

PREPARING PRESERVICE TEACHERS TO IMPLEMENT SEL STRATEGIES:

ONE APPROACH TO DISRUPT THE SCHOOL-TO-PRISON PIPELINE

by

Mary K. Langford

Submitted in partial fulfillment of the
requirements for Departmental Honors in
the Department of Education
Texas Christian University
Fort Worth, Texas

May 8, 2023

PREPARING PRESERVICE TEACHERS TO IMPLEMENT SEL STRATEGIES:
ONE APPROACH TO DISRUPT THE SCHOOL-TO-PRISON PIPELINE

Project Approved:

Supervising Professor: Endia Lindo, Ph.D.

Department of Education

Pablo Montes, Ph.D.

Department of Education

ABSTRACT

The focus of this review was to evaluate the effectiveness of two social-emotional learning interventions in creating positive behavioral and academic outcomes to disrupt the school-to-prison pipeline. The interventions Promoting Alternative Thinking Strategies (PATHS) and Second Step were used because they have research-based curriculum for both elementary and secondary learners. Providing teachers with the tools to help improve student behavior, conduct, and academic proficiency has the potential to disrupt the pipeline by creating a sense of belonging, building relationships, and teaching students how to manage emotions. This literature review examined the relationship between the implementation of both SEL interventions in schools and behavioral and academic outcomes for kindergarten through middle school students. Nine studies on both interventions are included, and five reported significant positive impacts on behavioral outcomes following SEL education. Findings indicate a promising start for SEL, but more research is needed on academic outcomes and outcomes for secondary learners.

Preparing Preservice Teachers to Implement SEL Strategies:

One Approach to Disrupt the School-to-Prison Pipeline

The school-to-prison pipeline is a prevalent phenomenon plaguing public education. The pipeline is characterized by the “practices and policies disproportionately placing students of color in the criminal justice system” and uses zero-tolerance disciplinary practices to permanently exclude students from school (American University, 2021). One promising method of combatting the pipeline is utilizing social-emotional learning (SEL) strategies to teach students how to manage emotions, show empathy, and build relationships (CASEL, 2022). SEL is a proactive solution to disrupting the pipeline because it teaches students the non-cognitive skills needed to lessen behavioral issues and keep them in the classroom. This literature review examines two evidence-based SEL strategies that can be used to aid in disrupting the school-to-prison pipeline.

The School-to-Prison Pipeline

The school-to-prison pipeline is a harmful phenomenon where youth of color are “isolated, punished, and pushed out” of public schools and into the criminal justice system (ACLU, 2023, “School-to-Prison Pipeline”). The pipeline utilizes zero-tolerance disciplinary policies, which “punish students by suspending or expelling students regardless of the seriousness of their behavior or context of their actions,” (Lee, 2023). Students receive court referrals, suspensions, and expulsions which result in an increased likelihood of dropping out of school (American University, 2021). Following an instance of misbehavior, there are no second chances because schools are no longer using temporary suspensions or detention. They are instead using juvenile detention and expulsion to permanently remove students from the classroom (Bacher-Hicks, Billings, & Deming, 2021). The pipeline can take effect with children as young as preschool. While Black children made up 18% of preschool students, they accounted

for 48% of suspensions, demonstrating the overrepresentation and push-out of students of color in public education (Flannery, 2015). In the 2015-16 school year, 2.7 million K-12 students received one or more out-of-school suspensions, and Black male and female students represented 25% and 14% of suspensions (American University, 2021). Because of the pipeline's large impact on students across the country, many educators and administrators have been searching for solutions to combat this phenomenon and keep students in the classroom.

Disrupting the Pipeline

Numerous methods have been identified as potential strategies to disrupt the pipeline. One strategy is using restorative practices, where discipline "is not to be punitive but rather to repair harm by restoring relationships" (Kamara, 2019). While there are benefits to implementing restorative practices, this strategy is reactive. Restorative practices are utilized after harm occurs. A more effective solution to the pipeline would be a proactive intervention to prevent harm from happening in the first place by teaching students skills like conflict resolution and emotional regulation. Social-emotional learning (SEL) as an instructional method strives to teach students non-cognitive skills, like managing emotions, developing empathy, setting goals, and building relationships, to lessen behavioral issues and keep students in the classroom. SEL can counteract the exclusion and lack of belonging that fuels the pipeline because it works to build the foundation for emotional success.

SEL Strategies

As defined by the Collaborative for Academic, Social, and Emotional Learning (CASEL), social-emotional learning is:

The process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive

relationships, and make responsible and caring decisions (CASEL, 2022, “Fundamentals of SEL”)

Social-Emotional Learning (SEL) strategies were developed to help students make gains in cognitive skills to foster success in the classroom. Researchers found SEL to be effective in creating positive academic and behavioral outcomes (Bierman et al., 2010; Crean & Johnson, 2013; Durlak et al., 2011). In a large-scale study of 270,034 kindergarten through high school students, students receiving SEL instruction saw significant improvements in achievement (Durlak et al., 2011). Over the course of one-year, elementary schools in Tennessee, Washington, and Pennsylvania saw increased concentration and improved academic engagement after implementing SEL in classrooms (Bierman et al., 2010). Students also showed reduced symptoms of anxiety and depression and fewer conduct problems as compared to a control group not receiving SEL instruction (Durlak et al., 2011). Crean and Johnson (2013) also found lower rates of aggressive social problem-solving in three elementary schools over a year when teaching SEL.

SEL strives to address behavior before an outburst. When a student is acting out, that is when they need an adult the most. Instead of offering guidance and help, adults are putting students in handcuffs. SEL strategies provide teachers with a framework and tools for teaching students skills like how to regulate emotions, ask for help, show empathy, and build relationships that can serve to thwart negative emotional responses from occurring. SEL curriculum teaches students to how to manage their behavior and builds trust with the adults in the classroom.

Many schools are choosing to forgo non-cognitive skill instruction to focus instead on cognitive skills and test preparation, which creates a gap in knowledge and understanding for students (Garcia, 2014). Personnel expect students to know how to regulate and build relationships but often do not offer formal lessons. SEL can help bridge the gap in knowledge

and change the classroom environment. Instead of creating a climate that is preying on a single mistake, the SEL curriculum creates a climate where students matter and where they are treated with empathy and respect regardless of their behavior. For these reasons, SEL strategies can be used to disrupt the school-to-prison pipeline by targeting exclusion, emotional regulation, and relationship building.

Strategy Identification

The purpose of this review is to examine the effectiveness of SEL strategies that have been implemented with elementary and middle school populations. While most SEL strategies focus on preschool students, middle school years were identified for this report because these years are a critical entry point into the criminal justice system, as most students reach the minimum age for prison at age thirteen (Pulkkinen, 2021). The Wallace Foundation identified thirty-three of the leading SEL interventions and compiled a report discussing program characteristics and outcomes (Jones et al., 2021). Two strategies including secondary curriculum in the report are Promoting Alternative Thinking Strategies (PATHS) (Kusché & Greenberg, 1994) and Second Step (Committee for Children, 2008). PATHS includes a curricular focus on emotional and behavioral regulation, conflict resolution, and inhibitory control. The program has between thirty-six and fifty-three fully-scripted lessons for teachers to implement twice or thrice weekly (Jones et al., 2021). Second Step curriculum focuses on inhibitory control, emotional knowledge and expression, and understanding social cues. The program extends between twenty-two and twenty-eight weeks with lessons ranging from five to forty-five minutes. Second Step provides fully-scripted lessons and assemblies (Jones et al., 2021). These strategies were identified for inclusion because they have positive outcomes, include curricula for middle school populations, and had a larger base of research for secondary learners.

Methods

Search and Article Selection

Educational Resources Information Center (ERIC) was searched to identify studies of the PATHS curriculum using the term “promoting alternative thinking strategies.” One electronic search returned forty-three articles. The abstracts of all forty-three articles were reviewed. After review, nine reports were identified to be read in full as potentially meeting inclusion criteria. Next, the nine reports were read in full and one was left as meeting inclusion criteria. The search was then expanded on Google Scholar using the term “promoting alternative thinking strategies,” which returned 4,250 results. After reviewing the first three search pages of results, 30 articles were identified for abstract review. After reviewing the abstracts, eight reports were identified to be read in full as potentially meeting inclusion criteria. After the eight reports were read in full, one report was left as meeting inclusion criteria. A reference search was conducted using Jones et al. (2021), which included five of the most recent reports conducted on PATHS. After excluding duplicates and evaluating based on inclusion criteria, one report on PATHS was left as meeting criteria. Searches yielded a total of three reports to be included in this review.

Educational Resources Information Center (ERIC) was also searched to identify studies of Second Step curriculum using the term “second step program.” One electronic search returned twenty-six articles. After reviewing the abstracts of the twenty-six results, seven reports were identified to be read in full as potentially meeting inclusion criteria. Next, the seven reports were read in full and one was identified as meeting inclusion criteria. The search was then expanded on Google Scholar using the term “second step program,” which returned 1,380 results. After reviewing the abstracts of the first sixty results, twelve reports were identified to be read in full as potentially meeting inclusion criteria. After the twelve reports were read in full, four reports were left as meeting inclusion criteria. The database searches yielded a total of five reports to be

included in this review. A reference search was also conducted using the reports conducted by Jones et al. (2021) and Pérez-Clark et al. (2022). This search returned sixteen reports and fifteen abstracts were screened after duplicates were excluded. After evaluation based on inclusion criteria, five reports met inclusion criteria. Searches yielded a total of ten reports to be included in this review. See Appendix A for diagrams of searches.

Inclusion and Exclusion Criteria

Studies in the review met the following criteria: (a) participants were enrolled in schools in the United States; (b) participants were in grades K-12; (c) the report was conducted within the last ten years to ensure relevant and recent results; and (d) the report was not testing additional factors in conjunction with the intervention, like parenting styles. Reports on schools outside of the U.S. were excluded due to the prevalence of the school-to-prison pipeline being a unique U.S. issue. Reports that included preschool students in the subject population were also excluded because this review is focusing on middle school populations.

Results

Thirteen studies were included, published from 2013 to 2019. Three reports focused on PATHS and ten reports focused on Second Step. All studies focused on students in elementary and middle school. See Appendix B for descriptions and characteristics of the studies.

Key Findings

All thirteen studies noted positive outcomes for students. Some studies found stronger results than others. One measured academic outcomes concerning proficiency in reading, writing, and math (Schonfeld et al., 2015). Three studies measured growth in SEL skills and competence (Low et al., 2015, Low et al., 2016, Low et al., 2019). Seven studies measured conduct and behavioral problems, with regard to behaviors like aggression (Crean and Johnson, 2013, Espelage et al., 2013), emotional regulation (Fishbein et al., 2016), bullying (Espelage,

Low, Van Ryzin, et al., 2015), homophobic name-calling/teasing and sexual harassment (Espelage, Low, Polanin et al., 2015), and bullying perpetration (Espelage et al, 2018). Two studies measured both academic and behavioral outcomes with regard to academic proficiency and classroom behavior (Cook et al., 2018, Top et al., 2016). Six studies noted significant positive outcomes for students and seven studies noted less significant positive outcomes.

Features

All thirteen studies were conducted within the last ten years. The studies had a population sample size of between 250 and 7419 students, meaning that the school population is not a determining factor in creating academic or behavioral outcomes. With regard to the length of implementation, all of the reports implemented the programs for at least six months. There were no significant differences in outcomes based on the length of implementation. Studies measured over six months noted similar positive outcomes to the studies measured over multiple years. A duration between six months to four years was effective in creating positive outcomes. Sample size and length of implementation did not have an impact on the success of implementation.

PATHS Outcomes

Three reports focused on PATHS were included. Two reports measured behavioral outcomes and one report measured academic outcomes. Crean and Johnson (2013) found positive outcomes when measuring behavioral outcomes in a large school as defined by Jones et al. (2021). Elementary students received 34.8 lessons over the course of one year. Schools saw fewer conduct problems, lower rates of aggression, and aggressive interpersonal negotiation strategies. Fishbein et al. (2016) also found positive outcomes when measuring behavior outcomes in a medium school as defined by Jones et al. (2021). Kindergarten students received intervention for six months with an 80% lesson completion rate. Schools saw improvements in

emotion regulation, prosocial behaviors, and peer relations, as well as decreases in behavioral issues. Schonfeld et al. (2015) found moderated positive results when measuring academic outcomes. 705 3rd-6th grade students received between 25.3-31 lessons per year over the course of four years. While some grade levels showed higher levels of proficiency in writing, reading, and math, findings were not significant enough to prove the effectiveness of PATHS in social and emotional domains.

Second Step Outcomes

Ten reports focused on Second Step were included. Eight reports measured behavioral outcomes and two reports measured both academic and behavioral outcomes. Cook et al. (2018) found moderated positive results when measuring academic and behavioral outcomes. K-2nd grade students received an average of 17.42 lessons over the course of two years. While they found no significant impact on academic outcomes, there were small improvements in reading and classroom behavior. Espelage et al. (2013) found moderated positive results when measuring behavioral outcomes. Over the course of a year, 3616 6th-grade students received fifteen weekly lessons. These schools saw significant intervention effects with regard to physical aggression; intervention schools were 42% less likely to self-report physical aggression than students in control schools. There were no significant intervention effects for verbal/relational bully perpetration, peer victimization, homophobic teasing, and sexual violence. Espelage et al. (2018) found positive results when measuring behavioral outcomes. Middle school students (n = 1565) received intervention over the course of three years, though intervention rates were not specified. Schools saw growth in school belonging in middle school, which was associated with lower rates of bullying perpetration and victimization in high school. Espelage, Low, Polanin, et al. (2015) found moderated positive results when measuring behavioral outcomes. 3658 6th-7th grade

students received twenty-eight Second Step lessons over the course of two years. Students were 56% less likely to self-report homophobic name-calling victimization and 39% less likely to report sexual violence perpetration than students in control schools. Espelage, Low, Van Ryzin, et al. (2015) reported similar findings measuring behavioral outcomes of 3651 6th-grade students who received forty-one lessons over three years. Schools saw no direct effects on aggression perpetration but did see a decrease in self-reported delinquency which was correlated with fewer instances of bullying. Low et al. (2015) examined 7300 2nd-grade students who received intervention over the course of one year and found positive behavioral outcomes, though invention rates were not specified. Schools reported improvements in SEL competency and improvements in behavior for children who started the program with existing skill deficits. Low et al. (2016) showed positive results on behavioral outcomes in a large school in which K-2nd grade students received an average of 17.42 lessons over the course of one year. The school saw gains in social-emotional skills, fewer problem behaviors, and a decrease in hyperactivity particularly for students with higher rates of problem behaviors before instruction. Low et al. (2019) also reported positive behavioral outcomes in elementary students who received between seven and eighteen lessons over the course of two years. Schools saw an increase in SEL competence and emotional management skills, as well as fewer instances of emotional disturbances and hyperactivity. Sullivan et al. (2015) examined 457 6th-grade students receiving intervention over the course of six months. These authors found that students without disabilities in intervention classrooms saw greater decreases in overt aggression. Boys in the intervention classrooms had smaller increases in overt aggression at posttest than boys in control classrooms. Girls in intervention classrooms reported greater decreases in relational aggression than girls in control. Top et al. (2016) measured both academic and behavioral outcomes in 5189 5th-8th

grade students. Students received intervention over four school semesters, but intervention rates were not specified. Students in the treatment schools saw higher school grades and exhibited fewer problem behaviors than students in the control schools. Students in the treatment schools also exhibited more prosocial behaviors, but this increase was marginally significant (Top et al., 2016).

Academic Outcomes

Of the three studies measuring academic outcomes, key features differed. Schonfeld et al. (2015) measured growth in academic proficiency in reading, writing, and math for PATHS. Top, Liew, and Luo (2016) measured academic outcomes for Second Step and noted significant improvements in grades but Cook et al. (2018) only noted small academic improvements. The length of implementation for these studies with academic outcomes was between two to four years, with students ranging from kindergarten to eighth grade. The frequency of instruction ranged from 17.42 to 31.0 lessons per year. Schoenfeld et al. (2015) and Cook et al. (2018) both found less significant positive results. The defining factor of success in Top, Liew, and Luo (2016) seems to be the population age, as this study focused on middle school students, while the remaining reports focused on elementary school populations. Based on the findings of these three reports, SEL may not be as effective an academic intervention for elementary students.

Behavioral Outcomes

The most significant growth in SEL competence and skills was noted in studies focusing on elementary students between one to two years of implementation. Schools included in these reports delivered an average of seventeen lessons per year. Reports that noted significant decreases in conduct problems, aggressive problem-solving, hostile attribution bias, behavioral problems, growth in emotional regulation, prosocial behaviors, peer relations, and behavioral problems were also seen in elementary populations. Significant behavioral outcomes were more

likely to be noted when implementing the programs with younger students (Crean and Johnson, 2013, Fishbein et al., 2016, Low et al. 2015, Low et al, 2016, Low et al., 2019). Because all five of those studies noted significant positive outcomes for elementary students and only one study (Espelage et al., 2018) focusing on middle school students noted significant positive outcomes, SEL appears to be most effective at changing the behavior of elementary students. Positive and moderated positive results were noted in reports focusing on middle school students and Second Step (Espelage et al., 2013, Espelage et al., 2018, Espelage, Low, Polanin, et al., 2015, Espelage, Low, Van Ryzin, et al., 2015, Sullivan et al., 2015, Top et al., 2016). All of the included reports saw changes in behavior for students. While the remaining reports (Espelage et al., 2018, Espelage, Low, Polanin, et al., 2015, Espelage, Low, Van Ryzin, et al., 2015, Sullivan et al., 2015, Top et al., 2016) did not show as significant of results as Espelage et al., 2013, the consensus was that Second Step is effective in creating change for middle school students. Results like significant decreases in physical aggression and homophobic name-calling were noted in Espelage et al. (2013) and Espelage, Low, Polanin, et al. (2015). All of the reports had similar age ranges and population sizes, indicating a high success rate with 5th-8th grade students. The length of implementation varied between six months and three years. Sullivan et al. (2015) still noted decreases in aggression after implementing the program for six months. However, those studies that implemented the program for longer periods found more significant results, demonstrating that while positive impacts can still be achieved in a shorter length of time, more significant impacts are seen when the program is implemented for one to three years. Finally, all of these reports utilized Second Step, demonstrating that this intervention may be more efficient at creating positive behavioral change in middle school students as compared to PATHS.

Discussion

In looking at both interventions, Second Step had more reports available and more reports focusing on middle school populations as compared to PATHS. Second Step's middle and high school curriculum is available, but there is little research focused only on high school students. The PATHS program's middle and high school curriculum, Emozi, has yet to be released. It appears evident that secondary learners do not tend to be the target audience of research on social-emotional learning curricula, creating a large gap in skill knowledge for these age groups. Secondary students will likely graduate high school without any formal instruction on skills like managing emotions, resolving conflict, and showing empathy.

Because of the lack of research conducted on PATHS with secondary students, Second Step would be a more impactful behavioral intervention for that population. Six of the ten included reports on Second Step focused only on secondary students and all found positive results including significant reductions in aggression and lower rates of bullying perpetration. While a few studies did focus on academic outcomes, less research was available on how SEL can impact academic proficiency and achievement. Based on the thirteen studies included, SEL may not be an effective academic intervention for students. Schools would likely seek out academic interventions elsewhere and utilize SEL solely for improving behavior.

Limitations

One limitation of implementing PATHS or Second Step in schools is the financial costs associated with both programs. PATHS sells implementation packages for each elementary grade. A package ranges from \$500-\$889 (PATHS Program Holding LLC, 2023, "PATHS® Program Preschool - Grade 5"). PATHS' newly released middle school curriculum packages are \$500 for each grade (PATHS Program Holding LLC, 2023, "Emozi® Classroom Implementation Packages"). Second Step offers subscriptions for K-8 curriculum bundles,

ranging from \$2,329 to \$11,996 depending on length. Kits for grades K-5 start at \$2359 (Second Step, 2023, “Second Step Store”). While both programs do offer some free samples of lesson plans and activities, there are not enough resources to replace a paid-for subscription. The financial costs of both programs may prove to be a barrier contributing to existing inequities between higher and lower-income students.

A second limitation is that both programs require a substantial time commitment for instruction time and staff training. Second Step requires teachers to complete an hour-long individual training module and provides scripts for thirty staff meetings and orientation. The PATHS Program requires each teacher to complete two, three-hour online training modules prior to instruction (Jones et al., 2021). To ensure staff members can be effective SEL educators, both programs demand numerous additional hours outside of classroom instruction. Similarly, these programs are only effective when teachers have enough time to teach the curriculum to students. Studies included in this report taught between seven and thirty-five lessons per year (Low et al., 2019, Crean & Johnson, 2013). Finding at least an additional seven hours per school year may not be feasible for school districts. When teachers and schools are pressed for time, it can be challenging to find an extra hour each week to build in SEL instruction. With other factors like standardized testing and weather-related emergencies taking away from scheduled instruction time, SEL can become less of a priority. If schools cannot find the time for instruction, they will be less likely to spend thousands of dollars on the program in the first place.

The final limitation is the lack of curriculum for secondary students. Most of the included studies are not focused only on secondary students. Studies like Espelage et al. (2015) and Espelage et al. (2018) both detail the positive impacts SEL instruction has on middle school students, but they are some of the few reports focused only on older populations. While Second Step has released a new curriculum for middle and high school students, research has not yet

been conducted on possible effectiveness. Secondary students are often neglected in discussions surrounding the implementation of SEL. There is a prevalent belief that middle and high school students are too old to receive or benefit from instruction on managing emotions. Until more studies are conducted only on older populations, there will continue to be a gap in evidence-based interventions for them.

Conclusion

Positive results were found to support both PATHS and Second Step as effective social-emotional learning interventions for students. Some reports found more significant results than others, but all thirteen studies reported positive behavioral or academic outcomes in schools receiving the intervention. All studies had an intervention period of between six months and four years, demonstrating that even schools with shorter periods of intervention can still reap the benefits of SEL curriculum for students. However, schools still may not be able to accommodate multiple semesters or years of implementing curriculum because of time constraints and cost. Comprehensive interventions are likely not feasible for many school districts.

Future reports are encouraged to study the PATHS program's Emozi curriculum for middle and high school learners and Second Step's high school curriculum. Secondary learners are often overlooked in the discussion and research base on the effectiveness of SEL. In order for school districts to justify purchasing expensive curricula for secondary students, more research needs to be available supporting both behavioral and academic effectiveness. Because of the positive behavioral outcomes created by implementing SEL curriculum in schools, SEL has the potential to help disrupt the school-to-prison pipeline. More research supporting significant behavioral changes for secondary students is needed to establish SEL as an intervention to permanently impact the pipeline.

References

- American Civil Liberties Union (ACLU). (2023). *School-to-prison pipeline*. Retrieved from <https://www.aclu.org/issues/juvenile-justice/juvenile-justice-school-prison-pipeline>.
- American University. (2021). *Who is most affected by the school to prison pipeline?* Retrieved from <https://soeonline.american.edu/blog/school-to-prison-pipeline/>.
- Bacher-Hicks, A., Billings, S., Deming, D. (2021). Proving the school-to-prison pipeline: Stricter middle schools raise the risk of adult arrest. *Education Next*, 21(4), 52-57. Retrieved from <https://www.educationnext.org/proving-school-to-prison-pipeline-strict-middle-schools-raise-risk-of-adult-arrests/>.
- Bierman, K. L., Coie, J. D., Dodge, K. A., Greenberg, M. T., Lochman, J. E., McMahon, R. J., Pinderhughes, E., & Conduct Problems Prevention Research Group. (2010). The effects of a multiyear universal social–emotional learning program: The role of student and school characteristics. *Journal of Consulting and Clinical Psychology*, 78(2), 156–168. <https://doi.org/10.1037/a0018607>.
- Collaborative for Academic, Social, and Emotional Learning (CASEL). (2022). *Fundamentals of SEL*. Retrieved from <https://casel.org/fundamentals-of-sel/>.
- Committee for Children. (2008). *Second step: Student success through prevention program*. <https://www.secondstep.org/>.
- Cook, C. R., Low, S., Buntain-Ricklefs, J., Whitaker, K., Pullmann, M. D., & Lally, J. (2018). Evaluation of second step on early elementary students’ academic outcomes: A randomized controlled trial. *School Psychology Quarterly*, 33(4), 561–572. <https://doi.org/10.1037/spq0000233>.
- Crean, H. F., & Johnson, D. B. (2013). Promoting Alternative Thinking Strategies (PATHS) and

- elementary school aged children's aggression: Results from a cluster randomized trial. *American Journal of Community Psychology*, 52(1-2), 56–72.
<https://doi.org/10.1007/s10464-013-9576-4>.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1). <https://doi.org/10.1111/j.1467-8624.2010.01564.x>.
- Espelage, D. L., Low, S., Polanin, J. R., & Brown, E. C. (2013). The impact of a middle school program to reduce aggression, victimization, and sexual violence. *Journal of Adolescent Health*, 53(2), 180–186. <https://doi.org/10.1016/j.jadohealth.2013.02.021>
- Espelage, D. L., Low, S., Polanin, J. R., & Brown, E. C. (2015). Clinical trial of Second Step© middle-school program: Impact on aggression & victimization. *Journal of Applied Developmental Psychology*, 37, 52–63. <https://doi.org/10.1016/j.appdev.2014.11.007>
- Espelage, D. L., Bub, K., Van Ryzin, M., & Holt, M. K. (2018). Effects of a middle school social-emotional learning program on bullying, teen dating violence, sexual violence, and substance use in high school, final report. *National Institute of Justice*. Retrieved from <https://www.ojp.gov/pdffiles1/nij/grants/251740.pdf>.
- Espelage, D. L., Low, S., Van Ryzin M. J., & Polanin, J. R. (2015) Clinical trial of second step middle school program: Impact on bullying, cyberbullying, homophobic teasing, and sexual harassment perpetration. *School Psychology Review*, 44(4), 464-479.
<https://doi.org/10.17105/spr-15-0052.1>.
- Flannery, M. E. (2015). The school-to-prison pipeline: Time to shut it down. *National Education Association*. Retrieved from <https://www.nea.org/advocating-for-change/new-from-nea/school-prison-pipeline-time-shut-it-down>.

- Fishbein, D. H., Domitrovich, C., Williams, J. et al. (2016). Short-term intervention effects of the PATHS curriculum in young low-income children: Capitalizing on plasticity. *The Journal of Primary Prevention*, 37, 493–511. <https://doi.org/10.1007/s10935-016-0452-5>.
- Garcia, E (2014). The need to address noncognitive skills in the education policy agenda. *Economic Policy Institute*. Retrieved from <https://www.epi.org/publication/the-need-to-address-noncognitive-skills-in-the-education-policy-agenda/#epi-toc-3>.
- Jones et al. (2021). Navigating SEL from the inside out. Looking inside & across 33 leading SEL programs: A practical resource for schools and OST providers. *The EASEL Lab at the Harvard Graduate School of Education*. The Wallace Foundation. <https://www.wallacefoundation.org/knowledge-center/Documents/navigating-social-and-emotional-learning-from-the-inside-out-2ed.pdf>.
- Kamara, H. (2019). Breaking the school to prison-deportation pipeline through restorative justice. *The Praxis Project*. <https://www.thepraxisproject.org/blog/2019/8/21/breaking-the-school-to-prison-deportation-pipeline-through-restorative-justice>.
- Kusché, C. A., & Greenberg, M. T. (1994). *The PATHS curriculum*. <https://pathsprogram.com/>.
- Lee, J. (2023). A dark vision of discipline: Zero tolerance makes a comeback. *Texas Observer*. Retrieved from <https://www.texasobserver.org/zero-tolerance-makes-a-comeback/>.
- Low, S., Cook, C.R., Smolkowski, K., Buntain-Ricklefs, J. (2015). Promoting social–emotional competence: An evaluation of the elementary version of Second Step®. *Journal of School Psychology*, 53(6). <https://doi.org/10.1016/j.jsp.2015.09.002>.
- Low, S., Smolkowski, K. & Cook, C. (2015). What constitutes high-quality implementation of SEL programs? A latent class analysis of Second Step® implementation. *Preventative Science*, 17, 981–991. <https://doi.org/10.1007/s11121-016-0670-3>.
- Low, S., Smolkowski, K., Cook, C., & Desfosses, D. (2019). Two-year impact of a universal

social-emotional learning curriculum: Group differences from developmentally sensitive trends over time. *Developmental Psychology*, 55(2), 415.

<https://doi.org/10.1037/dev0000621>.

PATHS Program Holding LLC. (2023). *Emozi® classroom implementation packages*.

<https://shop.pathsprogram.com/collections/emozi-classroom-implementation-packages>.

PATHS Program Holding LLC. (2023). *PATHS® program preschool - grade 5*.

<https://shop.pathsprogram.com/collections/paths%C2%AE-classroom-implementation-packages>.

Pérez-Clark, P., Royer, D. J., Austin, K. S., & Lane, K. L. (2022). A systematic review of second step social-emotional skills program in middle schools. *Remedial and Special Education*, 14, <https://doi.org/10.1177/07419325221131913>.

Pulkkinen, L. (2021). When typical middle school antics mean suspensions, handcuffs or jail.

The Hechinger Report. Retrieved from <https://hechingerreport.org/when-typical-middle-school-antics-mean-suspensions-handcuffs-or-jail/>.

Schonfeld, D. J., Adams, R. E., Fredstrom, B. K., Weissberg, R. P., Gilman, R., Voyce, C.,

Tomlin, R., & Speese-Linehan, D. (2015). Cluster-randomized trial demonstrating impact on academic achievement of elementary social-emotional learning. *School Psychology Quarterly*, 30(3), 406–420. <https://doi.org/10.1037/spq0000099>.

Second Step. (2023). “Second step store.” *Committee for Children*.

<https://store.secondstep.org/purchase/products/>.

Sullivan, T. N., Sutherland, K. S., Farrell, A. D., & Taylor, K. A. (2015). An evaluation of

second step: What are the benefits for youth with and without disabilities? *Remedial and Special Education*, 36(5), 286–298. <https://doi.org/10.1177/0741932515575616>

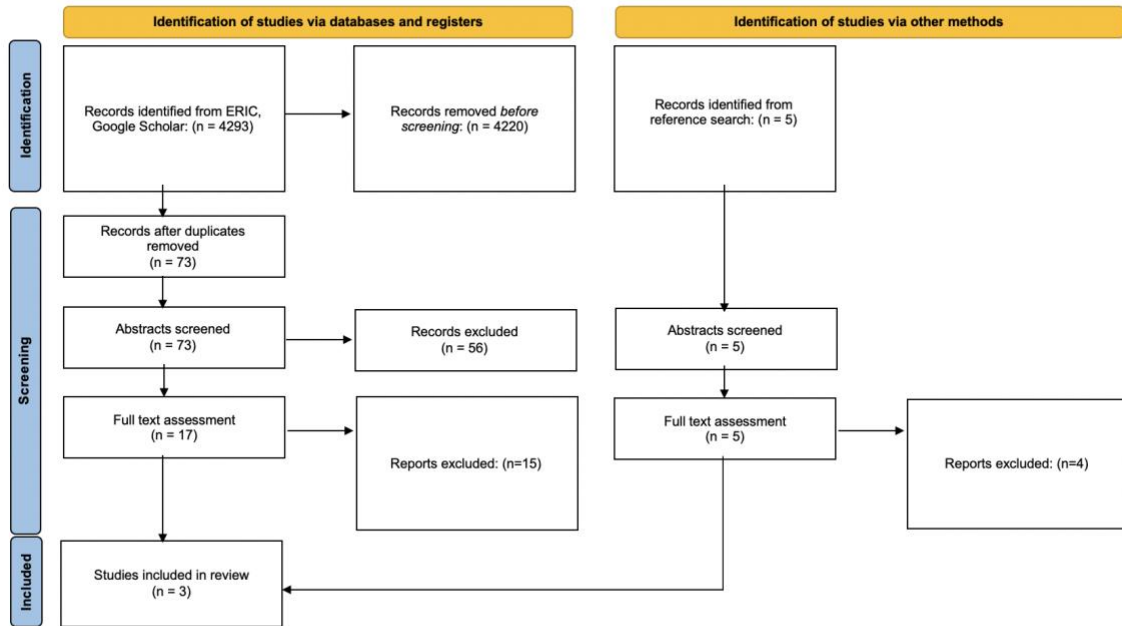
Top, N., Liew, J., & Luo, W. (2016). Effects of second step curriculum on behavioral and

academic outcomes in 5th and 8th grade students: A longitudinal study on character development. *Research on Youth and Language*, 10(1), 24–27.

<https://files.eric.ed.gov/fulltext/EJ1167262.pdf>.

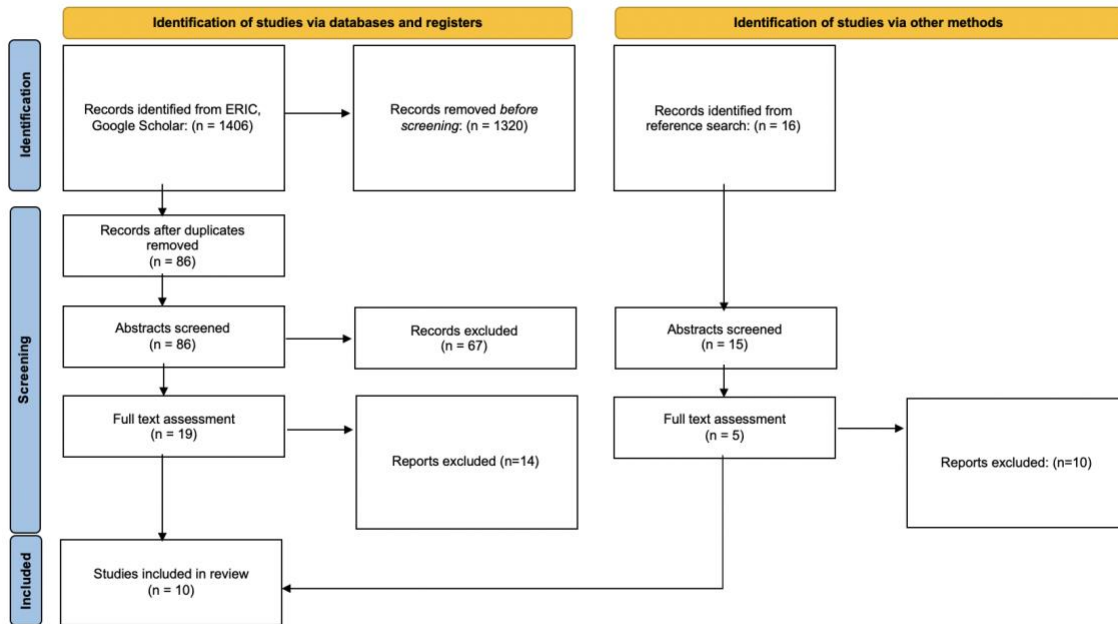
Appendix A

PATHS Prisma Chart



From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;[372](https://doi.org/10.1136/bmj.n71):n71. doi: 10.1136/bmj.n71. For more information, visit: <http://www.prisma-statement.org/>

Second Step Prisma Chart



From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: <http://www.prisma-statement.org/>

Appendix B

Citation	Program	Year	School Level	Number of Students	Length of Implementation	How Implemented	Result Classification	Key Findings	Measured Outcomes
Crean & Johnson (2013)	PATHS	2013	Elementary	Large (601+ students)	1 year	34.8 lessons per year	Positive	Schools saw fewer conduct problems, lower rates of aggression, and aggressive interpersonal negotiation strategies.	BEHAVIOR
Fishbein et al. (2016)	PATHS	2016	K	Medium (251-600 students)	6 months	Teachers completed at least 80% of lessons	Positive	Schools saw improvements in emotion regulation, prosocial behaviors, and peer relations, as well as decreases in behavioral issues.	BEHAVIOR
Schonfeld et al. (2015)	PATHS	2015	3rd-6th	705 students	4 years	25.3 to 31.0 lessons per year	Mixed	While some grade levels showed higher levels of proficiency in writing, reading, and math, findings were not significant enough to prove effectiveness of PATHS in social and emotional domains.	ACADEMIC
Cook et al. (2018)	Second Step	2018	K-2nd grade	7,419 students	2 years	Average number of lessons completed was 17.42	Mixed	While they found no significant impact on academic outcomes, there were small improvements in reading and classroom behavior.	BOTH
Espelage et al. (2013)	Second Step	2013	Middle School	3616 6th grade students	1 year	15 weekly lessons	Mixed	Schools saw significant intervention effects with regard to physical aggression; intervention schools were 42% less likely to self-report physical aggression than students in control schools. No significant intervention effects for verbal/relational bully perpetration, peer victimization, homophobic teasing, and sexual violence.	BEHAVIOR
Espelage et al. (2018)	Second Step	2018	Middle	1,565 students	3 years	Not specified	Positive	Schools saw growth in school belonging in middle school, which was associated with lower rates of bullying perpetration and victimization in high school.	BEHAVIOR
Espelage, Low, Polanin, et al. (2015)	Second Step	2015	Middle School	3658 6th-7th grade students	2 years	28 lessons	Mixed	Students were 56% less likely to self-report homophobic name-calling victimization and 39% less likely to report sexual violence perpetration than students in control schools.	BEHAVIOR
Espelage, Low, Van Ryzin, et al. (2015)	Second Step	2015	Middle School	3,651 sixth-grade students	3 years	41 lessons	Mixed	Schools saw no direct effects on aggression perpetration. Schools did see a decrease in self-reported delinquency which was correlated with fewer instances of bullying.	BEHAVIOR
Low et al. (2015)	Second Step	2015	2nd grade	7300 students	1 year	Not specified	Positive	Found improvements in SEL competency and improvements in behavior for children who started the program with existing skill deficits.	BEHAVIOR
Low et al. (2016)	Second Step	2016	K-Grade 2	Large (601+ students)	1 year	Average number of lessons was 17.42	Positive	Schools saw gains in social-emotional skills, fewer problem behaviors, and a decrease in hyperactivity particularly for students with higher rates of problem behaviors before SEL instruction.	BEHAVIOR
Low et al. (2019)	Second Step	2019	Elementary	Large (601+ students)	2 years	7-18 lessons of 22 were delivered	Positive	Schools saw an increase in SEL competence and emotional management skills. Also saw fewer instances of emotional disturbances and hyperactivity.	BEHAVIOR
Sullivan et al. (2015)	Second Step	2015	Middle School	457 6th grade students	6 months	Not specified	Mixed	Students without disabilities in intervention classrooms saw greater decreases in overt aggression. Boys in the intervention classrooms had smaller increases in overt aggression at posttest than boys in control classrooms. Girls in intervention classrooms reported greater decreases in relational aggression than girls in control.	BEHAVIOR
Top et al. (2016)	Second Step	2016	Middle School	5189 5th-8th grade students	4 school semesters	Not specified	Mixed	Students in the treatment schools saw higher school grades and exhibited fewer problem behaviors than students in the control schools. Students in the treatment schools also exhibited more prosocial behaviors, but this increase was marginally significant.	BOTH