer pressure - Social problem solving - Help seeking	- Getting along with others. - Cooperating with others
Responsible decision making:	- Considering relevant factors and consequences of actions -Taking responsibility for decisions	- Taking other(s) interests into account in decisions - Making and sticking to agreements

* We used the descriptions from the Collaborative for Academic, Social, and Emotional Learning (CASEL) (2003) for reasons of accessibility and comprehensibility for parents.

FINDINGS

All parents seemed engaged and interested in the interviews, which was expressed in their enthusiasm to share their thoughts, opinions, and expertise on SEL and detailed explanations of crucial social-emotional skills.

In the following, we first set out the social-emotional skills parents perceived necessary for adolescents to learn. After that, we report on parents' role perceptions in teaching

social-emotional skills, the practices they considered adequate for teaching skills at home, and we touch upon differences in perspectives related to parents' backgrounds. The numbers between brackets in this section indicate the homogeneity vs. heterogeneity in parents' perspectives.

A conceptual model of four social-emotional skills constructs

Parents associated social-emotional skills across all domains in the CASEL framework with the skills they perceived as relevant for adolescents to master. However, a conceptual model of four interrelated social-emotional skills constructs that differed from the CASEL framework inductively emerged from our data analyses, i.e., (1) respectful behavior, (2) cooperation skills, (3) self-knowledge, and (4) self-reliance. Parents indicated an order (from 1-4) in which the development and teaching of skills should occur during adolescence.

Respectful behavior

According to all parents (32), respectful behavior was first and most important for their children to master. They considered this a self-contained construct of skills. They attributed their perceptions of respectful behavior to the skills and values they learned from their parents, such as trustworthiness, fairness, and helping others. Half of the parents (16) interpreted respectful behavior in terms of appropriate manners, such as talking politely. The other parents used more general qualities, such as showing respect for other religions, cultures, and opinions. The following quote illustrates how a parent associated respectful behavior with *being open-minded*:

> *I want my children to be open-minded, non-judgmental, and respectful of others' opinions. I want them to appreciate others for who they are. […] Even if you do not agree with someone or experience their behavior as annoying or odd […].* (Interview 3)

Collaboration skills

Most parents (22) perceived respectful behavior as crucial for establishing positive relationships and collaboration with people from different backgrounds. They particularly emphasized learning *cooperation skills*, as *today's society revolves around teamwork*. Parents associated these skills with adolescents' future work prospects. They argued that *cooperating* in complex situations and contexts required additional skills, such as *taking others' perspectives into account* and *resisting peer pressure*. Parents believed adolescents need these skills to *resolve conflicts* and *adjust to situations beyond their*

control at home, school, and work. According to parents, mastering *cooperation skills* was a prerequisite for developing other skills during adolescence. The following quote illustrates the order in which parents thought skills should be developed:

> *To cooperate with other people, you need not only respectful behavior but also self-knowledge. When you have self-knowledge, you can learn to speak up for yourself and to set boundaries. All these skills are necessary for establishing successful interactions with other people.* (Interview 13)

Self-knowledge skills

Half of the parents (16) emphasized the need for adolescents to *know who they are* and *what they are good at and not good at*. According to parents, *accepting yourself as you are, self-confidence,* and *creating a realistic self-image* precede developing *realistic goal setting* and *understanding the consequences of behavior. Setting realistic goals* and *understanding the consequences of behavior*, in particular, were associated with future work prospects. Parents also linked the skills relating to self-knowledge with the development of more general personal qualities, as the following quote demonstrates:

> *It is essential for me that my children know what they want and who they are. […] We try to raise all four of our children as individual persons. They are all unique people in their own way, with different talents [...]. I just want them to discover what they like to do and what talents they have.* (Interview 3)

Self-reliance skills

A majority of the parents (22) believed that adolescents need *self-reliance skills* in order to develop independence. According to them, self-reliance comprises skills such as *speaking up for yourself, setting boundaries, sticking to your opinion,* and *self-control*. Most of these parents (19) linked these skills to *resisting peer pressure* and *resolving conflicts* in interactions with peers and adults. However, the following quote shows how a parent couple related their perception of certain skills – in this case, *speaking up for yourself* and *respectful behavior* – to justify the disrespectful behavior of their child towards a teacher:

> *One day, she [daughter] called me from school and said: if you don't come here right now, I will start throwing tables through the classroom. [...] The teacher did not show respect by neglecting her request [not using an aerosol in the classroom because of her allergies]. I thought she [daughter] is correct. Teachers need to respect students too. That is what I mean by mutual respect.* (Interview 15)

Beliefs regarding the responsibilities and roles of parents and schools concerning SEL

All the parents (32) in our study perceived teaching social-emotional skills during adolescence as primarily their task and responsibility. This perception was grounded in their belief that *parents know best what skills their children need*. However, almost all parents (28) viewed a supplemental role for schools, particularly in teaching *cooperation skills* that are difficult to teach at home, i.e., *getting along with people from different backgrounds*.

Teaching skills related to acquiring internships and work were also explicitly labeled the responsibility of schools. A few parents (3) suggested their children might feel more comfortable discussing skills related to specific subjects, such as substance use or intimate relationships, with peers and teachers. Despite their awareness of adolescents' needs, some parents (5) felt embarrassed to discuss such issues with their children, as the following quote indicates:

> *I cannot talk about this [intimate relationship] with her. […] We do not talk about this in our culture before you are married [...] As they would bully her because she has never had this [intimate relationship] […] if it makes her feel uncomfortable, I will allow her to talk to the teacher […].* (Interview 32)

A majority of the parents (22) wanted schools to inform them about SEL at school. They emphasized the absolute necessity of aligning the social-emotional skills taught at school to those learned at home to prevent their children from *getting confused about the proper skills*. Some of them even suggested that parents, teachers, and students should learn social-emotional skills together. Parents wanted to collaborate with schools on SEL. One of them said:

> *During adolescence, your children need to become more independent. […] Therefore, schools must pay attention to and develop partnerships with parents. […] Maybe this sounds peculiar, but, you know, what I mean is that we have to collaborate.* (Interview 11)

Figure 1 represents a conceptual model of the four interrelated social-emotional skills constructs parents perceived as crucial for adolescents to learn; as far as we know, this is one of the first models reflecting parents' perceptions of these skills.

Parenting practices relating to enhancing social-emotional skills

Some parents (8) considered providing a safe and caring environment at home conditional for enhancing social-emotional skills during adolescence. Except from one, parents also

emphasized that they tried to teach skills that enhanced adolescents' independence by using several practices. *Talking* about the social-emotional skills they considered most appropriate in situations was the practice parents (30) preferred and tried to use. In addition, most parents (24) tried to *monitor* their children's whereabouts – which had become more difficult as adolescents spend more time outside the family. Based on this monitoring, parents attempted to *coach* their children by *giving advice* (15)*, explaining a situation* (16), and *referring to their responsibilities* (5). Besides this, a few parents (3) used everyday situations and television programs to discuss (in)appropriate skills. A few parents (4) also purposely tried to be role models regarding social-emotional skills. Overall, they were satisfied with the practices they used. However, some parents (10) also struggled with balancing between *interfering or not interfering in their children's problems*. They indicated that they lacked the support they had had from other parents when their children were still in primary education. Despite the general agreement in parents' perspectives on SEL, we also identified differences.

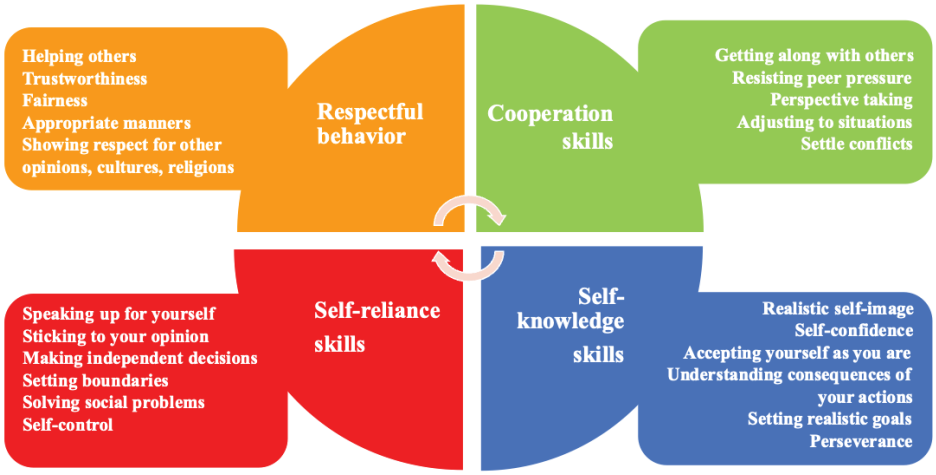


Figure 1 Conceptual model of four complementary adolescent social-emotional constructs, as perceived by parents, and the skills associated with these constructs (Author's own creation/work)

Differences in parents' perspectives on SEL

Parental beliefs, values, and goals concerning child development seemed to differ between high- (7) vs. low-educated (25) parents and/or migrant (15) vs. Dutch (17) parents. Their interpretations of social-emotional skills and the practices they preferred

to teach these skills express these differences. However, the sample sizes were small. Therefore, the findings related to parental backgrounds should be interpreted with prudence. All highly educated parents (7) associated *respectful behavior* with *being open-minded towards people from different backgrounds*. These parents preferred to *discuss* the most appropriate skills in a particular context. Lower-educated parents (18) mainly associated respectful behavior with appropriate manners; they *talked* to adolescents by instructing them on the skills they wanted them to master. A few Dutch parents (2) perceived respectful behavior to be mutual. They expected such behavior of their children in response to respectful behavior from others. Most migrant parents (10) expected unconditional respectful behavior from their children. Some of them related these expectations to their experience of raising children in a context that *always blames people of color for causing problems*. A few low-educated migrant parents (4), believing schools were primarily responsible for academic learning, regarded teaching social-emotional skills as their domain in which *schools should not interfere*. Although these parents questioned the role of schools in teaching skills, they demanded to be informed about the disrespectful behavior of their children at school. One of them said:

> *You know, I am not sure what school can do to teach these skills to students. I expect the school to inform me about my daughter's problems at school. That is what school can do. […].* (Interview 9)

Parents also varied in their expectations regarding adolescents' self-reliance skills. The migrant parents (15) believed that adolescents should *manage their problems with others by themselves*. According to lower-educated Dutch parents (12), adolescents need room for *exploring the skills that feel comfortable for them*. A few of these parents (4) tried to start a conversation when they noticed *something was bothering* their child. Others purposely tried not to intervene in skills learning, believing adolescents needed *room for experimentation*. Highly educated Dutch parents expected their children to *talk about their feelings and problems and not keep up appearances*.

DISCUSSION

Worldwide, schools implement Social Emotional Learning (SEL) programs designed to enhance social-emotional skills, aiming to improve adolescents' life and health prospects. However, knowledge about parents' perspectives on SEL is limited. To provide insight into parents' perspectives on adolescent SEL, we conducted an exploratory qualitative study.

Conceptual model of four social-emotional skills constructs

The first significant proceed of our study is the conceptual model of four complementary skills constructs that emerged from our analyses of the interviews with parents, i.e., *respectful behavior, cooperation skills, self-knowledge skills*, and *self-reliance skills* (see Figure 1). The parents believed that mastering social-emotional skills was essential for adolescents' future work prospects. This finding is consistent with the conviction of parents in studies that did not report on their socio-cultural background (Kolb and Hanley-Maxwell, 2003; Mynttinen et al., 2020).

At first sight, the skills in the conceptual model seem to coincide with the competence domains described in the CASEL framework, i.e., self-awareness, social awareness, self-management, relationship skills, and responsible decision-making. However, the parents' language, their interpretations of and interrelations articulated between skills, and views on the order in which adolescents develop these skills reflect differences between their skills perceptions and professional skills descriptions embedded in the CASEL framework. According to Jukes et al. (2021), such potential subtle differences between skills taught at home and school indicate that awareness is necessary for communication with parents on social-emotional skills.

Parental perceptions of social-emotional skills vs. CASEL's skills

The parents in our study considered respectful behavior a self-contained construct of social-emotional skills. In contrast, respect for others' feelings and thoughts is a component skill of CASEL's social awareness competence domain. They associated respectful behavior with values or qualities they desired for their children (e.g., helping others, trustworthiness, fairness, and appropriate manners). Such qualities are not directly visible in the skills descriptions used in the CASEL competence domains.

The parental construct of cooperation skills corresponds to skills in the CASEL domains of relationship skills (i.e., getting along with others, resisting peer pressure, and conflict resolution) and social awareness (i.e., perspective-taking). The self-knowledge skills that parents perceived as crucial for adolescents to master reflect CASEL's domains of self-awareness (e.g., self-confidence, realistic self-image, and accepting yourself as you are) and self-management (i.e., realistic goal setting and perseverance). The parental construct of self-reliance skills overlaps with CASEL's domains of relationship skills (i.e., social problem solving), self-management (i.e., self-control), and responsible decision-making (i.e., sticking to your opinion and making independent decisions).

Finally, the parents in our study emphasized that adolescents need to learn to speak up for themselves and set boundaries. These skills might reflect skills in CASEL's competence domains of self-awareness, self-management, and relationship skills. Parents associated self-related skills with adolescent development, reflecting their perceived order in social-emotional skills development.

Notably, unlike the CASEL framework, parents did not mention self-regulation or empathy as skills they deemed crucial for adolescents to master. Possibly, parents believed that adolescents should already have acquired self-regulation, as is demonstrated in another research (Klimes-Dougan et al., 2007). In addition, they might have associated empathy with helping others and perspective-taking and may have, therefore, perceived empathy as being included in respectful behavior and cooperation skills (Carlo et al., 2003).

The finding that parents' language and interpretations concerning social-emotional skills vary from those used in the CASEL framework accords with other studies on parents and SEL (Miller et al., 2018; Tyner, 2021). Hubbard et al. (2019) determined in their study that parents considered skills to be interrelated. However, they did not provide insight into these interrelations nor into parents' views of the ordering of the development of skills like we did in our study. Considering parental language and interpretation of social-emotional skills, contextualizing SEL program implementation seems indicated to allow adolescents to acquire the social-emotional skills they need across contexts.

Parental role perceptions and practices on SEL

A second notable finding of our study is the role parents claimed for themselves in SEL, both at home and at school. Although perceiving themselves as experts and primarily responsible for SEL, parents acknowledged that schools have a role too. They considered schools to have a role in teaching skills that are difficult to learn at home, e.g., cooperation skills, and managing temptations such as intimate relationships. Additionally, parents expressed their motivation to collaborate with schools on aligning the skills taught at home and at school.

We found that parents in our study were of the opinion that both parents and schools have a part to play in SEL. Their wish to be informed about SEL at school is consistent with findings in other studies on SEL programs (Haymovitz et al., 2018; Hill et al., 2018). Similar to our study, Hubbard et al. (2019) found that parents believed that skills taught at school should match up with the skills taught at home, but not that parents had doubts about schools' expertise in SEL. Both the leading role parents claimed for themselves in teaching social-emotional skills and their wish to collaborate with schools on aligning

the skills taught at home and school provide opportunities for fruitful parent-school collaboration on SEL. Insight into these parental perceptions is helpful when negotiating and deciding with them on the skills that adolescents need to master. Knowledge of the parenting practices relating to SEL can help to support parents in enhancing social-emotional skills at home.

The parents in our study mentioned several practices they liked to use in teaching social-emotional skills at home. The practice of communication – which comprised instruction, advising, explaining, and coaching – was the practice preferred by most parents. According to Roy and Giraldo-Garcia (2018), parent-adolescent communication on social-emotional skills is central to enhancing these skills. Comparable to findings in other studies (Kolb and Hanley-Maxwell, 2003; Myttinen et al., 2020), parents in our study attempted to provide a safe home context, monitor adolescent behavior, and be role models for appropriate social-emotional skills.

Although parents in our study perceived self-efficacy on skills teaching, they also felt challenged on SEL during adolescence. In particular, they missed the support from other parents when their children were still in primary education. This lack of support is presumably due to the decline in parent involvement in secondary education (Hill et al., 2018; Roy and Giraldo-Garcia, 2018). According to parents, schools are trustworthy sources for supporting them on the SEL of their children (Hubbard et al., 2019).

Differences and similarities in parents' perspectives on SEL

Parents in our study largely agreed on the social-emotional skills they considered crucial for adolescents to master and the parenting practices appropriate for helping their children acquire these skills. They perceived themselves as having expertise and claimed a leading role in adolescent SEL. However, consistent with other research, their perceptions of skills and parenting practices also varied depending on their background characteristics (Grusec, 2011; Kagitcibasi, 2012).

As our study shows, parents also have their own ideas about which social-emotional skills are crucial for adolescents to master. These ideas varied related to their education level and socio-culturally rooted beliefs, values, and goals regarding child development and differed from the descriptions of skills embedded in the CASEL framework.

Parental skills perceptions are expressed in their language, understanding of skills, their views on the interrelations between skills, and the order in which they believe skills develop. In their perception, migrant parents reflected a more other-centered approach to

social-emotional skills considered critical to learning; Dutch parents found it important to acquire more self-oriented skills (Hoffman, 2009; Kagitcibasi, 2012). Besides, parents are motivated to work with schools on aligning the skills taught at school and home to improve adolescents' prospects in life, education, and work. Working with parents and their children requires awareness of differences and similarities regarding SEL amongst them.

Strengths and limitations

Our study contributes to the literature on SEL by presenting a parental model of social-emotional skills. Particularly, the language parents use, their interpretation of social-emotional skills, and the order in which they believe these skills develop cause them to prioritize and relate skills in ways that differ from the skills embedded in professional SEL frameworks (Jones et al., 2019; Kane, 2012). Parents' perceptions of skills have recently become a research focus. However, the model presented in this study is one of the first to provide comprehensive insight into how parents order and interrelate adolescent social-emotional skills.

In addition, including low-educated parents from various socio-cultural backgrounds is a strength of our study, as typical research procedures are insufficient for engaging these parents (Bonevski et al., 2014). However, the selective group of parents included in our study limits the generalizability of our findings (Ayres et al., 2003).

Our list of eight operationalized skills derived from the CASEL framework is both a strength and a limitation of our study (Durlak et al., 2015). The list enabled us to openly discuss and explore the social-emotional skills parents desired their children to master, their interpretations of these skills, and the order in which they perceive these skills ideally develop. However, the operationalizations might also have narrowed parents' perceptions of skills and prevented them from elaborating on a broad range of skills beyond those operationalized. By using open-ended questions and inductive coding, we tried to prevent this as much as possible (Thomas, 2006).

The small and specific sample of parents of low-achieving students in PrE should also be considered a limitation. As all parents participated in our study voluntarily, they might not be representative of those who declined to participate and those not reached with the invitation strategies used (Kvale and Brinkman, 2009). Although we managed to include parents varying in their socio-cultural background, family composition, and, to a lesser extent, education level, and gender, the conceptual model of social-emotional skills constructs that emerged from our study cannot be generalized to other parents (Patton, 2002).

Another limitation is that parents possibly responded in a socially desirable way in the interviews and might have presented an idealized picture of their parenting practices, while underreporting undesirable practices to put themselves in a good light. Such desirable answering might have compromised the validity of our findings (Hewitt, 2007). However, we tried to prevent this problem by creating an open and informal atmosphere in the interviews. We believe both parents' engagement and openness in sharing their thoughts, reasoning, doubts, and uncertainties, and the differences we identified between the parental model and the CASEL framework demonstrated that we managed to limit social desirability bias.

Implications for practice and research

Parents' perceptions of the social-emotional skills that adolescents should master differ from the professional perceptions embedded in SEL programs. Being aware of these differences is crucial for implementing SEL programs that will benefit all adolescents, including those in marginalized situations (Garbacz et al., 2015; Jagers et al., 2019a). Therefore, we recommend a four-step approach to parent-school collaboration on SEL. These steps are as follows: 1. Acknowledge parents as active agents with expertise on SEL and involve them as partners in SEL at school; 2. Collaboratively explore which social-emotional skills parents and schools perceive as crucial for students to master, paying attention to both parties' beliefs, values, and goals regarding child development, language, and interpretations of skills; 3. Align the skills taught at home and school based on joint negotiations and decisions on the skills adolescents need to master; 4. Discuss opportunities for parents and teachers to employ complementary practices to improve these skills.

We recommend that diverse and inclusive schools implementing SEL programs use a systemic approach involving teachers, students, and parents in a team setting to explore, negotiate, and align the differences in interpretations of and language used on skills taught at home and school. Such a systemic approach is required for implementing an SEL program schoolwide and at the classroom level to adapt to the skills students from diverse backgrounds bring to school (e.g., Jagers et al., 2019a; McCallops et al., 2019). Collaboration with parents on SEL may be achieved in several ways. For instance, parent-teacher conferences and school websites seem to be straightforward resources for informing parents about SEL programs; however, engaging and supporting parents does require personal communication, which a school website does not offer. Awareness of

potential barriers to collaboration, such as differences in skills perceptions, parents' socio-cultural background, language, and unfamiliarity with school participation, is crucial (Hornby and Blackwell, 2018). Therefore, we recommend additional teacher training and support on engaging and collaborating with parents from various backgrounds.

Further research is required to refine, validate, and extend the conceptual model of the four social-emotional skills constructs that emerged from our study, either using our operationalizations of the CASEL skills or conducting more open-ended interviews and grounded theory methods to gain in-depth insights into parents' skills perceptions (Kane, 2012; McKenna and Millen, 2013).

Since our study included mainly lower-educated mothers of low-achieving adolescent students, future research should aim to provide insight into the perspectives on SEL of, e.g., fathers and parents from other backgrounds and with children in different educational tracks, to inform the implementation and tailoring of SEL programs to students' needs. Such knowledge is also necessary to indicate if and which of our findings are generalizable to other parents. Besides this, the four-step approach we presented for collaboration with parents on implementing SEL programs needs to be evaluated in future research.

CONCLUSION

Both parents and schools have a part to play in adolescent SEL, and both have expertise in this topic. The conceptual model of four interrelated adolescent social-emotional skills constructs, presented in our study, indicates that parents' perceptions of these skills might differ from the professional skills embedded in SEL programs and frameworks. Therefore, we argue that aligning the skills young people are expected to master for their success in life, education, and work should be an integral part of the parent-school collaboration on SEL program implementation in diverse and inclusive schools. To accomplish such alignment, we advise schools to explore parents' willingness to collaborate on SEL and to come to agreements with them about the skills taught at school. For informing parents, the need for (cultural) adaptations of SEL material should be examined. Furthermore, teacher training is necessary to facilitate communication and collaboration on SEL with parents from various socio-cultural backgrounds. Finally, further research is required on the skills perceptions and constructs beyond those of parents of low-achieving students in prevocational education.

CCMO approval

The study was approved by the Dutch Central Committee on Research Involving Human Subjects (CCMO). Parents received written information from the teacher or were orally informed about the purpose of the study by the researchers. Parents included in the study agreed to participate.

Data availability

The authors do not have permission to share data.

Funding

This work was supported by SIA, the Taskforce for Applied Research in the Netherlands, under Grant number PRO-4-43.

Appendix 1 Topic list

Topic list for the interviews on parents' perspectives on SEL	
Topics	**Subtopics**
1. Interview context:	- Home - School/parent-teacher conference - Telephone
2. Background characteristics:	- Gender - Family composition - Country of birth - Educational level
3. Familiarity with SEL at school:	- Knowledge of SEL at school - Attitude towards SEL at school
4. Social-emotional skills crucial learning (CASEL framework):	- (Most) crucial skills for adolescents - Need for learning these skills - How do adolescents acquire these skills?
5. Responsible for teaching skills:	- Parents - School - Others
6. Parenting practices related to learning skills:	- Skills parents teach themselves - How parents teach skills - Development of skills
7. Parent support on SEL:	- Perceived efficacy of parents in teaching skills - Need for support in teaching SEL

Chapter 8

General Discussion

Aiming to add to the knowledge on the evaluation and implementation of universal Social Emotional Learning (SEL) programs, we systematically examined school-based programs for adolescents, focusing, in particular, on the Dutch Skills4Life (S4L) program. Six sequenced qualitative and quantitative studies were conducted to better understand the skills students in prevocational secondary education tracks have and need to learn. Together, the studies in this thesis provide insight into the social-emotional skills these students have and those that should be taught to them at school. Our studies' findings are relevant for developing and refining universal school-based SEL programs tailored to the needs of adolescents living and learning across settings.

In this general discussion, we summarize the studies' relevance and context. Subsequently, the main findings of the studies are discussed in five sections, the first two concerning the evaluation of S4L and other SEL programs and the other three dealing with the implementation of these programs. Next, the studies' strengths, limitations, and implications for SEL practice and research are described. Finally, a general conclusion based on the studies in this thesis is given.

Study relevance and context

In this thesis, social and emotional learning is defined as the process of acquiring the social-emotional skills young people need to participate and contribute positively to the settings in which they live and learn, at home, school, and work (Zins & Elias, 2007). This process is associated with positive adolescent psychosocial health and educational and work prospects. SEL programs are developed and implemented in schools worldwide to advance young people's prospects in these areas. These programs aim to enhance skills such as perspective-taking, cooperation, and perseverance. Recently, the COVID-pandemic negatively affected young people's psychosocial health. Bosmans et al. (2023) found that almost half of the adolescents in the Netherlands (47%) often feel stressed, in connection, for instance, to schoolwork, social expectations, and personal problems. Besides this, 30% of them report mental health problems, such as loneliness, depression, and/or serious suicidal thoughts. SEL programs and SEL literature use various frameworks and definitions of social-emotional skills. The studies in this thesis draw on the CASEL framework for SEL as a reference (Collaborative for Academic, Social, and Emotional Learning (CASEL), 2020). This framework focuses on social-emotional skills in five competency domains, i.e., self-awareness, social awareness, self-management, relationship skills, and responsible decision making.

Research shows that SEL programs contribute to improving young people's social-emotional skills as well as their health and well-being. However, knowledge about the effects of those programs on individual social-emotional skills is limited. Furthermore, evaluation studies of SEL programs do not always pay attention to differences in personal and contextual factors that may influence social and emotional learning, such as students' sex, family background, learning abilities, and the context in which they are raised. This distinction is necessary, as such characteristics impact the social-emotional skills adolescents have developed and need to learn. Insight into SEL programs' effects on individual social-emotional skills in students with varying background characteristics is relevant for implementing (evidence-based) SEL programs tailored to the needs of students in diverse and inclusive schools.

Previous studies showed that the S4L program positively affected the social-emotional skills and psychosocial health outcomes of students across different tracks in Dutch secondary schools[2] (Gravesteijn, 2010). A random controlled design study on this program by Pannebakker et al. (2019) found that students in prevocational secondary education (PVSE, VMBO in Dutch), having lower scores at the start, profited most from the program. However, the PVSE students and teachers involved in this study indicated that the program demanded too much of their learning abilities (Kocken et al., 2010). In addition, students in the Practical Education (PrE) track, dropped out of this study. To meet the needs of PVSE students, the findings of Pannebakker et al. indicated that the *original* S4L program should be adapted. Besides this, the *original* S4L program does not target workplace-relevant social-emotional skills. Teaching these skills, however, is crucial for students in the PVSE-basic (PVSE-b, VMBO-basis in Dutch) and the Practical Education (PrE, Praktijkonderwijs in Dutch) track. These students learn at school as well as at the internship workplace for several days a week. Research has shown that students in the PVSE-b and PrE tracks have additional educational needs (Koopman & Ledoux, 2013). These needs relate to mild intellectual ($55 < IQ < 90$), emotional-behavioral, and/or learning problems, e.g., delays in language and mathematics, and limited attention span, working memory, and/or information processing. Students in these tracks often grow up in low-income and/or migrant families (Statistics Netherlands, 2016; Korpershoek et al., 2016).

[2] The Dutch mainstream secondary education system is highly stratified and consists of a general secondary education track (HAVO in Dutch), a pre-university track (VWO in Dutch), five qualitatively different tracks in Prevocational secondary education (PVSE, VMBO in Dutch). These tracks are, a theoretical, combined, advanced vocational, and basic vocational track and a Practical education (PrE, Praktijkonderwijs in Dutch). This is a separate track for students with additional educational needs. Significant differences in learning abilities and performance levels exist between and within the different PVSE tracks.. In addition to mainstream education, the Dutch secondary education system also features schools for students with special educational needs.

In 2013-2014 the developers adapted the S4L program to meet the intellectual and language abilities of students in the PVSE-b and PrE tracks. Although both the *original* and *adapted* S4L program target the same social-emotional skills, the *adapted* program teaches such skills to prepare students for and support them in the workplace setting.

The previous evaluation studies on the original S4L program did not distinguish the program's effects on individual skills in students from varying sociocultural backgrounds in different school tracks. However, accounting for these differences is necessary, as learning abilities, family background, and learning setting determine the social-emotional skills young people need. Adolescent students and their parents are considered active participants in the development of social-emotional skills and, therefore, they are crucial informants for tailoring the S4L and other SEL programs to the skills they need. However, insight into their perspectives on the skills taught in S4L and other SEL programs is limited.

A sequential approach was used in conducting the studies in this thesis. To inform the developers on the adaptation of the S4L program, knowledge about the social-emotional skills targeted in recent adolescent universal SEL programs and measured for effects in evaluation studies was required (**Chapter 2**). In an evaluation study of the *original* S4L program, we found differences in its effects on the psychosocial health outcomes of students in varying school tracks (**Chapter 3**). Our cross-sectional study provided insight into the relationships between the individual social-emotional skills and between these skills and psychosocial health variables (**Chapter 4**). Aiming to contribute to SEL evaluation research, we provided insight into the effects of S4L on the social-emotional skills of students in two PVSE-tracks and from different sociocultural backgrounds (**Chapter 5**). To promote the implementation of the program in a way that was suited to these students' needs we conducted two qualitative studies. One of these studies gives insight into PVSE-b and PrE students' perspectives on the social-emotional skills they considered to be relevant to learn at school (**Chapter 6**). The other study provides insight into parents' perspectives on SEL and teaching social-emotional skills at school (**Chapter 7**). The following sections discuss the main findings of these studies.

DISCUSSION OF MAIN FINDINGS

The significance of our studies' main findings for program evaluation is discussed in two sections addressing, first, the mixed effects found among students from diverse backgrounds and, second, the methods and instruments used to assess social-emotional skills. Subsequently, three sections discuss the main findings for program implementation.

Different backgrounds, mixed effects

Our review study on SEL programs (**Chapter 2**) highlights that evaluation studies do not always measure the outcomes concerning the individual social-emotional skills targeted in universal, school-based SEL programs for adolescents. Only five of the 40 studies included in this review measured the effects on all skills targeted in the evaluated programs. Eight studies analyzed moderator effects related to students' varying background characteristics. These findings reveal limitations in the knowledge about the effectiveness of these programs on individual skills in diverse students. Moreover, the two evaluation studies on the *original* and the *adapted* S4L program in this thesis found mixed effects on psychosocial health and skill outcomes.

The *original* S4L program had significant positive effects on alcohol consumption but adverse effects on smoking (**Chapter 3**). Compared with students in senior general secondary and pre-university education (HAVO and VWO in Dutch), those in prevocational secondary education (PVSE, VMBO in Dutch) had lower pre-test scores and improved more on measures of bullying and suicidal ideation. In discussing these findings, it is important to note that students in PVSE tracks more often live in low-income families and disadvantaged neighborhoods.

The evaluation of S4L *adapted* to the learning abilities of students in PVSE-b (VMBO-b in Dutch) and PrE (Praktijkonderwijs in Dutch) showed no effects on any of the five social-emotional skills the program aimed to enhance (**Chapter 5**). Furthermore, unexpected undesirable adverse effects were identified on two interpersonal skills in a subgroup of students. Migrant students exposed to S4L, and the internship workplace decreased on social awareness and relationship skills. These findings point to an interaction with background factors such as their learning difficulties and migrant backgrounds. In addition, it is possible that the adverse effects in these students are related to circumstances in the workplace setting. We further discuss the meaning of learning settings for SEL below.

Although unexpected, the differences in effects between migrant and Dutch-Western-European students identified for the two interpersonal skills emphasize the importance of measuring outcomes for individual social-emotional skills. Such measurements are necessary to understand the impact of S4L in students from varying backgrounds. The disappointing effects of the *adapted* S4L program suggest that the modifications were insufficient to increase PVSE-b and PrE students' social-emotional skills. We further discuss the adaptation of the program in the sections below.

An explanation for the higher improvements of the *original* S4L program found in the PVSE students in our study (**chapter 3**) may reflect the risks for poor psychosocial health outcomes associated with growing up in low-income families and disadvantaged neighborhoods (Boer et al., 2022; Farahmand et al., 2011). Other studies also found that students at risk for poor psychosocial health outcomes profited more from SEL programs than students without such risks (e.g., Clarke et al., 2021; Possel et al., 2011; Sullivan et al., 2017).

Consistent with our findings of the *adapted* S4L program (**chapter 5**), other studies found mixed effects of SEL programs in adolescents from varying backgrounds. However, contrary to our findings, other studies found positive effects on interpersonal skills and self-awareness; these effects varied related to differences in age, sex, and learning difficulties (e.g., Arauz Ledezma et al., 2021; Coelho & Sousa, 2017; Espelage et al., 2013). Åvitsland et al. (2020) identified an interaction effect of sex and migrant background for an SEL program. Their study showed that psychosocial health outcomes in migrant females significantly improved as a result of the SEL program. In contrast, the psychosocial health outcomes for native females worsened, and males neither improved nor decreased on these outcomes. However, this study did not measure outcomes on students' social-emotional skills. Some survey studies, in contrast, did find interactions between adolescents' skill outcomes and background factors such as sex, age, and sociocultural background (e.g., Gordon et al., 2022; Kuo et al., 2019). These findings confirm the importance of accounting for differences in students' background characteristics and paying attention to the effects of these characteristics on social-emotional skills outcomes (Cantor et al., 2019; Whitebread et al., 2022).

The studies in this thesis add to the existing research on SEL program evaluation by showing that the effects of S4L on psychosocial health and social-emotional skills varied according to students' school track (and, accordingly, the learning abilities associated with these tracks) and sociocultural background. Our study of the *adapted* S4L program points to the need for measuring outcomes on the individual skills addressed in SEL programs when evaluating them. Other studies also recommend distinguishing outcomes on individual skills in SEL program evaluation studies, instead of using a composite measure of several skills (Durlak et al., 2022; Ura et al., 2020). Besides this, our studies confirm the relevance of analyzing the effects on these skills related to students' varying background characteristics. The importance of conducting such analyses has recently been emphasized by researchers, as knowledge about the impact of SEL programs on students with learning difficulties and from low-income and/or migrant backgrounds is limited (e.g., Cipriano et al., 2022; Daley et al., 2021; Durlak et al., 2022).

The adverse effects of the *adapted* S4L program we found in migrant students reveal the need to account for interactions between different background characteristics of participants in SEL program evaluation studies. A better understanding of the differences in social-emotional skills between students from diverse backgrounds urges us to discuss the assessment of these skills.

Assessing skills, multiple methods and informants

The methods and instruments used to measure effects on outcomes can impact the findings of evaluation studies. Therefore, we recommend discussing the single self-report measures for assessing social-emotional skills in the evaluation studies of the S4L program. The pre-test data of the evaluation study of the *adapted* S4L program showed significantly higher scores in female, migrant, and PrE students on all social-emotional skills except for relationship skills, compared to male, non-migrant, and PVSE-b students (**Chapter 4**). Possibly, the students overestimated their skills at the pre-test. This bias might be corrected in the post-test scores, reflecting students' raised awareness of the social-emotional skills taught in S4L and intended to be measured in the self-report instruments. However, regression to the mean, which disappeared at the post-test, cannot be ruled out from the perspective of the high pre-test scores on skills in subgroups of students (Maraun et al., 2011).

The pre-test scores in our study on the *adapted* S4L program are partly in line with those found in other studies. Comparable higher scores on all CASEL's social-emotional skills, except for self-awareness, were found in females compared to males; however, contrary to our findings, lower scores were identified in students from low-income and/or minority families (e.g., Gaspar et al., 2018; Salavera et al., 2020; Van der Graaff, 2014; Soto et al., 2023; West et al., 2020).

Besides this, it is conceivable that the higher pre-test scores of migrant students in our study (**Chapter 5**) are associated with the self-oriented language and skills constructs used in the self-report instrument items, such as "When I'm in a fight, I say what I think". These constructs and language assume that expressing individual emotions and thoughts is self-evident for all students. By doing so, they ignore that social-emotional skills and associated wording are socio-culturally shaped and, therefore, may differ (He & Van der Vijver, 2012). Consequently, the individual "I"-focused items may have been unfamiliar to students who are more used to other-oriented skills constructs and language, aiming to make others feel comfortable (e.g., Armenta et al., 2011; Kağitçibaşi, 2012). Therefore, related to such construct bias, the self-reported pre-test scores in our study might not accurately reflect the migrant students' skills and needs. Furthermore, a mismatch

between the skills the program intended to assess and the instruments we used as well as the social-emotional skills learned at home is reflected in the findings of our qualitative studies (**Chapters 6 and 7**). These studies show that the language and interpretations of skills used by students and parents subtly differed from those used in CASEL's framework and the self-report instrument we used (see Table 1 for a comparison). Using the skills language and interpretations used at home as a reference might have biased students' self-reported skills scores. Such reference bias regarding the interpretation of constructs such as social-emotional skills has been discussed in cross-cultural research and is emerging in SEL literature (e.g., Anthony et al., 2023; Abrahams et al., 2019; Assessment Work Group, 2019; Duckworth & Yeager, 2016; McKown, 2019; Van der Vijver & Leung, 2021). To compensate for such biases, various studies have emphasized the importance of using qualitative approaches and working with multiple informants, e.g., students, teachers, parents, and peers, and additional tools, such as observations and vignettes, in assessing students' social-emotional skills (e.g., Aschenbach, 2018; Burkhalter, & Wai, 2022; Durlak et al., 2022; Muller et al., 2020).

The findings of our studies draw attention to the need for accounting for bias when using self-report instruments to assess diverse students' social-emotional skills. Additionally, our studies demonstrate the additional value of qualitative approaches in SEL research for understanding and interpreting students' social-emotional skills. Such approaches are also relevant for implementing SEL programs tailored to varying students' needs, discussed in the following sections. These sections refer to the topics of engaging students and their parents, supporting and sustaining all the skills students need, and contextualizing and targeting specific skills**.**

Implementing programs, engaging students and parents

The unexpected findings of our evaluation study of the *adapted* S4L program indicate that the modifications made to meet PVSE-b and PrE students' intellectual and learning abilities were insufficient to enhance their social-emotional skills (**Chapter 5**). Besides this, we identified issues related to program implementation. Students taught by expert teachers, such as social workers, improved on two outcomes – self-management and internship preparation – in contrast to their counterparts taught by regular classroom teachers. In additional interviews on program implementation experiences, regular classroom teachers reported more difficulties engaging students during the S4L lessons than expert teachers. These difficulties also challenged teachers on program dosage (i.e., completeness) and fidelity (i.e., adherence to the program manual).

Table 1 The skills language used by parents and students mapped to the SE skills comprised in CASEL's competency domains and taught in the S4L program.

CASEL competency domain	CASEL skills	Parents	Students	S4L skills
Self-awareness	Recognizing own emotions, feelings		Hope for future Awareness of angriness, sadness, irritation	Recognition of emotions Expression of emotions
	Knowledge of strengths and weaknesses	Realistic self-image Understanding consequences of actions	Insight into academic achievements	Awareness of personal qualities Acknowledgement of (in)adequate behavior responses and consequences Acknowledgement of (in)adequate thoughts
	Self-efficacy	Self-confidence Accepting yourself as you are	Self-confidence/ assurance	Recognizing and expressing thoughts Self-efficacy by using thoughts
Social awareness	Empathy		Knowing others' feelings/thoughts	Recognition of (diversity in) others' emotions
	Perspective-taking	Perspective-taking	Knowing others and accepting them as they are	Recognizing others' emotions Expressing others' thoughts Respecting others' boundaries
	Appreciating diversity	Showing respect for others' opinions, culture, religions	Knowing that all students have difficulties regarding learning and behavior	Awareness of diversity in personal qualities Recognition of differences in behavior responses emotions/thoughts
	Understanding social norms	Adjusting to situations Appropriate manners Show respect	Acting normal, showing respect	Recognizing social situations Norms for friendships
Self-management	Self-regulation	Adjusting to situations	Staying quiet, ignoring, withdrawal	Counting to ten before responding Self-regulation of thoughts Self-regulation of emotion Managing social situation Self-control
	Goal setting	Setting realistic goals	Setting future goal	
	Perseverance	Perseverance	Pursuing future goals	

Table 1 Continued

CASEL competency domain	CASEL skills	Parents	Students	S4L skills
Relationship skills	Communication	Talking about problems	Talking about problems	Making and discussing behavioral agreements Setting/ communicating personal boundaries
	Cooperation	Getting along with others;	Collaboration on tasks and problems	Solving social problems together
	Managing peer pressure	Resisting peer pressure Speaking up for yourself Setting boundaries	Standing up for yourself, Setting boundaries	Standing up for yourself Recognizing peer pressure
	Social problem solving	Resolving conflicts	Managing name-calling, quarrels, gossip	Managing social conflicts
	Help seeking	Helping others	(Getting) Help from teachers and classmates	Supporting others
Responsible decision making	Considering relevant factors and consequences of actions	Making independent decisions	Awareness of avoidance as an ineffective problem-solving strategy	Awareness of consequences of behavior
	Taking responsibility for decisions.	Understanding consequences of your actions	Perceiving responsibility for solving interaction problems	Taking responsibility for agreements on behavior

The difficulties encountered by teachers in our study corroborate other research highlighting that high program dosage and fidelity, active engagement of students, adaptability to their needs, and teacher expertise are associated with more positive student outcomes (e.g., Dowling & Barry, 2020; Durlak, 2016; Shoesmith et al., 2021). Particularly for adolescents, flexibility in SEL program implementation by responding to their perceived needs and lived experiences is emphasized at the expense of strict adherence to program manuals (Meland & Brion-Meissels, 2023; Yeager, 2017). Furthermore, the active engagement of parents and students in decisions regarding SEL program modification for meeting students' needs has recently been emphasized in SEL literature (e.g., Garbacz et al., 2015; Jagers et al., 2019a; Low et al., 2016). These studies argument that, when parents and students are engaged, the programs are more likely to be tailored to the social-emotional skills that students have and need.

However, decisions on modifying the *adapted* S4L program were reserved for program developers, SEL expert teachers, and regular classroom teachers. Neither students nor

parents were involved in these decisions. The findings of our qualitative studies on PVSE-b and PrE students and their parents confirm the added value of engaging them in S4L program implementation (**Chapters 6 and 7**).

The conceptual model of four complementary social-emotional skills constructs presents the skills that parents in our study perceived as critical for adolescents to acquire, as well as the underlying developmental beliefs, values, and goals (**Chapter 7**). These skills differ from the professional skills embedded in CASEL's framework and targeted in S4L (see Table 1 for a comparison). Differences occur not only in the language used and interpretations of skills but also in parental perceptions of the interrelations between skills and the order in which parents believe they ought to develop. For example, parents in our study perceived respectful behavior as a self-contained construct. They viewed this behavior as a prerequisite for developing other skills and, therefore, as essential to attend to when teaching other skills at home and school. This finding supports our hypothesis (**Chapter 5**) that the adverse effects found in migrant students are associated with the differences between the skills constructs and language used at home and in S4L.

Parents in our study believed that teaching social-emotional skills was primarily their responsibility and that schools had a duty to teach particular skills. However, they demanded that schools teach skills matching those required at home. For this reason, they expressed a wish for parent-school collaboration on social and emotional learning. One parent suggested: "*teaching social-emotional skills at schools to students, teachers, and parents so they can learn together*". In practice, parent engagement in SEL program implementation generally seems limited to parents' support of the skills taught at school (Weissberg et al., 2015). However, the parental perspectives on social and emotional learning identified in our study confirm the need to engage parents in the implementation of SEL programs, as has recently been emphasized in the SEL literature (e.g., Elias, 2019; Jagers et al., 2018, 2019a). According to these authors, engaging parents and students in marginalized social positions is necessary to allow all students to profit equally from SEL programs and thus to acquire the skills they need in education and work. The mixed effects found in evaluation studies of SEL programs might reflect the mismatch of the skills taught at home and at school, as well as differences in perceptions regarding the roles of parents and schools in teaching skills.

Our qualitative study established that PVSE-b and PrE students also had their own perceptions of the social-emotional skills they have and need to learn. Although they perceived their skills as sufficient for managing everyday school life, they did not always feel respected and supported in using them by teachers and classmates. In addition, they

expressed a need for skills to solve specific problems at school, such as bullying and other situations perceived as unsafe and beyond their control. The skills students associated with these problems and situations are discussed in the next section.

Besides, education is most valuable and motivating when students perceive what they learn as meaningful and relevant to their experiences and interests (e.g., Darling-Hammond et al., 2020; Eccles & Roesser, 2012). Students' experiences of comfort or discomfort regarding the skills taught can encourage or discourage their engagement in SEL programs (Medin & Jutengren, 2020). For adolescents, in particular, it is essential to be taken seriously and supported in their efforts to use their skills in the presence of peers (e.g., DeLara et al., 2012; McCluskey et al., 2013; Yeager et al., 2017).

The findings of our studies correspond to SEL implementation research indicating that students' and their parents' perceptions of social-emotional skills do not necessarily match those taught in a school-based program. Engaging parents and students in program implementation is necessary to align the skills required at home and in educational settings. Such alignment is necessary to provide equal opportunities for students from varying backgrounds to acquire the skills for participating successfully at school and at work. Working with students and parents in SEL program implementation requires discussing the teaching approach used in S4L.

Varying backgrounds, transformative SEL

The findings of our study on parents show that their approaches to teaching social-emotional skills vary depending on their backgrounds (**Chapter 7**). The approaches used by migrant parents reflected a more other-oriented focus regarding the social-emotional skills taught compared to Dutch parents. This finding supports our hypothesis that the adverse effects found in migrant students on the two interpersonal skills were related to being less familiar with the self-oriented approach used in S4L (**Chapter 5**). In migrant families with roots in more collectivist cultures, the teaching of social awareness and relationship skills is seen to be more important, whereas, in native Dutch and other Western families from individualistic cultures, teaching self-awareness and self-management is valued more highly (e.g., Hecht & Shin, 2015; Hoffman, 2009; Kitayama & Park, 2010). However, the Dutch parents in our study also varied in their skills perceptions. Low-educated parents, for example, were of the opinion that adolescents should learn social-emotional skills by experience. In contrast, highly educated parents were of the opinion that these skills need to be taught.

Our finding that the approaches to teaching social-emotional skills PVSE-b and PrE students are familiar with at home and those used in the S4L program vary, aligns with recent calls for adopting a transformative and asset-based approach to SEL at school (e.g., DeMartino et al., 2022; Hayashi et al., 2022; Jagers et al., 2018, 2019a; McGovern et al., 2023). Transformative SEL is based on the ideals of social justice and assumes a collaborative inquiry of the social-emotional skills students need (Mezirow, 2009). The approach is culturally sensitive and responsive to the students' and their parents' social-emotional skills and lived experiences. Adopting such an approach requires critical reflection on the professional skills taught in SEL programs and those considered appropriate by students and their parents (e.g., Jagers et al., 2019b; Rosario-Ramos et al., 2021; Soutter, 2023). This reflection is necessary to identify biases and privileges underlying professional skills and (unintentional) impacts on students facing multiple (educational) disadvantages. Based on the studies we conducted, we recommend a transformative approach to SEL, particularly for working with students in marginalized positions, as this will help them to acquire the skills they need at school and work. Such an approach requires exploring and acknowledging the skills these students possess and need to develop.

Our qualitative study identified that PVSE-b and PrE students were proud of their social-emotional skills (**Chapter 6**). They appeared well aware of their own and classmates' strengths and weaknesses regarding these skills. They also experienced challenges using them in interactions with others at home, at school, and at work. Although these students' skills may not always match those taught in S4L and other SEL programs, they contain strengths such as perseverance, coping with adversity, and hope. Such skills are indispensable for navigating the settings in which they live and learn. For example, one of the students in our study was afraid to lose his job, because his step-father behaved rudely in the snack bar he worked at. Due to a lack of knowledge of the skills students in marginalized positions have and need at home, teachers easily misinterpret, misjudge, and/or devalue these skills (Hatchimonji et al., 2022; Meyers et al., 2019; Paccaud et al., 2021; Wood, 2020). The skills these students possess and need to "survive" in their sometimes poor and stressful homes and neighborhoods are regularly devaluated, as they are associated with negative impacts on psychosocial health (e.g., Hayashi et al., 2022; Jagers et al., 2018; McCallops et al., 2019). Devaluing or ignoring such skills at school risks undermining the skills students need. During adolescence, growing cognitive and social-emotional capacities contribute to new experiences. As young people express who

they are and where they belong via social-emotional skills, it is very important to attend to differences between adolescents in terms of social-emotional skills (e.g., Duchesneau, 2020; Pierce, 2017; Rivas-Drake & Umaña-Taylor, 2019). Sensitivity to and alignment with such skills is necessary to support the development of independence and social and cultural self-identity. Therefore, working with adolescents and their parents in implementing S4L and other SEL programs requires valuing and sustaining the skills students need at home.

Our findings contribute to SEL program implementation research by providing empirical evidence for the need to adopt a transformative approach to S4L. To accommodate the needs of PVSE-b, PrE, and comparable students, cultural sensitivity and responsiveness to their social-emotional skills and critical reflection on the skills taught in SEL programs are required. Valuing and sustaining the skills students possess and need across the settings they live and learn in is essential to be able to support adolescents' independence and social and cultural identity development. As the social-emotional skills required across settings may vary, discussing the contextualization of the skills taught in S4L and other SEL programs is highly relevant.

Varying settings, contextualizing and limiting skills

The PVSE-b and PrE students we studied need social-emotional skills for a variety of settings: the home, school, and workplace. As we found in our evaluation study of the *adapted* S4L program, the setting in which skills are taught is significant. For instance, the *adapted* S4L program led to adverse effects on social awareness and relationship skills in migrant students who were exposed to a workplace setting – while these adverse effects were not found for migrant students who were *not* exposed to a workplace setting (**Chapter 5**).

In additional interviews, teachers who implemented the *adapted* S4L program noted that their students were most motivated to learn skills relevant to the workplace setting. Our qualitative studies showed that PVSE-b and PrE students and parents had their own perspectives regarding the social-emotional skills they thought were relevant to teach at school.

Parents in our study perceived themselves as primarily responsible for the social-emotional skills their children acquire. However, they were of the opinion that schools have a responsibility to teach cooperation skills (reflecting social awareness and relationship skills) (**Chapter 7**). They associate these skills, particularly, with preparing adolescents for the workplace. Students themselves perceived a need for learning skills

to solve the problems at school they experienced as severe and beyond their control, such as bullying (**Chapter 6**). They associated these problems with three socio-emotional skills in particular, namely, social awareness (understanding others' opinions), self-management (staying quiet), and relationship skills (cooperation and asking for help from teachers and classmates). As both students and parents perceived specific social-emotional skills as being relevant to the school and workplace setting, contextualizing the skills taught in S4L to those settings is recommended. Contextualizing the skills that are taught in a way that is aligned with parents' and students' perceptions will help to engage both groups in S4L implementation and will support the enhancement of the skills that are taught at school.

The importance of contextualizing the social-emotional skills taught in specific settings has recently been addressed in the SEL literature for programs serving adolescents who need to acquire a variety of skills at home, at school, and at work (e.g., Barnes & McCallops, 2019; Howard et al., 2022; Oliveira et al., 2023). Other studies on SEL programs, in turn, discussed whether teaching the same set of skills to all students, regardless of their age and different backgrounds, is desirable (e.g., Evans et al., 2015; Jones et al., 2017; Ross & Tolan, 2018; Weisz et al., 2012). Besides this, three skills in particular are evidenced as most adaptive to enhance in students in marginalized positions (Jagers et al., 2019a) and most malleable by adolescent SEL programs (Clarke et al., 2021). These skills are social awareness, self-management, and relationship skills. In our study, students were of the opinion that they needed to be taught these same three skills to be able to solve the severe interaction problems they encountered at school. However, the adverse effects of the *adapted* S4L program we found on social awareness and relationship skills amongst students from migrant backgrounds point to the need of teaching these skills particularly in relation to the workplace setting. The literature shows that both employers and internship supervisors are of the opinion that students with learning difficulties and from low-income and/or migrant backgrounds lack these skills (e.g., Andriessen et al., 2020; Bisschop et al., 2021; Pars & Van de Sande, 2017).

In our cross-sectional study, we identified two social-emotional skills – namely, social awareness and self-management – that seem most indicated to promote the psychosocial health of PVSE-b and PrE students (**Chapter 4**). The self-management skills seem most important for preventing emotional-behavioral difficulties, due to the mediating role of this skill in the relationship between self-awareness and emotional-behavioral difficulties. This is particularly the case for migrant students and those in the PrE track (see Appendix 1 for details about these mediating roles). The social awareness

skills seem to be conducive to prosocial behavior in all students, independent of their backgrounds. This skill mediates the relationship between prosocial behavior and self-awareness, relationship skills, and responsible decision making. Based on these findings, we advocate for teaching just one or two skills in the *adapted* S4L program, which might be sufficient for students in the PVSE-b and PrE tracks to promote their psychosocial health in the school setting.

The mediating roles of some skills related to psychosocial health variables we identified are partly consistent with findings in other research. For example, studies found that enhancing adolescents' social awareness skills adds to self-awareness (Malti et al., 2020) and that strengthening these skills supports the development of self-management and relationship skills (e.g., Domitrovich et al., 2007; Gravesteijn, 2010; Rieffe et al., 2008). Besides this, developmental research revealed that self-awareness and social awareness develop intertwined (Crone & Fuligni, 2020; Silvia & O'Brien, 2004).

However, our findings are contradictory to the suggestion of S4L and many other SEL programs that teaching the social-emotional skills included in the different CASEL competency domains is relevant for all students and in all the settings in which they live and learn (Durlak et al., 2015). The findings of our studies add to the discussion in SEL literature on the necessity of teaching several skills simultaneously, independent of differences in adolescent students' backgrounds (e.g., Evans et al., 2015; Jones et al., 2017; Ross & Tolan, 2018; Weisz et al., 2012). In recent literature, it is recommended to limit school-based SEL programs for adolescents to teaching the social-emotional skills that are most malleable and adaptive to students' needs (e.g., Bailey & Jones, 2019; Mertens et al., 2020; Ross et al., 2019; Yeager, 2017). These authors advise using an incremental approach to skills teaching to adapt to students' needs. Arguably, the skills most adaptive to students' needs might in themselves do not have the most effect on psychosocial health outcomes. However, the mediating roles we found for two skills (self-management and social awareness) suggest that enhancing one particular skill adds to the promotion of other social-emotional skills. This shows that the relationships between various social-emotional skills is an important domain for further study.

What our studies add to SEL implementation is an emphasis on the necessity to contextualize the skills taught in S4L and other SEL programs. The contextualization of skills is decisive for aligning them with the skills that parents and students believe ought to be taught by schools and are required across settings. In addition, our findings support limiting the skills targeted to those most indicated for promoting psychosocial health and workplace learning.

STRENGHTS AND LIMITATIONS

A strength of the studies in this thesis is the mixed-method and sequential approach of the quantitative and qualitative studies (Hesse-Biber et al., 2015). This approach allowed us to interpret and understand the effects of the *adapted* S4L program on adolescents' social-emotional skills from the perspectives of students in the PVSE-b and PrE tracks and their parents on SEL and teaching skills at school. The mixed-method approach reveals the mutual added value of quantitative and qualitative methods in SEL research on participants from varying backgrounds.

Another strength of our studies is that we identified that the effects of the *adapted* S4L program on individual social-emotional skills vary depending on students' background characteristics. These findings confirm the necessity for measuring the outcomes of individual social-emotional skills and analyzing effects to individual students' varying backgrounds, which is also highlighted in recent SEL research (e.g., Cipriano et al., 2023; Cipriano & McCarthy, 2023; Durlak et al., 2022; Garner et al., 2014; Rowe & Trickett, 2017).

A strength of the qualitative approaches we used is the insight provided into the perspectives of PVSE-b and PrE students and their parents on SEL for understanding the limitations of the *adapted* S4L program regarding the needs of students in these tracks. Using qualitative approaches in research to improve the evaluation and implementation of SEL programs and understanding the effects measured in quantitative studies has been emphasized recently (e.g., Cipriano et al., 2022; Daley et al., 2021; Durlak et al., 2022). Another strength of our qualitative studies is that they enabled us to identify differences in the language used by parents, students and schools. These findings allowed us to identify differences between the social-emotional skills taught at home and those in S4L and other SEL programs, as well as parents', students' and schools' differing interpretations of these skills. The conceptual model of four skills constructs and the underlying developmental beliefs, values, and goals is one of the first attempts to model parents' perspectives on SEL. The model is a promising instrument for engaging parents and their children in adapting, implementing, and evaluating SEL programs. Therefore, this model is a strength of our study. It adds to the conceptualization of SEL constructs and stresses the importance of operationalizing them in future studies. However, the parental model also contains a limitation since it is based on the perceptions of a selective group of parents. Therefore, the model cannot be generalized to other parents of students in the PVSE-b, PrE, and other educational tracks.

Using CASEL's framework for SEL as a reference in most studies in this thesis is both a strength and a limitation. This framework enabled us to compare and discuss the skills measured in the quantitative studies with the skills perceptions of students and parents in the qualitative studies. However, the framework also guided the interpretation of the social-emotional skills that parents and students perceived as crucial for students to learn. Therefore, the framework is assumed to have limited the scope of the skills identified and, consequently, to have affected the findings of our studies (e.g., Chen et al., 2015; Burkhalter & Wai, 2022).

Another limitation of our studies is that, due to limited numbers, we could not analyze the effects of the intersectionality of background factors, i.e., sex, age, family background, and school track, on skills outcomes in our evaluation study of the *adapted* S4L program. Accounting for the interaction of multiple background factors in quantitative research is an emerging approach that looks very promising. However, analyzing such effects requires large numbers (> 1000) to compose substantial subgroups of students (e.g., Bauer et al., 2021; Becares & Priest, 2017; Codiroli McMaster & Cook, 2019; Tefera et al., 2018).

The studies in this thesis were conducted in the PVSE-b and PrE tracks in the urban Western part of the Netherlands. In these tracks, migrant students are overrepresented compared to other parts of the country and/or other educational tracks (Boer et al., 2022; Statistics Netherlands, 2022). Besides this, the numbers in our qualitative studies were small. Parents themselves opted in for participation and teachers selected the students. These selection procedures might have excluded parents who were not, or to a lesser extent, interested in SEL at school as well as students with severe difficulties in the PVSE-b and PrE tracks. Furthermore, the distribution of participants regarding sex, sociocultural background, school track, and/or parental educational level was not balanced. These are limitations of our studies.

A final limitation of our evaluation study on the *adapted* S4L program is the use of single self-report instruments, which are hypothesized to have biased migrant students' social-emotional skills measures. From the perspective of these students' high pre-test scores and their decrease in post-test scores on some skills, regression to the mean cannot be excluded (Maraun et al., 2011). Therefore, additional qualitative and quantitative research involving multiple stakeholders is necessary to understand SEL programs' effects on skills outcomes in students from diverse backgrounds (e.g., Durlak et al., 2022; Whitebread et al., 2022).

IMPLICATIONS FOR PRACTICE AND RESEARCH

In this section, we describe the implications for SEL practice and research. These implications result from the discussion of the main findings of our studies for evaluating and implementing S4L and SEL programs for adolescents in general, according to three themes: Applying a modular approach, Engaging students and their parents, and Transforming the teaching approach used. Subsequently, we report on our studies' implications for research.

One skill, one module

The findings of our studies indicate that students in the PVSE-b and PrE tracks view themselves as possessing a variety of social-emotional skills, while they also express a need for being taught specific skills at school. In our research, we demonstrated that the skills these students need across the settings where they live and learn may differ. We also determined the mediating roles of particular social-emotional skills in the relationship between other skills and psychosocial health variables. Resulting from these findings, targeting skills in *all* CASEL's domains does not seem appropriate for these students. Therefore, we recommend a modular approach for the S4L program. In such an approach, "*each module's content can be taught independently facilitating the selection, sequencing, as well as the tailoring of content to students' needs*" (e.g., Chorpita et al., 2005a; Lawson et al., 2019, p. 458). Such an approach seems best suited to contextualize and tailor S4L to the social-emotional skills indicated as most relevant to strengthen in a particular student population. For example, as the skills comprised in social awareness seems to enhance prosocial behavior in a way that is tailored to the needs of the PVSE-b and PrE students in our studies, focusing the *adapted* S4L program on these skills seems most important. Furthermore, teaching one skill at a time enables the flexible implementation of skill modules tailored to students' needs. Working with modules also facilitates providing additional modules incrementally and iteratively when needed. Paring down SEL programs to modules that focus on skills in just *one* of the CASEL domains allows teachers to select the skills viewed as most important to enhance at first. The need for teacher support on applying a modular approach is discussed below.

Contrary to a modular approach, Cipriano et al. (2023) recently recommended starting SEL programs by teaching intrapersonal skills (i.e., self-awareness and self-management) in advance of interpersonal skills (i.e., social awareness, relationship skills, and responsible decision making). These authors based their recommendation on the skills most often targeted initially in those programs and did not provide decisive evidence for

this ordering. Nor did they identify moderator effects related to differences in students' backgrounds, such as their age, learning abilities, and family background and potentially related differences in effects on social-emotional skills. As our and other studies indicate that such moderators affect SEL programs' impact on skills, accounting for them seems to be a prerequisite for deciding which social-emotional skills need to be enhanced in specific student populations. Recently, Durlak et al. (2022) recommended applying a modular approach to teaching skills to support the identification of SEL programs' working elements to establish effects on individual skills. Therefore, the approach of teaching one skill in each module to adapt to students' needs seems justifiable for S4L. Furthermore, teaching one skill at a time eases the burden on students and their teachers to teach and learn multiple skills simultaneously (e.g., Banas et al., 2021; Jones et al., 2019; Ross et al., 2019). This relief seems especially relevant for students in the PVSE-b and PrE tracks with intellectual, emotional-behavioral, and learning difficulties. Longitudinal studies are necessary to provide insight in the order in which skills are to be taught.

Engaging students and parents, contextualizing skills

The findings of our studies reveal that students and parents have their own perspectives on social-emotional skills and teaching these skills at school. To adapt to these perspectives, we recommend making student and parent engagement an integral part of the implementation of the S4L program, as this will contribute to aligning the social-emotional skills required at home and at school. Although the engagement of parents and students is emphasized in SEL literature and frameworks, knowledge of how to engage them successfully is limited (e.g., Durlak, 2015/2016; Garbacz et al., 2017; Kaspar & Massay, 2023). Besides, working with parents in SEL is mainly addressed at the school level (Weissberg et al., 2015; Garbacz et al., 2015). However, S4L and many other single SEL programs are only implemented at the classroom level. Therefore, more knowledge is required about working with parents and adolescent students on SEL at the classroom level. Such knowledge should include how to explore parents' and students' perspectives on SEL, their language and interpretation of skills, and the developmental beliefs, values, and goals that root them.

To engage PVSE-b and PrE students and their parents and adapt to their perspectives on enhancing social-emotional skills at school, we recommend contextualizing the skills targeted in the *adapted* S4L program to the school and workplace setting. A study on PVSE students shows that learning social-emotional skills associated with the workplace

contributed to improving their skills in the school setting (Kuhn et al., 2017). Engaging students and parents in teaching skills contextualized to the school and workplace setting provides opportunities for collaborating with them on aligning the skills taught at home and at school.

The conceptual model of the four identified parental skills constructs, i.e., respectful behavior, cooperation skills, self-knowledge skills, and self-reliance skills, seems useful for exploring adolescents' parents' perceptions of skills. We recommend integrating such exploration in program implementation and collaboration with parents to support the skills required at home and align them with those taught in SEL programs. For example, related to the differences in perceptions of respectful behavior identified in our study on parents and the requirement of giving and taking feedback in the workplace, it could be discussed how to respectfully give critical feedback to a colleague.

As students need various skills across settings, navigating different settings or switching skills can be challenging for adolescent students, particularly for those with learning difficulties (Goodman & Scott, 2012; Gresham, 2016; Peters et al., 2013). Therefore, we recommend including support for students in navigating their skills across settings in the S4L program. Contextualizing the skills taught in SEL programs by relating them to extracurricular settings, such as service or community learning and, as in S4L, the workplace setting, can help adolescent students learn to navigate between and switch skills (e.g., Yada & Fenyvesi, 2023; McKay-Jackson, 2014).

To support program implementation tailored to students' needs, we advise program developers to provide knowledge and materials for engaging and collaborating with students and parents, for example, in classroom discussions, cooperative learning activities, and/or parent-student-teacher conferences.

A transformative approach, teacher training required

We recommend a transformative approach for engaging students and parents in S4L program implementation tailored to the needs of students in the PVSE-b and PrE tracks. Such an approach includes sensitivity and responsiveness to various socio-culturally rooted social-emotional skills and collaboration with students and parents on SEL at school (e.g., Cantor et al., 2019; DeMartino et al., 2022; Hayashi et al., 2022; Jagers et al., 2019b). Exploring and discussing the skills students need at home and valuing and supporting them when teaching additional skills required for success in education and work are central elements of such a transformative approach. For example, parents in

our study perceived respectful behavior as the most important skill and fundamental for learning other social-emotional skills; however, they varied in their interpretations of this behavior. As skills perceptions vary, articulating differences in skills perceptions, and valuing and sustaining all the skills students have and need is indicated for teachers, students, and parents. Such articulation will allow them to understand that students need various social-emotional skills at home, at school and at work (e.g., Hayashi et al., 2022; Jagers et al., 2018; McCallops et al., 2019; Wood, 2021). A transformative approach to SEL appears relevant to all students and supportive for implementing programs in inclusive and diverse schools. Such an approach is essential for students facing multiple adversities, as it provides equal opportunities for them to profit from SEL programs promoting their health, education, and work prospects (e.g., Elias et al., 2019; Jagers et al., 2018, 2019a).

We advise S4L program developers to adopt a transformative approach to support teachers working with PVSE-b and PrE students and their parents (e.g., Jagers et al., 2019a, 2019b; Mezirow, 2009; Soutter, 2023). Supporting teachers in applying such an approach requires providing manuals with corresponding knowledge and materials to explore and articulate the different skills required across settings. However, additional teacher training is also necessary in applying a transformative approach to SEL.

In addition, teachers are generally poorly prepared for SEL and for working with parents from varying backgrounds in (Dutch) initial teacher preparation programs. Engaging students and parents from diverse backgrounds and collaborating with them on SEL is challenging for regular classroom teachers (e.g., Coelho et al., 2023; Cross and West, 2011; Dowling & Barry, 2020). Initial teacher preparation programs barely provide secondary education teachers with intercultural competencies and skills for engaging parents in education. Therefore, teacher training on communication, collaboratively planning activities, and managing diversity is also necessary to encourage teachers to engage parents at school (e.g., Conus & Fahrni, 2019; Smith et al., 2019). Equipping teachers with expert social-emotional skills is associated with teaching those skills to students and preventing them from burnout and early job leave, which is significant in times of labor market shortages (e.g., Jennings & Greenberg, 2009; Schonert-Reichl, 2017).

When it comes to SEL program implementation, we recommend training novice teachers on their social-emotional skills, intercultural competencies, and competencies on engaging students and parents in school SEL before S4L program implementation. In addition, we advise providing expert support for them during program implementation.

Working with such experts has recently been recommended for schools serving students in marginalized positions (e.g., Clarke et al., 2021; Eppler-Wolff et al., 2021; Vestad, 2022).

Implications for research

Further research is necessary to identify whether and how the findings of our studies and the recommendations for practice resulting from them contribute to positive effects of adolescent SEL programs on diverse students' social-emotional skills. We recommend the following domains for further research:

- Research on S4L and other SEL programs examining the effects on individual social-emotional skills. Comprehensive research approaches and instruments and multiple informants are necessary to map the skills that students from diverse backgrounds have and need to acquire. Such studies should account for potential interactions of age, sex, school track, and family background (e.g., Durlak et al., 2022; Whitebread et al., 2022). The need for more research on SEL programs' effects on skills in students varying in learning abilities, socioeconomic, and socio-cultural background is emphasized in the SEL literature (e.g., Cipriano et al., 2022; Daley et al., 2021; Durlak et al., 2022; Greenberg, 2023).

- Research on the potential mediating roles of particular social-emotional skills in the relationship between other skills and distal outcomes in subgroups of students, such as their psychosocial health and educational and work achievements. Such studies would help to identify whether enhancing a social-emotional skill most adaptive to the perspectives of students and/or their parents contributes to increased efficiency in enhancing other skills and/or distal student outcomes, as is suggested in the literature (e.g., Montroy et al., 2014; Silvia & O'Brian, 2004; Crone & Fuligni, 2020). Additional longitudinal studies are needed to provide insight into the order in which social-emotional skills are to be taught.

- Research evaluating the conceptual parental model of the four skills constructs presented in our study. More studies are required to find out whether and to what extent the model represents the perspectives of other parents, such as fathers and parents of students in other school tracks. This is necessary to determine how to refine, transform, and perhaps embed the parental model in SEL frameworks (e.g., Jagers et al., 2019b).

- Research on engaging students in the PVSE-b and PrE tracks and their parents in S4L program implementation. Exploring and using their perspectives on SEL and the social-

emotional skills necessary to enhance at school are needed to meet diverse students' needs. Such research will provide insight into how, when, and for what purposes students and their parents are engaged in implementation, which is currently lacking (e.g., Bergh & Englund, 2014; Durlak et al., 2022; Kvist-Lindholm et al., 2017).

- Research on using a transformative approach for matching the skills diverse students possess and need to learn is necessary, to understand whether and how such an approach adds to implementing and evaluating S4L and other SEL programs. Although transformative approaches are emphasized in the SEL literature, knowledge about them is limited (e.g., Elias, 2019; DeMartino et al., 2022; Jagers et al., 2018, 2019a).

- Research on the added value of expert support and teacher training that helps teachers to acquire the SEL skills and (intercultural) competencies required for them to engage parents and students from diverse backgrounds The findings of our studies suggest that teacher expertise on SEL moderates the effects of programs on students' social-emotional skills. Knowledge about the relationship between teachers' expertise and programs' effects on student outcomes is limited (Oliveira et al., 2023; Schonert-Reichl, 2017).

CONCLUSION

Schools all over the world implement universal SEL programs aiming to enhance adolescent students' social-emotional skills to promote their psychosocial health, education, and work prospects. Based on the themes discussed above, we recommend further adaptations of the S4L program to meet the needs of students in the PVSE-b and PrE tracks facing learning difficulties and growing up in low-income and/or migrant families. Adaptations are needed with regard to the following:

1. A modular approach to focus on the social-emotional skills deemed most appropriate to strengthen, based on shared decision making of students, parents, and teachers and informed by their perspectives on the social-emotional skills students have and need.

2. The application of a transformative approach to SEL to support discussing, valuing, sustaining, and aligning the social-emotional skills that students from diverse backgrounds need at home, school and work.

3. The integration of the engagement of students and parents in program implementation to explore and adjust to their language and interpretation of skills, when discussing and deciding on aligning the skills students need at home, school, and work.

4. The contextualization of the social-emotional skills taught in the *adapted* S4L program to the school and workplace setting and the adaptation of the skills students have and need for success in future education and work.

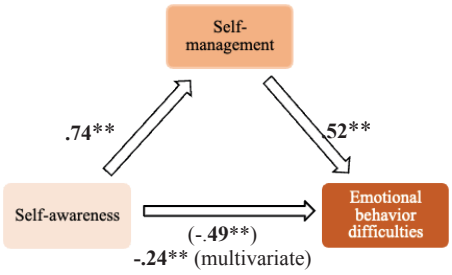
5. Additional training and support of teachers on applying a transformative approach to SEL, which focuses on enhancing their social-emotional skills, intercultural competencies, and competencies on engaging students and parents from diverse backgrounds to inform program implementation.

6. Additional research is necessary to identify whether and how the transformations suggested for S4L and other SEL programs add to positive outcomes on social-emotional skills and psychosocial health outcomes in students in diverse and inclusive schools.

Appendix 1

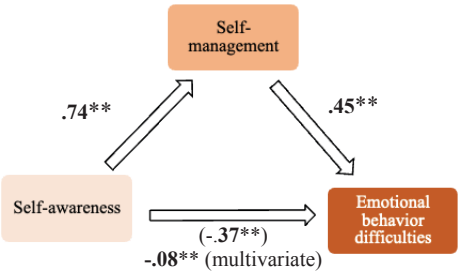
Models illustrating differences in the mediating roles of self-management in the relationship between self-awareness and emotional-behavioral difficulties in students related to differences in their sociocultural background and school type.

Mediation model 1a of the relationship between self-awareness and emotional-behavioral difficulties partially mediated through self-management (*β*'s) in Dutch-Western-European students.



(** p = < .01)

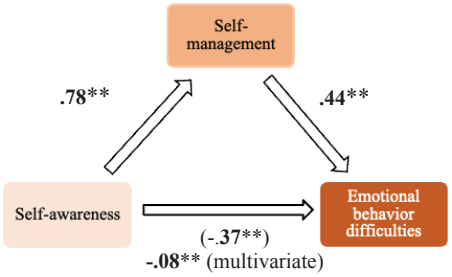
Mediation model 1b of the relationship between self-awareness and emotional-behavioral difficulties fully mediated through self-management (*β*'s) in migrant students.



(** p = < .01)

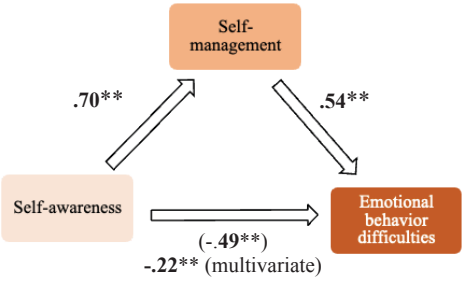
Self-management fully mediates the relationship between self-awareness and emotional-behavioral difficulties in migrant students (Model 1b), and partly in Dutch-Western students (Model 1a) (Based on Baron and Kenny, 1986).

Mediation model 1c of the relationship between self-awareness and emotional-behavioral difficulties fully mediated through self-management (*β*'s) in PrE students.



(** p = < .01)

Mediation model 1d of the relationship between self-awareness and emotional-behavioral difficulties partially mediated through self-management (*β*'s) in PVSE-b students.



(** p = < .01)

Self-management fully mediates the relationship between self-awareness and emotional-behavioral difficulties in PrE students (Model 1c), and partly in PVSE-b students (Model 1d) (Based on Baron and Kenny, 1986).

Chapter 9

Summary

Social and emotional learning is the process in which young people acquire the skills they need to participate in and contribute positively to the settings in which they live and learn (Zins & Elias, 2007). This learning is associated with youngsters' psychosocial health, education, and work prospects. Schools worldwide implement SEL programs that are designed to enhance adolescents' social-emotional skills in order to promote their psychosocial health and future life prospects. However, knowledge of the evaluation and implementation of such programs concerning students with varying individual and environmental features, such as learning abilities and family background, all of which determine these skills, is limited. The studies in this thesis aim to add to this knowledge in general and to contribute to knowledge of the Dutch secondary education Skills4Life (S4L) program in particular. The studies focus on students in preparatory vocational secondary education (PVSE) and, specifically, on those in the so-called basic track (PVSE-b, vmbo-basis in Dutch) and the practical education track (PrE, praktijkschool in Dutch). Students in these tracks learn at school and in workplace internships simultaneously. They have additional educational needs due to intellectual, emotional-behavioral, and/or learning difficulties. Many of these students are from low-income and/or migrant families and grow up in deprived neighborhoods.

Aim and findings

The studies included in this thesis aim to provide insight into: 1. The effects of universal SEL programs on the individual social-emotional skills and psychosocial health outcomes of adolescents; 2. The interrelations between social-emotional skills as well as between those skills and the psychosocial health outcomes of students in the PVSE-b tracks and PrE; 3. The effects of the Dutch S4L program on the social-emotional skills and psychosocial health outcomes of students in marginalized positions; 4. The perspectives of students in the PrE and PVSE-b tracks on social-emotional skills for managing interactions with classmates; 5. Parents' perspectives on SEL and strengthening social-emotional skills at schools; particularly of parents of students in the PrE track. To achieve these aims, a review and meta-analysis study, three quantitative and two qualitative studies were conducted. A sequential approach was used in which the findings of the review study (**Chapter 2**) and an evaluation study of the *original* S4L program (**Chapter 3**) drove the designs and analyzes of the other studies.

To identify the social-emotional skills taught in S4L and other SEL programs and perceived relevant teaching by students and parents, most of the studies in this thesis used the domains comprised in the framework of the Collaborative for Academic, Social, and Emotional Learning (CASEL) as a reference. These domains and examples of these

skills are: 1. Self-awareness (e.g., self-esteem and self-efficacy); 2. Social awareness (e.g., empathy and perspective-taking); 3. Self-management (e.g., self-regulation and goal setting); 4. Relationship skills (e.g., collaboration and social problem solving); 5. Responsible decision making (e.g., considering the consequences of and taking responsibility for actions). These domains and skills are often referred to in school-based SEL programs.

Chapter 2 describes the review and meta-analysis of forty evaluation studies of thirty-two universal school-based SEL programs for adolescents aged 11-18. These programs positively affected individual social-emotional skills and psychosocial health outcomes significantly. The study highlights that the included evaluation studies measured effects on a selection of the skills addressed in a program. Some of these studies did not measure outcomes on skills at all. The studies did not report differences in effects related to students' backgrounds.

Chapter 3 contains a randomized controlled design study (n = 1394) of the *original* Dutch S4L program for adolescents in different secondary school tracks. The study showed mixed results. Significant positive effects were found on alcohol use and bullying, and adverse effects were found on digital and sexual bullying and smoking. Compared to students in the general secondary education tracks (HAVO and VWO in Dutch), PVSE students improved more on traditional bullying others and suicidal thoughts. Students' family background was not assessed in this study.

Chapter 4 describes a cross-sectional study based on pre-test data of a population of students in two specific tracks in Dutch PVSE. This study identified significant (medium to large) correlations between social-emotional skills. Smaller but significant correlations were found between these skills and psychosocial health outcomes concerning emotional-behavioral difficulties and prosocial behavior. Mediation analyses identified self-management as a mediator in the relationship between self-awareness and emotional-behavioral difficulties. Social awareness was identified as a mediator between prosocial behavior and self-awareness, relationship skills, and responsible decision-making.

Chapter 5 reports the findings of a quasi-experimental design study (n = 739) of the *adapted* S4L program. This program was tailored to the needs of students with learning difficulties in the PVSE-basic (PVSE-b) and practical education (PrE) tracks. As these students learn simultaneously at school and during workplace internships, a module for workplace-relevant social-emotional skills was added to the S4L program. This study, using multiple regression analyses showed no effects on the total student population. In

the subgroup of students from migrant family backgrounds exposed to the S4L program and workplace learning, the study found significant adverse effects on two social-emotional skills: social awareness and relationship skills.

Chapter 6 delineates the perceptions of twenty-two mainly migrant PVSE-b and PrE, students on their social-emotional skills and skills needs, based on small focus group interviews. According to these students, they had sufficient social-emotional skills for managing their daily school life. However, they indicated a need for particular skills and a lack of support from teachers and classmates in managing severe interaction problems at school experienced as being beyond their control, such as bullying and harassment.

Chapter 7 describes the perspectives on SEL, and the social-emotional skills perceived as crucial for adolescents to acquire, based on interviews with thirty-two native Dutch and migrant parents with diverse educational levels. These parents, with children in the PrE track, recognized the skills taught in SEL programs as relevant to learn for their children. However, our study showed that parents' language and interpretation of social-emotional skills and skills development reflected the following four skills constructs: respectful behavior, cooperation skills, self-knowledge, and self-reliance skills. These parental constructs and the underlying developmental beliefs, values, and goals differed from the skills taught in the S4L and other SEL programs. Although they considered themselves to be primarily responsible for teaching skills, most parents were of the opinion that schools should teach skills they perceived as difficult to teach at home, namely relationship skills. They associated these skills with the adolescents' future work prospects. They also emphasized the need for parent-school collaboration on SEL.

Chapter 8 discusses the main findings of the studies, adding to the existing knowledge on SEL program evaluation and implementation. These findings indicate a need for SEL program evaluation studies to measure outcomes on individual social-emotional skills and psychosocial health outcomes and to analyze effects on students from varying backgrounds. Assessing such outcomes requires appropriate quantitative and qualitative approaches that use instruments to assess multiple stakeholders' perspectives on these outcomes. Such assessments are required to adequately target the social-emotional skills students from diverse backgrounds have and need to learn. However, as background characteristics that impact skills development, such as school track and family background, are assumed to interact, accounting for such interactions is necessary to understand SEL programs' effects on social-emotional skills outcomes. Evaluating these effects in students from diverse backgrounds is also informative for program implementation tailored to their varying needs.

The findings of our studies provide empirical evidence for the necessity to engage PVSE-b and PrE students and their parents in the implementation of the S4L program. These students and parents appeared to have their own language and interpretations of social-emotional skills and the skills they considered to be pertinent to teaching at school. Their language and interpretations differed from those embedded in the CASEL framework and SEL programs, such as S4L. As our findings suggest that the skills students need at home and in educational settings may vary, contextualizing the skills targeted in S4L and other SEL programs to both the school and the workplace setting is crucial for engaging students and parents.

Implications for practice

Engaging parents and students from diverse backgrounds requires adopting a transformative and asset-based approach to SEL. Such an approach is sensitive and responsive to exploring, aligning, and supporting the skills these students have and need across the home, school, and workplace setting. The need to transform school programs that teach social-emotional skills, is based on the ideals of social justice. This transformation is necessary to provide equal opportunities to acquire the skills needed by students in marginalized positions to succeed at school and work.

Our studies' findings suggest that adolescent students perceive to have acquired several social-emotional skills and have a need for specific skills associated with school and the workplace. We also identified that particular social-emotional skills seemed to mediate the relationship between other skills and students' psychosocial health outcomes. Therefore, targeting skills in *all* CASEL's competency domains does not seem necessary for promoting adolescents' psychosocial health and/or educational and work prospects. Based on these findings, a modular approach to the S4L program, in which each module teaches skills in a single CASEL domain, is recommended to be able to adapt flexibly to students' varying skills needs. Such an approach supports limiting S4L implementation to those skills most indicated to enhance according to students, parents, and teachers.

To support teachers on adopting a transformative approach and modular approach, materials on program implementation are necessary. As secondary education teachers are barely prepared during their teacher training to engage diverse students and their parents in SEL, additional training on working with parents and intercultural communication is required.

Implications for research

Future evaluation studies on SEL programs need to analyze the effects on individual social-emotional skills in students from varying backgrounds. Such studies should also account for effects in subgroups of students varying in background characteristics, including the interaction of such characteristics on student outcomes.

More research is necessary on S4L and other SEL programs to provide knowledge on how to successfully engage adolescent students and parents with varying background characteristics in the implementation of programs tailored to students' needs. Research is recommended to test the applicability of the parental model of social-emotional skills constructs presented in our study on exploring parents' language and interpretations and to refine the model accordingly. Additional research is also needed on transformative and modular approaches to teaching social-emotional skills in SEL programs to provide knowledge of these approaches and for informing teacher training and support. Future longitudinal studies are required to provide insight into the order in which social-emotional skills are to be taught.

REFERENCES

Aber, J. L., Brown, J. L., and Jones, S. M. (2003). Developmental trajectories toward violence in middle childhood: Course, demographic differences, and response to school-based intervention. *Developmental Psychology, 39*(2), 324–348.

Abrahams, L., Pancorbo, G., Primi, R., Santos, D., Kyllonen, P., John, O.P., & De Fruyt, F. (2019). Social-Emotional Skill Assessment in Children and Adolescents: Advances and Challenges in Personality, Clinical, and Educational Contexts. *Psychological Assessment, 31*(4), 460-473.

Achenbach, T. M., Becker, A., Döpfner, M., Heiervang, E., Roessner, V., Steinhausen, H. C. et al., (2008). Multicultural assessment of child and adolescent psychopathology with ASEBA and SDQ instruments: research findings, applications, and future directions. *Journal of Child Psychology and Psychiatry*, *49*(3), 251-275.

Achenbach, T.M. (2018). Multi-informant and multicultural advances in evidence-Based assessment of students' behavioral, emotional, and social Difficulties. *European Journal Psychological Assessment*, *34*(2), 127–140.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Albright, M. I., & Weissberg, R. P. (2010). School-family partnerships to promote social and emotional learning. In: S.L. Christenson & A.L. Reschly (Eds.), *Handbook of School-Family Partnerships* (pp. 246–265). Routledge.

Allemand, M., Steiger, A. E., & Fend, H. A. (2015). Empathy development in adolescence predicts social competencies in adulthood. *Journal of Personality, 83*(2), 229-241.

Ananiadou, K., and M. Claro (2009). *21st Century skills and competences for new millennium learners in OECD Countries* (Report No. 41). OECD Publishing.

Andriessen, I., Hoegen Dijkhof, J., Torre, A. V. D., Berg, E. V. D., Pulles, I., Iedema, J., & Voogd-Hamelink, M. D. (2020). *Perceived discrimination in the Netherlands 2019.* The Netherlands Institute for Social Research (SCP).

Anthony, C. J., Elliott, S. N., DiPerna, J. C., & Lei, P. W. (2023). To be fair: Development and illustration of the Comprehensive Appraisal of Fairness Evidence (CAFE) model to advance SEL assessment practices. *Social and Emotional Learning: Research, Practice, and Policy*, *1*, 100006.

Araúz Ledezma, A. B., Massar, K., & Kok, G. (2020). Me and My New World: Effects of a School Based Social emotional learning Program for Adolescents in Panama. *Education Sciences,* 10(9), 251.

Armenta, B. E., Knight, G. P., Carlo, G., & Jacobson, R. P. (2011). The relation between ethnic group attachment and prosocial tendencies: The mediating role of cultural values. *European Journal of Social Psychology*, *41*(1), 107-115.

Armstrong, D., & Armstrong, A.C, (2019). Human Rights, Inclusive Education and Inter-Cultural Competence. In: M.J., Schuelka, C.J., Johnstone, G., Thomas, & A.J., Artiles, (Eds.). *The SAGE handbook of inclusion and diversity in education* (pp.76-89). Sage.

Aronson, B., & Laughter, J. (2016). The theory and practice of culturally relevant education: A synthesis of research across content areas. *Review of Educational Research*, *86*(1), 163-206.

Assessment Work Group (2019). *Student social and emotional competence assessment: The current state of the field and a vision for its future*. Collaborative for Academic, Social, and Emotional Learning, Chicago.

Atkins, M. S., Hoagwood, K. E., Kutash, K., & Seidman, E. (2010). Toward the integration of education and mental health in schools. *Administration and Policy in Mental Health 37(*1-2), 40-47.

Atwell, M. N., & Bridgeland, J. M. (2019). *Ready to Lead: A 2019 Update of Principals' Perspectives on How Social and Emotional Learning Can Prepare Children and Transform Schools*. A Report for CASEL. Civic Enterprises with Hart Research Associates.

Åvitsland, A., Leibinger, E., Resaland, G. K., Solberg, R. B., Kolle, E., & Dyrstad, S. M. (2020). Effects of school-based physical activity interventions on mental health in adolescents: The School in Motion cluster randomized controlled trial. *Mental Health and Physical Activity*, *19*, 100348.

Ayres, L., Kavanaugh, K., & Knafl, K. A. (2003). Within-case and across-case approaches to qualitative data analysis. *Qualitative Health Research*, *13*(6), 871-883.

Bailey, R., & Jones, S. M. (2019). An integrated model of regulation for applied settings. *Clinical Child and Family Psychology Review*, *22*, 2-23.

Banas, J. R., Valley, J. A., & Chaudhri, A. (2021). A biblioguidance approach to understanding and developing adolescents' social-emotional competence in the health education classroom: a formative research study. *Health Education*, *121*(5), 486-503.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.

Barnes, T. N., & McCallops, K. (2019). Perceptions of culturally responsive pedagogy in teaching SEL. *Journal for Multicultural Education*, *13*(1), 70-81.

Baron, R. M., and Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology. 51(6),* 1173-1182.

Bauer, G. R., Churchill, S. M., Mahendran, M., Walwyn, C., Lizotte, D., & Villa-Rueda, A. A. (2021). Intersectionality in quantitative research: A systematic review of its emergence and applications of theory and methods. *SSM Population Health*, *14*, 100798.

Bécares, L., & Priest, N. (2015). Understanding the influence of race/ethnicity, gender, and class on inequalities in academic and non-academic outcomes among eighth-grade students: Findings from an intersectionality approach. *PloS one*, *10*(10), e0141363.

Beck, A. T. (Eds). (1979). *Cognitive therapy of depression.* Guilford Press.

Beelmann, A., & Lösel, F. (2006). Child social skills training in developmental crime prevention: Effects on antisocial behavior and social competence. *Psicothema, 18*(3), 603-610.

Berg, J., Osher, D., Same, M., Nolan, E., Benson, D., & Jacobs, N. (2017). *Identifying, defining, and measuring social and emotional competencies.* American Institutes for Research.

Bergh, A., & Englund, T. (2014). A changed language of education with new actors and solutions: The authorization of promotion and prevention programmes in Swedish schools. *Journal of Curriculum Studies*, *46*(6), 778–797.

Berkowitz, M. W., Battistich, V.A., & Bier, M. C. (2008). What works in character education: What is known and what needs to be known. In: L.P. Nucci & D. Narvaez (Eds.) *Handbook of Moral and Character Education (*pp. 414-431). Taylor Francis.

Bernal, G., Jiménez-Chafey, M. I., & Domenech Rodríguez, M. M. (2009). Cultural adaptation of treatments: A resource for considering culture in evidence-based practice. *Professional Psychology: Research and Practice, 40*(4), 361-368.

Berry, V., Axford, N., Blower, S., Taylor, R. S., Edwards, R. T., Tobin, K. et al. (2016). The effectiveness and micro-costing analysis of a universal, school-based, social emotional learning programme in the UK: A cluster-randomized controlled trial. *School Mental Health*, *8*(2), 238-256.

Bierman, K. L., Coie, J. D., Dodge, K. A., Greenberg, M. T., Lochman, J. E., McMahon, R., & Pinderhughes, E. (2010). The effects of a multiyear universal social–emotional learning program: The role of student and school characteristics. *Journal of Consulting and Clinical Psychology, 78*(2), 156-168.

Biesta, G. (2007). Why "what works" won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, *57*(1), 1-22.

Bisschop, P., Van Kesteren, J., Van der Ven, K., Prevoo, T., Ter Weel, B., Muja, A., … & Baarda, R. (2021). Naar een betere startpositie op de arbeidsmarkt. Onderzoek naar de aansluiting onderwijs-arbeidsmarkt voor *mbo'ers met een migratieachtergrond*. (SEO-rapport Nr.2021-64). SEO.

Björklund, K., Liski, A., Samposalo, H., Lindblom, J., Hella, J., Huhtinen, H., …& Santalahti, P. (2014). "Together at school" - a school-based intervention program to promote socio-emotional skills and mental health in children: study protocol for a cluster randomized controlled trial. *BMC Public Health, 14*, 1042.

Blakemore, S. J., & Mills, K. L. (2014). Is adolescence a sensitive period for sociocultural processing? *Annual Review of Psychology*, *65*, 187-207.

Boer, M., van Dorsselaer, S. A. F. M., de Looze, M., de Roos, S. A., Brons, H., van den Eijnden, R., …& Stevens, G. (2022). *HBSC 2021. Gezondheid en welzijn van jongeren in Nederland.* Universiteit Utrecht.

Bonevski, B., Randell, M., Paul, C., Chapman, K., Twyman, L., Bryant, J., … & Hughes, C. (2014). Reaching the hard-to-reach: a systematic review of strategies for improving health and medical research with socially disadvantaged groups. *BMC Medical Research Methodology*, *14*, 1-29.

Borenstein, M., Hedges, L. V., Higgins, J. T., & Rothstein, H. R. (2009). *Introduction to meta-Analysis*. Wiley.

Bosmans, M., Baliatsas, C., Hooiveld, M., Magnee, T., Kanis, B. & Dückers, M., (2023). *Kort-cyclisch Cijferoverzicht gezondheidsmonitor COVID-19: 7e gegevensrapportage jeugd (januari-maart 2023)*. NIVEL.

Botvin, G. J. (1996). Through life skills training. In: R. Peters, & R. McMahon (Eds.), *Preventing childhood disorders, substance abuse and delinquency.* 215-240. Sage Publications.

Botvin, G. J., Griffin, K. W., & Nichols, T. D. (2006). Preventing youth violence and delinquency through a universal school-based prevention approach. *Prevention Science, 7*(4), 403-408.

Botvin, G. J., & Griffin, K. W. (2014). Life skills training: Preventing substance misuse by enhancing individual and social competence. *New Directions for Youth Development, 2014*(141), 57-65.

Bowen, G, A. (2006). Grounded theory and sensitizing concepts. *International Journal of Qualitative Methods*, *5*(3), 1-9.

Brackett, M. A., Rivers, S. E., & Salovey, P. (2011). Emotional intelligence: Implications for personal, social, academic, and workplace success. *Social and Personality Psychology Compass*, *5*(1), 88-103.

Brackett, M. A., Rivers, S. E., Reyes, M. R., and Salovey, P. (2012). Enhancing academic performance and social and emotional competence with the RULER feeling words curriculum. *Learning and Individual Differences, 22*(2), 218-224.

Brackett, M. A., Elbertson, N. A., & Rivers, S. E. (2015). Applying theory to the development of approaches to SEL. In: J. A. Durlak, C. E. Domitrovich, R. P., Weissberg, & T. P. Gullotta (Eds.) *Handbook of Social and Emotional Learning: Research and Practice* (pp. 20-33). Guillford Press.

Bradley, R. H., and Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, *53*(1), 371-399.

Bridges, L. J., Denham, S. A., & Ganiban, J. M. (2004). Definitional issues in emotion regulation research. *Child Development, 75*(2), 340-345.

Bridgeland, J., Bruce, M., & Hariharan, A. (2013). *The Missing Piece: A National Teacher Survey on How Social and Emotional Learning Can Empower Children and Transform Schools*. A Report for CASEL. Civic Enterprises.

Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In: W. Damon & R.M. Lerner (Eds.), *Handbook of child psychology: Theoretical models of human development* (pp. 993–1028). John Wiley & Sons Inc.

Bronfenbrenner, U., & Morris, P. (2006). The bio-ecological model of human development. In: R.M. Lerner, W. Damon (Eds.), *Theoretical Models of Human Development* (pp. 793-828). Wiley.

Brown, C., Maggin, D. M., & Buren, M. (2018). Systematic review of cultural adaptations of school-based social, emotional, and behavioral interventions for students of color. *Education and Treatment of Children*, *41*(4), 431-456.

Bukowski, W. M., Castellanos, M., Vitaro, F., & Brendgen, M. (2015). Socialization and experiences with peers. In: J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research (2nd ed.)* (pp. 228–250). Guilford Press.

Burckhardt, R., Manicavasagar, V., Batterham, P. J., & Hadzi-Pavlovic, D. (2016). A randomized controlled trial of strong minds: A school-based mental health program combining acceptance and commitment therapy and positive psychology. *Journal of School Psychology*, *57*, 41-52.

Burleigh, C. L., & Wilson, A. M. (2021). Teachers' awareness in identifying micro aggressive behaviors within the K-12 classroom. *Social Psychology of Education*, *24*(1), 143-167.

Burke, J. D., & Loeber, R. (2016). Mechanisms of behavioral and affective treatment outcomes in a cognitive behavioral intervention for boys. *Journal of Abnormal Child Psychology. 44*(1), 179-189.

Burkhalter, K., & Wai, C. (2022). *Social justice standards: The learning for justice anti-bias framework second edition.* The Southern Poverty Law Center.

Busch, V., De Leeuw, R. J., & Schrijvers, A.J. (2013). Results of a multi behavioral health promoting school pilot intervention in a Dutch secondary school. *Journal of Adolescent Health, 52*(4), 400-406.

Calders, F., Bijttebier, P., Bosmans, G., Ceulemans, E., Colpin, H., Goossens, L., ...& Van Leeuwen, K. (2020). Investigating the interplay between parenting dimensions and styles, and the association with adolescent outcomes. *European Child & Adolescent Psychiatry*, *29*(3), 327-342.

Calear, A. L., & Christensen, H. (2010). Systematic review of school-based prevention and early intervention programs for depression. *Journal of Adolescence*, *33*(3), 429-438.

Cantor, P., Osher, D., Berg, J., Steyer, L., & Rose, T. (2021). Malleability, plasticity, and individuality: How children learn and develop in context. *Applied Developmental Science, 23*: 4, 307-337.

Cardemil, E. V., Reivich, K. J., Beevers, C. G., Seligman, M. E. P., & James, J. (2007). The prevention of depressive symptoms in low-income, minority children: Two-year follow-up. *Behaviour, Research and Therapy, 45*(2), 313-327.

Carlo, G., Hausmann, A., Christiansen, S., & Randall, B. A. (2003). Sociocognitive and behavioral correlates of a measure of prosocial tendencies for adolescents. *The Journal of Early Adolescence*, *23*(1), 107-134.

Carroll, A., Houghton, S., Forrest, K., McCarthy, M., & Sanders-O'Connor, E. (2020). Who benefits most? Predicting the effectiveness of a social and emotional learning intervention according to children's emotional and behavioural difficulties. *School Psychology International*, *41*(3), 197-217.

Casey, B. J. (2015). Beyond simple models of self-control to circuit-based accounts of adolescent behavior. *Annual Review Psychology, 66*, 295-319.

Castro-Olivo, S. M. (2014). Promoting social emotional learning in adolescent Latino ELLs: A study of the culturally adapted Strong Teens program. *School Psychology Quarterly*, *29*(4), 567.

Cefai, C., Bartolo, P. A., Cavioni, V., & Downes, P. (2018). *Strengthening Social and Emotional Education as a core curricular area across the EU. A review of the international evidence. Analytical report.* Publications Office of the European Commission, Directorate-General for Education, Youth, Sport and Culture.

Chaplin, T. M., Gillham, J. E., Reivich, K., Elkon, A. G., Samuels, B., Freres, D. R., ...& Seligman, M. E. (2006). Depression prevention for early adolescent girls a pilot study of all girls versus co-ed groups. *The Journal of Early Adolescence*, *26*(1), 110-126.

Chen, X., and Eisenberg, N. (2012). Understanding cultural issues in child development: Introduction. *Child Development Perspectives*, *6*(1), 1-4.

Chen, X., Fu, R., & Zhao, S. (2015). Cultural perspectives on Socialization. In: J. E., Grusec, & P. D. Hastings (Eds.). *Handbook of socialization: Theory and research (*2nd ed.) *(*pp. 451-471). Guilford Press.

Cheung, C. K., & Lee, T. Y. (2010). Improving social competence through character education. *Evaluation and program planning*, *33*(3), 255-263.

Chorpita, B. F., Daleiden, E., & Weisz, J. R. (2005a). Identifying and selecting the common elements of evidence based interventions: A distillation and matching model. *Mental Health Services Research*, 7(1), 5–20.

Chorpita, B. F., Daleiden, E. L., & Weisz, J. R. (2005b). Modularity in the design and application of therapeutic interventions. *Applied and Preventive Psychology, 11*(3), 141-156.

Cipriano, C., Naples, L. H., Eveleigh, A., Cook, A., Funaro, M., Cassidy, C., ...& Rappolt-Schlichtmann, G. (2022). A systematic review of student disability and race representation in universal school-based social and emotional learning interventions for elementary school students. *Review of Educational Research*, *93*(1), 73–102.

Cipriano, C., Strambler, M., Naples, L.H., Ha, C., Chang, M., Wood, M., Sehgal., K., Zieher, A., Eveleigh, A., McCarthy, M., Funero, M., Ponnock, A., Chow, J., & Durlak, J. (2023). The state of evidence for social and emotional learning: A contemporary meta-analysis of universal school-based SEL interventions. *Child Development, 00*, 1–24.

Cipriano, C., & McCarthy, M. F. (2023b). Towards Inclusive Social and Emotional Learning. *Social and Emotional Learning: Research, Practice, and Policy*, 100008.

Clarke, A., Sorgenfrei, M., Mulcahy, J., Davie, P., Friedrich, C. & McBride, T. (2021). *Adolescent mental health: A systematic review on the effectiveness of school-based interventions.* Early Intervention Foundation.

Codiroli Mcmaster, N., & Cook, R. (2019). The contribution of intersectionality to quantitative research into educational inequalities. *Review of Education, 7*(2), 271–292.

Coelho, V. A., Marchante, M., & Sousa, V. (2015). "Positive attitude": A multilevel model analysis of the effectiveness of a social and emotional learning program for Portuguese collaborative middle school students. *Journal of Adolescence*, *43*, 29-38.

Coelho, V., & Sousa, V. (2017). The impact of class-level variables on the effectiveness of a middle school social and emotional learning program: A multilevel analysis. *Journal of Relationships Research*, *8*, e21.

Coelho, V., Peixoto, C., Azevedo, H., Machado, F., Soares, M., & Espain, A. (2023). Effects of a Portuguese social–emotional learning program on the competencies of elementary school students. *Frontiers in Psychology*, *14*, 1910.

Cohen, J.D. (1988). *Statistical power analysis for the behavioral sciences.* (2nd ed.). Lawrence Erlbaum Associates.

Collaborative for Academic, Social and Emotional Learning (CASEL) (2003). *Safe and sound: An educational leader's guide to evidence-based social and emotional learning (SEL) programs.* CASEL, Chicago.

Collaborative for Academic, Social, and Emotional Learning (CASEL) (2020). CASEL Framework. CASEL.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: problems, progress, and potential in theory and research. *Psychological Bulletin*, *127*(1), 87-127.

Conus, X., & Fahrni, L. (2019). Routine communication between teachers and parents from minority groups: an endless misunderstanding? *Educational Review*, *71*(2), 234-256.

Cook C. R., Gresham F. M., Kern L., Barreras R. B., Thornton S., Crews S. D. (2008). Social skills training for secondary students with emotional and/or behavioral disorders: A review and analysis of the meta-analytic literature. *Journal of Emotional and Behavioral Disorders*, *16*(3), 131–144.

Cook-Sather, A. (2020). Student voice across contexts: Fostering student agency in today's schools. *Theory into practice*, *59*(2), 182-191.

Corrieri, S., Heider, D., Conrad, I., Blume, A., Konig, H. H., & Riedel-Heller, S. G., (2014). School-based prevention programs for depression and anxiety in adolescence: A systematic review. *Health Promotion International, 29*(3), 427-441.

Côté-Lussier, C., & Fitzpatrick, C. (2016). Feelings of safety at school, socioemotional functioning, and classroom engagement. *Journal of Adolescent Health*, *58*(5), 543-550.

Craig, W., Harel-Fisch, Y., Fogel-Grinvald, H., Dostaler, S., Hetland, J., Simons-Morton, B., …& Pickett, W. (2009). A cross-national profile of bullying and victimization among adolescents in 40 countries. *International Journal of Public Health*, *54* (S2), 216-224.

Creswell, J. W., & Miller, D. L. (2000). Determining Validity in Qualitative Inquiry. *Theory Into Practice*, 39:3, 124-130.

Crone, E.A. (2009). Executive functions in adolescence: inferences from brain and behavior. *Developmental Science*, *12*(6), 825-830.

Crone, E.A., & Dahl, R. E. (2012). Understanding adolescence as a period of social–affective engagement and goal flexibility. *Nature Reviews Neuroscience*, *13*(9), 636–650.

Crone, E. A. (2017). *The Adolescent Brain: Changes in learning, decision-making and social relations*. Taylor Francis Group.

Crone, E. A., & Fuligni, A. J. (2020). Self and others in adolescence. *Annual Review of Psychology*, *71*, 447–469.

Cross, W., and West, J. (2011). Examining implementer fidelity: conceptualising and measuring adherence and competence. *Journal of. Children Services.* 6, 18–33.

Crowe, L.M., Beauchamp, M.H., Catroppa, C., & Anderson, V. (2011). Social function assessment tools for children and adolescents: A systematic review from 1988 to 2010. *Clinical Psychology Review, 31*(5), 767-785.

Cunha, F., & Heckman, J.J. (2010). *Investing in Our Young People*. Working Paper, No. 16201. National Bureau of Economic Research (NBER).

Dalen, J. D. (2014). Gender differences in the relationship between school problems, school class context and psychological distress: Results from the Young-HUNT 3 study. *Social Psychiatry and Psychiatric Epidemiology*, *49*(2), 183-191.

Daley, S. G., & McCarthy, M. F. (2021). Students With Disabilities in Social and Emotional Learning Interventions: A Systematic Review. *Remedial and Special Education*, *42*(6), 384–397.

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 97-140.

Davidson, R.J., Dunne, J., Eccles, J.S., Engle, A., Greenberg, M., Jennings, P., …Vago, D., (2012). Contemplative practices and mental training: Prospects for American education. *Child Development Perspectives, 6*(2), 146-153.

Dawes, M., Sutherland, K. S., Sullivan, T. N., & Harrist, J. (2020). Developmental processes and emotional and behavioral disorders during the middle and high school years. In: T. W. Farmer, M. A. Conroy, E. M. Z. Farmer, K. S. Sutherland (Eds.) *Handbook of Research on Emotional and Behavioral Disorders* (pp. 50-64). Routledge/Taylor & Francis Group.

DeLara, E. W. (2012). Why Adolescents Don't Disclose Incidents of Bullying and Harassment, *Journal of School Violence*, 11:4, 288-305.

De Leeuw, R. R., De Boer, A. A., & Minnaert, A. E. M. G. (2018). Student voices on social exclusion in general primary schools. *European Journal of Special Needs Education*, 33:2, 166-186.

DeMartino, L., Fetman, L., Tucker-White, D., & Brown, A. (2022). From freedom dreams to realities: Adopting Transformative Abolitionist Social Emotional Learning (TASEL) in schools. *Theory into Practice 61*(2), 156-167.

De Mooij, B., Fekkes, M., van den Akker, A. L., Vliek, L., Scholte, R. H., & Overbeek, G. (2022). Does affirming children's autonomy and prosocial intentions help? A micro-trial into intervention component effects to improve psychosocial behavior. *Journal of School Psychology*, *90*, 60-81.

Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education and Development, 17*(1), 57–89.

Denham, S. A. (2015). Assessment of SEL in educational contexts. In: J. A. Durlak, C. E. Domitrovich, R. P. Weissberg and T. P. Gullotta (Eds.), *Handbook of social and emotional learning. Research and Practice* (1st ed.) (pp. 285-319). Guilford Press.

DePaoli, J. L., Atwell, M. N., Bridgeland, J. M., & Shriver, T. S. (2018). *Respected: Perspectives from youth on high school and social and emotional learning*. Civic Enterprises and Hart Research Associates.

D'Haem, J., & Griswold, P. (2017). Teacher educators' and student teachers' beliefs about preparation for working with families including those from diverse socioeconomic and cultural backgrounds. *Education and Urban Society*, *49*(1), 81-109.

Diekstra, R.F.W. (1996). Keerpunten: Naar een preventief jeugdbeleid. [Turning Points: Towards Preventive Youth Policy]. GGD, Rotterdam.

Diekstra, R. F. W., & Gravesteijn J. C. (1998). *De levensvaardigheden vragenlijst [Life skills questionnaire]*. GGD, Rotterdam e.o..

Diekstra, R. F. (2008). Social and emotional education, or skills for life, in the Netherlands: a review of history, policies and practices. In: C., Clouder, B., Dahlin, R., Diekstra, P.F., Berrocal, B., Heys, L., Lantieri, & H. Paschen, (Eds.) *Social and Emotional Education. An International Analysis. (*pp. 117-149). Fundacion Marcetino Botin Report.

Diemer, M. A. (2007). Parental and school influences upon the career development of poor youth of color. *Journal of Vocational Behavior*, *70*(3), 502-524.

Dinallo, A. M. (2016). Social and emotional learning with families. *Journal of Education and Learning*, *5*(4), 147-158.

Dodge, K. A. (1993). Social-cognitive mechanisms in the development of conduct disorder and depression. *Annual Review of Psychology*, *44*(1), 559-584.

Dolman, M., Heijnens, D., & Schafrat, W. (2015). The 21st century skills: What do these skills mean for the educational mission of practical education? KPC Groep.

Domitrovich, C. E., Cortes, R. C., & Greenberg, M. T. (2007). Improving young children's social and emotional competence: A randomized trial of the preschool "PATHS" curriculum. *The Journal of Primary Prevention, 28*(2), 67-91.

Domitrovich, C. E., Durlak, J. A., Staley, K. C., & Weissberg, R. P. (2017). Social-emotional competence: An essential factor for promoting positive adjustment and reducing risk in school children. *Child Development, 88*(2), 408-416.

Dowling, K., & Barry, M. M. (2020). Evaluating the implementation quality of a social and emotional learning program: A mixed methods approach. *International Journal of Environmental Research and Public Health*, *17*(9), 3249.

DuBois, D. L., Flay, B. R., & Fagen, M. C. (2009). Self-esteem enhancement theory: Promoting health across the life span. In: R. J. DiClemente, R. A. Crosby & M. C. Kegler (Eds.), *Emerging Theories in Health Promotion Practice and Research* (2nd ed.) (pp.97-130). Jossey-Bass.

Duchesneau, N. (2020). *Social, Emotional, and Academic Development through an Equity Lens*. The Education Trust.

Duckworth, A. L., & Yeager, D. S. (2015). Measurement matters: Assessing personal qualities other than cognitive ability for educational purposes. *Educational Researcher*, *44*(4), 237-251.

Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology, 41*(3-4), 327-350.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432.

Durlak, J. A., Domitrovich, C. E., Weissberg, R. P., Gullota, T. P. (Eds). (2015). *Handbook of social and emotional learning: Research and Practice*. Guilford Press.

Durlak, J. A. (2016). Programme implementation in social and emotional learning: Basic issues and research findings. *Cambridge Journal of Education*, *46*(3), 333-345.

Durlak, J. A., Mahoney, J. L., and Boyle, A. E. (2022). What we Know, and What we Need to Find out about Universal, School-based Social and Emotional Learning Programs for Children and Adolescents: A Review of Meta-analyses and Directions for Future Research. *Psychological Bulletin*, *148*(11-12), 765-782.

Dusenbury, L., Brannigan, R., Falco, M., & Hansen, W.B. (2003). A review of research on fidelity of implementation: Implications for drug abuse prevention in school settings. *Health Education Research, 18*, 237–256.

Dymnicki, A., Trivits, L., Hoffman, C., and Osher, D. (2020*). Advancing the use of core components of effective programs: Suggestions for researchers publishing evaluation results*. Office of Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services.

Eccles, J. S., & Roeser, R. W. (2011). Schools as developmental contexts during adolescence. *Journal of Research on Adolescence*, *21*(1), 225-241.

Eisenberg, N., Eggum, N. D., & Di Giunta, L. (2010). Empathy-related responding: Associations with prosocial behavior, aggression, and intergroup relations. *Social Issues and Policy Review*, *4*(1), 143-180.

Elbertson, N.A., Brackett, M.A., & Weissberg, R.P. (2010). School-based social and emotional learning (SEL) programming: Current perspectives. In: A., Hargreaves, A., Lieberman, M., Fullan, D. Hopkins (Eds.) *Second International Handbook of Educational Change*. Springer International Handbooks of Education, Vol 23. Springer.

Elias, M. J. (2004). The connection between social emotional learning and learning disabilities: Implications for intervention. *Learning disability quarterly*, *27*(1), 53–63.

Elias, M. J., & Haynes, N. M. (2008). Social competence, social support, and academic achievement in minority, low-income, urban elementary school children. *School psychology quarterly*, *23*(4), 474-495.

Elias, M. J. (2019). What If the Doors of Every Schoolhouse Opened to Social emotional learning Tomorrow: Reflections on How to Feasibly Scale Up High-Quality SEL. *Educational Psychologist, 54*:3, 233-245.

Elias, M. J., Brackett, M. A., Miller, R., Jones, S., Kahn, J., Mahoney, J. L., Weissberg, R. P., & Chung, S. Y. (2019). Developing social and emotional skills and attitudes and ecological assets". In: D. Osher, M. J. Mayer, R. J. Jagers, K. Kendziora, & L. Wood (Eds.), *Keeping students safe and helping them thrive: A collaborative handbook on school safety, mental health, and wellness* (pp. 185-209). Praeger/ABC-CLIO).

Elksnin, N., & Elksnin, L.K. (2001). Adolescents with disabilities: The need for occupational social skills training. *Exceptionality*, *9*(1-2), 91-105.

Ellis, A. (1996). *Reasons and Emotion in Psychotherapy: A Comprehensive Method of Treating Human Disturbances*. Citadel Press.

Ellis, A. M., Bauer, T. N., & Erdogan, B. (2015). New employee organizational socialization. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2nd ed.) (pp. 301–323). Guilford Press.

Elliott, S. N., Davies, M. D., Frey, J. R., Gresham, F., and Cooper, G. (2018). Development and initial validation of a social emotional learning assessment for universal screening. *Journal of Applied Developmental Psychology*, *55*, 39-51.

Embry, D. D., & Biglan, A. (2008). Evidence-based kernels: Fundamental units of behavioral influence. *Clinical Child and Family Psychology Review, 11*(3), 75-113.

Eppler-Wolff, N., Martin, A., & Homayoonfar, S. (2019). The school-based mental health collaboration (SBMHC): A multi-level university-school partnership. *Journal of Infant, Child, and Adolescent Psychotherapy*, *18*(1), 13-28.

Epstein, J. L., Sanders, M. G., Sheldon, S. B., Simon, B. S., Salinas, K. C., Jansorn, N.R., … & Williams, K. J. (2009). *School, family, and community partnerships: Your handbook for action*. (3rd Ed.). Corwin Press.

Espada, J. P., Griffin, K. W., Pereira, J. R., Orgilés, M., & García-Fernández, J. M. (2012). Component analysis of a school-based substance use prevention program in Spain: Contributions of problem solving and social skills training content. *Prevention Science*, *13*(1), 86-95.

Espelage, D. L., Low, S., Polanin, J. R., & Brown, E. C. (2013). The impact of a middle school program to reduce aggression, victimization, and sexual violence. *Journal of Adolescent Health*, *53*(2), 180-186.

European Centre for the Development of Vocational Training (2013) (CEDEFOP). *Labour Market Outcomes of Vocational Education in Europe: Evidence from the European Union Labour Force Survey*. (No. 32). European Union, Luxembourg.

Evans, G. W., & English, K. (2002). The environment of poverty: Multiple stressor exposure, psychophysiological stress, and socioemotional adjustment. *Child Development*, *73*(4), 1238–1248.

Evans, R., Scourfield, J., & Murphy, S. (2015). The unintended consequences of targeting: young people's lived experiences of social and emotional learning interventions. *British Educational Research Journal*, *41*(3), 381-397.

Evans, R. (2017). Emotional pedagogy and the gendering of social and emotional learning. *British Journal of Sociology of Education*, *38*(2), 184–202.

Faggiano, F., Galanti, M.R., Bohrn, K., Burkhart, G., Vigna-Taglianti, F., Cuomo, ...& Wiborg, G. (2008). The effectiveness of a school-based substance abuse prevention program: EU-dap cluster randomised controlled trial. *Preventive Medicine, 47*(5), 537-543.

Faggiano, F., Vigna-Taglianti, F., Burkhart, G., Bohrn, K., Cuomo, L., Gregori, D., ...& Galanti, R. (2010). The effectiveness of a school-based substance abuse prevention program: 18-month follow-up of the EU-dap cluster randomized controlled trial. *Drug and Alcohol Dependence, 108*(1–2), 56-64.

Fairchild A. J., and McQuillin, S. D. (2010). Evaluating mediation and moderation effects in school psychology: A presentation of methods and review of current practice. *Journal of School Psychology. 48*(1), 53-84.

Falicov, C. J. (2009). Commentary: On the wisdom and challenges of culturally attuned treatments for Latinos. *Family Process*, *48*(2), 292-309.

Farahmand, F. K., Grant, K. E., Polo, A. J., Duffy, S. N., & DuBois, D. L. (2011). School-based mental health and behavioral programs for low-income, urban youth: A systematic and meta-analytic review. *Clinical Psychology: Science and Practice*, *18*(4), 372.

Fekkes, M., Pijpers, F. I., & Verloove-Vanhorick, S. P. (2004). Bullying behavior and associations with psychosomatic complaints and depression in victims. *Journal of Pediatrics*, *144*(1), 17-22.

Fekkes, M., Van de Sande, M. C. E., Gravesteijn, J. C., Pannebakker, F. D., Buijs, G. J., Diekstra, R. F. W., & Kocken, P. L. (2016). Effects of the Dutch Skills for Life program on the health behavior, bullying, and suicidal ideation of secondary school students. *Health Education*, *116* (1), 2-15.

Ferreira, M., Martinsone, B., & Talić, S. (2020). Promoting sustainable social emotional learning at school through relationship-centered learning environment, teaching methods and formative assessment. *Journal of Teacher Education for Sustainability*, *22*(1), 21-36.

Fishbein, M., & Ajzen, I. (2011). *Predicting and changing behavior: The reasoned action approach.* Psychology Press, Taylor & Francis.

Flay, B. R., Snyder, F., & Petraitis, J. (2009). The theory of triadic influence. In: R. J. DiClemente, R. A. Crosby, & M. C. Kegler (Eds.). *Emerging theories in health promotion practice and research*. 451-510. John Wiley & Sons.

Fletcher, J.M., & Wolfe, B. (2016). The importance of family income in the formation and evolution of non-cognitive skills in childhood. *Economics of Education Review*, *54*, 143-154.

Foxcroft, D., & Tsertsvadze, A. (2011). Universal School-based Prevention Programs for Alcohol misuse in Young People. *The Cochrane Database of Systematic Reviews*, (9).

Frank, J. L., Kohler, K., Peal, A., & Bose, B. (2017). Effectiveness of a school-based yoga program on adolescent mental health and school performance: Findings from a randomized controlled trial. *Mindfulness, 8*(3), 544-553.

Fu, A. S., & Markus, H. R. (2014). My Mother and Me: Why Tiger Mothers Motivate Asian Americans but Not European Americans. *Personality and Social Psychology Bulletin 40*(6), 739-749.

Galetta, A. (2013). *Mastering the Semi-structured Interview and Beyond: From Research Design to Analysis and Publication* (Vol. 18). University Press.

Galliher, R. V., McLean, K. C., & Syed, M. (2017). An integrated developmental model for studying identity content in context. *Developmental Psychology, 53*(11), 2011–2022.

Garaigordobil, M., Maganto, C., Perez, J.I., & Sansinenea, E. (2009). Gender differences in socioemotional factors during adolescence and effects of a violence prevention program. *The Journal of Adolescent Health 44*(5), 468-477.

Garbacz, S. A., Swanger-Gagné, M. S., & Sheridan, S. M. (2015). The role of school-family partnership programs for promoting student SEL. In: J. A. Durlak, C. E. Domitrovich, R.P. Weissberg, T. P. Gullotta (Eds.), *Handbook of Social and Emotional Learning: Research and practice* (p. 244-260). Guilford Press.

Garbacz, S. A., Watkins, N. D., Diaz, Y., Barnabas Jr, E. R., Schwartz, B., & Eiraldi, R. (2017). Using conjoint behavioral consultation to implement evidence-based practices for students in low-income urban schools. *Preventing School Failure: Alternative Education for Children and Youth*, *61*(3), 198-210.

García-Carmona, M., Evangelou, M., & Fuentes-Mayorga, N. (2020). 'Hard-to-reach' parents: immigrant families' participation in schools and the views of parent association leaders in Spain and the United States. *Research Papers in Education*, *35*(3), 337-358.

Garner, P. W., Mahatmya, D., Brown, E. L., & Vesely, C. K. (2014). Promoting desirable outcomes among culturally and ethnically diverse children in social emotional learning programs: A multilevel heuristic model. *Educational Psychology Review*, *26*, 165-189.

Garrard, W. M., & Lipsey, M. W. (2007). Conflict resolution education and antisocial behavior in US schools: A meta-analysis. *Conflict Resolution Quarterly*, *25*(1), 9-38.

Gaspar, T., Cerqueira, A., Branquinho, C., & Matos, M. G. D. (2018). Dimensions of social and personal skills in children and adolescents: age and gender differences. *International Journal of Development Research*, 18394-18400.

Gillham, J. E., Reivich, K. J., Freres, D. R., Chaplin, T. M., Shatté, A. J., Samuels, B., ...& Seligman, M. E. (2007). School-based prevention of depressive symptoms: A randomized controlled study of the effectiveness and specificity of the Penn Resiliency Program. *Journal of consulting and clinical psychology*, *75*(1), 9-19.

Gillies, V. (2011). Social and emotional pedagogies: Critiquing the new orthodoxy of emotion in classroom behaviour management. *British Journal of Sociology of Education*, *32*(2), 185-202.

Ginevra, M. C., Nota, L., & Ferrari, L. (2015). Parental support in adolescents' career development: Parents' and children's perceptions. *The Career Development Quarterly*, *63*(1), 2-15.

Goldberg, J. M., Sklad, M., Elfrink, T. R., Schreurs, K. M., Bohlmeijer, E. T., & Clarke, A. M. (2019). Effectiveness of interventions adopting a whole school approach to enhancing social and emotional development: a meta-analysis. *European Journal of psychology of Education*, *34*, 755-782.

Goleman, D. P. (1995). *Emotional intelligence: Why it can matter more than IQ for character, health and lifelong achievement*. Bantham Books.

Gomes, A.R., & Marques, B. (2013). Life skills in educational contexts: testing the effects of an intervention programme. *Educational Studies*, *39*(2), 156-166.

Goodman, R., & Scott, S. (2012). *Child and adolescent psychiatry*. John Wiley.

Goodman, K. M., & Bowman, N. A. (2014). "Making diversity work to improve college student learning". In: G. L. Martin and M. S. Hevel (Eds.) *Research-Driven Practice in Student Affairs: Implications from Wabash National Study of Liberal Arts Education*. Jossey-Bass, No 147, 37-49.

Gordon, R. A., Crowder, M. K., Aloe, A. M., Davidson, L. A., & Domitrovich, C.E. (2022). Student self-ratings of social-emotional competencies: Dimensional structure and outcome associations of the WCSD-SECA among Hispanic and non-Hispanic White boys and girls in elementary through high school. *Journal of School Psychology*, *93*, 41-62.

Gravesteijn, C., Diekstra, R. F., De Wilde, E. J., & Koren, E. (2004). Effecten van 'Levensvaardigheden' [Effectiveness of a Life Skills program]. *Kind en adolescent*, *25*(4), 169-177.

Gravesteijn, C. (2010). Programma's voor levensvaardigheden op school [School Life Skills Programs]. Doctoral Dissertation. Utrecht University.

Gravesteijn, J. C., Diekstra, R. F. W., Sklad, M. & de Winter, M. (2011). The effects of a Dutch school-based social and emotional learning programme (SEL) on suicidality in Adolescents. *International Journal of Mental Health Promotion*, *13*(4), 4-16.

Gravesteijn, J.C. & Diekstra, R.F.W. (2013). Skills for Life, Docenten handleiding [Skills for Life Teachers Manual], EduActief.

Greenberg, M. T., Katz, D. A., & Cousino Klein, L. (2015). The potential effects of SEL on biomarks and health outcomes. In: J.A. Durlak, C.E. Domitrovich, R.P. Weissberg & T. P. Gullotta (Eds.), *Handbook of Social and Emotional Learning: Research and Practice* (1st ed.) (pp. 81-97). Guilford Press.

Greenberg, M. T. (2023). *Evidence for social and emotional learning in schools*. Learning Policy Institute.

Gresham, F. M. (2010). Evidence-based social skills interventions: Empirical foundations for instructional approaches. In: M. Shinn & H. Walker (eds*.) Interventions for achievement and behavior problems in a three-tier model including RTI* (pp. 337-362). National Association of School Psychologists.

Gresham, F. M. (2015). Evidence-based social skills interventions for students at risk for EBD. *Remedial and Special Education*, *36*(2), 100-104.

Gresham, F. M. (2016) Social skills assessment and intervention for children and youth, Cambridge Journal of Education, 46(3), 319-332.

Gresham, F., Elliott, S., Metallo, S., Byrd, S., Wilson, E., Erickson, M., …& Altman, R. (2020). Psychometric fundamentals of the social skills improvement system: social–emotional learning edition rating forms. *Assessment for Effective Intervention, 45*(3), 194-209.

Griffin, J. P., Holliday, R. C., Frazier, E., & Braithwaite, R. L. (2009). The BRAVE, Building Resiliency and Vocational Excellence, program: Evaluation findings for a career-oriented substance abuse and violence preventive intervention. *Journal of Health Care for the Poor and Underserved, 30*(3), 798-816.

Grollman, E. A. (2012). Multiple forms of perceived discrimination and health among adolescents and young adults. *Journal of Health and Social Behavior*, *53*(2), 199-214.

Grusec, J.E. (2011). Socialization processes in the family: Social and emotional development. *Annual Review of Psychology*, 62, 243-269.

Grusec, J. E., & Hastings P. D. (Eds.), *Handbook of socialization: Theory and research* (2nd ed). Guilford Press.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, *18*(1), 59-82.

Gueldner, B., & Merrell, K. (2011). Evaluation of a social emotional learning program in conjunction with the exploratory application of performance feedback incorporating motivational interviewing techniques. *Journal of Educational and Psychological Consultation*, *21*(1), 1-27.

Guillemin, M., & Gillam, L. (2004). Ethics, reflexivity, and "ethically important moments" in research. *Qualitative Inquiry*, *10*(2), 261-280.

Güroğlu, B., van den Bos, W., & Crone, E. A. (2014). Sharing and giving across adolescence: an experimental study examining the development of prosocial behavior. *Frontiers in Psychology*, *5*, 291.

Gutman, L. M., & Schoon, I. (2015). Preventive interventions for children and adolescents. *European Psychologist, 20*(4), 231-241.

Halfon, N., Forrest, C. B., Lerner, R. M., & Faustman, E. M. (2018). *Handbook of life course health development*. Springer.

Hanewinkel, R., & Aßhauer, M. (2004). Fifteen-month follow-up results of a school-based life-skills approach to smoking prevention. *Health Education Research*, *19*(2), 125-137.

Hassani, S., & Schwab, S. (2021). Social emotional learning Interventions for Students with Special Educational Needs: A Systematic Literature Review. *Frontiers in Education, 6*:808566.

Hatchimonji, D. R., Linsky, A. V., & Elias, M. J. (2017). Cultivating noble purpose in urban middle schools: A missing piece in school transformation. *Education*, *138*(2), 162-178.

Hatchimonji, D. R., Branch, K., Perry, D., & Barnes, T. N. (2022). Actions Against racism: Bringing together trauma-informed practices, social emotional learning, and racial socialization to combat racism in schools. *Delaware Journal of Public Health*, *8*(2), 40-45.

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44*(1), 1-25.

Hayashi, A., Liew, J., Aguilar, S. D., Nyanamba, J. M., & Zhao, Y. (2022). Embodied and social emotional learning (SEL) in early childhood: Situating culturally relevant SEL in Asian, African, and North American contexts. *Early Education and Development*, *33*(5), 746-763.

Haymovitz, E., Houseal-Allport, P., Lee, R. S., & Svistova, J. (2018). Exploring the perceived benefits and limitations of a school-based social–emotional learning program: A concept map evaluation. *Children & Schools*, *40*(1), 45-54.

He, J., & Van de Vijver, F. (2012). Bias and Equivalence in Cross-Cultural Research. *Online Readings in Psychology and Culture, 2*(2). 1-19.

Hecht, L. & Shin, Y., 2015. Culture and social and Emotional Competencies. In: J. A. Durlak, C.E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds), *Handbook of Social and Emotional Learning: Research and Practice* (pp. 50-65.). Guilford Press.

Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural comparisons of subjective Likert scales? The reference-group effect. *Journal of Personality and Social Psychology*, *82*(6), 903-918.

Heinze, G., Wallisch, C., & Dunkler, D. (2017). Variable selection–a review and recommendations for the practicing statistician. *Biometrical Journal, 60* (3), 431-449.

Henderson, D. A., & Denison, D. R. (1989). Stepwise regression in social and psychological Research. *Psychological Reports, 64*(1), 251-257.

Hewitt, J. (2007). Ethical components of researcher—researched relationships in qualitative interviewing. *Qualitative health research*, *17*(8), 1149-1159.

Higgins, J. P., Thompson, S. G., Deeks, J. J., & Altman, D. G. (2003). Measuring inconsistency in meta-analyses. *BMJ,* 327(7414), 557-560.

Higgins, J. P., & Green, S., (Eds.) (2011). *Cochrane Handbook for Systematic Reviews of Interventions.* (5th ed.). Wiley-Blackwell.

Hill, N.E., Witherspoon, D.P., & Bartz, D. (2018). Parental involvement in education during middle school: Perspectives of ethnically diverse parents, teachers, and students. *The Journal of Educational Research*, *111*(1), 12-27.

Hoffman, D. M. (2009). Reflecting on social emotional learning: A critical perspective on trends in the United States. *Review of Educational Research*, *79*(2), 533–556.

Hornby, G., & Blackwell, I. (2018). Barriers to parental involvement in education: An update. *Educational Review*, *70*(1), 109-119.

Hop, M. & Van Boxtel, H. (2013). Wetenschappelijke verantwoording Cito Intelligentietest
VO [Scientific justification Cito Intelligence test secondary education]. Cito.

Howard, K. A., & Ferrari, L. (2022). Social emotional learning and career development in elementary settings. *British Journal of Guidance & Counselling*, *50*(3), 371-385.

Huang, C. M., Chien, L. Y., Cheng, C. F., & Guo, J. L. (2012). Integrating life skills into a theory-based drug-use prevention program: Effectiveness among junior high students in Taiwan. *The Journal of School Health, 82*(7), 328-335.

Hubbard, B. (2019). Developing Life Skills in Children: A Road Map for Communicating with Parents. *Journal of Higher Education Theory & Practice*, *19*(3), pp. 33-55.

Humphrey, N., Curran, A., Morris, E., Farrell, P., & Woods, K. (2007). Emotional intelligence and education: A critical review. *Educational Psychology, 27*, 235-254.

Humphrey, N., Kalambouka, A., Wigelsworth, M., Lendrum, A., Deighton, J., & Wolpert, M. (2011). Measures of social and emotional skills for children and young people: A systematic review. *Educational and Psychological Measurement*, *71*(4), 617-637.

Humphrey, N. (2013). *Social and emotional learning: A critical appraisal*. SAGE Publications Limited.

Humphrey, N., Barlow, A., & Lendrum, A. (2018). Quality matters: Implementation moderates student outcomes in the PATHS curriculum. *Prevention Science, 19*(2), 197-208.

IBM Corp. (2015). IBM SPSS Statistics for Windows (23.0) [SPSS].

Iversen, A. C., & Holsen, I. (2008). Inequality in health, psychosocial resources and health behavior in early adolescence: the influence of different indicators of socioeconomic position. *Child Indicators Research*, *1*(3), 291-302.

Jagers, R. J., Rivas-Drake, D., & Borowski, T. (2018). Equity & Social and Emotional Learning: A Cultural Analysis. CASEL Assessment Work Group Brief Series.

Jagers, R. J., Rivas-Drake, D., and Williams, B. (2019a). Transformative social and emotional learning (SEL): Toward SEL in service of educational equity and excellence. *Educational Psychologist*, *54*(3), 162-184.

Jagers, R.J., Williams, B., & Osher, D. (2019b). Family Matters. Exploring the Role of Family Socialization and Parenting Practices in Promoting the Social and Emotional Learning of Children and Youth. In: D. Osher, M. J. Mayer, R. J. Jagers, K. Kendziora, & L. Wood (Eds.), *Keeping students safe and helping them thrive: A collaborative handbook on school safety, mental health, and wellness* (pp. 317-341). Praeger/ABC-CLIO).

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of educational research*, *79*(1), 491-525.

Jessor, R., & Jessor, S. L. (1977). *Problem behavior and psychosocial development: A longitudinal study of youth.* Academic Press.

John, O.P., & DeFruyt, F. (2015). Education and social progress: Framework for the longitudinal study of social and emotional skills in cities. Organization for Economic Cooperation and Development.

Jones, D.J., Loiselle, R., & Highlander, A. (2018). Parent adolescent socialization of social class in low-income White families: Theory, research, and future directions. *Journal of Research on Adolescence*, *28*(3), 622-636.

Jones, S. M., Bouffard, S. M., & Weissbourd, R. (2013). Educators' social and emotional skills vital to learning. *Phi Delta Kappan*, *94*(8), 62-65.

Jones, K., & Cater, M. (2020). An investigation of principals' social and emotional learning beliefs and attitudes. *The Qualitative Report*, *25*(9), 3204-3223.

Jones, S., Brush, K., Bailey, R., Brion-Meisels, G., McIntyre, J., Kahn, J., …& Stickle, L. (2017). *Navigating SEL from the inside out: Looking inside & across 25 leading SEL programs--a practical resource for schools and OST providers*. Harvard Graduate School of Education.

Jones, S., Bailey, R., Brush, K., & Nelson, B. (2019a). Introduction to the taxonomy project: Tools for selecting & aligning SEL frameworks. *Collaborative Academy of Social Emotional Learning*, *3*, 1-13.

Jones, S. M., McGarrah, M. W., & Kahn, J. (2019b). Social and emotional learning: A principled science of human development in context. *Educational Psychology, 54*(3), 129-143.

Jukes, M. C., Mgonda, N. L., Tibenda, J. J., Gabrieli, P., Jeremiah, G., Betts, K. L., …& Bub, K.L. (2021). Building an assessment of community-defined social-emotional competencies from the ground up in Tanzania. *Child Development*, *92*(6), e1095-e1109.

Kagitcibasi, C. (2012). Socio-cultural change and integrative syntheses in human development: Autonomous-related self and social–cognitive competence. *Child Development Perspectives*, *6*(1), 5-11.

Kammeyer-Mueller, J. D., Livingston, B. A., & Liao, H. (2011). Perceived similarity, proactive adjustment, and organizational socialization. *Journal of Vocational Behavior*, *78*(2), 225-236.

Kane, M. T. (2001). Current concerns in validity theory. *Journal of Educational Measurement*, *38*(4), 319-342.

Kane, M. (2012). All validity is construct validity. Or is it? *Measurement: Interdisciplinary Research & Perspective*, *10*(1-2), 66-70.

Kanfer, R. (1990). Motivation theory and industrial and organizational psychology. In: M. D. Dunette, & L. Hough (Eds.), *Handbook of industrial and organizational psychology: Theory in industrial and organizational psychology (Vol. 1, 2nd ed.) (pp.* 75-170). Consulting Psychologists Press.

Kaspar, K. L., & Massey, S. L. (2023). Implementing social emotional learning in the elementary classroom. *Early Childhood Education Journal*, *51*(4), 641-650.

Keogh, E., Bond, F. W., & Flaxman, P. E. (2006). Improving academic performance and mental health through a stress management intervention: Outcomes and mediators of change. *Behavioral Research Therapy, 44*(3), 339-357.

Kidger, J., Araya, R., Donovan, J., & Gunnell, D. (2012). The effect of the school environment on the emotional health of adolescents: a systematic review. *Pediatrics*, *129*(5), 925-949.

Kimber, B., Sandell, R., & Bremberg, S. (2008). Social and emotional training in Swedish schools for the promotion of mental health: An effectiveness study of 5 years of intervention. *Health Education Research, 23*(6), 931-940.

Kimber, B., & Sandell, R. (2009). Prevention of substance use among adolescents through social and emotional training in school: A latent-class analysis of a five-year intervention in Sweden. *Journal of Adolescence*, *32*(6), 1403-1413.

Kimber, B. (2011). *Primary prevention of mental health problems among children and adolescents through social and emotional training in school*. (Dissertation). Karolinska Insitutet.

Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *American Journal of Health-system Pharmacy, 65*(23), 2276-2284.

Kindt, K., Kleinjan, M., Janssens, J. M., & Scholte, R. H. (2014). Evaluation of a school-based depression prevention program among adolescents from low-income areas: A randomized controlled effectiveness trial. *International Journal of Environmental Research and Public health*, *11*(5), 5273-5293.

Kitayama, S., & Park, J. (2010). Cultural neuroscience of the self: Understanding the social grounding of the brain. *Social cognitive and affective neuroscience*, *5*(2-3), 111-129.

Klimes-Dougan, B., Brand, A.E., Zahn-Waxler, C., Usher, B., Hastings, P.D., Kendziora, K., & Garside, R.B. (2007). Parental emotion socialization in adolescence: Differences in sex, age and problem status. *Social Development*, *16*(2), 326-342.

Kocken, P. L., Detmar, S., Diekstra, R. W. F., Fekkes, M., Gravesteijn, C., Kuiper, R. M., …& Van der Zwaag, E., (2011). Evaluation of the Life Skills curriculum intended for Dutch secondary school students. TNO.

Koglin, U., Petermann, F., Heffter, P., & Petermann, U. (2010). Längerfristige Effekte des JobFit-Trainings für Jugendliche. *Zeitschrift für Psychiatrie, Psychologie und Psychotherapie*, *58*(3), 235-241.

Kolb, S. M., & Hanley-Maxwell, C. (2003). Critical social skills for adolescents with high incidence disabilities: Parental perspectives. *Exceptional Children*, *69*(2), 163-179.

Koopman, P., & Ledoux, G. (2013). *Kengetallen passend onderwijs* (Vol. 905 – 4-599). Kohnstamm Instituut, University of Amsterdam.

Koopman, P. N. J., Ledoux, G., Karssen, A. M., Meijden, A., & Petit, R. (2015). *Vervolgmeting 1 kengetallen passend onderwijs*. *[Follow-up measurement one key figure appropriate education]*. Kohnstamm Instituut, Universiteit van Amsterdam.

Korpershoek H, Beijer C, Spithoff, M., Naaijer, H. M., Timmermans, A. C., van Rooien, M., …& Opdenakker, M. C. (2016). *Overgangen en aansluitingen in het onderwijs. Deelrapportage 1: Reviewstudie naar de po-vo en de vmbo-mbo. [Transitions and connections in education]*. (Nr. NRO-ProBO 405-14-402). GION Onderwijs, Universiteit Groningen.

Korpershoek, H., Canrinus, E. T., Fokkens-Bruinsma, M., & de Boer, H. (2020). The relationships between school belonging and students' motivational, social-emotional, behavioural, and academic outcomes in secondary education: A meta-analytic review. *Research Papers in Education*, *35*(6), 641-680.

Kreuter, M. W., Lukwago, S. N., Bucholtz, D. C., Clark, E. M., & Sanders-Thompson, V. (2003). Achieving cultural appropriateness in health promotion programs: targeted and tailored approaches. *Health Education and Behavior*, *30*(2), 133-146.

Krueger, R. A. (2014). *Focus groups: A practical guide for applied research*. Los Angeles CA, Sage Publications.

Kühn, I. K. (2017). Enhancing social competence for disadvantaged youth in pre-vocational education: model development through design-based research. *International Journal for Research in Vocational Education and Training, 4*(4), pp. 346-368.

Kuo, Y.L., Casillas, A., Walton, K. E., Way, J. D., & Moore, J. L. (2020). The intersectionality of race/ethnicity and socioeconomic status on social and emotional skills. *Journal of Research in Personality*, *84*, 103905.

Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Sage.

Kvist-Lindholm, S. (2017). Students' reproduction and transformation of norms incorporated into a programme for social and emotional learning. *Ethnography and Education*, *12* (3), pp. 294-310.

Laible, D. J., Murphy, T. P., & Augustine, M. (2014). Adolescents' aggressive and prosocial behaviors: Links with social information processing, negative emotionality, moral affect, and moral cognition. *The Journal of Genetic Psychology*, *175*(3), 270-286.

Langford, R., Bonell, C.P., Jones, H. E., Pouliou, T., Murphy, S. M., Waters, E., …& Campbell, R. (2014). *The WHO health promoting school framework for improving the health and well-being of students and their academic achievement (Review)*. No. CD008958. Cochrane Database of Systematic Reviews, (4).

Larsen, T., & Samdal, O. (2012). The importance of teachers' feelings of self-efficacy in developing their pupils' social and emotional learning: A Norwegian study of teachers' reactions to the Second Step program. *School Psychology International*, *33*(6), 631-645.

Lawson, G. M., McKenzie, M. E., Becker, K. D., Selby, L., & Hoover, S. A. (2019). The core components of evidence-based social emotional learning programs. *Prevention Science*, *20*, 457–467.

LeBlanc, M., Self-Brown, S., Shepard, D., & Kelley, M. L. (2011). Buffering the effects of violence: Communication and problem-solving skills as protective factors for adolescents exposed to violence. *Journal of Community Psychology, 39*(3), 353-367.

Lemberger, M. E., Selig, J. P., Bowers, H., & Rogers, J. E. (2015). Effects of the Student Success Skills Program on executive functioning skills, feelings of connectedness, and academic achievement in a predominantly Hispanic, low-income middle school district. *Journal of Counseling & Development*, *93*(1), 25-37.

Lerner, R. M., Almerigi, J. B., Theokas, C., & Lerner, J. V. (2005). Positive youth development a view of the issues. *The Journal of Early Adolescence*, *25*(1), 10-16.

Lerner, R. M., & Steinberg, L. (Eds.) (2009). *Handbook of adolescent psychology: Individual bases of adolescent development* (Vol. 1). John Wiley & Sons.

Lewis, K. M., DuBois, D. L., Bavarian, N., Acock, A., Silverthorn, N., Day, J., …& Flay, B. R. (2013a). Effects of positive action on the emotional health of urban youth: A cluster-randomized trial. *Journal of Adolescent Health, 53*(6), 706-711.

Lewis, K. M., Schure, M. B., Bavarian, N., DuBois, D. L., Day, J., Ji, P., …& Flay, B. R (2013b). Problem behavior and urban, low-income youth A randomized controlled trial of positive action in Chicago. *American Journal of Preventive Medicine, 44*(6), 622-630.

Lewis, K.M., Vuchinich, S., Ji, P., DuBois, D.L., Acock, A., Bavarian, N. et al. (2016). Effects of the Positive Action program on indicators of positive youth development among urban youth. *Applied Developmental Science*, *20*(1), 16-28.

Liebermann, M. D. (2012). Education and the social brain. *Trends in Neuroscience Education*, *1*(1), 3–9.

Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis.* Sage Publications Inc.

Low, S., Smolkowski, K., & Cook, C. (2016). What constitutes high-quality implementation of SEL programs? A latent class analysis of Second Step® implementation. *Prevention Science*, *17*, 981-991.

Ma, L., Zhang, Y., Huang, C., & Cui, Z. (2020). Resilience-oriented cognitive behavioral interventions for depressive symptoms in children and adolescents: A meta-analytic review. *Journal of Affective Disorders*, *270*, 150-164.

Maccoby, E.E. (2015). Historical Overview of Socialization Research and Theory. In: J. E. Grusec, & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research (*2nd ed.*) (*pp. 3-35). Guilford Press.

Mahoney, J. L., Durlak, J. A., & Weissberg, R. P. (2018). An update on social and emotional learning outcome research. *Phi Delta Kappan*, 100, 18-23.

Malti, T., Cheah, C. S., & Special Section Editors (2021). Specificity and Commonality: Sociocultural Generalizability in Social-Emotional Development. Toward complementarity: Specificity and commonality in social-emotional development: Introduction to the special section. *Child Development. 92*(6), e1085-e1094.

Mantz, L.S., Bear, G.G., Yang, C., & Harris, A. (2018). The Delaware social-emotional competency scale (DSECS-S): evidence of validity and reliability. *Child Indicators Research*, *11*, 137-157.

Markova, S., & Nikitskaya, E. (2017). Coping strategies of adolescents with deviant behaviour. *International Journal of Adolescent Youth*, 22(1), 36-46.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*(2), 224–253.

Masters, R. (2012*). Conscious and unconscious awareness in learning and performance.* In: S. M. Murphy (Eds.). *The Oxford handbook of sport and performance psychology* (pp. 131–153). Oxford University Press.

Matson, J. L. (Ed.) (2017). *Handbook of social behavior and skills in children*. Springer.

Matsumoto, D., Yoo, S.H., & Fontaine, J. (2008). Mapping expressive differences around the world: The relationship between emotional display rules and individualism versus collectivism. *Journal of Cross-Cultural Psychology, 39*, 55-74.

Maraun, M. D., Gabriel, S., & Martin, J. (2011). The mythologization of regression towards the mean. *Theory & Psychology*, *21*(6), 762-784.

McCallops, K., Barnes, T. N., Berte, I., Fenniman, J., Jones, I., Navon, R., & Nelson, M. (2019). Incorporating culturally responsive pedagogy within social emotional learning interventions in urban schools: An international systematic review. *International Journal of Educational Research*, *94*, 11-28.

McClelland, E., Pitt, A., & Stein, J. (2015). Enhanced academic performance using a novel classroom physical activity intervention to increase awareness, attention and self-control: Putting embodied cognition into practice. *Improving Schools, 18*(1), 83-100.

McClelland, M., Geldhof, J., Morrison, F., Gestsdóttir, S., Cameron, C., Bowers, E., …& Grammar, J. (2018). Self-regulation. In: N. Halfon, C. B. Forrest, R. M. Lerner, & E. M. Faustman (Eds.), *Handbook of life Course health Development (pp.* 275-298). Springer.

McClimans, L., Bickenbach, J., Westerman, M., Carlson, L., Wasserman, D., & Schwartz, C. (2013). Philosophical perspectives on response shift. *Quality of Life Research*, *22*(7), 1871-1878.

McCluskey, G., Brown, J., Munn, P., Lloyd, G., Hamilton, L., Sharp, S., & MacLeod, G. (2013). 'Take more time to actually listen': students' reflections on participation and negotiation in school. *British Educational Research Journal*, *39*(2), 287-301.

McCormick, M. P., Cappella, E., O'Connor, E. E., & McClowry, S. G. (2015). Context matters for social emotional learning: Examining variation in program impact by dimensions of school climate. *American journal of Community Psychology*, *56*(1), 101-119.

McDonald, N. M., & Messinger, D. S., (2011). The development of empathy: How, when, and why? In: J.J. Sanguineti, A. Acerbi, & J.A. Lombo, (Eds.), *Moral Behavior and Free Will: A Neurobiological and Philosophical Approach* (pp. 1-35). IF Press.

McGovern, G., Pinetta, B. J., Montoro, J. M., Channey, J., Rosario-Ramos, E., & Rivas-Drake, D. (2023). Stretching Towards Social Justice: A Case Study of Transformative Social and Emotional Learning (SEL). *Social and Emotional Learning: Research, Practice, and Policy*, *2,* 100018.

McKay-Jackson, C. (2014). A critical approach to social emotional learning instruction through community-based service learning. *Journal of Transformative Education*, *12*(3), 292-312.

McKenna, M. K., & Millen, J. (2013). Look! Listen! Learn! Parent Narratives and Grounded Theory Models of Parent Voice, Presence, and Engagement in K-12 Education. *School Community Journal*, *23*(1), 9-48.

McKown, C. (2019). Challenges and Opportunities in the Applied Assessment of Student Social and Emotional Learning. *Educational Psychology*, *54*(3), 205-221.

Medin, E., & Jutengren, G. (2020). Children's Perspectives on a School-Based Social and Emotional Learning Program. *Children & School*, *42*(2), 121-130.

Meland, E. A. & Brion-Meisels, G. (2023). Getting developmental science back into schools: Can what we know about self-regulation help change how we think about "No Excuses"? *Frontiers in Psychology*, *10*, 1885.

Melnyk, B. M., Kelly, S., Jacobson, D., Belyea, M., Shaibi, G., Small, L., O'Haver, J., & Marsiglia, F. F. (2013). Promoting healthy lifestyles in high school adolescents. A randomized controlled trial. *American Journal of Preventive Medicine, 45*(4), 407-415.

Merry, S., McDowell, H., Wild, C. J., Bir, J., & Cunliffe, R. (2004). A randomized placebo-controlled trial of a school-based depression prevention program. *Journal of the American Academy of Child & Adolescent Psychiatry*, *43*(5), 538-547.

Mertens, E., Deković, M., Leijten, P., Van Londen, M., & Reitz, E. (2020). Components of school-based interventions stimulating students' intrapersonal and interpersonal domains: A meta-analysis. *Clinical Child and Family Psychology Review*, *23*, 605-631.

Metz, S. M., Frank, J. L., Reibel, D., Cantrell, T., Sanders, R., & Broderick, P. C. (2013). The effectiveness of the learning to BREATHE program on adolescent emotion regulation. *Research in Human Development*, *10*(3), 252-272.

Mezirow, J. (2009). Transformative Learning: Theory to Practice. In: J. Mezirow & E.W. Taylor (Eds), *Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education* (pp. 18-33). John Wiley & Sons.

Meuwese, R. (2017). *Me, My Friends, and I: a neuro-ecological perspective on adolescent prosocial development.* (Doctoral Dissertation). Leiden University.

Meyer, J., Öster, C., Ramklint, M., & Isaksson, J. (2020). You are not alone–adolescents' experiences of participation in a structured skills training group for ADHD. *Scandinavian Journal of Psychology*, *61*(5), 671-678.

Meyers, D. C., Durlak, J. A., & Wandersman, A. (2012). The quality implementation framework: a synthesis of critical steps in the implementation process. *American journal of community psychology*, *50*, 462-480.

Meyers, D. C., Domitrovich, C. E., Dissi, R., Trejo, J., & Greenberg, M. T. (2019). Supporting systemic social and emotional learning with a schoolwide implementation model. *Evaluation and Program Planning*, *73*, 53-61.

Miller, G.E., Yu, T., Chen, E., and Brody, G.H. (2015). *Self-control forecasts better psychosocial outcomes but faster epigenetic aging in low-SES youth*. Proceedings of the National Academy of Sciences, 112(33), 10325-10330.

Miller, J. S., Wanless, S. B., & Weissberg, R. P. (2018). Parenting for Competence and Parenting with Competence: Essential Connections between Parenting and Social and Emotional Learning. *School Community Journal*, *28*(2), 9-28.

Mishna, F., Sanders, J. E., McNeil, S., Fearing, G., & Kalenteridis, K. (2020). If Somebody is Different: A critical analysis of parent, teacher and student perspectives on bullying and cyberbullying. *Children and Youth Services Review, 118*, 105366.

Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review, 100*(4), 674-701.

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., …& Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences of the United States of America, 108*(7), 2693-2698.

Mohammadiarya, A., Sarabi, S. D., Shirazi, M., Lachinani, F., Roustaei, A., Abbasi, Z., & Ghasemzadeh, A. (2012). The effect of training self-awareness and anger management on aggression level in Iranian middle school students. *Procedia - Social and Behavioral Sciences, 46*, 987-991.

Montroy, J. J., Bowles, R. P., Skibbe, L. E., & Foster, T. D. (2014). Social skills and problem behaviors as mediators of the relationship between behavioral self-regulation and academic achievement. *Early Childhood Research Quarterly*, *29*(3), 298-309.

Müller, F., Denk, A., Lubaway, E., Sälzer, C., Kozina, A., Perše, T. V., ... & Jurko, S. (2020). Assessing social, emotional, and intercultural competences of students and school staff: A systematic literature review. *Educational Research Review*, *29*, 100304.

Mynttinen, M., Pietilä, A. M., & Kangasniemi, M. (2020). Parents' perspective on their responsibilities with regard to adolescents' use of alcohol. *Scandinavian Journal of Caring Sciences*, *34*(4), 919-928.

Nagaoka, J., Farrington, C. A., Ehrlich, S. B., & Heath, R. D. (2015). *Foundations for Young Adult Success: A Developmental Framework. Concept Paper for Research and Practice*. University of Chicago Consortium on Chicago School Research.

Napolitano, C. M., Sewell, M. N., Yoon, H. J., Soto, C. J., & Roberts, B. W. (2021). Social, emotional, and behavioral skills: An integrative model of the skills associated with success during adolescence and across the life span. *Frontiers in Education, 6*, 679561.

National Commission on Social, Emotional, and Academic Development (2018). *How learning happens: Supporting students' social, emotional and academic development. An interim report.* The Aspen Institute.

National Research Council, (2012). *Education for life and work: Developing transferable knowledge and skills in the 21st century*. National Academies Press.

Nieuwelink, H., Boogaard, M., Dijkstra, A. B., Kuiper, E. J., & Ledoux, G. (2016). Citizenship education: What schools can do, lessons from science and practice. Kohnstamm Instituut, University of Amsterdam.

Norris, N. (1997). Error, bias, and validity in qualitative research. *Educational Action Research*, *5*(1), 172-176.

NUFFIC (The Dutch Organization for Internationalization in Education) (2015). Education system The Netherlands (2nd ed.). NUFFIC.

Oberle, E., Domitrovich, C. E., Meyers, D. C., & Weissberg, R. P. (2016). Establishing systemic social and emotional learning approaches in schools: A framework for schoolwide implementation. *Cambridge Journal of Education*, *46*(3), 277-297.

Olusegun, A. M., Dikko, H. G., & Gulumbe, S. U. (2015). Identifying the limitation of stepwise selection for variable selection in regression analysis. *American Journal of Theoretical and Applied Statistics*, *4*(5), 414-419.

Oliveira, I. M., de Castro, I., Silva, A. D., & Taveira, M. D. C. (2023). Social-Emotional Skills, Career Adaptability, and Agentic School Engagement of First-Year High School Students. *International Journal of Environmental Research and Public Health*, *20*(8), 5597.

Onderwijsraad (Dutch Educational Council) (2013a). *Een smalle kijk op onderwijskwaliteit. Stand van educatief Nederland 2013*. (Nr. 20130206/1027). Onderwijsraad, Den Haag.

Onderwijsraad (Dutch Educational Council) (2013b*). Meer kansen voor kwetsbare jongeren.* (Nr. 20130247/1047). Onderwijsraad, Den Haag.

Onderwijsraad (Dutch Educational Council) (2016). *De volle breedte van onderwijskwaliteit*. (Nr. 20160115/1090). Onderwijsraad, Den Haag.

Onderwijsraad (Dutch Educational Council) (2017). Het bevorderen van gelijke onderwijskansen en sociale samenhang Notitie gebaseerd op de adviezen van de Onderwijsraad (2007-2017) ten behoeve van het ministerie van OCW. (Nr. 20170131/1106). Onderwijsraad, Den Haag.

O'Neill, J.M., Clark, J.K., & Jones, J.A. (2011). Promoting mental health and preventing substance abuse and violence in elementary students: a randomized control study of the Michigan Model for Health. *Journal of School Health*, *81*(6), 320-330.

Oort, F. J., Visser, M. R., & Sprangers, M. A. (2009). Formal definitions of measurement bias and explanation bias clarify measurement and conceptual perspectives on response shift. *Journal of Clinical Epidemiology*, *62*(11), 1126-1137.

Oppers, A., & Zevenbergen, D. (2022). *De Staat van het Onderwijs 2022*. [The State of Education 2022]. Inspectie van het Onderwijs.

Organization for Economic Cooperation and Development (OECD) (2015). *Skills for social progress: The power of social and emotional skills.* OECD Skills studies. OECD Publishing.

Organization Economic Cooperation and Development (OECD (2016). Netherlands 2016: Foundations for the Future, Reviews of National Policies for Education. OECD Publishing.

Organization for Economic Cooperation and Development (OECD) (2021). *Beyond academic learning: First results from the survey of social and emotional skills*. OECD Publishing.

Osher, D., Bear, G. G., Sprague, J. R., & Doyle, W. (2010). How can we improve school discipline? *Educational Researcher, 39*(1), 48-58.

Osher, D., Cantor, P., Berg, J., Steyer, L., & Rose, T. (2020). Drivers of human development: How relationships and context shape learning and development. *Applied Developmental Science*, *24*(1), 6-36.

Oyserman, D., & Lee, S. W. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological bulletin*, *134*(2), 311.

Paccaud, A., Keller, R., Luder, R., Pastore, G., & Kunz, A. (2021, April). Satisfaction with the collaboration between families and schools–the parent's view. *Frontiers in Education 6*: 646878).

Pampel, F. C., Krueger, P. M., & Denney, J. T. (2010). Socioeconomic disparities in health Behaviors. *Annual Review of Sociology*, 36, Supplement, 349-370.

Pannebakker, F. D., van Genugten, L., Diekstra, R. F., Gravesteijn, C., Fekkes, M., Kuiper, R., & Kocken, P. L. (2019). A social gradient in the effects of the skills for life program on self-efficacy and mental wellbeing of adolescent students. *Journal of School Health*, *89*(7), 587-595.

Park, S., & Holloway, S. (2018). Parental Involvement in Adolescents' Education: An Examination of the Interplay among School Factors, Parental Role Construction, and Family Income. *School Community Journal*, *28*(1), 9-36.

Pars, E., & Van de Sande, M. (2017). Rapport Skills4Life. Kwalitatief onderzoek ouders en Werkbegeleiders (concept). De Haagse Hogeschool. (Unpublished).

Patterson, C. J., Farr, R. H., Hasting, P. D. (2015). Socialization in the Context of Family Diversity. In: J. E. Grusec & P. D. Hastings (Eds.), *Handbook of Socialization: Theory and research (*2nd ed*.)* (pp. 202–228). Guilford Press.

Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative social work*, *1*(3), 261-283.

Paus-Hasebrink, I., Kulterer, J., & Sinner, P. (2019). The role of media within young people's socialisation: A theoretical approach. In: I. Paus-Hasebrink, J. Kulterer, & P. Sinner (Eds.), *Social Inequality, Childhood and the Media: A Longitudinal Study of the Mediatization of Socialisation* (*pp.* 45-76). Palgrave McMillan.

Paulhus, D. L., & Vazire, S. (2007). The self-report method. In: R. W. Robins, R. C. Fraley, & R. F. Kruger (Eds.) *Handbook of research methods in personality psychology (pp.* 224-239). Guilford Press.

Payton, J., Weissberg, R.P., Durlak, J.A., Dymnicki, A.B., Taylor, R.D., Schellinger, K.B. & Pachan, M. (2008). *The Positive Impact of Social and Emotional Learning for Kindergarten to Eighth-grade Students: Findings from Three Scientific Reviews.* CASEL.

Peters, L. W., Ten Dam, G. T., Kocken, P. L., Buijs, G. J., Dusseldorp, E., & Paulussen, T. G. (2015). Effects of transfer-oriented curriculum on multiple behaviors in the Netherlands. *Health Promotion International*, *30*(2), 291-309.

Pierce, S., Gould, D., & Camiré, M. (2017). Definition and model of life skills transfer. *International Review of Sport and Exercise Psychology*, *10*(1), 186-211.

Phillips, R. S. (2011). Toward authentic student-centered practices: Voices of alternative school students. *Educational and Urban Society*, *45*(6), 668-699.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879-903.

Pokhrel, P., Herzog, T. A., Black, D., Zaman, A., Riggs, N. R., & Sussman, S. (2013). Adolescent neurocognitive development, self-regulation, and school-based drug use prevention. *Prevention Science, 14*(3), 218-228.

Polan, J. C., Sieving, R. E., and McMorris, B. J. (2013). Are Young Adolescents' Social and Emotional Skills Protective Against Involvement in Violence and Bullying Behaviors? *Health Promotion Practice*, *14*(4), 599–606.

Pössel, P., Adelson, J. L., & Hautzinger, M. (2011). A randomized trial to evaluate the course of effects of a program to prevent adolescent depressive symptoms over 12 months. *Behaviour Research and Therapy, 49*(12), 838-851.

Pössel, P., Martin, N. C., Garber, J., & Hautzinger, M. (2013). A randomized controlled trial of a cognitive-behavioral program for the prevention of depression in adolescents compared with nonspecific and no-intervention control conditions. *Journal of Counseling Psychology, 60*(3), 432-438.

Powell, J.A., Menendian, S., & Ake, W. (2019). *Targeted universalism: Policy & Practice.* Haas Institute for a Fair and Inclusive Society. University of California.

Pratt, M. W., & Hardy, S. A. (2015). Cultivating the moral personality: Socialization in the family and beyond. In: J.E., Grusec, & P.D. Hastings (Eds.), *Handbook of socialization: Theory and research (*2nd ed) (pp. 661-685). Guilford Press.

Ramirez, T., Brush, K., Raisch, N., Bailey, R., & Jones, S. M. (2021, August). Equity in social emotional learning programs: A content analysis of equitable practices in PreK-5 SEL Programs. *Frontiers in Education, 6:*679467.

Raver, C. C. (2012). Low-income children's self-regulation in the classroom: scientific inquiry for social change. *American Psychologist*, *67*(8), 681.

Reyes, J. A., & Elias, M. J. (2011). Fostering social-emotional resilience among Latino youth. *Psychology in the Schools*, *48*(7), 723-737.

Rieffe, C., Oosterveld, P., Miers, A. C., Meerum Terwogt, M., & Ly, V. (2008). Emotion awareness and internalising symptoms in children and adolescents: The emotion awareness questionnaire revised. *Personality and Individual Differences, 45*(8), 756-761.

National Institute for Public Health and the Environment (Rijksinstituut voor Volksgezondheid en Milieu, (RIVM), 2011). *Lokale en nationale Gezondheidsmonitor*. RIVM.

Rivas-Drake, & Umaña-Taylor (2019). *Beyond the Surface*. Princeton University Press.

Rivet-Duval, E., Heriot, S., & Hunt, C. (2011). Preventing adolescent depression in Mauritius: A universal school-based program. *Child and Adolescent Mental Health*, *16*(2), 86-91.

Roberts, C. M., Kane, R., Bishop, B., Cross, D., Fenton, J., & Hart, B. (2010). The prevention of anxiety and depression in children from disadvantaged schools. *Behaviour Research and Therapy*, *48*(1), 68-73.

Rosario-Ramos, E.M., Rivas-Drake, D., & Jagers, R.J. (2021). Implementing SEL with an equity lens: The role of "stretching" in teachers' practice. In: N., Yoder and A. Skoog-Hoffman (Eds.), *Motivating the SEL field forward through equity* (Vol. 21) (pp. 113-126). Emerald Publishing Limited.

Rose, K., Hawes, D. J., & Hunt, C. J. (2014). Randomized controlled trial of a friendship skills intervention on adolescent depressive symptoms. *Journal of Consulting and Clinical Psychology*, *82*(3), 510-520.

Ross, K.M., & Tolan, P. (2018). Social and emotional learning in adolescence: Testing the CASEL model in a normative sample. *The Journal of Early Adolescence*, *38*(8), 1170-1199.

Ross, K. M., Kim, H., Tolan, P. H., & Jennings, P. A. (2019). An exploration of normative social and emotional skill growth trajectories during adolescence. *Journal of Applied Developmental Psychology*, *62*, 102-115.

Rotheram-Borus, M. J., Swendeman, D., & Chorpita, B. F. (2012). Disruptive innovations for designing and diffusing evidence-based interventions. *American Psychologist, 67*(6), 463.

Rowe, H. L., & Trickett, E. J. (2018). Student diversity representation and reporting in universal school-based social and emotional learning programs: Implications for generalizability. *Educational Psychology Review*, *30*, 559-583.

Roy, M., & Giraldo-García, R. (2018). The Role of Parental Involvement and Social/Emotional Skills in Academic Achievement: Global Perspectives. *School Community Journal*, *28*(2), 29-46.

Rutter, M., Maughan, B., Mortimore, P., Ouston, J., & Smith, A. (1979). 15,000 hours: Secondary schools and their effects on children. Harvard University Press.

Ruzek, E. A., Hafen, C. A., Allen, J. P., Gregory, A., Mikami, A. Y., & Pianta, R. C. (2016). How teacher emotional support motivates students: The mediating roles of perceived peer relatedness, autonomy support, and competence. *Learning and Instruction*, *42(4)*, 95-103.

Salavera, C., Usán, P., & Jarie, L. (2020). Styles of humor and social skills in students. Gender differences. *Current Psychology*, *39*, 571-580.

Sancassiani, F., Pintus, E., Holte, A., Paulus, P., Moro, M. F., Cossu, G Angermeyer, M.C., Carta, M.G., & Lindert, J. (2015). Enhancing the emotional and social skills of the youth to promote their wellbeing and positive development: a systematic review of universal school-based randomized controlled trials. *Clinical Practice and Epidemiology in Mental Health, 11*(Suppl 1 M2), 21-40.

Sanders, M. R. & Turner, K. M. T. (2018). The Importance of Parenting in Influencing the Lives of Children. In: M. R. Sanders, & A. Morawska (Eds.), *Handbook of parenting and child development across the lifespan* (pp. 3-27). Springer.

Sawyer, M. G., Pfeiffer, S., Spence, S. H., Bond, L., Graetz, B., Kay, D., …& Sheffield, J. (2010). School-based prevention of depression: A randomised controlled study of the beyond blue schools research initiative. *Journal of Child Psychology & Psychiatry, 51*(2), 199-209.

Scheithauer, H., Hess, M., Schultze-Krumbholz, A., & Bull, H. D. (2012). School-based prevention of bullying and relational aggression in adolescence: The fair-player. manual. *New Directions for Youth Development, 2012*(133), 55-70.

Schmidt, M., & Čreslovnik, H. (2010). Learning habits of students with special needs in short-term vocational education programmes. *Educational Studies*, *36*(4), 415-430.

Schonert-Reichl, K. A., & Lawlor, M. S. (2010). The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence. *Mindfulness, 1*(3), 137-151.

Schonert-Reichl, K. A. (2017). Social and emotional learning and teachers. *The Future of Children*, *27*, (1), 137-155.

Schraube, E., & Højholt, C. (Eds.). (2016). *Psychology and the conduct of everyday life.* Routledge.

Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In: C. R. Snyder & S. J. Lopez, *Handbook of positive psychology (*pp. 3-12). Oxford University Press.

Seligman, M. E. P., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. *Oxford Review of Education, 35*(3), 293-311.

Sheridan, S. M., Smith, T. E., Moorman Kim, E., Beretvas, S. N., & Park, S. (2019). A meta-analysis of family-school interventions and children's social-emotional functioning: Moderators and components of efficacy. *Review of Educational Research*, *89*(2), 296-332.

Shoesmith, A., Hall, A., Wolfenden, L., Shelton, R. C., Powell, B. J., Brown, H., ... & Nathan, N. (2021). Barriers and facilitators influencing the sustainment of health behaviour interventions in schools and childcare services: a systematic review. *Implementation Science*, *16*(1), 62.

Silvia, P. & O'Brien, M. E. (2004). Self-awareness and constructive functioning: Revisiting "the human dilemma". *Journal of Social & Clinical Psychology.* 2004: 23(4); 475-489.

Simons-Morton, B., Haynie, D., Saylor, K., Crump, A., & Chen, R. (2005). The effects of the going places program on early adolescent substance use and antisocial behavior. *Prevention Science, 6*(3), 187-197.

Sklad, M., Diekstra, R., De Ritter, M., Ben, J., & Gravesteijn, C. (2012). Effectiveness of school-based universal social, emotional, and behavioral programs: Do they enhance students' development in the area of skill, behavior, and adjustment? *Psychology in the Schools, 49*(9), 892-909.

Smetena, J. G, Robinson, J., & Rote, W. M. (2015). Socialization of Adolescence. In: J. E., Grusec, & P. D. Hastings (Eds.). *Handbook of socialization: Theory and research* (2nd ed). (pp. 60-84). Guilford Press.

Smetana, J. G. (2017). Current research on parenting styles, dimensions, and beliefs. *Current opinion in psychology*, *15*, 19-25.

Smith, T. E., Sheridan, S. M., Kim, E. M., Park, S., & Beretvas, S. N. (2020). The effects of family-school partnership interventions on academic and social-emotional functioning: A meta-analysis exploring what works for whom. *Educational Psychology Review*, *32*, 511-544.

Sorkhabi, N., & Middaugh, E. (2019). Domain-specific parenting practices and adolescent self-esteem, problem behaviors, and competence. *Journal of Child and Family Studies*, *28*, 505-518.

Soto, C. J., Napolitano, C. M., & Roberts, B. W. (2021). Taking skills seriously: Toward an integrative model and agenda for social, emotional, and behavioral skills. *Current Directions in Psychological Science*, *30*(1), 26-33.

Soutter, M. (2019). Unintended lessons of SEL programs. *Phi Delta Kappan*, *100*(5), 59-62. Staatscourant (2014). Regeling van de Staatssecretaris van Onderwijs, Cultuur en Wetenschap van 20 juni 2014 nr. JOZ/632757.

Stapley, E., Demkowicz, O., Eisenstadt, M., Wolpert, M., & Deighton, J. (2020). Coping with the stresses of daily life in England: A qualitative study of self-care strategies and social and professional support in early adolescence. *Journal of Early Adolescence*, *40*(5), 605-632.

Statistics Netherlands (CBS) (2016). *Annual report on integration 2016*. CBS.
Statistics Netherlands (CBS) (2022). *Report on integration and society 2022*. CBS.
Steinberg, L., & Silk, J. S. (2002). Parenting adolescents. In M. H. Bornstein (Ed.), *Handbook of parenting: Volume 1. Children and parenting* (2nd ed.) (pp. 407–439). Lawrence Erlbaum Associates.
Steinberg, L., Vandell, D., & Bornstein, M. (2010). *Development: Infancy through adolescence*. Nelson Education.
Steinberg, L. (2015). How to improve the health of American adolescents. *Perspectives on Psychological Science*, *10*(6), 711–715.
Steinberg, L. (2016). Adolescence (11th ed.). McGraw-Hill.
Stevens, J. P. (2012). Applied Multivariate Statistics for the Social Sciences. Routledge.
Stewart, D., & Wang, D. (2012). Building resilience through schoolbased health promotion: a systematic review. *International Journal of Mental Health Promotion, 14* (04), 207-218.
Sullivan, T.N., Sutherland, K.S., Farrell, A.D., Taylor, K.A., & Doyle, S.T. (2017). Evaluation of violence prevention approaches among early adolescents: Moderating effects of disability status and gender. *Journal of Child and Family Studies*, *26*, 1151-1163.
Sundell, K., Beelmann, A., Hasson, H., & von Thiele Schwarz, U. (2016). Novel programs, international adoptions, or contextual adaptations? Meta-analytical results from German and Swedish intervention research. *Journal of Clinical Child & Adolescent Psychology*, *45*(6), 784-796.
Tak, Y. R., Lichtwarck-Aschoff, A., Gillham, J. E., Van Zundert, R. M., & Engels, R. C. (2016). Universal school-based depression prevention 'Op Volle Kracht': a longitudinal cluster randomized controlled trial. *Journal of Abnormal Child Psychology*, *44*(5), 949-961.
Tan, C. Y., Lyu, M., & Peng, B. (2020). Academic benefits from parental involvement are stratified by parental socioeconomic status: A meta-analysis. *Parenting*, *20*(4), 241-287.
Taylor, R. D., Oberle, E., Durlak, J. A., and Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development*, *88*(4), 1156-1171.
Teeuw, B., Schwarzer, R., & Jerusalem, M. (1994). Dutch adaptation of the general self-efficacy scale. University of Berlin.
Tefera, A. A., Powers, J. M., & Fischman, G. E. (2018). Intersectionality in education: A conceptual aspiration and research imperative. *Review of Research in Education*, *42*(1), vii–xvii.
Ten Have, M., De Graaf, R., & Van Dorsselaer, S. (2006). Suïcidaliteit in de algemene bevolking: gedachten en pogingen. Resultaten van de 'Netherlands Mental Health Survey and Incidence Study' (NEMESIS). Trimbos-instituut.
Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American journal of evaluation*, *27*(2), 237-246.
Thompkins, A. C., Chauveron, L. M., Harel, O., & Perkins, D. F. (2014). Optimizing violence prevention programs: An examination of program effectiveness among urban high school students. *Journal of School Health, 84*(7), 435-443.
Thompson, R. A., & Meyer, S. (2007). The socialization of emotion regulation in the family. In: J. J. Gross (Eds), *Handbook of Emotion Regulation* (pp. 249–268). Guilford Press.
Tibbits, M. K., Smith, E. A., Caldwell, L.L., & Flisher, A. J. (2011). Impact of Health Wise South Africa on polydrug use and high-risk sexual behavior. *Health Education Research, 26*(4), 653-663.
Tomyn, J. D., Fuller-Tyszkiewicz, M., Richardson, B., & Colla, L. (2016). A comprehensive evaluation of a universal school-based depression prevention program for adolescents. *Journal of Abnormal Child Psychology, 44*(8), 1621-1633.
Tong, A., Flemming, K., McInnes, E., Oliver, S., & Craig, J. (2012). Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Medical Research Methodology*, *12*(1), 1-8.

Trentacosta, C. J., & Fine, S. E. (2010). Emotion knowledge, social competence, and behavior problems in childhood and adolescence: A meta-analytic review. *Social Development, 19*(1), 1-29.

Trickett, E. J., & Rowe, H. L. (2012). Emerging ecological approaches to prevention, health promotion, and public health in the school context: next steps from a community psychology perspective. *Journal of Educational & Psychological Consultation, 22*(1), 125-140.

Tyner, A. (2021). How to Sell SEL: Parents and the Politics of Social emotional learning. Thomas B. Fordham Institute.

Umaña-Taylor, A. J., Quintana, S. M., Lee, R. M., Cross Jr, W. E., Rivas-Drake, D., Schwartz, S. J., …& Yip, T. (Ethnic and racial identity in the 21st century study group) (2014). Ethnic and racial identity during adolescence and into young adulthood: An integrated conceptualization. *Child development*, *85*(1), 21–39.

Ura, S. K., Castro-Olivo, S. M., & d'Abreu, A. (2020). Outcome measurement of school-based SEL intervention follow-up studies. *Assessment for Effective Intervention*, *46*(1), 76-81.

Van de Sande, M. C. E., Fekkes, M., Kocken, P.L., Diekstra, R.F.W., Reis, R., & Gravesteijn, C. (2019). Do universal social and emotional learning programs for secondary school students enhance the competencies they address? A systematic review. *Psychology in the Schools*, *56*(10), 1545-1567.

Van De Sande, M. C., Fekkes, M., Diekstra, R. F., Gravesteijn, C., Reis, R., & Kocken, P. L. (2022). Effects of an SEL Program in a Diverse Population of Low Achieving Secondary Education Students. *Frontiers in Education,* 6, E744388.

Van de Vijver, F. J., & Leung, K. (2021). *Methods and data analysis for cross-cultural research* (Vol. 116). Cambridge University Press.

Van der Graaff, J., Branje, S., De Wied, M., Hawk, S., Van Lier, P., & Meeus, W. (2014). Perspective taking and empathic concern in adolescence: gender differences in developmental changes. *Developmental Psychology*, *50*(3), 881-888.

Van der Linden, F. J., Dijkman, T. A., & Roeders, P. J. B. (1983). Metingen van kenmerken van het persoonssysteem en sociale systeem. Hoogveld Instituut, Universiteit Nijmegen.

Van der Ploeg, J, & Scholte, E. (2013). *Handleiding vragenlijst psychosociale vaardigheden*. Bohn Stafleu Van Loghum.

Van Genugten, L., Dusseldorp, E., Massey, E. K., & van Empelen, P. (2017). Effective self-regulation change techniques to promote mental wellbeing among adolescents: a meta-analysis. *Health Psychology Review*, 11(1), 53-71.

Van Widenfelt, B. M., Goedhart, A. W., Treffers, P. D., & Goodman, R. (2003). The Dutch version of the strengths and difficulties questionnaire (SDQ). *European Child and Adolescent Psychiatry, 12*(6); 281-289.

Vestad, L., Bru, E., Virtanen, T. E., & Stallard, P. N. (2021). Associations of social and emotional competencies, academic efficacy beliefs, and emotional distress among students in lower secondary school. *Social Psychology of Education*, 24, 413-439.

Vroom, E. B., Massey, O. T., Yampolskaya, S., & Levin, B. L. (2020). The impact of implementation fidelity on student outcomes in the life skills training program. *School Mental Health*, *12*, 113-123.

Wachs, S., Bilz, L., Niproschke, S., & Schubarth, W. (2019). Bullying intervention in schools: A multilevel analysis of teachers' success in handling bullying from the students' perspective. *Journal of Early Adolescence*, *39*(5), 642-668.

Wang, D., Choi, J. K., & Shin, J. (2020). Long-term neighborhood effects on adolescent outcomes: Mediated through adverse childhood experiences and parenting stress. *Journal of Youth and Adolescence*, *49*(10), 2160-2173.

Wanless, S. B., & Domitrovich, C. E. (2015). Readiness to implement school-based social emotional learning interventions: Using research on factors related to implementation to maximize quality. *Prevention Science*, *16*(8), 1037-1043.

Weare, K., & Nind, M. (2011). Mental health promotion and problem prevention in schools: What does the evidence say? *Health Promotion International, 26*(1), i29-i69.

Weissberg, R. P., Durlak, J. A., Domitrovich, C. E., & Gullotta, T. P. (2015). Social and emotional learning: Past, Present, and Future. In: J. A. Durlak, C. E. Domitrovich, R. P., Weissberg, & T. P. Gullotta (eds.) *Handbook of social and emotional learning: Research and practice* (pp. 3-20). Guilford Press.

Weist, M. D., Stiegler, K., Stephan, S., Cox, J., & Vaugha, C. (2010). School mental health and prevention science in the Baltimore City schools. *Psychology in the Schools Special Issue: The Role of Prevention Science in Advancing Research and Practice in the Schools*, *47*(1), 89-100.

Weisz, J.R., Chorpita, B.F., Palinkas, L.A., Schoenwald, S.K., Miranda, J., Bearman, S.K., et al. (2012). Testing standard and modular designs for psychotherapy treating depression, anxiety, and conduct problems in youth: A randomized effectiveness trial. *Archives of General Psychiatry*, 69(3), 274–282.

Wentzel, K. R. (2015). Socialization in school settings. In J. E. Grusec, & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2nd ed.) (pp. 251–276). Guilford Press.

Wentzel, K. R., Muenks, K., McNeish, D., & Russell, S. (2017). Peer and teacher supports in relation to motivation and effort: A multi-level study. *Contemporary Educational Psychology*, *49*, 32–45.

West, M. R., Pier, L., Fricke, H., Hough, H., Loeb, S., Meyer, R. H., & Rice, A. B. (2020). Trends in student social emotional learning: Evidence from the first large-scale panel student survey. *Educational Evaluation and Policy Analysis*, *42*(2), 279–303.

Wetenschappelijke Raad voor het Regeringsbeleid, (WRR). (2009). *Vertrouwen in de school: over de uitval van overbelaste jongeren. [Confidence in the school. Drop-out by overburdened young people]*. *Nr.* 83. WRR.

Whitebread, G., Dolamore, S., & Stern, B. (2022). Quantitative intersectionality: Imperatives and opportunities for advancing social equity. *Public Administration Review*, *83*(1), 117-129.

Wigelsworth, M., Humphrey, N., Kalambouka, A., & Lendrum, A. (2010). A review of key issues in the measurement of children's social and emotional skills. *Educational Psychology in Practice*, *26*(2), 173-186.

Wigelsworth, M., Humphrey, N., & Lendrum, A. (2013). Evaluation of a school-wide preventive intervention for adolescents: The secondary social and emotional aspects of learning (SEAL) programme. *School Mental Health, 5*(2), 96-109.

Wigelsworth, M., Lendrum, A., Oldfield, J., Scott, A., Ten Bokkel, I., Tate, K., & Emery, C. (2016). The impact of trial stage, developer involvement and international transferability on universal social and emotional learning programme outcomes: A meta-analysis. *Cambridge Journal of Education*, *46*(3), 347–376.

Wigelsworth, M., Verity, L., Mason, C., Qualter, P., & Humphrey, N. (2022). Social and emotional learning in primary schools: A review of the current state of evidence. *British Journal of Educational Psychology*, *92*(3), 898–924.

Wiley, A. L., & Siperstein, G. N. (2015). SEL for students with high incidence disabilities. In: J. A. Durlak, C. E. Domitrovich, R. P., Weissberg, & T. P. Gullotta (eds.) *Handbook of social and emotional learning: Research and practice* (pp. 213–229). Guilford Press.

Wilson, S.J., Lipsey, M.W. (2007). School-based interventions for aggressive and disruptive behavior: Update of a meta-analysis. *American Journal of Preventive Medicine*, *33*(2), S130-S143.

Wray-Lake, L., Syvertsen, A. K., & Flanagan, C. A. (2016). Developmental change in social responsibility during adolescence: An ecological perspective. *Developmental Psychology*, *52*(1), 130–142.

Wright, P.M., & Richards, K.A.R. (2021). *Teaching social and emotional learning in physical education*. Jones & Bartlett Learning.

Wood, P. (2020). Emotional intelligence and social and emotional learning: (Mis)Interpretation of theory and its influence on practice. *Journal of Research in Childhood Education, 34*(1), 153-166.

World Health Organization (WHO) (2003a). *Caring for Children and Adolescents with Mental Disorders: Setting WHO Directions.* WHO, Geneva.

World Health Organization (WHO) (2003b). *WHO Information Series on School Health, Document 10: Creating an Environment for Emotional and Social Well-Being: An Important Responsibility of a Health-Promoting and Child Friendly School*. WHO.

World Health Organization (WHO) (2012). Adolescent Mental Health: Mapping Actions of Non-governmental Organizations and Other International Development Organizations. WHO.

Yada, T., & Fenyvesi, K. (Eds.) (2023). *A whole-school intervention framework for enhancing social and emotional skills in secondary schools through arts-integrated practices: Research report from the REIMAGINED project.* Finnish Institute for Educational Research Reports and Working Papers.

Yeager, D. (2017). Social and Emotional Learning Programs for Adolescents. *Future of Children, 27*(1), 73-94.

Yeager, D. S., Dahl, R. E., & Dweck, C. S. (2018). Why interventions to influence adolescent behavior often fail but could succeed. *Perspectives on Psychological Science*, *13*(1), 101-122.

Yeh, M., McCabe, K., Ahmed, S., Trang, D., & Ganger, W. (2016). Sociocultural factors and parent–therapist agreement on explanatory etiologies for youth mental health problems. *Administration and Policy in Mental Health and Mental Health Services Research*, *43*, 693-702.

Young, K. S., Sandman, C. F., & Craske, M. G. (2019). Positive and negative emotion regulation in adolescence: Links to anxiety and depression. *Brain Sciences*, *9*(4), 76.

Zaki, J. (2020). Integrating empathy and interpersonal emotion regulation. *Annual Review of Psychology*, 71, 517-540.

Zigler, E.F., & Bishop-Josef, S.J. (2006). The cognitive child versus the whole child: Lessons from 40 years of Head Start. In: D. G. Singer, R. M. Golinkoff, & K. Hirsh-Pasek, *Play= Learning: How play motivates and enhances children's cognitive and social-emotional growth* (pp. 15–35). Oxford University Press.

Zins, J. E., Weissberg, R. P., Wang, M. C., Walberg, H.J. (2004). Building Academic Success on Social and Emotional Learning: What does the Research Say? Teachers College Press.

Zins, J. E., Bloodworth, M. R., Weissberg, R. P., & Walberg, H. J. (2006). The scientific base linking social and emotional learning to school success. *Journal of Educational and Psychological Consultation, 17*(2-3), 191-210.

Zins, J. E., & Elias, M. J. (2007). Social and emotional learning: Promoting the development of all students. *Journal of Educational and Psychological Consultation*, *17*(2&3), 233-255.

Chapter 10

Appendices

Nederlandse samenvatting

List of publications

Curriculum Vitae

Dankwoord (Acknowledgements)

NEDERLANDSE SAMENVATTING

Sociaal en emotioneel leren is het proces waarin jonge mensen de vaardigheden verwerven die ze nodig hebben om deel te nemen en een positieve bijdrage te leveren aan de contexten waarin ze leven en leren (Zins & Elias, 2007). Dit leren wordt geassocieerd met hun toekomstige (psychosociale) gezondheid en succes in het onderwijs en op de arbeidsmarkt. Scholen over hele wereld implementeren Sociaal Emotionele Leer (SEL) programma's voor adolescenten. Die programma's richten zich op het versterken van de sociaal-emotionele vaardigheden van jongeren om hun psychosociale gezondheid en succes op school en op hun werk te bevorderen.

De kennis over de evaluatie en implementatie van dergelijke programma's van groepen leerlingen die verschillen in individuele en omgevingskenmerken is echter beperkt. Kenmerken zoals leervermogen en familieachtergrond bepalen de sociaal-emotionele vaardigheden die jonge mensen ontwikkelen. De onderzoeken in dit proefschrift hebben tot doel om bij te dragen aan kennis over de evaluatie en implementatie van SEL-programma's voor leerlingen in het voortgezet onderwijs met diverse achtergrond kenmerken. De studies dragen in het bijzonder bij aan de kennis over het Nederlandse Skills4Life (S4L) programma. De onderzoeken richten zich op leerlingen in het voortgezet middelbaar beroepsonderwijs (vmbo) en specifiek op leerlingen in de zogenaamde basis richting (vmbo-b) en het praktijkonderwijs (PrO). Leerlingen in deze laatste richtingen leren tegelijkertijd op school en tijdens stages in sectoren zoals horeca, detailhandel en techniek. Zij hebben aanvullende onderwijsbehoeften vanwege hun intellectuele- en taal- en rekencapaciteiten, emotieregulatie en gedrag. Veel van deze leerlingen groeien op in gezinnen met lage inkomens en/of met een migratieachtergrond en wonen in zogenoemde achterstandswijken. Als gevolg daarvan bevinden zij zich in gemarginaliseerde posities.

Doel en bevindingen

De onderzoeken in dit proefschrift hebben tot doel om bij te dragen aan inzicht in: 1. De effecten van universele SEL-programma's op de individuele sociaal-emotionele vaardigheden en psychosociale gezondheidsresultaten van adolescenten; 2. De onderlinge relaties tussen sociaal-emotionele vaardigheden en tussen die vaardigheden en de psychosociale gezondheidsresultaten van leerlingen in vmbo-b en PrO; 3. De effecten van het Nederlandse S4L-programma op de sociaal-emotionele vaardigheden en psychosociale gezondheidsuitkomsten van leerlingen in gemarginaliseerde posities; 4. De perspectieven van vmbo-b en PrO leerlingen op de sociaal-emotionele vaardigheden

die zij nodig hebben voor het onderhouden van positieve relaties met klasgenoten; 5. De perspectieven op SEL en het versterken van sociaal-emotionele vaardigheden op school van ouders van leerlingen in het PrO. Om bij te dragen aan de beoogde inzichten zijn zes studies uitgevoerd, een review- en meta-analysestudie, drie kwantitatieve en twee kwalitatieve studies. Daarbij is een sequentiële benadering gevolgd. De bevindingen van de review studie (**hoofdstuk 2**) en de evaluatiestudie van het *oorspronkelijke* S4L-programma (**hoofdstuk 3**) hebben het ontwerp en de analyses bepaald van de andere twee kwantitatieve studies (**hoofdstukken 4 en 5**) gericht op leerlingen in het vmbo-b en PrO. De bevindingen van deze laatste studies waren aanleiding voor het ontwerp en de analyses van de twee kwalitatieve studies (**hoofdstukken 5 en 6**).

In de meeste studies in dit proefschrift zijn de competenties uit het raamwerk van de Collaborative Academy for Social Emotional Learning (CASEL-raamwerk) als referentiekader gebruikt om sociaal-emotionele vaardigheden te identificeren. De vijf competenties in dit raamwerk zijn 1. Zelfbewustzijn (dat omvat vaardigheden zoals zelfwaardering en zelfeffectiviteit); 2. Sociaal bewustzijn (dat omvat vaardigheden zoals empathie en perspectief nemen); 3. Zelfmanagement (dat omvat vaardigheden zoals zelfregulering en het stellen van doelen); 4. Relatievaardigheden (dat omvat vaardigheden zoals samenwerken en het oplossen van sociale problemen); 5. Verantwoorde besluitvorming (dat omvat vaardigheden zoals het overwegen van de gevolgen van en het nemen van verantwoordelijkheid voor acties). Het CASEL-raamwerk wordt wereldwijd gebruikt in SEL-programma's.

Hoofdstuk 2 beschrijft de review en meta-analyse van veertig evaluatiestudies van tweeëndertig universele SEL-schoolprogramma's voor adolescenten van 11-18 jaar. Deze programma's hebben een significante positieve invloed op de individuele sociaal-emotionele vaardigheden en psychosociale gezondheidsuitkomsten van leerlingen. Het onderzoek laat zien dat de evaluatiestudies van SEL-programma's effecten meten op een selectie van de individuele sociaal-emotionele vaardigheden die een programma beoogt te versterken. Sommige studies meten helemaal geen effecten op deze vaardigheden. Daarnaast rapporteerden de onderzoeken nauwelijks verschillen in effecten gerelateerd aan de achtergrond kenmerken van leerlingen.

De gerandomiseerde studie met een controlegroep in **hoofdstuk 3** betreft de evaluatie van het *originele* Nederlandse S4L-programma voor leerlingen (n = 1394) in verschillende vormen van het reguliere middelbare onderwijs, namelijk voorbereidend wetenschappelijk onderwijs (vwo), hoger algemeen vormend onderwijs (havo) en voortgezet middelbaar beroepsonderwijs (vmbo). Het onderzoek laat gemengde

resultaten zien. Er zijn significante positieve effecten gevonden op alcoholgebruik en pesten, en nadelige effecten op digitaal en seksueel pesten en roken. Vergeleken met leerlingen op het vwo en de havo verbeterden vmbo-leerlingen meer op het gebied van pesten en suïcidale gedachten. Dit onderzoek maakte geen onderscheid tussen leerlingen met verschillende familieachtergronden en leerwegen in het vmbo, zoals de theoretische-, kader- en basis- leerwegen. Praktijkschool leerlingen vielen veelal uit in deze studie.

De pre-test gegevens van vmbo-b en PrO leerlingen zijn gebruikt in de cross-sectionele studie in **hoofdstuk 4**. Deze studie identificeerde significante (middelgrote tot grote) correlaties tussen de verschillende sociaal-emotionele vaardigheden. Daarnaast werden kleinere maar significante correlaties gevonden tussen deze vaardigheden en psychosociale gezondheidsuitkomsten, te weten emotionele- en gedragsproblemen en pro-sociaal gedrag. Analyses lieten zien dat de vaardigheid zelfmanagement een mediërende rol vervult in de relatie tussen de vaardigheid zelfbewustzijn en emotionele- en gedragsproblemen. De vaardigheid sociaal bewustzijn is geïdentificeerd als een mediator tussen pro-sociaal gedrag en de vaardigheden zelfbewustzijn, relatievaardigheden en verantwoordelijke besluitvorming. Zelfmanagement en sociaal bewustzijn lijken belangrijke vaardigheden om te versterken om de psychosociale gezondheid van leerlingen in vmbo-b en PrO te bevorderen.

Hoofdstuk 5 rapporteert over de bevindingen van een quasi-experimentele studie (n = 739) van het *aangepaste* S4L-programma. Dit programma is aangepast aan de leercapaciteiten en de taalvaardigheid van leerlingen in vmbo-b en PrO. Omdat deze leerlingen gelijktijdig op school en tijdens stages in de praktijk leren, is aan dit S4L-programma een module voor sociaal-emotionele vaardigheden die relevant zijn voor de werkpraktijk toegevoegd. In deze studie laten multiple regressieanalyses geen effecten zien op de totale leerlingenpopulatie. In een subgroep leerlingen met een migratieachtergrond die tegelijkertijd het S4L-programma en stage volgden, zijn in het onderzoek significante negatieve effecten op twee sociaal-emotionele vaardigheden gevonden, te weten op sociaal bewustzijn en relatievaardigheden. Op basis van deze bevindingen is verondersteld dat de familieachtergrond en de stagecontext relevant zijn om rekening mee te houden bij het versterken van sociaal-emotionele vaardigheden van deze adolescenten.

Om de verschillen in effecten van het *aangepaste* S4L programma te begrijpen en inzicht te krijgen in de sociaal-emotionele vaardigheden die noodzakelijk zijn om te versterken voor leerlingen in vmbo-b en PrO zijn twee kwalitatieve studies uitgevoerd. Die studies richtten zich op de perspectieven op SEL, belangrijke sociaal-emotionele vaardigheden

en het versterken daarvan op school van leerlingen zelf en ouders.

Hoofdstuk 6 schetst de perspectieven van 22 leerlingen op hun sociaal-emotionele vaardigheden en behoeften om die te versterken. De meeste van hen hadden een migratieachtergrond en volgenden PrO. In kleine focusgroep interviews vertelden deze leerlingen te ervaren over voldoende sociaal-emotionele vaardigheden te beschikken om hun dagelijkse schoolleven in goede banen te leiden. Ze gaven echter aan een gebrek aan steun van leraren en klasgenoten te ervaren bij het gebruik van die vaardigheden in specifieke situaties op school, zoals pesten en intimidatie. Zij hadden behoefte aan specifieke vaardigheden voor het omgaan met zulke ernstige interactieproblemen op school. Leerlingen ervaarden dat oplossingen voor zulke problemen buiten hun macht lagen. Zij associeerden die problemen met zelfmanagement, sociaal bewustzijn en relatievaardigheden. Zij gebruikten hun eigen taal en interpretaties voor deze vaardigheden.

Hoofdstuk 7 beschrijft de perspectieven van ouders op SEL en de sociaal-emotionele vaardigheden die zij cruciaal achtten voor adolescenten om te verwerven. Voor deze studie zijn 32 ouders met kinderen in het PrO geïnterviewd. Bijna de helft van de ouders had een migratieachtergrond, de anderen waren Nederlands. Zij verschilden in opleidingsniveau. De ouders erkenden dat de vaardigheden die in SEL-programma's worden aangeleerd, relevant zijn om te leren voor hun kinderen. Het taalgebruik en de interpretatie van de vaardigheden die ouders gebruikten verschillen van de vaardigheden die S4L- en andere SEL-programma's beogen te versterken.

Uit het taalgebruik, de interpretaties en de onderliggende waarden, doelen en overtuigingen over de opvoeding en ontwikkeling kwam een conceptueel model van vier onderling verbonden sociaal-emotionele vaardigheden naar voren die ouders van belang achtten om te leren voor adolescenten. Die vaardigheden zijn: respectvol gedrag, samenwerkingsvaardigheden, zelfkennis en zelfredzaamheid. Hoewel zij zichzelf in de eerste plaats verantwoordelijk achtten voor het aanleren van sociaal-emotionele vaardigheden, waren de meeste ouders van mening dat scholen een taak hebben om met name die vaardigheden te versterken die thuis moeilijk aan te leren zijn. Dat waren in hun ogen samenwerkingsvaardigheden, die van belang zijn voor het toekomstige werk van hun kinderen. Ze benadrukten ook de noodzaak van samenwerking tussen ouders en scholen op het gebied van SEL.

Hoofdstuk 8 bespreekt de belangrijkste bevindingen van de studies in dit proefschrift en de bijdragen aan de kennis over de evaluatie en implementatie van SEL-programma's. Deze

bevindingen duiden erop dat er behoefte is aan evaluatiestudies van zulke programma's die uitkomsten op verschillende sociaal-emotionele vaardigheden en psychosociale gezondheid meten. Daarnaast is het van belang om de effecten op die uitkomstmaten te onderscheiden van leerlingen met verschillende achtergrondkenmerken, zoals hun familieachtergrond en onderwijsvorm, maar ook hun sekse en leeftijd.

Het meten van effecten op sociaal-emotionele vaardigheids- en psychosociale gezondheidsuitkomsten vereist passende kwantitatieve en kwalitatieve benaderingen. Van belang is om daarbij instrumenten te gebruiken die meerdere perspectieven op die vaardigheden in kaart te brengen, zoals die van leerlingen zelf, hun ouders en docenten. Zulke meervoudige perspectieven zijn nodig om inzicht te krijgen in de vaardigheden die leerlingen met verschillende achtergronden hebben en nodig hebben. Dat vereist mogelijk ook aanpassingen van het taalgebruik van (bestaande) instrumenten.

Bovendien wordt aangenomen dat kenmerken die van invloed zijn op de ontwikkeling van vaardigheden, zoals sekse en familieachtergrond, ook onderling interacteren. Om de effecten van SEL-programma's op sociaal-emotionele vaardigheden van diverse leerlingen te begrijpen en te versterken is het analyseren van dergelijke interacties noodzakelijk. Het evalueren van deze effecten bij leerlingen met verschillende achtergrondkenmerken is ook van belang voor de implementatie van SEL-programma's en het afstemmen daarvan op de behoeften van specifieke groepen, zoals leerlingen in vmbo-b en PrO.

De bevindingen van de studies in dit proefschrift laten zien dat de vaardigheden die adolescente leerlingen thuis nodig hebben en de vaardigheden die in S4L en andere SEL-programma worden aangeleerd kunnen verschillen. De studies dragen bij aan empirisch bewijs voor de noodzaak om vmbo-b en PrO leerlingen en hun ouders te betrekken bij de implementatie van het S4L-programma. Dat is van belang om inzicht te krijgen in hun taalgebruik en interpretaties van sociaal-emotionele vaardigheden en tot overeenstemming te komen over de vaardigheden die relevant zijn om op school te versterken. Omdat de vaardigheden die leerlingen thuis, op school en op de werkplek nodig hebben kunnen variëren, is het contextualiseren van de vaardigheden waarop S4L en andere SEL-programma's zich richten van cruciaal belang om hen en hun ouders te betrekken.

Aanbevelingen voor de praktijk

Het betrekken van ouders en leerlingen met verschillende achtergrondkenmerken vereist een zo genoemde transformatieve, en op krachten gebaseerde, benadering van SEL. Zo'n

benadering is gevoelig voor het gezamenlijk verkennen, afstemmen op en ondersteunen van de vaardigheden die leerlingen hebben en nodig hebben in de contexten waarin zij leven en leren, thuis, op school en op de werkplek. De noodzaak om schoolprogramma's die sociaal-emotionele vaardigheden aanleren te transformeren, is gebaseerd op de idealen van sociale rechtvaardigheid. Die transformatie is nodig om gelijke kansen te bieden aan leerlingen in gemarginaliseerde posities om de vaardigheden te verwerven die zij nodig hebben.

De bevindingen uit de studies in dit proefschrift laten zien dat bepaalde sociaal-emotionele vaardigheden de relatie tussen andere vaardigheden en de psychosociale gezondheidsuitkomsten van leerlingen mediëren. Daarom is het mogelijk niet noodzakelijk om SEL-programma's voor adolescenten te richten op vaardigheden in *alle* competenties van CASEL's raamwerk, om hun psychosociale gezondheid en/of succes op school en op de arbeidsmarkt te bevorderen. Daarom wordt een modulaire benadering van het S4L-programma aanbevolen. In zo'n benadering bestaat S4L uit vijf modules die zich focussen op vaardigheden in één van de competenties in CASEL's raamwerk. Dat biedt mogelijkheden voor het flexibel aanpassen aan behoeften aan vaardigheden van leerlingen die kunnen variëren afhankelijk van hun achtergrondkenmerken. Een dergelijke aanpak ondersteunt ook de mogelijkheid om bij de implementatie van S4L aan te sluiten bij die vaardigheden die volgens leerlingen, ouders en leraren als eerste van belang zijn om aan te leren.

Het toepassen van een transformatieve benadering om leerlingen en ouders met verschillende achtergronden te betrekken, vereist training van docenten en materialen om hen te ondersteunen bij de implementatie van S4L. Docenten in het voortgezet onderwijs worden tijdens hun opleiding nauwelijks voorbereid op het betrekken van diverse leerlingen en hun ouders bij SEL. Daarom is ook aanvullende training nodig gericht op interculturele communicatie en het samenwerken met ouders.

Aanbevelingen voor onderzoek

Toekomstig onderzoek naar transformatieve en modulaire benaderingen voor SEL-programma's is van belang om bij te dragen aan kennis over deze benaderingen en voor het informeren van training en ondersteuning van docenten bij de implementatie daarvan. Daarnaast is meer onderzoek nodig met betrekking tot de wijze waarop adolescente leerlingen en hun ouders met verschillende achtergrondkenmerken succesvol kunnen worden betrokken bij de implementatie van programma's afgestemd op hun behoeften.

Onderzoek naar de toepasbaarheid van het ouderlijke model van sociaal-emotionele vaardigheden dat in dit proefschrift is gepresenteerd is noodzakelijk. Het testen van het model met verschillende groepen ouders en mogelijk ook adolescente leerlingen is van belang om het model te verfijnen. Het verkennen van hun taalgebruik voor en interpretaties van sociaal-emotionele vaardigheden vragen daarbij specifieke aandacht. We adviseren toekomstige evaluatiestudies van SEL- programma om zich te richten op het meten van effecten op verschillende sociaal-emotionele vaardigheden van diverse subgroepen leerlingen. Dergelijke studies moeten ook aandacht besteden aan de effecten van interacties tussen verschillende achtergrondkenmerken op sociaal-emotionele vaardigheids- en psychosociale gezondheidsuitkomsten.

LIST OF PUBLICATIONS

Peer reviewed publications

Fekkes, M., **Van de Sande**, M. C., Gravesteijn, J. C., Pannebakker, F. D., Buijs, G. J., Diekstra, R. F. W., & Kocken, P. L. (2016). Effects of the Dutch Skills for Life program on the health behavior, bullying, and suicidalideation of secondary school students. *Health Education*, *116*(1), 2–15.
http://dx.doi.org/10.1108/HE-05-2014-0068

Van de Sande, M. C., Fekkes, M., Kocken, P. L., Diekstra, R. F., Reis, R., & Gravesteijn, C. (2019). Do universal social and emotional learning programs for secondary school students enhance the competencies they address? A systematic review. *Psychology in the Schools*, *56*(10), 1545–1567. http://dx.doi.org/10.1002/pits.22307

Crone, M. R., Slagboom, M. N., Overmars, A., Starken, L., **Van de Sande**, M. C., Wesdorp, N., & Reis, R. (2021). The evaluation of a family-engagement approach to increase physical activity, healthy nutrition, and well-being in children and their parents. *Frontiers in Public Health*, *9*, 747725. http://dx.doi.org/10.3389/fpubh.2021.747725

Van de Sande, M. C., Fekkes M., Diekstra R. F., Gravesteijn C., Reis R., & Kocken P. L. (2022). Effects of an SEL program in a diverse population of low achieving secondary education students. *Frontiers in Education*, *6*, 744388. http://dx.doi.org/10.3389/feduc.2021.744388

Van de Sande, M. C., Kocken, P. L., Diekstra, R. F., Reis, R., Gravesteijn, C., & Fekkes, M. (2023). What are the most central social-emotional skills? Relationships between adolescents' social-emotional skills and psychosocial health variables: An explorative cross-sectional study of a sample of secondary-school students. *Frontiers in Education, 8*, 1225103.
http://dx.doi.org/10.3389/feduc.2023.1225103

Van de Sande, M. C., Fekkes, M., Diekstra, R. F., Gravesteijn, C., Kocken, P. L., & Reis, R. (2024). Low-achieving adolescent students' perspectives on their interactions with classmates: An exploratory study to inform the implementation of a social emotional learning program in prevocational education. *Children and Youth Review Services, 156*, 107263. https://doi.org/10.1016/j.childyouth.2023.107263

Van de Sande, M. C., Pars, E., Diekstra, R. F., Gravesteijn, C., Kocken, P. L., Reis, R., & Fekkes, M., (2024). Parents' perspectives on adolescent social emotional learning: An explorative qualitative study amongst parents of students in prevocational secondary education. *Health Education*. https://doi.org/10.1108/HE-07-2023-0074

Other publications

Van de Sande, M. (2004). Wie organiseren de opvoeding? Over de betekenis van organiseren van de context van opvoeding van kinderen. In: Diekstra, R.W.F., Van den Berg, M. en Rigter, J. (red.). *Waardenvolle of waardenloze samenleving? Over waarden, normen en gedrag in samenleving, opvoeding en onderwijs*. Karakter uitgevers B.V..

Van de Sande, M. & Diekstra R. F.W. (2009). Ontwikkelen van duurzame relaties tussen ouders en scholen. In: Smit, F. (red.), *Ouders en School. Ouderbetrokkenheid en ouderparticipatie in de praktijk* (pp. 108-121). SDU, Den Haag.

Van de Sande, M. & Diekstra, R.F.W. (2015). Introduction to the concept of Social and Emotional Learning (SEL). In: A. Rácz & E. Mc Donnell (eds.) SELVET. Social and Emotional Learning in vocational education and training. An Introduction (pp. 11-18). No. 013-1-HOI-LEO.04.1021. AKUT, Budapest.

Van de Sande, **M**. (2010). De leerkracht als opvoeder tot ouderbetrokkenheid. In: Hogenes, M., De Booijs, C., Gravesteijn, C. en Diekstra, R. (red.), *De leerkracht als opvoeder* (pp. 169-193). Sdu Uitgevers.

Pars, E. & **Van de Sande**, **M.** (2017). Rapportage Skills4Life, Kwalitatief onderzoek Ouders en Werkbegeleiders. De Haagse Hogeschool. (intern document)

Steenbakkers, A., Heemskerk-van der Sprong, M., v**an de Sande, M.,** Bartelink-Koelewijn, C., Rutz, S., & Gilsing, R. (2024). *Rondom het Kind. Een participatief onderzoek naar de samenwerking tussen ouders, primair onderwijs en jeugdhulp*. Kennisnetwerk Jeugd Haaglanden.

CURRICULUM VITAE

Marion van de Sande is geboren te Tilburg in 1959. Zij voltooide haar doctoraalopleidingen Orthopedagogiek en Gezinsleer aan de Universiteit van Amsterdam in 1986. Daarna werkte ze bij het Bureau Vertrouwensaarts en vervolgens in diverse coördinerende en leidinggevende functies in het Onderwijsachterstandenbeleid en de Kinderopvang in Amsterdam.

Vanuit de Kruisvereniging Breda en het Nederlands Instituut voor Zorg en Welzijn werkte zij mee aan de ontwikkeling en implementatie van de methodiek voor opvoedingsondersteuning aan jonge moeders, Moeders Informeren Moeders (MIM).

Als Regio-consulent Opvoedingsondersteuning bij de Stichting Spel- en Opvoedingsvoorlichting initieerde en implementeerde zij opvoedspreekuren, -ondersteuningsprojecten en –cursussen voor ouders, zoals Opstapje, Spel aan Huis en Opvoeden Zo!, in de regio Haaglanden.

Vanaf 1999 werkt zij als (hogeschoolhoofd)docent op De Haagse Hogeschool bij de opleiding Social Work, met voltijd, deeltijd en Associate Degree studenten. Vanuit die functie ontwikkelde zij onderwijs voor bachelor en master studenten in het domein van zorg en welzijn.

Van 2004-2018 werkte zij als docent-onderzoeker bij het Lectoraat Jeugd en Opvoeding, met als aandachtsgebied Organisatie van opvoeding. Zij richtte zich op het versterken van ouderbetrokkenheid in het basis- en voortgezet onderwijs, en ontwikkelde de methodiek Meer Kansen met Ouders. Ook was zij betrokken bij het ondersteunen van de samenwerking tussen medewerkers van de Haagse Centra voor Jeugd en Gezin. Zij participeerde van 2010-2014 in het dagelijks bestuur van de Werkplaats Samen voor de Jeugd, in Leiden en omgeving.

In 2013 verwierf het Lectoraat Jeugd en Opvoeding een RAAK-pro subsidie van het regieorgaan SIA voor het ontwikkelen van Skills4Life (S4L), een SEL-programma voor leerlingen in het vmbo-basis en praktijkonderwijs. Toen startte Marion met de onderzoeken beschreven in dit proefschrift. In het kader van het S4L project participeerde ze in een Europees Leonardo project, Social Emotional Learning in Vocational Educational Training (SELVET). Daarin bundelden instituten uit verschillende landen in de Europese Unie kennis en krachten om sociaal emotioneel leren in het beroepsonderwijs te bevorderen.

Sinds 2018 werkt Marion als docent-onderzoeker bij het Lectoraat Jeugdhulp in Transformatie van De Haagse Hogeschool, aan onderzoeken gericht op het bevorderen van diversiteitsensitief werken en op de samenwerking aan opvoeding en ontwikkeling tussen ouders en professionals in de jeugdhulp en het onderwijs. Samen met docenten en lectoren van andere hogescholen participeert zij in het INCLUZIE-project, met als opdracht om de verbinding tussen onderwijs en onderzoek op het terrein van jeugdhulp te versterken.

DANKWOORD (ACKNOWLEDGEMENTS)

Allereerst gaat mijn dank uit naar de leerlingen, ouders en docenten die participeerden in de onderzoeken in dit proefschrift. De leerlingen en docenten ben ik dankbaar voor hun deelname aan het programma en hun bijdrage aan het invullen van alle vragenlijsten en de interviews. De openheid en betrokkenheid van de leerlingen en ouders tijdens de interviews zijn me dierbaar. Hun kennis en inzichten rond SEL en het aanleren van sociaal-emotionele vaardigheden hebben mij verrijkt. Zij overtuigden me opnieuw dat onderwijs draait om samenwerken.

Dan bedank ik mijn begeleiders.

Ria, dank je wel dat je mijn promotor wilde zijn en mij liet leren aan de hand van jouw wijsheid en de waarachtigheid, waarmee je steeds weer nieuwe invalshoeken op de bevindingen belichtte. Van jou leerde ik in het bijzonder dat intuïtieve kennis wijsheid bevat en dat een onderzoeker daarop ook mag varen.

Minne, vanaf de dag dat jij mijn begeleider werd inspireerde je me, met je kennis over SEL, je creativiteit, optimisme en wijze lessen als onderzoeker en mens. Jij leerde me om kwantitatieve data te analyseren, er zelfs van te gaan houden, waardoor ik me als onderzoeker ontwikkelde.

Paul, punctueel nam je al mijn artikelen door en je kritische vragen en verbetersuggesties voedden mij als onderzoeker. Je motiveerde me om de eerste resultaten te presenteren in Kopenhagen, in mijn eentje, en spoorde me aan de artikelen kort en strak te houden.

Carolien, dank dat ik mocht voortbouwen op jouw onderzoeken naar Levensvaardigheden. Dankzij jouw prikkelende opmerking had ik mijn eerste ‘eureka’-momentje, toen ik ontdekte dat het inzicht in effecten van SEL-programma’s op afzonderlijke vaardigheden beperkt was.

René, dank voor het verwerven van de subsidie voor S4L en dat je me uitdaagde om mijn academische minderwaardigheidscomplex te bevechten. De jaren in ons Lectoraat Jeugd en Opvoeding, waarin we met Jakop, Janneke en de andere kenniskringleden samenwerkten, lagen aan de basis daarvan.

Collega’s van de HHS en in het bijzonder Margot, Marthy, Kirsten, Els, Frank, Marleen, Anne, Jikke, Fatima, Redouan, Mike, Aletta, Janneke en de Waterreuzen ben ik dankbaar voor de interesse en opbeurende woorden bij tegenslagen en het delen van successen. Studenten die meehielpen met de S4L onderzoeken, in het bijzonder Merve en Lotte,

bedank ik voor die hulp en het plezier in het SELVET-project. Esther, dank voor je bijdrage aan de interviews met ouders en het ‘parent paper’. Hester, Ineke en alle leidinggevenden van de HHS, dank dat jullie mijn onderzoeken faciliteerden.

Rob, Cathelijne, Cora, Anne, Mirjam, Mustafa, Tamara, Marije, Suzanne, Barbera, Erica, Zeliha, Wouter, Fenne en Cynthia van ‘ons’ Lectoraat Jeugdhulp in Transformatie dank ik voor de samenwerking en dat jullie bleven herhalen dat zo’n proefschrift echt een keer af komt. Het is fijn om deel van deze kring te zijn.

De leden van de Children and Youth lees- en soepgroep ben ik dankbaar voor de inkijk in antropologische perspectieven op onderzoek naar jeugdigen en hun ouders. In het bijzonder dank aan Nienke, mede coördinator van deze groep en bovenal promo-buddy, meelezer en meer.

Lieve vriendinnen en vrienden, Addy, Roos, Tinka, Aggie, Bert, Swie, Hans, Jacqueline, Frans, Josien, Selma, Ian, Eri, Tanja, Fuusje en anderen: zonder jullie was ik een eenzame onderzoeker geworden. Jullie lazen soms mee, appten, belden, en zochten me op, ook als ik eigenlijk geen tijd had. Zo bleef ik me verbonden voelen, met meer dan mijn data en artikelen.

Lieve Sheila, Wijnand en Pieter, wij leerden in ons ouderlijk gezin sociaal-emotionele vaardigheden, zoals ‘zorgen voor elkaar’, ‘door leren’ en ‘door zetten’. De combinatie van de strengheid die ‘ons’ pap en de relativering die ‘ons’ mam daarbij aan de dag legden, zorgde voor een mooie balans. Op die vaardigheden en balans bouwden we onze familie uit, met onze kinderen en anderen. Dank dat bij jullie ‘het licht altijd brandt’.

Mijn schoonfamilie, Peter, Paulien en Leo dank ik voor de warmte en gezelligheid. Thomas en Sandra, de manier waarop jullie me hebben ontvangen op de Wandelweg zal ik nooit vergeten. Daarnaast is het is prachtig om oma van Joep en Maud te mogen zijn.

Allerliefste Paul en Bram, dank jullie wel dat ik van en met jullie mocht leren om moeder en opvoeder te zijn. Jullie vlogen uit toen mijn PhD traject begon. Met plezier kijk ik terug op de weekenden waarin we ‘samen studeerden’ en later ‘samen werkten’. Ik geniet nog steeds van de wijze waarop jullie je, ook sociaal en emotioneel, ontwikkelen, vrienden maken en meebrengen, zoals Floris, Jochem en Sjoerd. Het blijft een feest om met jullie mee te mogen leven.

Lieve Ronald, dank dat jij je liet vinden. Ondanks dat mijn project wat langer duurde dan jij aanvankelijk berekende, bleef je en steunde me door dik en dun. Maar, bovenal bied je me je liefde, en de tijd en ruimte om moeder, dochter, zus, vriendin, collega, en onderzoeker te zijn. *'Jij verstaat de kunst van bij mij horen'*.