

Främjande av psykiskt välbefinnande hos barn och ungdomar: En fördjupad analys av SEL-programmen / Promoting mental well-being in children and adolescents: In-depth analysis of SEL programmes, rapport 373 (2024)

Bilaga 4 Tabell över inkluderade studier från uppdateringssökningen

Appendix 4 Table of included studies from the updated search

SEL-program

Author	<i>Allen</i>
Year	<i>2020</i>
Country	<i>USA</i>
Ref	<i>[1]</i>
Study design	<i>Randomized controlled trial</i>
Study protocol	<i>No information</i>
Setting	<i>High school</i>
Inclusion criteria	<i>Informed consent from parents and assent from students was obtained prior to randomization</i>
Follow up	<i>Prior to the beginning of the intervention, in the week immediately following completion (12 weeks) of the intervention, and 4 months following completion of the intervention.</i>
Population characteristics	<p><i>High school children, year 10</i></p> <p>Intervention group:</p> <p><i>Age; Mean (SD): Not stated</i></p> <p><i>Sex;(Percent girls): 50.3 %</i></p> <p><i>Socioeconomic/educations; Mean (SD):</i></p> <p><i>Parental education (1 = less than high school to 4 = college graduate or higher): 3.02 (1.02)</i></p> <p><i>(Free or reduced school lunch for total population: 67%, not specified on group level)</i></p> <p>Control group:</p> <p><i>Age; Mean (SD): Not stated</i></p> <p><i>Sex (Percent girls): 52.5</i></p> <p><i>Socioeconomic/educations; Mean (SD):</i></p> <p><i>Parental education (1 = less than high school to 4 = college graduate or higher): 3.04 (1.02)</i></p> <p><i>(Free or reduced school lunch for total population: 67%, not specified on group level)</i></p>
Intervention program	<i>The Connection Project</i>

Program extent	<p>Number of sessions: 12</p> <p>Intensity: One 45-60 min sessions / week</p> <p>Duration: 12 weeks</p> <p>Attendance Mean (SD): 9.8 (2.7)</p> <p>Implementation:</p>
Participants (n)	322
Drop-outs (n)	<p>End of intervention: 54</p> <p>4 months follow up: 24</p>
Program Deliverer	<p>Classroom teachers</p> <p>Training: 2-day workshop led by the authors. Weekly or biweekly supervision via video conference was then provided.</p>
Comparison program	Common school curriculum (no specific program)
Participants (n)	288
Drop-outs (n)	<p>End of intervention: 38</p> <p>4 months follow up: 29</p>
Program Deliverer	Not applicable
Outcomes	<p>Outcome</p> <p><u>Coping strategies:</u></p> <p>Coping scale, Coping scale indication</p> <p>SMD: 0.19, 95% CI (0.00 to 0.38); p=0.04</p>
Comments	<p>Additional outcomes:</p> <p>Comfort with classmates and Peer-rated approachability; rate each student in terms of how comfortable they felt around them, with ratings ranging from 1 = I always keep my guard up to 5 = I'm always open.</p>
Risk of bias	Moderate

Author	<i>Al-Jbouri</i>
Year	2023
Country	<i>Canada</i>
Ref	[2]
Study design	<i>Randomized controlled trial</i>
Study protocol	<i>No information</i>
Setting	<i>Kindergarten to Grade 8</i>
Inclusion criteria	<i>Parental consent.</i>
Follow up	<i>End of intervention, 3 months.</i>
Population characteristics	<p><i>Schoolchildren and teachers</i></p> <p>Intervention group:</p> <p><i>Age; Mean (SD): No information</i></p> <p><i>Sex;(Percent girls): No information</i></p> <p><i>Socioeconomic/educations; Mean (SD): No information</i></p> <p>Control group:</p> <p><i>Age; Mean (SD): No information</i></p> <p><i>Sex;(Percent girls): No information</i></p> <p><i>Socioeconomic/educations; Mean (SD): No information</i></p> <p>Total population:</p> <p><i>Age: 4-14</i></p> <p><i>Sex;(Percent girls): 49%</i></p> <p><i>Socioeconomic/educations; Mean (SD): According to Statistics Canada (2016), Median income levels ranged from \$24,000–47,000 (M = \$36,000).</i></p>
Intervention program	<i>The Faith and Wellness: A Daily Mental Health Resource</i>
Program extent	<p><i>Number of sessions: 80 daily sessions</i></p> <p><i>Intensity: 5-15 minutes</i></p> <p><i>Duration: 3 months</i></p> <p><i>Attendance: No information</i></p> <p><i>Implementation: teachers reported implementing the practices between 7 and 26 times over the 3-month implementation period (M = 14.67, SD = 6.22).</i></p>
Participants (n)	<i>100 (a total of 257 participating students (39% Group 1))</i>
Drop-outs (n)	<i>183 students completed T2 surveys (76% total retention; 63% Group 1 retention)</i>
Program Deliverer	<p><i>Classroom teachers</i></p> <p><i>Training: teachers were provided with an overview of the intervention website, including where to find an introductory video that explained use of the resource, background information, and supporting evidence for practices within the resource.</i></p>
Comparison program	<i>Regular curriculum</i>

Participants (n)	157
Drop-outs (n)	183 students completed T2 surveys (76% total retention; 63% Group 1 retention)
Program Deliverer	Not applicable
Outcomes	<p><i>Outcome</i></p> <p><u>SEL Confidence</u> SEL Confidence. Students' confidence with each of the six specific SEL skill categories was measured with a six-item scale, using a five point Likert scale ranging from 1 = Not at All confident to 5 = Extremely Confident (Assessment Work Group, 2019).</p> <p><u>General Well-Being.</u> Students' well-being was measured using the Stirling Children's Well Being Scale (Liddle & Carter, 2015).</p>
Comments	
Risk of bias	Moderate

Author	Arda Tuncdemir
Year	2022
Country	USA
Ref	[3]
Study design	Randomized controlled trial
Study protocol	No information
Setting	Childcare centre
Inclusion criteria	Parental consent and children verbal consent.
Follow up	End of intervention
Population characteristics	Pre-kindergarten Children aged 3-5 Intervention group: Age; Mean (SD): 48.49 (7.20) months Sex;(Percent girls): 35.13 Socioeconomic/educations; Mean (SD): The childcare centre serves children primarily from low-income families. Control group: Age; Mean (SD): 49.78 (5.16) months Sex;(Percent girls): 61.11 Socioeconomic/educations; Mean (SD): The childcare centre serves children primarily from low-income families.
Intervention program	Philosophical Ethics in Early Childhood (PEECh)
Program extent	Number of sessions: 9 Intensity: 30-45 minutes lessons once per week Duration: 4 months Attendance: No information Implementation: No information
Participants (n)	37
Drop-outs (n)	No information
Program Deliverer	Teachers Training: 1-day training workshop given by PEECh researchers
Comparison program	Reading of the same PEECh-stories but not followed by the full PEECh-program
Participants (n)	36
Drop-outs (n)	No information
Program Deliverer	Teachers
Outcomes	Outcome <u>Interpersonal relationships and emotion regulation</u> The Head Start Competence Scale (HSCS)—Teacher Version (Domitrovich et al., 2001b)

	<p><u>Emotion regulation and understanding</u></p> <p><i>The Head Start Competence Scale (HSCS)—Parent Version (Domitrovich et al., 2001a)</i></p>
Comments	<p><i>Non quantifiable outcomes:</i></p> <p><i>Teacher Questionnaire (pre-intervention)</i></p> <p><i>Parent Questionnaire (pre- and post-intervention)</i></p> <p><i>Teacher semi-structured interviews (pre- and post-intervention)</i></p> <p><i>Child semi-structured interview (pre- and post-intervention)</i></p>
Risk of bias	<p><i>Moderate</i></p>

Author	Coelho
Year	2021
Country	Portugal
Ref	[4]
Study design	Randomized controlled trial
Study protocol	No information
Setting	Middle school
Inclusion criteria	Parental consent.
Follow up	Posttest and follow-up 10 months later after transition from middle school
Population characteristics	<p>Intervention group:</p> <p>Age; Mean (SD): No information</p> <p>Sex;(Percent girls): 48.6%</p> <p>Socioeconomic/educations; Mean (SD): No information</p> <p>Control group:</p> <p>Age; Mean (SD): No information</p> <p>Sex;(Percent girls): 49.3%</p> <p>Socioeconomic/educations; Mean (SD): No information</p> <p>Total population:</p> <p>Age; Mean (SD): 9.14 (0.64)</p> <p>Sex;(Percent girls): 48.8%</p> <p>Socioeconomic/educations; Mean (SD): 34.7% to 39.8% of students per class eligible for free or reduced lunches.</p>
Intervention program	Fourth-Grade Positive Attitude SEL Program
Program extent	<p>Number of sessions: 13 weekly sessions</p> <p>Intensity: 60 min</p> <p>Duration: 3 Months</p> <p>Attendance: No information</p> <p>Implementation: No information</p>
Participants (n)	702
Drop-outs (n)	44
Program Deliverer	<p>Trained educational psychologists</p> <p>Training: No information</p>
Comparison program	Regular curriculum
Participants (n)	361
Drop-outs (n)	24
Program Deliverer	Not applicable
Outcomes	Outcome

	<p><u>Social and Emotional Competencies</u></p> <p>Portuguese version of the Bateria de Socialização-3 (BAS-3; Portuguese adaptation by Ferreira & Rocha, 2004)</p> <p><u>Self-Esteem</u></p> <p>General Self scale from the Self-Description Questionnaire I (SDQ I; Marsh, 1988; Portuguese adaptation by Faria & Fontaine, 1990)</p>
Comments	<p>Study aimed to analyze the program's differential effectiveness, according to gender, classroom size, and especially school climate dimensions (student–student relationships and teacher–student relationships).</p>
Risk of bias	<p>Moderate</p>

Author	<i>Domitrovich</i>
Year	2022
Country	USA
Ref	[5]
Study design	<i>Randomized controlled trial</i>
Study protocol	<i>No information</i>
Setting	<i>under-resourced, midsized urban school district</i>
Inclusion criteria	<i>Parent permission student and agreed, themselves, to participate.</i>
Follow up	<i>3 months after end of intervention</i>
Population characteristics	<p><i>7th and 8th grade students</i></p> <p><i>Intervention group:</i></p> <p><i>Age; Mean (SD): 12.60 (0.73)</i></p> <p><i>Sex;(Percent girls): 58.89%</i></p> <p><i>Socioeconomic/educations; Mean (SD): 86% of all students in the district qualified for free and reduced lunch.</i></p> <p><i>Control group:</i></p> <p><i>Age; Mean (SD): 12.68 (0.80)</i></p> <p><i>Sex;(Percent girls): 60.24%</i></p> <p><i>Socioeconomic/educations; Mean (SD): 86% of all students in the district qualified for free and reduced lunch.</i></p>
Intervention program	<i>Choices in Little Rock unit of Facing History and Ourselves</i>
Program extent	<p><i>Number of sessions: No information</i></p> <p><i>Intensity: No information</i></p> <p><i>Duration: One semester</i></p> <p><i>Attendance: No information</i></p> <p><i>Implementation: Teachers reported that they taught 81% of lesson components in Year 1 (range 43–100%) and 88% in Year 2 (range = 81–95%).</i></p> <p><i>In Year 1, teachers' mean ratings of their quality of delivery (averaged across lessons) ranged from 2.89–3.79 (M = 3.31), and in Year 2, average ratings of quality of delivery ranged from 3.6–4.0 (M = 3.76).</i></p>
Participants (n)	437
Drop-outs (n)	48
Program Deliverer	<p><i>Classroom teachers</i></p> <p><i>Training: two 3-day workshops (approximately 35–40 h of training) in the semester before the intervention, and a one day booster session in the beginning of the program followed by one, hour-long individual coaching meeting after the training to help them plan their implementation.</i></p>
Comparison program	<i>Standard curriculum</i>
Participants (n)	257

Drop-outs (n)	51
Program Deliverer	Not applicable
Outcomes	<p>Outcome</p> <p><u>Social-emotional competencies</u></p> <ul style="list-style-type: none"> - Empathy The 6-item Empathic Concerns subscale Interpersonal Reactivity Index (Davis, 1983) - Prosocial behavior 5-item prosocial behavior scale from the Strengths and Difficulties Questionnaire (SDQ)
Comments	
Risk of bias	Moderate

Author	Green
Year	2022
Country	USA
Ref	[6]
Study design	Randomized controlled trial
Study protocol	No information
Setting	Urban public high schools.
Inclusion criteria	Parental consent.
Follow up	13 weeks after start of intervention.
Population characteristics	<p>Students in 9th through 12th grade.</p> <p>Intervention group:</p> <p>Age; Mean (SD): No information</p> <p>Sex;(Percent girls): No information</p> <p>Socioeconomic/educations; Mean (SD): No information</p> <p>Control group:</p> <p>Age; Mean (SD): No information</p> <p>Sex;(Percent girls): No information</p> <p>Socioeconomic/educations; Mean (SD): No information</p> <p>Total population:</p> <p>Age; Mean (SD): 15.7</p> <p>Sex;(Percent girls): 52%</p> <p>Socioeconomic/educations; Mean (SD): Most of the students included in the study sample (90.6%) received free or reduced-price lunch, an indicator of poverty.</p>
Intervention program	Speaking to the Potential, Ability, and Resilience Inside Every Kid (SPARK) Teen Mentoring Program
Program extent	<p>Number of sessions: 13 weekly sessions</p> <p>Intensity: 1 hour</p> <p>Duration: 13 weeks</p> <p>Attendance: On average, students in the intervention condition attended 11.48 of the 13 SPARK sessions.</p> <p>Implementation: The average rating across facilitators and sessions on the Session Fidelity Rating Scale was 3.96 out of 4.00.</p>
Participants (n)	200
Drop-outs (n)	16
Program Deliverer	<p>Trained SPARK facilitators.</p> <p>Training: 20 h of training in the intervention model and data collection procedures, including the standardized collection of data, privacy and confidentiality, and security of information.</p>

Comparison program	<i>Regular curriculum</i>
Participants (n)	172
Drop-outs (n)	8
Program Deliverer	<i>Not applicable</i>
Outcomes	<p><i>Outcome</i></p> <p><u><i>Communication, decision making, and problem-solving Skills</i></u></p> <p><i>Communication, Decision Making, and Problem-Solving scale (CDP) developed by authors, based on National Life Skills Evaluation System scales of decision making, problem solving, and communication.</i></p> <ul style="list-style-type: none"> - <i>Communication Skills</i> - <i>Decision-Making Skills</i> - <i>Problem-Solving</i> <p><u><i>Difficulties in emotional regulation</i></u></p> <p><i>Impulse and Clarity subscales from the short form of the Difficulties in Emotional Regulation Scale (elaiSF; Kaufman et al., 2016).</i></p> <ul style="list-style-type: none"> - <i>Clarity</i> - <i>Impulse</i> <p><u><i>Resilience</i></u></p> <p><i>Three subscales from the Resiliency Scales for Children and Adolescents (RSCA; Prince-Embury, 2007), Sense of Relatedness subscale (24 items), the Sense of Mastery subscale (20 items), and the Optimism subscale (7 items).</i></p> <ul style="list-style-type: none"> - <i>Relatedness</i> - <i>Mastery</i> - <i>Optimism</i>
Comments	
Risk of bias	<i>Moderate</i>

Author	Justicia-Arraez
Year	2021
Country	Spain
Ref	[7]
Study design	Randomized controlled trial
Study protocol	No information
Setting	Preschool centers
Inclusion criteria	Permission from school and parental consent.
Follow up	4 weeks after end of intervention (12 weeks).
Population characteristics	Children aged 3-4 years Intervention group: Age; Mean (SD): 42.64 (3.57) months Sex;(Percent girls): 57.69% Socioeconomic/educations; Mean (SD): middle socioeconomic level Control group: Age; Mean (SD): 42.46 (3.31) months Sex;(Percent girls): 53.06% Socioeconomic/educations; Mean (SD): middle socioeconomic level
Intervention program	Aprender a Convivir 1 program (AC1 program)
Program extent	Number of sessions:12 Intensity: 45 min sessions twice per week Duration: 12 weeks Attendance: Implementation:
Participants (n)	52
Drop-outs (n)	No information
Program Deliverer	A trained teacher from outside the research Training: Two 5-h training sessions
Comparison program	Regular curriculum
Participants (n)	49
Drop-outs (n)	No information
Program Deliverer	Not applicable
Outcomes	Outcome The Observation Scale of the Aprender a Convivir program for 3-year-old children (ROAC-3) [43] - emotion identification and expression (Casel 1) - emotion regulation (Casel 2) - communication skills (Casel 4)

	<ul style="list-style-type: none"> - <i>sharing and helping (Casel 4)</i> - <i>sharing personal belongings (Casel 4)</i> - <i>solving problems (Casel 5)</i> <p><u><i>Social skills</i></u></p> <p><i>Spanish version [44] of the Preschool and Kindergarten Behavior Scale for Teachers and Caregivers (PKBS-2) [45].</i></p> <ul style="list-style-type: none"> - <i>Social cooperation</i> - <i>Social interaction</i> - <i>Social independence</i>
<p>Comments</p> <p>Risk of bias</p>	<p><i>Moderate</i></p>

Author	<i>Kapetanovic</i>
Year	<i>2022</i>
Country	<i>Sweden</i>
Ref	<i>[8]</i>
Study design	<i>Randomized controlled trial</i>
Study protocol	<i>No information</i>
Setting	<i>Preschool</i>
Inclusion criteria	<i>Not specified</i>
Follow up	<i>End of the school year (end of intervention)</i>
Population characteristics	<p><i>Children aged four to five years old</i></p> <p><i>Intervention group:</i></p> <p><i>Age; Mean (SD): No information</i></p> <p><i>Sex;(Percent girls): No information</i></p> <p><i>Socioeconomic/educations; Mean (SD): No information</i></p> <p><i>Control group:</i></p> <p><i>Age; Mean (SD): No information</i></p> <p><i>Sex;(Percent girls): No information</i></p> <p><i>Socioeconomic/educations; Mean (SD): No information</i></p> <p><i>Total population:</i></p> <p><i>Age; Mean (SD): 4.44 (0.5) years</i></p> <p><i>Sex;(Percent girls): 50.9 %</i></p> <p><i>Socioeconomic/educations; Mean (SD): 42.9% (n = 118) of the children attended preschools in economically disadvantaged neighborhoods and 57.1% (n = 157) of the children attended preschools in economically advantaged neighborhoods</i></p>
Intervention program	<i>Promoting Alternative Thinking Strategies (PATHS)</i>
Program extent	<p><i>Number of sessions: 33</i></p> <p><i>Intensity: Once per week, 15-20 minutes</i></p> <p><i>Duration: 1 school year</i></p> <p><i>Attendance: No information</i></p> <p><i>Implementation: No information</i></p>
Participants (n)	<i>145</i>
Drop-outs (n)	<i>No information</i>
Program Deliverer	<p><i>Classroom teachers.</i></p> <p><i>Training: two-day training by a certified PATHS trainer, followed by a 1-day booster training.</i></p>
Comparison program	<i>Regular curriculum, wait-list</i>
Participants (n)	<i>130</i>
Drop-outs (n)	<i>No information</i>

Program Deliverer	<i>Not applicable</i>
Outcomes	<p><i>Outcome</i></p> <p><u><i>Emotional knowledge</i></u> <i>The Assessment of Children's Emotional Skills (ACES; Schultz et al., 2004)</i></p> <p><u><i>Emotional awareness and social problem solving</i></u> <i>Challenging Situations Task (CST; Denham et al., 1994)</i></p>
Comments	<p><i>Secondary and distal outcomes</i></p> <p><u><i>Prosocial/communication skills, emotional self-regulation, and academic skills.</i></u></p> <p><i>Social Competence Scale (SCS; Sorensen and Dodge, 2016), teacher reported</i></p> <p><u><i>Children's ability to cooperate, interact, and show independence in social situations</i></u> <i>Preschool and Kindergarten Behavior Scales (PKBS; Merrell, 1996), teacher reported</i></p> <p><u><i>Prosocial/communication skills</i></u> <i>SCS (Sorensen and Dodge, 2016). Observer reported.</i></p> <p><i>The study aims were to investigate 1) the baseline group differences in social emotional competence and adjustment depending on the neighborhood income level and 2) to determine if neighborhood income level moderated the effects of PATHS on children's social emotional competence and adjustment from pre to posttest.</i></p>
Risk of bias	<i>Moderate</i>

Author	<i>Kats Gold</i>
Year	<i>2021</i>
Country	<i>Israel</i>
Ref	<i>[9]</i>
Study design	<i>Randomized controlled trial</i>
Study protocol	<i>No information</i>
Setting	<i>Preschool</i>
Inclusion criteria	<i>Parental consent</i>
Follow up	<i>End of intervention</i>
Population characteristics	<p><i>Older- (mean age 5.5 years) kindergarten children</i></p> <p><i>Intervention group:</i></p> <p><i>Age; Mean (SD): 66.37 (3.91) months</i></p> <p><i>Sex;(Percent girls): 61%</i></p> <p><i>Socioeconomic/educations; Mean (SD):</i></p> <p><i>Average 58.7%</i></p> <p><i>Above average 34.8%</i></p> <p><i>Below average 6.5%</i></p> <p><i>Control group:</i></p> <p><i>Age; Mean (SD): 64.28 (3.16) months</i></p> <p><i>Sex;(Percent girls): 44%</i></p> <p><i>Socioeconomic/educations; Mean (SD):</i></p> <p><i>Average 67.5%</i></p> <p><i>Above average 30%</i></p> <p><i>Below average 2.5%</i></p>
Intervention program	<i>I Can Succeed for Preschools (ICS-PS).</i>
Program extent	<p><i>Number of sessions:</i></p> <p><i>Intensity:</i></p> <p><i>Duration: 7 months</i></p> <p><i>Attendance: 90–100% participation rates for children</i></p> <p><i>Implementation: teachers reported delivering between 95% and 100% of the tools in the curriculum</i></p>
Participants (n)	<i>49</i>
Drop-outs (n)	<i>Out of 98 potential participants, only one parent refused to permit his child to participate; five additional children were absent during data collection.</i>
Program Deliverer	<p><i>Classroom teacher</i></p> <p><i>Training: two hour-long meetings with the principal researcher (a school psychologist) and a research assistant (MA student in psychology) every 3 weeks beginning September throughout the whole school year.</i></p>
Comparison program	<i>Regular curriculum</i>

Participants (n)	43
Drop-outs (n)	<i>Out of 98 potential participants, only one parent refused to permit his child to participate; five additional children were absent during data collection.</i>
Program Deliverer	<i>Not applicable</i>
Outcomes	<p><i>Outcome</i></p> <p><u><i>Emotional Skills</i></u> <i>Emotion Matching Task (EMT; Izard et al., 2003)</i></p> <p><u><i>Interpersonal/social Skills</i></u> <i>Social Skills Rating System (SSRS; Gresham & Elliot, 1990)</i></p>
Comments påRisk of bias	<i>Moderate</i>

Author	<i>Kempe</i>
Year	<i>2019</i>
Country	<i>USA</i>
Ref	<i>[10]</i>
Study design	<i>quasi-experimental controlled study</i>
Study protocol	<i>No information</i>
Setting	<i>Pre-school</i>
Inclusion criteria	<i>Each classroom lead teacher was asked to nominate the 3 most socially competent children in the class, as well as the three least socially competent children in the class.</i>
Follow up	<i>End of school year (spring).</i>
Population characteristics	<p><i>Intervention group:</i></p> <p><i>Age; Mean (SD): 3.41 years (0.51)</i></p> <p><i>Sex;(Percent girls): 52.9</i></p> <p><i>Socioeconomic/educations; Mean (SD): All programs served primarily middle-class families.</i></p> <p><i>Control group:</i></p> <p><i>Age; Mean (SD): 3.75 years (0.45)</i></p> <p><i>Sex;(Percent girls): 40</i></p> <p><i>Socioeconomic/educations; Mean (SD): All programs served primarily middle-class families.</i></p>
Intervention program	<i>Preschool-kindergarten version of the Second Step program (Committee for Children 2002)</i>
Program extent	<p><i>Number of sessions: 28</i></p> <p><i>Intensity: Once or twice per week</i></p> <p><i>Duration: 28 weeks</i></p> <p><i>Attendance: More than 80% of the intervention period.</i></p> <p><i>Implementation: this study did not include systematic collection of data to demonstrate fidelity of implementation by the teachers in the experimental group.</i></p>
Participants (n)	<i>17</i>
Drop-outs (n)	<i>Initially 45 children, however 8 children were excluded from analyses because the child dropped from the program during the study, or because of incomplete data due to high absenteeism. Not stated from which group.</i>
Program Deliverer	<p><i>Classroom teachers</i></p> <p><i>Training: Teachers' training had consisted of a 2-h training by a trainer who had been directly trained by Committee for Children (creators of Second Step) personnel, followed by monthly oversight and mentoring for appropriate implementation. All teachers had previously been using it for at least 1 year.</i></p>
Comparison program	<i>Regular curriculum</i>
Participants (n)	<i>20</i>
Drop-outs (n)	<i>Initially 45 children, however 8 children were excluded from analyses because the child</i>

Program Deliverer	<p>dropped from the program during the study, or because of incomplete data due to high absenteeism. Not stated from which group.</p> <p>Not applicable</p>
Outcomes	<p><i>Outcome</i></p> <p><u>Teacher-Rated Child Behavior</u></p> <p>The preschool level of the Social Skills Rating System-Teacher form (SSRS-T; Gresham and Elliott 1990) was completed by the classroom lead teachers</p> <ul style="list-style-type: none"> - children's social skills -
Comments	<p>Other outcomes:</p> <p>The Second Step Knowledge Assessment Interview (Committee for Children 2004); anger management, perspective taking, determining the emotional state of another, and social problem solving.</p>
Risk of bias	<p>Moderate</p>

Author	Kim
Year	2023
Country	Lebanon
Ref	[11]
Study design	Cluster Randomized controlled trial
Study protocol	No information
Setting	Nonformal remedial education programming
Inclusion criteria	enrolled in Lebanese public primary schools were eligible for the program
Follow up	End of intervention
Population characteristics	<p>Children age 5-16</p> <p>Intervention group:</p> <p>Age; Mean (SD): No information</p> <p>Sex;(Percent girls): No information</p> <p>Socioeconomic/educations; Mean (SD): No information</p> <p>Control group:</p> <p>Age; Mean (SD): No information</p> <p>Sex;(Percent girls): No information</p> <p>Socioeconomic/educations; Mean (SD): No information</p> <p>Total population:</p> <p>Age; Mean (SD): 9.16 (2.34)</p> <p>Sex;(Percent girls): 50%</p> <p>Socioeconomic/educations; Mean (SD): Over 94% of Syrian refugee families in the sample lived in extreme poverty, classified by the criteria of the total income of less than \$2.87/person per day.</p>
Intervention program	Tutoring in a Healing Classroom (HCT) with Five-Component SEL Curriculum (5CSEL)
Program extent	<p>Number of sessions: 63 lessons</p> <p>Intensity: 30 min 3 days per week</p> <p>Duration: 21 weeks</p> <p>Attendance: No information</p> <p>Implementation: Teachers in the HCT + 5CSEL sites taught 59 5CSEL lessons on average (SD = 9.20; range 19–65) of the 63 lesson plans. Some teachers (n= 30) implemented more than 63 sessions, offering 1–2 repeat SEL lessons.</p>
Participants (n)	2044
Drop-outs (n)	28
Program Deliverer	<p>Classroom teachers</p> <p>Training: 3-day training on the 5CSEL curriculum. In addition to these training, all teachers received continuous professional development through regular mentoring and peer support group meetings.</p>
Comparison program	Tutoring in a Healing Classroom (HCT)

Participants (n)	2322
Drop-outs (n)	49
Program Deliverer	Classroom teachers
Outcomes	<p><i>Outcome</i></p> <p><u><i>Emotion Regulation and Perseverance</i></u></p> <p><i>Adaption the social situation scale of the Assessment of Children’s Emotion Skills (Schultz et al., 2004).</i></p> <ul style="list-style-type: none"> - <i>Situational Emotion Identification</i> <p><i>The eight-item Emotional and Behavioral Regulation scale of the TOOLSEL (Kim et al., 2021)</i></p> <ul style="list-style-type: none"> - <i>Emotional and Behavioral Regulation (Teacher Report)</i> <p><i>Self-Regulation Assessment–Assessor Report (SRA-AR; Smith-Donald et al., 2007)</i></p> <ul style="list-style-type: none"> - <i>Behavioral Regulation</i> <p><u><i>Positive Social Skills</i></u></p> <p><i>Two subscales of TOOLSEL (Kim et al., 2021)—the Prosocial Behavior and Academic Engagement and the Social Problems scales</i></p> <ul style="list-style-type: none"> - <i>teacher assessment of children’s social skills</i> - <p><u><i>Mental Health and Well-Being</i></u></p> <p><i>Four items of the Positive and Negative Affect Schedule-Child (Ebesutani et al., 2012: happy, mad, scared, sad)</i></p> <ul style="list-style-type: none"> - <i>positive affect</i> - <i>negative affect</i>
Comments	
Risk of bias	

Author	<i>Kopelman-Rubin</i>
Year	<i>2021</i>
Country	<i>Israel</i>
Ref	<i>[12]</i>
Study design	<i>Randomized controlled trial</i>
Study protocol	<i>No information</i>
Setting	<i>Public elementary inner-city schools</i>
Inclusion criteria	<i>Informed consent</i>
Follow up	<i>Data were collected four times over two school years: baseline (beginning of year one), end of year one, beginning of year two, and at program termination (end of year two).</i>
Population characteristics	<p><i>Fourth grade students</i></p> <p><i>Intervention group:</i></p> <p><i>Age; Mean (SD): No information</i></p> <p><i>Sex;(Percent girls): No information</i></p> <p><i>Socioeconomic/educations; Mean (SD): No information</i></p> <p><i>Control group:</i></p> <p><i>Age; Mean (SD): No information</i></p> <p><i>Sex;(Percent girls): No information</i></p> <p><i>Socioeconomic/educations; Mean (SD): No information</i></p> <p><i>Total population:</i></p> <p><i>Age; Mean (SD): 9.5 (0.53)</i></p> <p><i>Sex;(Percent girls): 48.7%</i></p> <p><i>Socioeconomic/educations; Mean (SD): Six of seven schools were ranked at the highest SES national level (comprised of parents' education, family income, and percentage of immigrants). One school was ranked at the second-highest SES national level. This school participated in the ICS-ES group.</i></p>
Intervention program	<i>I Can Succeed-Elementary School (ICS-ES)</i>
Program extent	<p><i>Number of sessions: Teachers delivered the ICS-ES intervention within the daily curriculum.</i></p> <p><i>Intensity: 45-minute lessons</i></p> <p><i>Duration: 2 years</i></p> <p><i>Attendance: No information</i></p> <p><i>Implementation: On a scale ranging from 1 = not at all to 5 = very much, teachers reported an average of 4.26 (SD = 0.65) when rating their delivery of the required elements of the program</i></p>
Participants (n)	<i>283</i>
Drop-outs (n)	<i>No information</i>
Program Deliverer	<i>Training: 30 hours of didactic and experiential training in ICS-ES theoretical background and contents. Bimonthly meetings with an ICS-ES leader for two hours of supervision.</i>

Comparison program	<i>Regular curriculum</i>
Participants (n)	<i>136</i>
Drop-outs (n)	<i>No information</i>
Program Deliverer	<i>Not applicable</i>
Outcomes	<p><i>Outcome</i></p> <p><u><i>Social skills</i></u></p> <p><i>The Social Skills Improvement System (SSIS; Gresham & Elliott, 2008), student self-report</i></p> <ul style="list-style-type: none"> - <i>communication, cooperation, assertiveness, responsibility, empathy, and self-control</i> -
Comments	<p><i>Other outcomes:</i></p> <p><i>To measure fidelity, after each module, teachers completed a questionnaire</i></p> <p><i>Teacher satisfaction with program and training questionnaire</i></p>
Risk of bias	<i>Moderate</i>

Author	Malinauskas
Year	2021
Country	Lithuania
Ref	[13]
Study design	Randomized controlled trial
Study protocol	No information
Setting	Youth school students
Inclusion criteria	The inclusion criteria for study participants were middle adolescence (15–18 years) and male or female, and informed consent by participant and parental consent.
Follow up	Post intervention.
Population characteristics	<p>Intervention group:</p> <p>Age; Mean (SD): 16.71 (1.17)</p> <p>Sex;(Percent girls): 24.5%</p> <p>Socioeconomic/educations; Mean (SD): No information</p> <p>Control group:</p> <p>Age; Mean (SD): 17.09 (1.06)</p> <p>Sex;(Percent girls): 34.5%</p> <p>Socioeconomic/educations; Mean (SD): No information</p>
Intervention program	Social-Emotional Skills Training Program
Program extent	<p>Number of sessions: 48</p> <p>Intensity: 15 minutes 4 times per month</p> <p>Duration: September to March</p> <p>Attendance: No information</p> <p>Implementation: No information</p>
Participants (n)	49
Drop-outs (n)	No information
Program Deliverer	<p>Physical education teacher</p> <p>Training: received instructions from the researcher</p>
Comparison program	Regular curriculum
Participants (n)	55
Drop-outs (n)	No information
Program Deliverer	Not applicable
Outcomes	<p>Outcome</p> <p><u>Emotional intelligence skills</u></p> <p>Schutte Self-Report Inventory (also known as Emotional Intelligence Scale), Schutte et al. (1998)</p> <p>- Optimism, appraisal, emotional understanding, utilization</p> <p><u>Social skills</u></p>

	<i>Social Skills Rating System (student form)</i> - <i>cooperation, assertiveness, empathy, and self-control</i>
Comments Risk of bias	<i>Moderate</i>

Author	McCoy
Year	2021
Country	Brazil
Ref	[14]
Study design	Randomized controlled trial
Study protocol	No information
Setting	Primary schools
Inclusion criteria	Written parental consent.
Follow up	During last month of intervention. (6 months long.)
Population characteristics	<p>Third- and fifth graders'</p> <p>Intervention group:</p> <p>Age; Mean (SD): 9.87 (1.23)</p> <p>Sex;(Percent girls): 49.6</p> <p>Socioeconomic/educations; Mean (SD): 0.040 (1.358)</p> <p>Following standards for LMICs (Filmer & Pritchett, 2001), SES was computed using a principal component analysis of six student-reported household asset items (i.e., whether or not they had mobile phones, tablets, computers, televisions, cars, or Internet access at home).</p> <p>Control group:</p> <p>Age; Mean (SD): 9.84 (1.27)</p> <p>Sex;(Percent girls): 49.4</p> <p>Socioeconomic/educations; Mean (SD): -0.007 (1.369)</p> <p>Following standards for LMICs (Filmer & Pritchett, 2001), SES was computed using a principal component analysis of six student-reported household asset items (i.e., whether or not they had mobile phones, tablets, computers, televisions, cars, or Internet access at home).</p>
Intervention program	Programa Compasso (based on the Second Step program)
Program extent	<p>Number of sessions: 22</p> <p>Intensity: 50 min weekly sessions</p> <p>Duration: 6 months</p> <p>Attendance: No information</p> <p>Implementation: No information</p>
Participants (n)	2019
Drop-outs (n)	417
Program Deliverer	<p>Classroom teachers</p> <p>Training: An initial full-day (8-hr), in-person training session one pedagogical coordinator and one principal from each treated school (96 total individuals) with (a) an introduction to SEL and its relevance for other outcomes, (b) an overview of the pillars, objectives, and content of the PC lessons and activities, and (c) opportunities for hands-on practice in small groups. After this single session, school staff members were asked to share knowledge learned with all teachers in their schools in ways that made the most sense for their setting.</p>

Comparison program	<i>Regular curriculum</i>
Participants (n)	<i>1841</i>
Drop-outs (n)	<i>425</i>
Program Deliverer	<i>Not applicable</i>
Outcomes	<p><i>Outcome</i></p> <p><u><i>Behavior problems</i></u></p> <p><i>Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001).</i></p> <ul style="list-style-type: none"> - <i>reported by teachers for a randomly selected subset of students equaling at least 20% of the class population</i> <p><u><i>Emotion knowledge</i></u></p> <p><i>Assessment of Children's Emotional Skills (ACES; Alves & Cruz, 2016; Schultz, Izard, & Bear, 2004).</i></p>
Comments	
Risk of bias	<i>Low</i>

Author	Merrin
Year	2022
Country	USA
Ref	[15]
Study design	Cluster Randomized trial
Study protocol	No information
Setting	Elementary school
Inclusion criteria	Teachers, and parents of the students provided a waiver of active consent.
Follow up	End intervention year 1, start of year 2 and after intervention year 2.
Population characteristics	Kindergarten through Third year students Intervention group: Age; Mean (SD): No information Sex;(Percent girls): No information Socioeconomic/educations; Mean (SD): In Washington and Arizona, respectively, about 50% and 78% of participating students received free and reduced lunch. Control group: Age; Mean (SD): No information Sex;(Percent girls): No information Socioeconomic/educations; Mean (SD): In Washington and Arizona, respectively, about 50% and 78% of participating students received free and reduced lunch.
Intervention program	Second Step
Program extent	Number of sessions: 22 sessions Intensity: 25-40 minutes Duration: One year Attendance: No information Implementation: The average number of lessons completed was 17.42 (SD = 3.72) in Year 1 and 17.7 (SD = 4.92) in Year 2. Data suggest that most teachers delivered the program with fidelity: 85% and 82% of lesson components were delivered in Year 1 and Year 2, respectively.
Participants (n)	4602
Drop-outs (n)	27-38% Further details on recruitment and retention over the four waves can be obtained in Low et al. (2019).
Program Deliverer	Classroom teachers Training: 1 h training in second step + 3 h training in Proactive classroom management before study start.
Comparison program	Delayed start. Regular curriculum year 1, participation in intervention year 2
Participants (n)	4474

Drop-outs (n)	30-40% Further details on recruitment and retention over the four waves can be obtained in Low et al. (2019).
Program Deliverer	Not applicable
Outcomes	<p><i>Outcome</i></p> <p><u>Teacher Reports of Student Behavior</u></p> <p>Teachers completed the Strengths Difficulties Questionnaire (SDQ; Goodman, 2001).</p> <ul style="list-style-type: none"> - Conduct problems, Emotional symptoms, Hyperactivity, Prosocial, Peer problems -
Comments	
Risk of bias	Moderate

Author	Mertens
Year	2022
Country	Netherlands
Ref	[16]
Study design	Randomized controlled trial
Study protocol	No information
Setting	Secondary schools
Inclusion criteria	Students gave active informed consent for completing the questionnaires. Parents gave passive informed consent for the participation of their child and active informed consent for their own participation.
Follow up	End of 1 st year of intervention (6-7 months), before of start year 2 (12 months), end of intervention 2 nd year (16 months).
Population characteristics	<p>7th grade students</p> <p>Intervention group Light: Age; Mean (SD): 12.33 (0.57) Sex;(Percent girls): 52% Socioeconomic/educations; Mean (SD):</p> <p>Intervention group Standard: Age; Mean (SD): 12.38 (0.66) Sex;(Percent girls): 44% Socioeconomic/educations; Mean (SD):</p> <p>Intervention group Plus: Age; Mean (SD): 12.34 (0.60) Sex;(Percent girls): 45% Socioeconomic/educations; Mean (SD):</p> <p>Control group: Age; Mean (SD): 12.47 (0.64) Sex;(Percent girls): 43% Socioeconomic/educations; Mean (SD):</p>
Intervention program 1	Rock & Water Light
Program extent	<p>Number of sessions: 22 sessions, 14 lessons the first year and 8 lessons the second year</p> <p>Intensity: 1 weekly 90 minutes lesson</p> <p>Duration: 2 years</p> <p>Attendance: No information</p> <p>Implementation:</p>

<p>Participants (n)</p> <p>Drop-outs (n)</p> <p>Program Deliverer</p>	<p>For all intervention groups:</p> <p>self-reports: generally able to complete lessons (65%) and did not deviate or only slightly deviated from the manual (72%)</p> <p>Observation by R&W experts: observed lessons were completed or almost completed (86%).</p> <p>Trainers did not deviate much from the manual (91%).</p> <p>373</p> <p>Year one: 85 (40 + 45)</p> <p>Year 2: 33</p> <p>Post: 271</p> <p>Training: a core team of teachers (i.e., R&W trainers) who completed the 3-day training to become certified R&W trainers implemented the intervention lessons. (mostly) physical education teachers</p>
<p>Intervention program 2</p> <p>Program extent</p> <p>Participants (n)</p> <p>Drop-outs (n)</p> <p>Program Deliverer</p>	<p>Rock & Water Standard</p> <p>Number of sessions: 22 sessions, 14 lessons the first year and 8 lessons the second year</p> <p>Intensity: 1 weekly 90 minutes lesson</p> <p>Duration: 2 years</p> <p>Attendance: No information</p> <p>Implementation:</p> <p>For all intervention groups:</p> <p>self-reports: generally able to complete lessons (65%) and did not deviate or only slightly deviated from the manual (72%)</p> <p>Observation by R&W experts: observed lessons were completed or almost completed (86%).</p> <p>Trainers did not deviate much from the manual (91%).</p> <p>More teachers in the Standard and Plus conditions than in the Light condition were involved in the intervention</p> <p>303</p> <p>Year 1: 28</p> <p>Year 2: 33</p> <p>Post: 250 completers</p> <p>Training: a core team of teachers (i.e., R&W trainers) who completed the 3-day training to become certified R&W trainers implemented the intervention lessons. The rest of the schools' teaching staff also received a 3-day introductory training to learn (a) the basic principles of R&W, (b) how to support the R&W trainers, and (c) how to apply the intervention techniques in their regular classes.</p>
<p>Intervention program 3</p> <p>Program extent</p>	<p>Rock & Water Plus</p> <p>Number of sessions: 22 sessions, 14 lessons the first year and 8 lessons the second year</p> <p>Intensity: 1 weekly 90 minutes lesson</p> <p>Duration: 2 years</p>

<p>Participants (n)</p> <p>Drop-outs (n)</p> <p>Program Deliverer</p>	<p><i>Attendance: No information</i></p> <p><i>Implementation:</i></p> <p><i>For all intervention groups:</i></p> <p><i>self-reports: generally able to complete lessons (65%) and did not deviate or only slightly deviated from the manual (72%)</i></p> <p><i>Observation by R&W experts: observed lessons were completed or almost completed (86%).</i></p> <p><i>Trainers did not deviate much from the manual (91%).</i></p> <p><i>Parents in the Plus condition were more involved in the intervention than in the Light and Standard conditions. More teachers in the Standard and Plus conditions than in the Light condition were involved in the intervention</i></p> <p><i>249</i></p> <p><i>Year 1: 17</i></p> <p><i>Year 2: 6</i></p> <p><i>Post: 226 completers</i></p> <p><i>Training: a core team of teachers (i.e., R&W trainers) who completed the 3-day training to become certified R&W trainers implemented the intervention lessons. The rest of the schools' teaching staff also received a 3-day introductory training to learn (a) the basic principles of R&W, (b) how to support the R&W trainers, and (c) how to apply the intervention techniques in their regular classes. Parents (a) were invited to watch a documentary about R&W, (b) were invited to join a R&W lesson at the school, and (c) received weekly e-mails with information about the current week's R&W lesson and were encouraged to act on this information.</i></p>
<p>Comparison program</p> <p>Participants (n)</p> <p>Drop-outs (n)</p> <p>Program Deliverer</p>	<p><i>Regular curriculum</i></p> <p><i>374</i></p> <p><i>Year 1: 31</i></p> <p><i>Year 2: 18</i></p> <p><i>Post: 325 completers</i></p>
<p>Outcomes</p>	<p><i>Outcome</i></p> <p><u><i>Self-control</i></u></p> <p><i>To assess ability to control ones impulses and interrupt undesired behaviors</i></p> <p><i>The short version of the Self-Control Scale (Finkenauer et al., 2005)</i></p> <p><u><i>Self-reflection</i></u></p> <p><i>Measure the extent to which students inspect and evaluate personal thoughts, feelings, and behaviors</i></p> <p><i>Engage subscale from the Self-Reflection and Insight Scale (Sauter et al., 2010)</i></p> <p><u><i>Self-esteem</i></u></p> <p><i>Level of global self-worth</i></p>

	<p><i>Global self-perception of the Self-Perception Profile (Harter, 1988)</i></p> <p><u><i>Emotional self-regulation</i></u></p> <p><i>Assess the abilities to control emotions and access to emotion regulation strategies</i></p> <p><i>Difficulties in Emotion Regulation Scale (Anderson et al., 2016)</i></p>
Comments	<p><u><i>Distal outcomes</i></u></p> <p><i>Intrapersonal domain:</i></p> <p><i>Psychological wellbeing, Psychological Wellbeing subscale of the KIDSCREEN-27 (Ravens-Sieberer & The European KIDSCREEN Group, 2006).</i></p> <p><i>Resilience, Connor- Davidson Resilience Scale–Short Version (Davidson & Connor, 2017)</i></p> <p><i>Interpersonal domain:</i></p> <p><i>Interpersonal relations in the class, Classroom Peer Context Questionnaire (Boor-Klip et al., 2016)</i></p>
Risk of bias	<i>Moderate</i>

Author	Moazami-Goodarzi
Year	2021
Country	Finland
Ref	[17]
Study design	Quasi-experimental randomized controlled trial
Study protocol	No information
Setting	Early Childhood Education centers
Inclusion criteria	Parental consent
Follow up	End of intervention (11 weeks)
Population characteristics	3–6-year-old children Intervention group: Age; Mean (SD): 60.95 months (11.56) Sex;(Percent girls): 62 Socioeconomic/educations; Mean (SD): At the baseline, 80% of parents were employed, and 15% were housewives/househusbands. A total of 60% of parents had a university degree, and 40% had secondary education. Control group: Age; Mean (SD): 58.52 months (14.76) Sex;(Percent girls): 49 Socioeconomic/educations; Mean (SD): At the baseline, 80% of parents were employed, and 15% were housewives/househusbands. A total of 60% of parents had a university degree, and 40% had secondary education.
Intervention program	Roundies
Program extent	Number of sessions:19 Intensity: 45 min Duration: 11 weeks Attendance: No information Implementation: No information
Participants (n)	222
Drop-outs (n)	86
Program Deliverer	Training: 8 sessions a 55 min
Comparison program	Regular curriculum
Participants (n)	98
Drop-outs (n)	40
Program Deliverer	Not applicable
Outcomes	Outcome <u>Social-emotional behaviors</u> The Strength and Difficulties Questionnaire (SDQ), Teachers and parents

Comments	<i>Other Outcomes:</i>
Risk of bias	<i>Moderate</i>

Author	Mondi
Year	2021
Country	USA
Ref	[18]
Study design	Match-controll trial
Study protocol	No information
Setting	Prekindergarten
Inclusion criteria	Participants had to be enrolled in their respective program for at least four consecutive months to be included in analyses.
Follow up	Fall 2012 (4-6 weeks after start of intervention), Winter 2012/2013, Spring 2013 (End of term)
Population characteristics	<p>Intervention group:</p> <p>Age; Mean: 48.4</p> <p>Sex;(Percent girls): 51.6</p> <p>Socioeconomic/educations; Mean (SD):</p> <p>Eligible for free lunch, %: 85.4</p> <p>Control group:</p> <p>Age; Mean: 48.6</p> <p>Sex;(Percent girls): 50.2</p> <p>Socioeconomic/educations; Mean (SD):</p> <p>Eligible for free lunch, %: 83.2</p>
Intervention program	The Child-Parent Center (CPC) program.
Program extent	<p>Number of sessions: Not specified</p> <p>Intensity: Not specified</p> <p>Duration: Not specified</p> <p>Attendance: Not specified</p> <p>Implementation: Not specified</p>
Participants (n)	1724
Drop-outs (n)	No information
Program Deliverer	Training: training time was approximately two-and-a-half days GOLD® system
Comparison program	Regular curriculum
Participants (n)	906
Drop-outs (n)	No information
Program Deliverer	Not applicable
Outcomes	<p>Outcome</p> <p><u>Socio-emotional competencies</u></p> <p>Teaching Strategies Gold® (GOLD®), (Lambert, Kim, & Burts, 2013)</p> <ul style="list-style-type: none"> - regulating emotions and behaviors - establishing and sustaining positive relationships

	- <i>participating cooperatively and constructively in group situations</i>
Comments Risk of bias	<i>Moderate</i>

Author	Paik
Year	2021
Country	China
Ref	[19]
Study design	Cluster-randomized controlled trial
Study protocol	No information
Setting	Preschool
Inclusion criteria	No information
Follow up	Post intervention, 14 days
Population characteristics	Pre-schoolers aged 3-5 Intervention group: Age; Mean (SD): 56.05 (6.39) Sex;(Percent girls): 45 Socioeconomic/educations; Mean (SD): predominantly middle- to upper-middle class population. Control group: Age; Mean (SD): 59.95 (5.71) Sex;(Percent girls): 45 Socioeconomic/educations; Mean (SD): predominantly middle- to upper-middle class population.
Intervention program	Global Classroom SEL
Program extent	Number of sessions: 14 Intensity: 1 hour, 2 per day one in morning one in afternoon Duration: 2 weeks Attendance: No information Implementation: No information
Participants (n)	58
Drop-outs (n)	25
Program Deliverer	Trained San Francisco State University psychology students who partnered with Chinese college students in coteaching the lessons. Training: A semester-long course designed to prepare them for international service-learning in teaching within preschool settings
Comparison program	Regular curriculum
Participants (n)	58
Drop-outs (n)	20
Program Deliverer	Not applicable
Outcomes	Outcome <u>Emotion Knowledge</u> The Emotion Matching Task (EMT; Izard et al., 2003)

Comments Risk of bias	<i>Moderate</i>

Author	<i>Resurreccion</i>
Year	<i>2021</i>
Country	<i>Spain</i>
Ref	<i>[20]</i>
Study design	<i>Non-randomized quasi-experimental study</i>
Study protocol	<i>No information</i>
Setting	<i>Primary education school</i>
Inclusion criteria	<i>School not in any other SEL-program, school consent and parents' consent.</i>
Follow up	<i>End of schoolyear</i>
Population characteristics	<p><i>Intervention group:</i></p> <p><i>Age; Mean (SD): 8.72 (0.67)</i></p> <p><i>Sex;(Percent girls): 55.2 % girls for total population</i></p> <p><i>Socioeconomic/educations; Mean (SD): No information.</i></p> <p><i>Control group:</i></p> <p><i>Age; Mean (SD): 9.82 (0.72)</i></p> <p><i>Sex;(Percent girls): 55.2 % girls for total population</i></p> <p><i>Socioeconomic/educations; Mean (SD): No information.</i></p>
Intervention program	<i>Learning to Be project (L2B)</i>
Program extent	<p><i>Number of sessions: adapted SEL standards from Illinois State Board of Education (Illinois State Board of Education (ISBE), 2018) and proposed a framework for SEL implementation at schools in Europe [for a review of the project see Aguilar et al. (2019)].</i></p> <p><i>Intensity: No information</i></p> <p><i>Duration: 5 months</i></p> <p><i>Attendance: No information</i></p> <p><i>Implementation: No information</i></p>
Participants (n)	<i>103</i>
Drop-outs (n)	<i>No information</i>
Program Deliverer	<p><i>Classroom teachers</i></p> <p><i>Training: 16 h (three sessions) on SEL principles</i></p>
Comparison program	<i>Regular curriculum, waiting list</i>
Participants (n)	<i>118</i>
Drop-outs (n)	<i>No information</i>
Program Deliverer	<i>Not applicable</i>
Outcomes	<p><i>Outcome</i></p> <p><u><i>Self-esteem</i></u></p> <p><i>Self-esteem Scale (Rosenberg, 1979; Tuominen-Soini et al., 2008)</i></p>

	<p><u>Socio-emotional competencies</u></p> <p><i>Social Emotional Competence Questionnaire (SECQ; Zhou and Ee, 2012)</i></p> <ul style="list-style-type: none"> - <i>self-awareness,</i> - <i>social awareness,</i> - <i>self-management,</i> - <i>relationship management,</i> - <i>responsible decision-making</i> -
<p>Comments</p> <p>Risk of bias</p>	<p><i>Moderate</i></p>

Author	<i>Shapiro</i>
Year	2022
Country	USA
Ref	[21]
Study design	<i>Randomized controlled trial</i>
Study protocol	<i>No information</i>
Setting	<i>Elementary school</i>
Inclusion criteria	<i>No information</i>
Follow up	<i>Start of intervention (October), Middle of intervention (December/January), End of intervention (April/May)</i>
Population characteristics	<p><i>Intervention group 1:</i></p> <p><i>Age; Mean (SD): 6.01 (0.95)</i></p> <p><i>Sex;(Percent girls): 49.5</i></p> <p><i>Socioeconomic/educations; Mean (SD):</i></p> <p><i>Free and reduced priced lunch eligibility (percent): 66.4</i></p> <p><i>Intervention group 2:</i></p> <p><i>Age; Mean (SD): 6.08 (0.84)</i></p> <p><i>Sex;(Percent girls): 47.2</i></p> <p><i>Socioeconomic/educations; Mean (SD):</i></p> <p><i>Free and reduced priced lunch eligibility(percent): 66.8</i></p> <p><i>Control group:</i></p> <p><i>Age; Mean (SD): 6.05 (0.87)</i></p> <p><i>Sex;(Percent girls): 49.3</i></p> <p><i>Socioeconomic/educations; Mean (SD):</i></p> <p><i>Free and reduced priced lunch eligibility (percent): 70.3</i></p>
Intervention program 1	<i>TOOLBOX Standard</i>
Program extent	<p><i>Number of sessions: 17</i></p> <p><i>Intensity: No information</i></p> <p><i>Duration: No information</i></p> <p><i>Attendance: No information</i></p> <p><i>Implementation: SEL Implementation Survey (SEL-IS) (cumulative number)</i></p> <p><i>Fall: 5.24 (4.15)</i></p> <p><i>Winter: 8.04 (3.69)</i></p> <p><i>Spring: 11.64 (4.26)</i></p>
Participants (n)	562
Drop-outs (n)	<i>No information</i>

Program Deliverer	<i>Training: 6-hour training was provided to teachers and staff</i>
Intervention program 2	<i>TOOLBOX Primer</i>
Program extent	<i>Number of sessions: 17 Intensity: No information Duration: No information Attendance: No information Implementation: SEL Implementation Survey (SEL-IS) (cumulative number) Fall: 5.91 (3.15) Winter: 8.46 (4.05) Spring: 11.04 (4.90)</i>
Participants (n)	<i>608</i>
Drop-outs (n)	<i>No information</i>
Program Deliverer	<i>Training: 6-hour training was provided to teachers and staff</i>
Comparison program	<i>Regular curriculum</i>
Participants (n)	<i>596</i>
Drop-outs (n)	<i>No information</i>
Program Deliverer	<i>Not applicable</i>
Outcomes	<i>Outcome <u>Social-Emotional Competence</u> Devereux Student Strengths Assessment-Mini (DESSA-Mini), (Naglieri et al., 2011a)</i>
Comments	
Risk of bias	<i>Moderate</i>

Author	<i>Shi</i>
Year	2022
Country	<i>China</i>
Ref	[22]
Study design	<i>Quasi-experimental controlled design</i>
Study protocol	<i>No information</i>
Setting	<i>Elementary school</i>
Inclusion criteria	<i>Written informed consent was obtained from each participating student and their parents.</i>
Follow up	<i>End of intervention (4 months)</i>
Population characteristics	<p><i>Grade 5 students</i></p> <p><i>Intervention group:</i></p> <p><i>Age; Mean (SD):</i></p> <p><i>Sex;(Percent girls): 30</i></p> <p><i>Socioeconomic/educations; Mean (SD): Socioeconomic status</i></p> <p><i>Low 27%</i></p> <p><i>Middle 73%</i></p> <p><i>Control group:</i></p> <p><i>Age; Mean (SD):</i></p> <p><i>Sex;(Percent girls): 46</i></p> <p><i>Socioeconomic/educations; Mean (SD): Socioeconomic status</i></p> <p><i>Low 31%</i></p> <p><i>Middle 66%</i></p>
Intervention program	<i>CASEL designed for Chinese elementare school</i>
Program extent	<p><i>Number of sessions: 12</i></p> <p><i>Intensity: weekly 40 min lessons</i></p> <p><i>Duration: 4 months</i></p> <p><i>Attendance: No information</i></p> <p><i>Implementation: No information</i></p>
Participants (n)	181
Drop-outs (n)	17
Program Deliverer	<p><i>Classroom teachers</i></p> <p><i>Training: Written information about each lesson</i></p>
Comparison program	<i>Usual curriculmum</i>
Participants (n)	185
Drop-outs (n)	14
Program Deliverer	<i>Not applicable</i>
Outcomes	<i>Outcome</i>

	<p><u>Social Emotional Skills</u> <i>Student-reported social emotional skills scale (SESS; Shi et al., 2022).</i></p> <p><u>Mental Health</u> <i>Chinese version of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997)</i></p>
Comments	
Risk of bias	<i>Moderate</i>

Author	<i>Sirvinskiene</i>
Year	2022
Country	<i>Lithuania</i>
Ref	[23]
Study design	<i>Quasi-experimental trial with matching control group</i>
Study protocol	<i>No information</i>
Setting	<i>Preschool</i>
Inclusion criteria	<i>The inclusion criterion for the children participating was that the child was 3–6 years old and signed informed consent by parents.</i>
Follow up	
Population characteristics	<p><i>Intervention group:</i></p> <p><i>Age; Mean (SD): 60.5% were 3-4 years, 39.5 % 5-6 years</i></p> <p><i>Sex;(Percent girls): 55</i></p> <p><i>Socioeconomic/educations; Mean (SD):</i></p> <p><i>Parental education n (%)</i></p> <p><i>Secondary or lower 7 (8.1)</i></p> <p><i>Vocational 8 (9.3)</i></p> <p><i>Higher (non-university) 21 (24.4)</i></p> <p><i>Higher (university) 21 (58.1)</i></p> <p><i>Total 86 (100)</i></p> <p><i>Control group:</i></p> <p><i>Age; Mean (SD): 63.0% were 3-4 years, 37.0 % 5-6 years</i></p> <p><i>Sex;(Percent girls): 50</i></p> <p><i>Socioeconomic/educations; Mean (SD):</i></p> <p><i>Parental education n (%)</i></p> <p><i>Secondary or lower 5 (9.3)</i></p> <p><i>Vocational 10 (18.5)</i></p> <p><i>Higher (non-university) 7 (13.0)</i></p> <p><i>Higher (university) 32 (59.3)</i></p> <p><i>Total 54 (100)</i></p>
Intervention program	<i>ELLA training program</i>
Program extent	<p><i>Number of sessions: 8</i></p> <p><i>Intensity: Twice weekly 30-60 min</i></p> <p><i>Duration: 4-5 weeks</i></p> <p><i>Attendance</i></p> <p><i>Implementation:</i></p>
Participants (n)	89
Drop-outs (n)	3

Program Deliverer	<i>Trained specialists—a psychologist and a kindergarten educator</i> <i>Training: No information</i>
Comparison program	<i>Regular curriculum</i>
Participants (n)	<i>54</i>
Drop-outs (n)	<i>0</i>
Program Deliverer	<i>Not applicable</i>
Outcomes	<i>Outcome</i> <i>The EMK 3–6 inventory (germ. Inventar zur Erfassung Emotionaler Kompetenzen bei Drei-bis Sechsjährigen, EMK 3–6)</i> <i>EMK Screening lärarskattningar om Emotionell kunskap C1, Empati C3 och Själv-kontroll C2</i> <i>EMK 3-6 psykologobservationer om Primary emotion C3, Secondary emotion C2, Prosocial behaviour C3</i>
Comments	
Risk of bias	<i>Moderate</i>

Referenser

1. Allen TT, Ashmore L, Gordon S, Tate A, Cook LG, Chapman SB. Charisma™: A virtual reality training to promote Social BrainHealth in adults. In: Nangle DW, Erdley CA, Schwartz-Mette RA, editors. Social skills across the life span: Theory, assessment, and intervention. San Diego, CA: Elsevier Academic Press; 2020. p. 295-309.
2. Al-Jbouri E, Andrews NCZ, Peddigrew E, Fortier A, Weaver T. Building elementary students' social and emotional skills: A randomized control trial to evaluate a teacher-led intervention. *School Mental Health*. 2023;15(1):138-50. Available from: <https://doi.org/10.1007/s12310-022-09538-x>.
3. Arda Tuncdemir TB, Burroughs MD, Moore G. Effects of Philosophical Ethics in Early Childhood on Preschool Children's Social-Emotional Competence and Theory of Mind. *International Journal of Child Care and Education Policy*. 2022;16.
4. Coelho VA, Brás P, Matsopoulos A. Differential effectiveness of an elementary school social and emotional learning program during middle school transition in Portugal. *School Psychology*. 2021;36(6):475-82. Available from: <https://doi.org/10.1037/spq0000454> 10.1037/spq0000454.supp (Supplemental).
5. Domitrovich CE, Harris AR, Syvertsen AK, Morgan N, Jacobson L, Cleveland M, et al. Promoting social and emotional learning in middle school: Intervention effects of Facing History and Ourselves. *Journal of Youth and Adolescence*. 2022;51(7):1426-41. Available from: <https://doi.org/10.1007/s10964-022-01596-3>.
6. Green AL, Ferrante S, Boaz TL, Kutash K, Wheeldon-Reece B. Effects of the SPARK Teen Mentoring Program for High School Students. *Journal of Child & Family Studies*. 2022;31(7):1982-93. Available from: <https://doi.org/10.1007/s10826-022-02298-x>.
7. Justicia-Arreaez A, Pichardo MC, Romero-Lopez M, Alba G. Can We Manage Behavioral Problems through the Development of Children's Social-Emotional Regulated Behavior? Longitudinal Study of a Preschool Program. *Int J Environ Res Public Health*. 2021;18(16):10. Available from: <https://doi.org/10.3390/ijerph18168447>.
8. Kapetanovic S, Ginner Hau H, Eichas K, Olsson TM, Ferrer-Wreder L, Eninger L. Does attending preschool in an economically advantaged or disadvantaged neighborhood moderate the effects of the preschool edition of promoting alternative thinking strategies®? *Frontiers in Education*. 2022;7. Available from: <https://doi.org/10.3389/educ.2022.978662>.
9. Kats Gold I, Kopelman-Rubin D, Mufson L, Klomek AB. I Can Succeed for Preschools: A Randomized Control Trial of a New Social-Emotional Learning Program. *Early Education and Development*. 2021;32(3):343-59.
10. Kemple KM, Lee I, Ellis SM. The impact of a primary prevention program on preschool children's social-emotional competence. *Early Childhood Education*

- Journal. 2019;47(6):641-52. Available from: <https://doi.org/10.1007/s10643-019-00963-3>.
11. Kim HY, Brown L, Tubbs Dolan C, Gjicali K, Deitz R, Prieto Bayona MdS, Aber JL. Testing the impact of a skill-targeted social and emotional learning curriculum and its variation by pre- and postmigration conflict experiences: A cluster randomized trial with Syrian refugee children in Lebanon. *Journal of Educational Psychology*. 2023. Available from: <https://doi.org/10.1037/edu0000775> 10.1037/edu0000775.supp (Supplemental).
 12. Kopelman-Rubin D, Mufson L, Siegel A, Kats-Gold I, Weiss N, Brunstein-Klomek A. I Can Succeed, a New Social Emotional Learning Program for Children Based on Interpersonal Psychotherapy for Adolescents. *European Journal of Developmental Psychology*. 2021;18(1):112-30.
 13. Malinauskas R, Malinauskiene V. Training the social-emotional skills of youth school students in physical education classes. *Frontiers in Psychology*. 2021;12. Available from: <https://doi.org/10.3389/fpsyg.2021.741195>.
 14. McCoy DC, Hanno EC, Ponczek V, Pinto C, Fonseca G, Marchi N. Um Compasso Para Aprender: A Randomized Trial of a Social-Emotional Learning Program in Homicide-Affected Communities in Brazil. *Child Development*. 2021;92(5):1951-68. Available from: <https://doi.org/10.1111/cdev.13579>.
 15. Merrin GJ, Low S. Who benefits from universal sel programming?: Assessment of second step© using a growth mixture modeling approach. *School Mental Health: A Multidisciplinary Research and Practice Journal*. 2022. Available from: <https://doi.org/10.1007/s12310-022-09542-1>.
 16. Mertens ECA, Dekovic M, Van Londen M, Nye E, Reitz E. Solid as a rock, flexible as water? Effectiveness of a school-based intervention addressing students' intrapersonal and interpersonal domains. *Journal of School Psychology*. 2022;92:1-18. Available from: <https://doi.org/10.1016/j.jsp.2022.02.002>.
 17. Moazami-Goodarzi A, Zarra-Nezhad M, Hytti M, Heiskanen N, Sajaniemi N. Training Early Childhood Teachers to Support Children's Social and Emotional Learning: A Preliminary Evaluation of Roundies Program. *Int J Environ Res Public Health*. 2021;18(20):12. Available from: <https://doi.org/10.3390/ijerph182010679>.
 18. Mondí CF, Reynolds AJ. Socio-Emotional Learning among Low-Income Prekindergarteners: The Roles of Individual Factors and Early Intervention. *Early Education and Development*. 2021;32(3):360-84.
 19. Paik JH, Duh S, Lopez C, Rodriguez R. Emotion knowledge and theory of mind among chinese preschoolers: A curriculum-based approach. *Early Education and Development*. 2021. Available from: <https://doi.org/10.1080/10409289.2021.1995258>.
 20. Resurreccion DM, Jimenez O, Menor E, Ruiz-Aranda D. The Learning to Be Project: An Intervention for Spanish Students in Primary Education. *Frontiers in Psychology*. 2021;12:632617. Available from: <https://doi.org/10.3389/fpsyg.2021.632617>.
 21. Shapiro VB, Lee J, Kim B-KE. Toolbox effects on k-2 student growth in social-emotional competence: Evidence from a quasi-experimental study. *Contemporary*

- School Psychology. 2022. Available from: <https://doi.org/10.1007/s40688-022-00441-5>.
22. Shi J, Cheung ACK. The Impacts of a Social Emotional Learning Program on Elementary School Students in China: A Quasi-Experimental Study. *Asia-Pacific Education Researcher*. 2022. Available from: <https://doi.org/10.1007/s40299-022-00707-9>.
 23. Širvinskienė G, Antinienė D, Griciūtė A, Dulksnienė L, Asisi V, Kregždytė R, et al. Effectiveness of the ELLA Training for the Promotion of Emotional and Social Competences in Lithuanian Preschool Children. *International Journal of Environmental Research and Public Health*. 2022;19(19):12195. Available from: <https://doi.org/10.3390/ijerph191912195>.