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Interventions in Birth-Pre-K Early Learning Programs: Considerations for Early Learning Indiana (ELI)

January 2025

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The National Institute for Early Education Research

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Acknowledgments
Funding for this report was provided by Early Learning Indiana. The authors are solely responsible for the content of this report.

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Suggested citation: Harmeyer, E., & Connors-Tadros, L. (2025) *Interventions in birth-Pre-K early learning programs: Considerations for Early Learning Indiana (ELI)*. National Institute for Early Education Research.

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Key Highlights

- Through a systematic literature search and interviews with subject matter experts, we found 13 interventions that had sufficient information on effectiveness and resources to support implementation in local Indiana programs.
- Many research studies are conducted as pilots or are specific to a research-designed situation and did not provide enough information to be certain the intervention would be effective in Indiana local programs or communities. This is not an exhaustive list of all possible interventions; we selected only those most relevant to ELIs' goals and the Building Impact Initiative.
- Using the criteria of sufficient evidence of effectiveness with children birth to school entry and enough information on replication in local Indiana contexts, the review identified promising interventions in the areas of professional development, coaching, targeting specific content to children, and infant and early childhood mental health consultation that research shows can have positive impacts on classroom quality, teacher interactions, and children's learning and development.
- Selecting an intervention for use with infants, toddlers, and preschool-age children involves careful consideration of data on the target audience budget, program needs and goals with the intervention, and capacity to implement with fidelity. Programs should consider these variables when selecting intervention approaches.

Introduction

Children start kindergarten with a broad array of literacy, language, mathematics, and social-emotional skills. Gaps in learning skills between children, particularly those from disadvantaged backgrounds, can be seen at kindergarten entry, with an estimated 35-45% of first-time kindergarteners lacking in key skills they need to succeed.[i] Research shows that high quality early care and education programs (ECE) can support children in obtaining the skills they need at kindergarten entry, and at limiting these gaps in school readiness.[ii]

From 2020-2022, Early Learning Indiana (ELI) partnered with the National Institute for Early Education Research (NIEER) to assess programs serving children birth to pre-kindergarten age. Findings showed that most early learning classrooms are offering caring, responsive environments – but are falling short of fostering the learning and development outcomes needed to flourish in kindergarten. For example, in infant classrooms, 47% of infant classrooms were rated at 5 or above in Responsive Caregiving; 54% of toddler classrooms were rated at 3 or above in Engaged Support for Learning; and 38% of preschool classrooms were rated at 3 or above in Instructional Support.[iii] This demonstrates that close to half or more of classrooms in this sample from across the state are not offering sufficient supports for learning and development. Thus, while classrooms are responsive and warm, improvements could be made in instructional leadership.

To address these and other challenges in the state's early learning system, ELI is implementing, **Building Impact-** an Instructional Leadership Model created for leaders in early learning programs throughout Indiana to help build their identity as strong instructional leaders by learning to optimize classroom practices through coaching and cultivating curiosity. Building Impact is a two-year program that consists of one year of leadership training and one year of support to implement a quality improvement and curriculum enhancements.

The purpose of this study is to provide ELI with the available evidence-base for the most relevant and promising interventions to improve quality and child outcomes. To support taking an evidence-based approach, NIEER has undertaken a rigorous review process to identify that meet the following criteria at a minimum- target audience included children birth to five, rigorous evidence of effectiveness, and sufficient information to support implementation in local Indiana communities. Along with interviews with key constituents and experts in the field, we also undertook an extensive search of the literature. This involved a systematic approach of peer-reviewed literature available in specific databases, as well as a search of gray literature, including white papers and conference proceedings. Finally, through a snowball technique in which we used the references in papers found through initial searches as well as recommendations from peers. For more information on methodology see Appendix A.

In this paper, we highlight the findings of the literature review that identified effective interventions with enough available evidence to determine that they could be implemented in the Indiana context. Thus, this is not an exhaustive list of all possible interventions, we selected only those most relevant to ELIs goals and the Building Impact Initiative. Interventions in several areas are described in further detail in this report. We organized the review by 4 topical areas - professional development, coaching, literacy and math, and system capacity building; however, these approaches overlap and can be integrated or combined. are described in further detail in the report. The concluding section of the report suggests an approach that ELI might consider in helping program administrators determine which intervention is most applicable to their program's needs and the conditions necessary to achieve expected results.

Intervention Approaches: Professional Development (PD)

Effective PD is designed to support the knowledge and goals of adults within a system of continuous quality improvement. PD that has been shown to positively impact teachers and children's outcomes is typically coupled to curricula, assessment, and student learning needs. A recent report on effective teacher PD[iv] outlined that it meets the following criteria:

- Content focused: The PD focuses on strategies associated with content supports and on specific pedagogies in areas such as literacy and math.
- Incorporates active learning: PD that allows teachers to try out teaching strategies or demonstrates authentic artifacts and moves away from lecture-style learning with no connection to teachers' students and classrooms is deemed more effective.
- Supports collaboration: Teachers should have the opportunity to share ideas – often in contexts that are job-embedded.
- Uses models of effective practice: Modeling of instruction, and/or curricular models or lesson plan models, give teachers actionable examples of high quality.
- Provides coaching and expert support: Coaches and other experts who can share best practices regarding content and focus on teachers individually allow teachers to receive direct support.
- Offers feedback and reflection: PD that is high-quality should give teachers space to reflect, receive input on practices, and make changes based on that reflection.
- Dosage: Effective PD should be sustained so that teachers have time to learn, practice, implement, and reflect on what went well and challenges and barriers.

The following 4 interventions (3 for infants-toddlers and 1 for preschool children) were shown in 2the literature to meet all or most of these criteria for effective PD and had sufficient published information on results, costs and how to access necessary materials or training to implement the approach in Indiana.

Infant/Toddler Intervention: Reaching Educators and Children (REACH)

Description: REACH consists of specialized training for directors and teachers and additional supports to give teachers the tools they need to support children's social-emotional skills in the classroom. REACH targets childcare center directors and teachers who may be geographically distant from major geographic centers in the state of Arkansas. Trainings are offered on-site for staff at convenient hours (naptime, evenings).
Components: Director trainings, once per month teacher trainings, other components include toolkits (books, CDs, posters, puppets and other teaching tools); calendar cards; parent pages; classroom coaching visit; action plans (teachers commit to trying two new skills during each training); coaching emails/texts. Trainers travel around the state of Arkansas to deliver trainings and focus specifically on reaching "hard to reach" teachers with trainings.
Results: Evaluation reports have found that significant improvements on warmth and responsiveness in the classroom, and a decline in the use of harsh and detached behaviors.[v] Researchers found an increase in teachers' sensitive interactions with infants and toddlers, and an increased use of targeted social and emotional supports (such as teaching children to resolve conflicts). Children also showed increases in prosocial behaviors and small decreases in verbal aggression.[vi]
Availability: Currently available in Arkansas, read more here.

Infant/Toddler Intervention: Effective Classroom Interactions for Toddler Educators (ECI-TE)

Description: ECI-TE is a six-month, online content and coaching professional development course for toddler educators. The course included activities like real footage of toddler classrooms, and task-oriented experiences, as opposed to lectures.
Components: In total, participants completed seven asynchronous modules focused on varied aspects of child development and instructional strategies. Optional one-on-one conferences with to discuss implementation are also available, as are weekly emails encouraging participants to engage in the modules, and follow-up calls and texts from instructors.
Results: Research shows that participants demonstrated higher-quality teacher-child interactions at completion of the course. Individual feedback showed participants found the content useful and were satisfied with the course.[vii]
Availability: The course was developed by researchers based on the *Effective Interactions Course for Preschool Teachers.*[viii] Read more about the course in the research findings.[ix]

Infant/Toddler Professional Development Intervention: Filming Interactions to Nurture Development (FIND)

Description: FIND is a professional learning intervention that uses video-based reflective practice with teachers of infants and toddlers. FIND focuses on promoting positive interactions between caregivers and children.
Components: The FIND intervention is implemented by trained FIND consultants. The FIND learning facilitator records 10-15 minutes of video in an infant or toddler classroom, and edits this down to three minute clips, highlight serve and returns between providers and children. The FIND facilitator meets with the educator five times over 10 weeks to review the film and reflect upon positive interactions that occurred. The provider is encouraged to identify serve and return moments between sessions and highlight these examples for the facilitator at follow up sessions.
Results: Participants in FIND demonstrated a higher number of words spoken and conversational turn counts (as measured by LENA) than providers who did not partake in the intervention.
Availability: FIND is based at the Stanford Center on Early Childhood. More information can be found here. To reach out about bringing FIND to your community, this contact form can be used.

Preschool Professional Development Intervention: Support of Language and Literacy Development in Preschool Classrooms Through Effective Teacher-Child Interactions and Relationships

Description: Teachers were provided with a 14-week course on effective teacher-child interactions. The purpose of the course was to increase teachers' knowledge about how teacher-child interactions support learning and skill acquisition in preschool children. Instructors of the course delivered the 3-hour courses at local universities/colleges after receiving a weeklong training. The first course sessions were introductory, and the remaining sessions focused on each of the three Classroom Assessment Scoring System (CLASS) domains.

Results: Teachers who completed the course reported more intentional teaching beliefs and greater knowledge of effective interactions. They were also observed to demonstrate more effective instructional and emotional interactions.[x]
Availability: Other professional development centered around CLASS is available through Teachstone.

Intervention Approaches: Coaching

Another common approach to improving instructional quality and children's outcomes is through provided targeted coaching to educators.[xi] There is much evidence to support the effectiveness of coaching in early childhood classrooms, and the evidence shows that particularly when paired with PD, coaching can improve the quality of teaching and support gains in language, early math, and social-emotional learning.[xii] Other research points to the aspects of coaching that relate to improved instructional practices and child outcomes. Effective coaching interventions address the following:

- A strong partnership between the coach and individual being coached.
- Opportunities for reflection and feedback.
- Focused observations.
- Intentional coaching plans.
- Job-embedded opportunities.
- A coach that is knowledgeable of specific coaching models and practices, and has general coaching skills and knowledge of ECE.
- Coaching is continuous and sustained duration, although findings vary regarding the length of time needed.[xiii].

The following 2 interventions (1 for infant-toddlers and 1 for preschool children) were shown in the literature to meet all or most of these criteria for effective coaching and had sufficient published information on results, costs and how to access necessary materials or training to implement the approach in Indiana.

Infant/Toddler Coaching Intervention: Click.Coach.Connect.

Description: Click.Coach.Connect. was developed by Penn State Better Kid Care to address some of the issues in developing sustainable coaching programs for infant/toddler teachers, particularly including finding the funding and time for teachers to participate. This program was designed to provide training to infant/toddler directors, so that they can become coaches to infant/toddler teachers (as opposed to hiring outside coaches).
Components: Directors in infant-toddler centers receive training to provide coaching to infant/toddler teachers; this training includes a 344-page digital coaching guidebook, which has digital coaching support resources (such as videos, reflection and action tools), embedded throughout. Coaches also receive training on how to implement the coaching, and ongoing support. Teachers complete 10 hours of online infant–toddler courses on topics such as social–emotional, cognitive, and physical development; supervision; learning through play; and caregiving routines. Once directors are trained, they provide coaching to their employees on a weekly basis. Coaches receive ongoing support from a coach partner from Penn State Better Kid Care.
Results: Participants in the initial iteration of Click.Coach.Connect. demonstrated significantly improved scores on the ITERS-3 (including on the overall score, and on all six subscales). Qualitative feedback collected from coaches was also overwhelmingly positive.[xiv]

Availability: More information about the program is available from Penn State Better Kid Care here. The modules are all available for free, and the coaching guides are available at a cost of $25 each from the Penn State Better Kid Care website.

Preschool Coaching Intervention: MyTeachingPartner

Description: MyTeachingPartner (MTP) is a system of professional development supports aimed at improving teacher-student interactions.
Components: MTP has three different components: A video library with examples of best practices, composed into 1- to 2- minute clips of teachers' effective interactions with students; a three-credit college course focused on improving knowledge of effective interactions; and web-mediated coaching in which teachers film their own practice and receive feedback on their own interactions.
Results: Research has been mixed regarding results of MTP but researchers have found positive effects of MTP on reading, sensitivity and responsiveness, and positive impacts on child outcomes including receptive vocabulary, task orientation, and prosocial assertiveness.[xv]
Availability: See website for pricing and information: https://store.teachstone.com/class-1-on-1-video-coaching-mtp/. While Teachstone will price out coaching with individual organizations, the CLASS group coaching renewal is $300, and access to the CLASS video library companion is $165.

Intervention Approaches: Literacy and Math

Social inequities in both math and literacy skills are present at kindergarten entry; supporting children purposefully in these domains is important during the early childhood/preschool years, particularly for children from disadvantaged backgrounds. Research shows that very young children differ substantially in early literacy and math skills; it is thus necessary for teachers to receive detailed and extensive training around the skills each child needs to progress.[xvi] Various intervention approaches provide teachers with the training they need to support children's skills and serve as precursors to the skills they will gain at kindergarten entry. The following 7 interventions in literacy and math for infants and toddlers and preschoolers were found to have sufficient evidence of effectiveness and information on implementation in Indiana.

Pre-academic Skills (Literacy and Math) Infant/Toddler Intervention: We Learn Together

Description: The We Learn Together intervention is designed to improve children's experiences in ECE settings through supporting the teacher in interactions that explicitly support children's cognitive development.
Components: The 20-week curriculum focuses on targeting language and numeracy. Optional supporting components including books, videos and posters are included to teachers, and correspond to each of the five four-week thematic units. Teachers also participated in a 2-day PD course and received tools to support implementation by documenting the implementation of activities.
Results: Children exposed to We Learn Together significantly outperformed children in a control group on receptive vocabulary, productive vocabulary, math language and numeracy.[xvii]
Availability: The We Learn Together program was developed and implemented in Denmark, and was designed to be a low-cost, scalable intervention. The per-child cost was estimated to be about $18 per child, including the cost for substitutes while staff participated in the 2-day professional development,

and for the supplemental materials. Although we did not find evidence this has been utilized in the United States, information about this model of intervention is available published research studies, such as here.

Language Outcomes: Infant/Toddler Intervention: Lifting Infants and Toddlers through Language-rich Environments (LITTLE)

Description: LITTLE is a grant program offered through Georgia's Department of Early Care and Learning meant to support language and literacy instruction in infant and toddler classrooms.
Components: The grant program includes on-site coaching, professional development opportunities, stipends for participating in the program, and the use of LENA and CLASS to collect data. It is available in childcare centers and FCC homes.
Results: An initial evaluation of LITTLE found teachers who participated showed increased scores on Responsive Caregiving in infant classrooms, and Emotional and Behavioral Support and Engaged Support for Learning in toddler classrooms. No significant differences as measured by LENA were found.[xviii]
Availability: Read more about LITTLE here. While it is currently offered through the State of Georgia, it may provide a good model for a type of program that could be developed in Indiana. Program components are described here.

Literacy Outcomes Preschool Intervention: World of Words

Description: World of Words (WOW) is a shared book reading intervention designed to promote vocabulary, concept and content knowledge in science.
Components: Teachers who implement WOW receive initial training, ongoing coaching and sets of materials provided by the developer. Over 12-24 weeks, teachers implement the 10-12 minute lessons, which are implemented during circle time, 3 times per week. According to the developer, teachers need coaching biweekly. The developer does offer coaching ranging from one-on-one sessions to on-site observations and demonstrations. The developer provides six sets of materials for program implementation, which includes five texts (e.g., predictable, narrative) a scripted teacher's guide, 15 picture cards, and a topic poster.
Results: Multiple studies have demonstrated that the program has positive impacts on children's language outcomes.[xix] While the program is available for pre-kindergarten through second grade, the studies summarized here include pre-kindergarten.
More information: As of December 2022, the training and coaching was provided for free by the developer at no cost, and the program was available for $450 per classroom set. Learn more here.

Literacy Outcomes Preschool Intervention: Read It Again! Infants and Toddlers and Read It Again! PreK

Description: Read It Again! is a curricular supplement designed for educators and meant to support explicit instruction of oral language and emergent literacy skills. The infant and toddler version is designed for children ages 0-2, and the preschool version is designed for children ages 3-5.
Components: The Read It Again! program is a curricular supplement that can be used with curricula already used in early learning programs. Educators receive manuals containing 60 lessons spread over 30 weeks. There are also included materials cards and pupil progress checklists for monitoring student progress in each of four domains. Teachers also need to use 15 supplemental books throughout the lessons.

Results: Children who receive the Read It Again! intervention make significant improvements in language and literacy skills.[xx]
Availability: The Read It Again! supplements and training course are available at: https://readitagain.osu.edu/ The manuals are available to download for free, and the book supplements are available for purchase from Scholastic. Bundle prices range from $79.94 for the pre-K pack, and $99.34 for the social-emotional pack.

Mathematics Outcomes Preschool Intervention: Semi-structured block-play

Description: A researcher-developed, play-based intervention focused on promotion executive function (EF) skills and mathematics skills in preschool-age children.
Components: A semi-structured block play intervention in which the researcher asked children to do something using a scripted prompt (e.g., "Today your job is to build a boat."). Children participated in 14, 15-20-minute block play sessions over the course of 7 weeks in small groups of 2 or 3 children.
Results: Children who participated in the intervention demonstrated greater gains in three mathematical skills and two indicators of EF, and for some of these skills, greater gains were made by children with parents of low educational attainment.[xxi]
Availability: Intervention developed by researchers at Purdue. For more information about this intervention, reach out to David Purpura: purpura@purdue.edu

Mathematics Outcomes Preschool Intervention: Math Shelf

Description: Math Shelf is a tablet-based mathematics program that uses a placement test to individualize math games and instruction to preschool and kindergarten age children.
Components: The program includes more than 1,500 math games and activities, and more than 300 no-prep hands-on lessons.
Results: Peer reviewed studies show that children who played games on iPads with Math Shelf for one hour per day twice per week over 15 weeks demonstrated greater mathematics skills improvements than children who did not play the games.[xxii]
Availability: Apply for start-up grants here: https://www.mathshelflearning.com/get-started Thus far, these start-up grants have targeted low-income children.

Mathematics Outcomes Preschool Intervention: Pre-K Mathematics

Description: A supplemental mathematics program that includes teacher-led, small group activities that are meant to be engaging and hands-on for children.
Components: The program contains 24 in-class, small group activities that can be implemented with children in groups of 4-6. There is also additional software that can be used in centers with children. The activities are meant to be conducted in small groups 2-3 times per week. Additional activities can be sent home weekly for families to support children's learning.
Results: Multiple peer-reviewed studies show positive effects of Pre-K Mathematics on student mathematics achievement.[xxiii]
Availability: Pre-K Mathematics materials include training, curriculum coaching and materials. Pricing varies by the number of teachers and classrooms. Sixteen teachers spread over 8 classrooms with 1-2 curriculum coaches would cost $51,000. Read more about the intervention, developed by WestEd, here.

Other Promising Approaches to Consider

In this section we identify other promising approaches to support young children's development wholistic; to increase capacity of local communities to support the ecosystem that young children and their families experience in the early years; and to utilize technology to provide data and information to enhance children's development. These interventions/approaches have a less robust research base than the interventions described earlier in the paper, and in some cases may involve systems-level considerations, but still may be worthwhile for ELI to keep in mind for the future.

Infant and Early Childhood Mental Health Consultation (IECMHC) is an approach in which the capacity of ECE providers to support children's social-emotional competence and support their mental health and well-being is targeted. IECMHC is a prevention-oriented approach and is meant to build capacity of educators through relationship building between a consultant with early childhood mental health expertise and educators. It is recognized as a best practice by the Association of Maternal and Child Health Programs (AMCHP). Because IECMHC focuses on partnering with adults to increase their capacity to foster healthy social-emotional development, it is one way in which schools can target improved social-emotional outcomes in children. There is some research on IECMHC that has shown promising results, with one study showing teachers who received consultation had lower ratings of problem behaviors in the classroom, but no classroom quality differences than teachers who did not receive consultation.[xxiv] Another study showed intervention schools utilizing IECMHC had more positive classroom behavior, fewer observed social-emotional challenges, and higher academic achievement of preschool-aged children.[xxv] Finally, other studies have shown improvements to ECE classroom climate, reductions in challenging behavior in children, and improved skills in children such as social skills, self-regulation, and adaptive behaviors.[xxvi] Zero to Three offers an IECHMHC calculator for programs to calculate a cost for an individual or multiple consultants. See more here. A guide to funding IECHMHC is available here.

Building Community Systems: First Ten- Led by David Jacobson at the Education Development Center (EDC) First Ten is emerging as an effective strategy for building school and/or community systems. First 10 is grounded in a theory of action and provides a set of guiding principles and resources to support implementation at the school or community level. There are a growing number of communities across the country implementing First 10. **Maine,** for example, is implementing First 10 statewide with districts and 13 communities, supporting by a state-level coordinator and network. [xxvii]Michigan has also implemented First 10 in selected communities. American Institutes for Research conducted an evaluation on the first year of implementation and found strong support for the approach while recognizing the significant time commitment to implementing it well. [xxviii]

Technology (machine learning) powered approaches: The TMW Center for Early Learning and Public Health at the University of Chicago, led by Dr. Dana Suskind, has developed some innovative, evidence-based interventions for parents and teachers to improve child outcomes. For example,

- *Increasing Adult's Knowledge of Child Development:* has developed the **SPEAK-CAT**, a computer-adaptive survey that measures an adult's knowledge and beliefs about early childhood development. The SPEAK-CAT is powered by machine learning and adapts to the individual responding to the survey and issues new questions based on the level of knowledge they've displayed. Questions are pulled from a pool of 560 potential items covering topics across eight crucial domains of child development. The TMW Center team identified these domains and developed specific questions based on a thorough literature review of more than 1,500

published articles—and enlisted a group of experts and clinicians to test the validity of each question. The team also conducted cognitive interviews with hundreds of individuals to ensure clarity and accessibility. The SPEAK-CAT can also deliver personalized feedback, guidance, and support directly to users, sharing information and tips that are tailored based on the individual's demonstrated knowledge and stated beliefs.

- TMW has also created **Luet**, an AI-powered wearable technology that objectively measures interactions and simultaneously provides teachers with seamless, in-the-moment support to increase quality classroom interactions for each child. Luet is worn by a child and captures information about the surrounding audio environment using sensors and artificial intelligence. It delivers this data in real-time to classroom teachers (on the device itself and through a smartphone app), and to a robust backend platform that supports large-scale data collection, analysis, and integration—with built-in measures to protect child and teacher privacy. The Connecticut Office of Early Childhood has contracted with TMW center to conduct a 3-year study of the use and impact of Luet on teacher knowledge and child outcomes.[xxix]

Conclusion

This report provides ELI with selected research-based interventions that have some evidence that they can be implemented in local Indiana communities. In order for implementation to be effective and achieve the desired results however a more strategic and systematic plan needs to be developed so that the intervention matches the needs of children or educators (the target audience), the capacity of the program or community to implement new practices, and the sustained support of funding and administrators to give the intervention time to take effect and produce results.

There are many different approaches that programs can take when seeking to target improvements in classroom quality, teacher-child interactions, and specific child outcomes. Programs will need to consider the desired outcomes of an intervention, their level of resources to devote to the intervention, and the overall fit with their current program when making decisions around what types of interventions to introduce. The following factors are critical to ensure effective and sustained implementation of new strategies:

- A first step is to assess needs of children, families or educators using available data and observations. It is likely there are several areas that can be addressed to improve the quality of the program and children's experiences in early care and education.
- Then program administrators should consider costs, capacity, interest, time and readiness of staff to change practice. Further, sufficient time should be devoted to learning about and training on the specific components of the intervention; and
- Finally, communicating and involving families will support the home-school connection.

Acknowledgments

We are thankful to Early Learning Indiana for engaging with NIEER for this work. We are also thankful to many colleagues in the field who provided feedback on this report or on interventions included in this report, included Steven Barnett, Susan Neuman, and Dana Suskind.

Appendix A

Methodology

We first conducted a systematic literature search as a starting point for obtaining the peer-reviewed articles that guided our thought process for including interventions in this review. We started by using the database PsycInfo and conducted two searches. In the first, we used the terms (("Preschool" or "Child care" or "Center-based care" or pre-K* or "infant" or "toddler") and (achievement* or performance* or knowledge*) and "Intervention" and "classroom." This yielded 208 hits. We then conducted an additional search to attempt to identify infant/toddler classroom interventions. We used the following criteria to determine whether to review or eliminate the article from consideration in this initial search process.

Criterion Type	Inclusion	Exclusion
Year Published	2015-2024	Prior to 2015
Language	English	Non-English text
Article Type	Randomized control trial; non-randomized controlled research; evaluation	Meta-analysis or systematic analysis.
Topic	Intervention in preschool/center-based classroom; intervention in infant/toddler classrooms	Intervention in grades kindergarten+; protocol for intervention (with no results included); qualitative results only
Geography	USA; international classrooms with characteristics similar to classrooms in the US (e.g., high-income countries)	Early care and education settings across low- and middle-income countries
Context	Infant, Toddler, Pre-K and Preschool classrooms, located in child care centers or schools	Family Child Care classrooms, summer camp, classrooms kindergarten age exclusively (i.e., all 5+) and older; exclusively for children with disabilities
Quality	Peer-reviewed articles and gray literature	Articles whose full text cannot be accessed; dissertations
Intervention Focus	Intervention is focused on teacher or instructional quality, improving child outcomes, or improving the classroom environment	Interventions focused on other outcomes such as health or gross motor.
Intervention Details	Publication includes enough details on the intervention that it could be replicated in a classroom in Indiana	Details on intervention are vague with no possibility for replication/obtaining replication information.

Using these criteria, we summarized 23 pre-K articles and 9 infant/toddler articles, with the purpose of identifying general characteristics of interventions for these age groups. Following this process, we used literature cited in these articles, interviews with subject matter experts, and searches on conference

proceedings (AERA, SRCD) and Google Scholar to find other peer-reviewed articles and grey literature for consideration for inclusion in the paper. We have included a matrix with a short summary of these articles.

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