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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

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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 schools² (Gravesteyn, 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; Kağitçibaşı, 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 argue 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; Gravesteyn, 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.

STRENGTHS 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; Codioli 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:

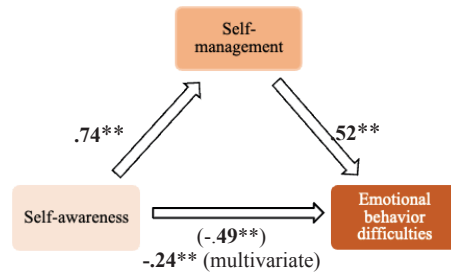
1. A modular approach to focus on the social-emotional skills deemed most appropriate to strengthen, based on shared decision making of students, parents, and teachers and informed by their perspectives on the social-emotional skills students have and need.
2. The application of a transformative approach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

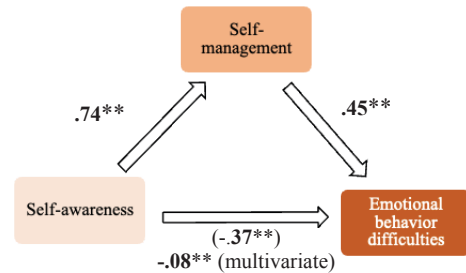
Models illustrating differences in the mediating roles of self-management in the relationship between self-awareness and emotional-behavioral difficulties in students related to differences in their sociocultural background and school type.

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.



(** $p < .01$)

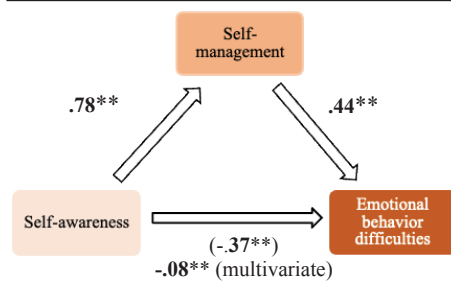
Mediation model 1b of the relationship between self-awareness and emotional-behavioral difficulties fully mediated through self-management (β 's) in migrant students.



(** $p < .01$)

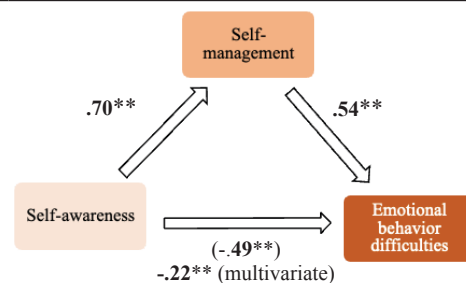
Self-management fully mediates the relationship between self-awareness and emotional-behavioral difficulties in migrant students (Model 1b), and partly in Dutch-Western students (Model 1a) (Based on Baron and Kenny, 1986).

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).

