



Effective Early Childhood Education Programmes: A Best-Evidence Synthesis

Educator's Summary

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The findings of this review reinforce evidence that children's educational experiences before they start school have an important impact on their attainment in primary school.

The authors systematically applied consistent methodological standards to evaluate programmes that early years educators might consider adopting to prepare children for success in primary school. The review was extensive, considering all available research conducted from 1960 onwards on programmes for children aged three to five in a group setting.

Study inclusion criteria included the use of randomised or matched control groups, evidence of initial equality, and study duration of at least 12 weeks. Studies included valid measures of language, literacy, phonological awareness, mathematical, and/or cognitive outcomes that were independent of the experimental treatments. 38 studies (evaluating 27 different programmes) met the criteria for outcomes assessed at the end of preschool and/or reception or kindergarten.

Six programmes were found to have strong evidence of effectiveness at the end of preschool and/or reception *Curiosity Corner*, *Direct Instruction*, *Early Language and Literacy Model*, *Interactive Book Reading*, *Let's Begin with the Letter People*, and *Ready Set Leap!* They all had explicit academic content, a balance of teacher-led and child-initiated activity, and significant training and follow-up support.

The review also summarised the long-term impact of studies conducted in the 1960s and 70s. The findings indicate that positive effects of participation in high quality early childhood programmes can be enduring.

The full report (which this review summarises) is available at www.bestevidence.org.uk.

UK context






All but one of the studies reviewed were conducted in the US, many in large urban areas. However, the similarities of the challenges of large inner-city communities in the US to those in the UK suggest that the findings would generalise to the UK. Nevertheless, there is a need for large-scale randomised evaluations of programmes already in use here, and of UK adaptations of programmes that have shown evidence of effectiveness in other countries. Of the programmes included in this review, seven are currently available in the UK.





Programme Ratings

Listed below are currently available programmes, grouped by strength of effectiveness. Within each group programmes available in the UK are listed first, and then the remainder in alphabetical order.





In general, effect sizes were computed and pooled across studies for each programme and for various categories of programmes. Effect sizes were broken down for measures of language, literacy, phonological awareness, mathematics, cognition, and educational outcomes. Effect sizes of more than +0.20 are considered educationally significant.

| Key to Programme Ratings | |
|---|--|
|  | Strong Evidence of Effectiveness: At least two studies, one of which is a large randomised or randomised quasi-experimental study, or multiple smaller studies, with a sample size-weighted effect size of at least +0.20, and a collective sample size across all studies of 250 pupils or 20 classes. |
|  | Moderate Evidence of Effectiveness: At least one randomised or two matched studies of any qualifying design, with a collective sample size of 125 pupils or 10 classes, and a weighted mean effect size of at least +0.20 across all measures. |
|  | Limited Evidence of Effectiveness: Strong Evidence of Modest Effects Programmes in this category have studies that meet the criteria for “moderate evidence of effectiveness” except that the weighted mean effect size is +0.10 to +0.19 across all measures. |
|  | Limited Evidence of Effectiveness: Weak Evidence with Notable Effects Programmes in this category have studies that have a weighted mean effect size of at least +0.20, but do not qualify for ‘moderate evidence of effectiveness’ due to insufficient numbers of studies or small sample sizes. |
|  | Insufficient Evidence of Effectiveness: Qualifying studies do not meet the criteria for ‘limited evidence of effectiveness’ |
| N | No Qualifying Studies: effect sizes below +0.10, or no qualifying studies. |



Strong Evidence of Effectiveness

| Rating | Programme | Description | Contact / Website |
|---|--------------------|---|--|
|  | Curiosity Corner | A comprehensive cognitive-development programme developed by the Success for All Foundation. It aims to develop the attitudes, skills and knowledge necessary for later school success with an emphasis on children's language and literacy skills. | www.successforall.org.uk/ (Product training provided) |
|  | Direct Instruction | First developed as an instructional method to teach at-risk children. It is a teacher-directed programme in which specific cognitive and literacy | US website: www.nifdi.org |






| Rating | Programme | Description | Contact / Website |
|---|--|--|---|
| | | skills are broken down into small units and taught explicitly. | |
|  | Early Literacy and Learning Model (ELLM) | A literacy-focused curriculum and support system designed for young children from low-income families. It is designed to enhance existing classroom curricula by focusing on children's early literacy skills and knowledge. | US website: www.unf.edu/dept/fie/ellm-plus-home.html |
|  | Interactive Book Reading | Designed to promote language and literacy proficiency in young children, the programme is basically an adaptation of the Dialogic Reading programme. | More information can be found at www.childtrends.org/lifecourse/programs/Interactive.htm , and in the journal article Wasik BA & Bond MA (2001), Beyond the Pages of a Book: Interactive Book Reading and Language Development in Preschool Classrooms. Journal of Educational Psychology, 93(2), 243-250. |
|  | Let's Begin with the Letter People | Emphasises early language and literacy development by learning through play. In addition to classroom teaching, the programme has a strong home/parent component. | US website: www.abramslearningtrends.com |
|  | Ready, Set, Leap | A comprehensive preschool curriculum, published by LeapFrog SchoolHouse, which combines research-based instructional approaches with multisensory technology. | US website: www.leapfrogschoolhouse.com |



Moderate Evidence of Effectiveness

| Rating | Programme | Description | Contact / Website |
|---|--------------------------|--|--|
|  | Breakthrough to Literacy | A systematic and integrated literacy and language programme published by the Wright Group, which aims to promote language development and literacy skills to preschool children. | www.mcgraw-hill.co.uk/sra/ |
|  | Bright Beginnings | An integrated curriculum with a focus on language and early literacy. The curriculum goals are to provide a child-centred, literacy-focused programme, and to include teaching that addresses the whole child. | US website: www.cms.k12.nc.us |




| Rating | Programme | Description | Contact / Website |
|---|---|---|---|
|  | Building Blocks PreK Mathematics plus DLM Express | 29 small-group mathematics activities with concrete manipulatives for use by teachers and children in preschool classrooms as well as 19 home mathematics activities and materials, sent home every one to two weeks. | US website: http://gse.buffalo.edu/org/buildingblocks/ |
|  | DLM Express plus Open Court | The PCER Florida State University research team implemented DLM Early Childhood Express comprehensive curriculum in conjunction with the Open Court Reading Pre-K literacy-focused curriculum as part of the PCER project. This has been considered as a separate programme as the effects represent the two programmes combined. | US website: www.mheonline.com |
|  | Project Approach | A set of teaching strategies that enables teachers to guide children through in-depth investigations of real world topics. The curriculum is designed to use children's interests as the starting point for organising and developing classroom learning activities. | US website: www.projectapproach.org |




Limited Evidence of Effectiveness: Strong Evidence of Modest Effects

| Rating | Programme | Description | Contact / Website |
|---|-----------------------------|--|--|
|  | Doors to Discovery | A preschool programme that is based on the areas identified as important for literacy success: oral language, phonological awareness, concepts of print, alphabet knowledge, writing, and comprehension. The programme focuses on the use of learning centres and shared literacy activities in the preschool classroom. | US website: www.wrightgroup.com |
|  | Language Focused Curriculum | Designed for use with three- to five-year-old children with language limitations, including children with language impairment; children from disadvantaged backgrounds; and children with English as an | US website: www.brookespublishing.com/store/books/bunce-69223/index.htm |



| Rating | Programme | Description | Contact / Website |
|---|------------------|--|-------------------|
| | | Additional Language. | |
|  | Literacy Express | A preschool curriculum that is designed to promote children's emergent literacy skills. The curriculum is structured around thematic units sequenced in order of complexity. | |

Limited Evidence of Effectiveness: Weak Evidence with Notable Effects

| Rating | Programme | Description | Contact / Website |
|---|---|--|--|
|  | Promoting Alternative Thinking Strategies (PATHS) | Spanning the social-emotional, behavioural and cognitive skill domains, this is a social-emotional curriculum, delivered in a developmentally-appropriate sequence. The curriculum emphasises affective awareness of self and others, targeting children's ability to self-regulate their behaviour. | US website: www.prevention.psu.edu/projects/PATHS.html |
|  | Sound Foundations | A phonemic awareness programme developed in Australia. The key feature of the programme is recognition of phoneme identity across words, with special attention paid to nine key phonemes. Large pictorial posters with words of the key phonemes are used in the class to help children learn these phonemes. This programme is no longer available for distribution. | www.macmillanenglish.com |
|  | EMERGE | A literacy-based programme designed to help children from low-income families acquire early literacy skills. The programme supports children's development of four early literacy skills. | Email: mgetting@wisc.edu |

Other Ratings

Insufficient Evidence of Effectiveness

Available in the UK:
Creative Curriculum
Montessori

www.creativecurriculum.net
www.montessori.edu



Tools of the Mind www.mscd.edu

Not available in the UK:

BELL

DARCEE

Dialogic Reading

Dialogic Reading plus Sound Foundations

Ladders to Literacy

Project Construct

REDI

N No Qualifying Studies

Available in the UK:

High/Scope

www.highscope.org

Not available in the UK:

Abecedarian

DISTAR

Early Authors Program

Reading Street

Reggio Emilia

Scholastic Preschool Program

Review Methods

Review Methods

An exhaustive search considered all studies that have compared alternative approaches to early childhood education from 1960 to the present. Inclusion criteria was as follows:

- Studies of each programme had to be compared to randomly assigned or well-matched control groups.
- Study duration had to be at least 12 weeks.
- Studies included valid measures of language, literacy, phonological awareness, mathematical, and/or cognitive outcomes that were independent of the experimental treatments.

Nb. Studies of parenting programmes, nutrition interventions, programmes for SEN or EAL pupils, and programmes for individual children, such as home visitation programmes, were not reviewed.

The Full Report

- The full report, which this review summarises, is Chambers B, Cheung A, Slavin RE, Smith D, Laurenzano M (2010), *Effective Early Childhood Education Programmes: A Systematic Review*. The full report is available at www.bestevidence.org.uk.

