UNIVERSITY OF OREGON | HEDCO Institute

How can early childhood educators support students' interpersonal problem-solving skills?

Findings from a systematic review show that programs have large beneficial effects for young children.



A summary of findings from McMullen and colleagues, 2026

This report summarizes findings from:

Teaching Interpersonal Problem-Solving Skills to Young Children in Early Childhood Education and Care (ECEC) Settings: An Integration of Evidence

Evelyn McMullen **Samantha Burns**
Michal Perlman **Olesya Falenchuk**
Department of Applied Psychology and Human Development, Ontario Institute for Studies in Education (OISE), University of Toronto

Linda White
Departments of Political Science, Munk School of Global Affairs & Public Policy, University of Toronto

Elizabeth Dhuey
Department of Management, University of Toronto, Scarborough

McMullen, E., Perlman, M., Burns, S., Falenchuk, O., White, L., & Dhuey, E. (2026). Teaching Interpersonal Problem-Solving Skills to Young Children in Early Childhood Education and Care (ECEC) Settings: An Integration of Evidence. Review of Educational Research, https://doi.org/10.3102/0034654325139966.

This pamphlet was produced by:

The HEDCO Institute for Evidence-Based Educational Practice
College of Education | University of Oregon

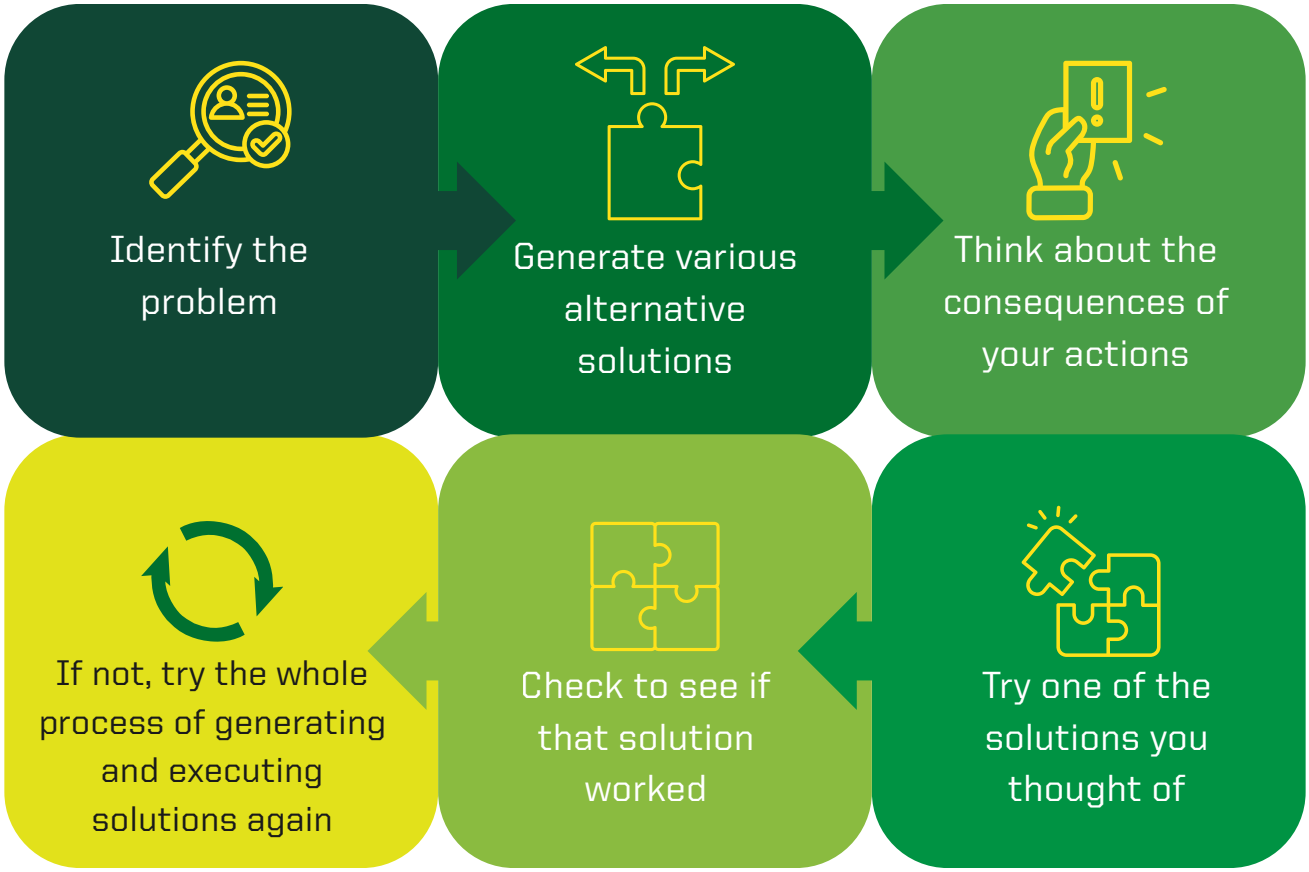
Designed by: Joe Golfen and Elizabeth Day, HEDCO Institute for Evidence-Based Educational Practice

Recommended citation: Day, E., Golfen, J., & Han, D. (2026). How can early childhood educators support students' interpersonal problem-solving skills? https://hedcoinstitute.uoregon.edu/evidence-hub
https://doi.org/10.17605/OSF.IO/Z39E8

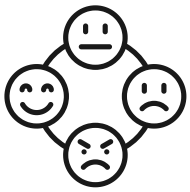
Interpersonal problem-solving

Interpersonal problem-solving is a complex process that requirese children to use social, emotional, and cognitive abilities to achievee a specific end or overcome a problem.[1]

Basic steps in the IPS process[2]



Navigating interpersonal problem-solving involves:



Social-emotional competencies

- Emotional intelligence
- Social skills
- Emotional regulation
- Perspective taking



Cognitive competencies

- Executive functioning skills
- Cause and effect recognition
- Cognitive flexibility
- Critical or divergent thinking
- Metacognition

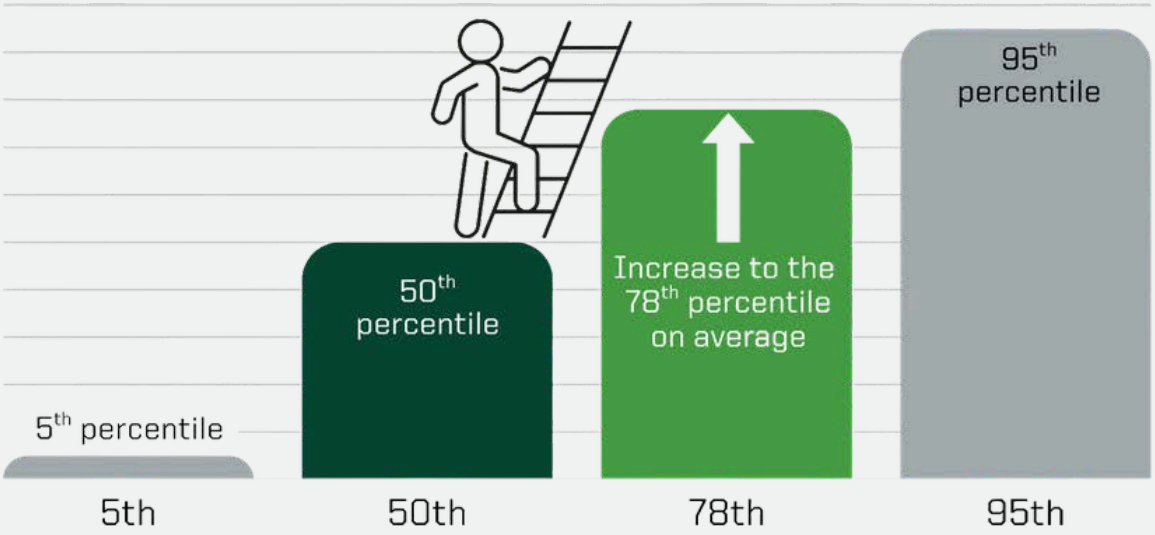
Interpersonal problem-solving skills are an essential skill for children's positive developmental trajectories.[3,4]



Can school programs improve students' interpersonal problem-solving skills?

Yes. Programs in this review had **large beneficial effects** on students' interpersonal problem-solving skills.

A student with average interpersonal problem-solving skills would move to the 78th percentile on average with this size of an effect.



This size of effect is based on a standardized mean difference of 0.76
SE = .10, $p < .001$, 95% CI [0.57, 0.95]

The authors noted that content-specific, skills-focused training was particularly effective in supporting students.

Analyses showed no difference in outcomes based on: students' age, students' risk status, who led the intervention, geographic location, or number of sessions, suggesting these programs are likely beneficial for a broad range of students and schools.

99% chance+

There is a 99% chance programs will benefit students in your school

+Assuming your students and school are similar to those included in this study.

Which program should I use?

We don't know.

The findings from this review can't point to the benefits of one program over another. However, we have compiled details of the programs included in this review that have accessible curricula and have been rated in well-respected and high-quality U.S.-based evidence clearinghouses including Evidence for ESSA and the California Evidence-Based Clearinghouse.

What's an evidence clearinghouse?

Evidence clearinghouses compile available effectiveness data for individual programs. Researchers evaluate the quality of the evidence and designate ratings for the level of evidence that supports a program. The scales differ from one clearinghouse to another, but still offer a useful tool for assessing if a program has been formally evaluated and what the evidence tells us about its effectiveness.

Ratings color coding:

Reviewed: Strong Evidence	Reviewed: Moderate Evidence	Reviewed: Promising Evidence
Reviewed: No significant effects	No studies met inclusion requirements	Program not reviewed

Programs in this review that do not appear in an evidence clearinghouse:

1. Children's school success
2. Sunshine Circles group theraplay
3. Verbal Cognitive Interpersonal Problem-Solving program

Effects of the PATHS curriculum were not statistically significant in this review and its What Works Clearinghouse rating was the same: no discernable effects.

Note: The HEDCO Institute is not affiliated with, nor have any financial interests, in any of the programs included in this review.

Program profiles

Tools of the Mind

Tools of the Mind is a professional development and comprehensive early childhood program that embeds development of executive functions and self-regulation into the design of all teaching and learning activities. The program leverages make-believe play and a classroom culture of co-regulation and peer scaffolding to build children's foundational skills in reading, writing, mathematics, and science while at the same time promoting pro-social behaviors and positive approaches to learning.

Cost & Training Requirements	Study Quality*
Cost is about $3750/classroom in year one, which includes : 5 days of in-person PD for one teacher, one assistant, and one administrator, subscription to online implementation resources, and additional assessment tools. Additional training is required in Year 2 ($3,000 per classroom, which includes extended subscriptions). Additional costs may be required.	1 study in this review included Tools of the Mind. Rating = 36 out of 42 possible quality points

Clearinghouse ratings

Evidence for ESSA outcomes

Problem behaviors: Strong	Social relationships: Strong	Emotional well-being: Strong	Academic: No significant effects

California Evidence-based Clearinghouse outcomes

Program not reviewed

*The authors assessed study quality using the Quality Assessment Tool for Studies with Diverse Designs[5]

I Can Problem Solve

The I Can Problem Solve (ICPS) program is a prevention program that supports social and emotional learning. ICPS teaches students how to generate alternative solutions, anticipate consequences, and effectively solve problems. It is designed for use in PreK through the elementary grades. There are 59 lessons for PreK. ICPS can be implemented in large, mid-size and small school districts. It can be implemented as a stand-alone program or combined with other school climate initiatives or social and emotional programs.

Cost & Training Requirements	Study Quality
ICPS Implementation Training of Trainers (up to 50 people) is $4800 + travel expenses. Training includes 2 full days of on-site training, virtual training following implementation, 5 hours of coaching and consultation. Curriculum must be purchased separately from Research Press www.researchpress.com and costs approximately $40/classroom.	11 studies in this review included ICPS. Average = 28 out of 42 possible quality points, range: 23-33 points

Clearinghouse ratings

Evidence for ESSA outcomes

Problem behaviors: Not measured	Social relationships: No significant effects	Emotional well-being: Promising	Academic: Not measured

California Evidence-Based Clearinghouse outcomes

Disruptive behavior treatment: Promising	Early intervention: Promising

Incredible Years Dinosaur Curriculum

The IY Child Dinosaur Curriculum is designed for children ages 4-8 years and focuses on teaching children emotional literacy and self-regulation, problem solving, anger management and social skills. 60 classroom lessons are delivered 2-3 times a week by teachers. Circle time lessons are generally 20-30 minutes and are followed by small group activities designed to practice the skills being taught.

Cost & Training Requirements	Study Quality
Group leaders or teachers participate in a 3-day initial training. Following the initial training, group leaders or teachers begin leading the program and receive consultation from The Incredible Years trainers and mentors. The curriculum costs $795 and initial training fees are $890.	3 studies in this review included IY Child Dinosaur Curriculum. Average = 31 out of 42 possible points, range: 26-36 points

Clearinghouse ratings

Evidence for ESSA outcomes

Problem behaviors: Promising	Social relationships: No significant effects	Emotional well-being: No signifigant effects	Academic: Not measured

California Evidence-Based Clearinghouse outcomes

Disruptive behavior treatment: Promising	Early intervention: Not measured

Positive Action

Positive Action is designed to improve social-emotional and achievement outcomes by building self-control, goal-setting, problem-solving, persistence, and other skills. Students learn these skills through structured discussions and activities, games, and role plays. Teachers receive detailed manuals and materials to support 140 15-20 minute lessons per year (4 days per week). Parents also receive handbooks that parallel the school lessons.

Cost & Training Requirements	Study Quality
Training involves initial training and annual follow-up training. Cost for the PreK starter kit is $590, and $315 annually for license and materials. An analysis found that Positive Action can provide a cost-benefit ratio of $182.07. This means for every dollar spent teaching Positive Action, local and state governments can save at least $182.07 in other services that would otherwise be dispensed in a reactionary form.	1 study in this review included Positive Action. Rating = 37 out of 42 possible quality points

Clearinghouse ratings

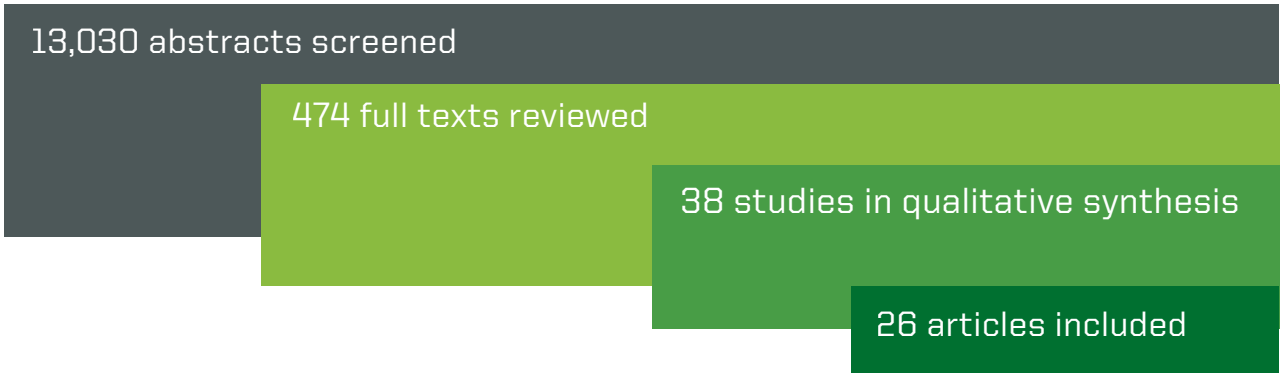
Evidence for ESSA outcomes (studied in grades 1-8)

Problem behaviors: Promising	Social relationships: No significant effects	Emotional well-being: Not measured	Academic: Strong

California Evidence-Based Clearinghouse outcomes

Disruptive behavior treatment: Not measured	Early intervention: Promising

Methods

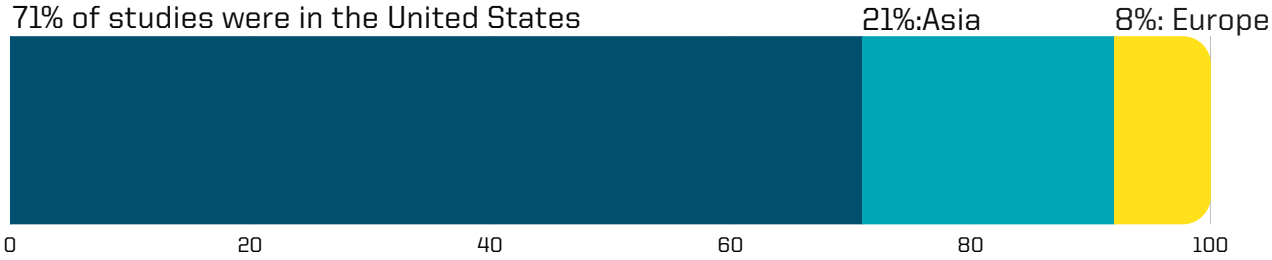


Papers in the review were published between 1972 and 2019

Student characteristics

The children in the studies ranged in age from 2 to 6 years.

7,627 children from three continents:



Fifty-three percent (n = 20) of the papers reported samples identified as “at risk” and 47% did not report risk characteristics for the sample.

Family income:

- 42% of studies (n = 16) had samples from low-income families
- 16% (n = 6) from low-to-middle or middle-income households
- 3% (n = 1) from middle-to-upper or upper-income
- 39% (n = 15) did not report socioeconomic status information

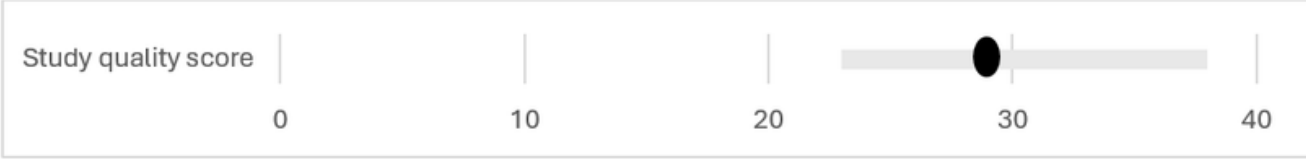
Study design:

- 37% of studies (n = 14) reported children were randomly assigned to intervention and comparison/control conditions
- 61% (n = 23) had quasi-experimental designs
- 2% (n = 1) were correlational

Study Quality

The authors of this review assessed study quality for the selected papers using the Quality Assessment Tool for Studies with Diverse Designs (QATSDD).[v] The average quality rating scores using the QATSDD for the 38 eligible papers in the current review were 29.05 (range of 23 to 38) out of a total score of 42.

Average quality score was 29.05 (range of 23 to 38) out of 42



Eighty-seven percent (n = 33) of the papers had scores indicating quality (scores of 25 or higher).

Items showing the lowest level of quality often lacked reporting for:

- sample size consideration a priori
- reliability and validity of instruments
- involvement in study design
- discussion regarding the strengths and limitations of their study

References:

1. Blissett, S.E. and McGrath, R.E. (1996), The Relationship between Creativity and Interpersonal Problem-Solving Skills in Adults. The Journal of Creative Behavior, 30: 173-182.
2. Barnes, T. N., Wang, F., & O'Brien, K. M. (2018). A meta-analytic review of social problem-solving interventions in preschool settings. Infant and Child Development, 27(5); Joseph, G. E., & Strain, P. S. (2010). Teaching young children interpersonal problem-solving skills. Young Exceptional Children, 13(3), 28-40.
3. Araujo, M. C., Dormal, M., & Schady, N. (2019). Childcare quality and child development. Journal of Human Resources, 54(3), 656–682. https://doi.org/10.3368/jhr.54.3.0217.8572R1
4. Mahoney, J., Weissberg, R., Greenberg, M., Dusenbury, L., Jagers, R., Niemi, K., Schlinger, M., Schlund, J., Shriver, T., VanAusdal, K., & Yoder, N. (2021). Systemic social and emotional learning: Promoting educational success for all preschool to high school students. American Psychologist, 76, 1128–1142. https://doi.org/10.1037/amp0000701
5. Sirriyeh, R., Lawton, R., Gardner, P., & Armitage, G. (2012). Reviewing studies with diverse designs: the development and evaluation of a new tool. Journal of evaluation in clinical practice, 18(4), 746-752.

UNIVERSITY OF OREGON | HEDCO Institute

HEDCO Institute for Evidence-Based Educational Practice

College of Education | University of Oregon

The HEDCO Institute for Evidence-Based Educational Practice is dedicated to strengthening connections between research and practice in K-12 education in the United States.

Part of the University of Oregon's College of Education, the HEDCO Institute provides education leaders with relevant, accessible, and reliable information about the latest research so they can implement evidence-informed practices and policies.

hedcoinstitute.uoregon.edu

hedcoinstitute@uoregon.edu

linkedin.com/showcase/hedco-institute