

# OECD iLibrary – research into early years education

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## Executive summary

Starting behind in the early years means staying behind – for individual children and for an education system as a whole. A child's development in the first few years of life significantly predicts his or her later success in education and ongoing levels of happiness and well-being. The most effective investment governments can make to enhance education and later life outcomes is to provide a strong start in children's early years. Seeking to ameliorate individual or systemic learning issues at later ages is less successful and more costly than doing so earlier.

Education systems that wish to achieve a step-change in student outcomes are well advised to increase their focus on the quality, responsiveness and effectiveness of their early years policies for children. Like all areas of education policy, decisions affecting children's early years of learning and well-being are fraught with political and commercial interests, in addition to ideology. Many claim they know what is best for children, yet the international data in this field is surprisingly limited. Moreover, while children's needs and interests have always been diverse, children's lives are changing at a greater pace than ever before. Thus, research findings on how best to support children and their families from 20, 10 or even 5 years ago may not be fully applicable to today's youngsters.

The International Early Learning and Child Well-being study puts a spotlight on how children are faring at five years of age. The study directly measures key indicators of children's development and learning, as well as collecting a broad range of developmental and contextual information from children's parents and teachers. The study does not measure everything. Instead, it focuses on those aspects of development and learning that are predictive of children's later education outcomes and wider well-being. These are: emergent literacy<sup>1</sup> and emergent numeracy<sup>2</sup>, self-regulation<sup>3</sup>, and social-emotional skills<sup>4</sup>. Across these early learning domains, a total of 10 dimensions of children's development and learning were included in the study.

Three OECD countries participated in this study: England (United Kingdom), Estonia and the United States. Each of these countries recognises children's early years as critical to children's later learning and well-being. Each country participated in this study to enhance the body of international evidence available to policy makers, education leaders, practitioners and parents to improve children's early learning outcomes. The information from the study provides each country with insights to inform their approaches to children's early years and their approaches in the early years of schooling. At five years of age, there is much that education systems can do to further support the learning trajectories for these children.

### **Early differences between countries and groups of children are clearly evident**

The study found clear differences in children's early learning across the three countries. Five-year-olds in Estonia demonstrated a well-rounded balance of skills, with strengths in emergent literacy, self-regulation and social-emotional skills. In particular, children in Estonia were more able to recognise the emotions of others, a precursor for empathy, and were reported by their teachers as having higher prosocial skills than children in England or the United States.

Children in England demonstrated stronger skills in emergent numeracy than children in either Estonia or the United States. The findings in England for emergent literacy, working memory and mental flexibility were similar to those in Estonia. Teachers in England - and in the United States - reported five-year-olds as less disruptive than reported by teachers in Estonia.

Additionally, children in the United States were found to have similar levels in inhibiting impulses and in trusting others to children in Estonia. The emergent literacy and emergent numeracy skills of children in the United States, however, were significantly lower than for children in Estonia and England. This gap was particularly pronounced in emergent numeracy, consistent with the relatively lower levels of mathematics competencies found in 15-year-olds in the United States in the OECD's Programme for international Student Assessment (PISA).

Gender differences were found in all three countries. Girls had stronger emergent literacy and higher levels of social-emotional skills than boys in each country. Girls were better able to identify others' emotions and reports from parents and teachers identified girls as having higher prosocial skills and to be less disruptive than boys. The direct assessment found no discernible differences between girls and boys in emergent numeracy, although girls were reported by their parents and teachers as having higher levels of emergent numeracy than boys. Overall, girls demonstrated slightly stronger skills than boys in the direct assessment of self-regulation but again, parent and teacher reports for girls were more positive than for boys.

Differences in children's skills were also found in relation to the child's socio-economic background, consistent with other international studies. Children from high socio-economic backgrounds had higher levels of skills than children from low socio-economic backgrounds across almost all learning domains in the study. Estonia had the smallest differences amongst children based on their socio-economic backgrounds whereas the greatest differences were found in the United States.

### **What parents do is pivotal for their children's development**

The day-to-day activities that parents undertake are highly correlated with children's learning and development. Regardless of socio-economic background, the study found children did better when their parents

- Read to them almost every day
- Ensured there were many children's books in the home
- Had back-and-forth conversations with them
- Took them to special activities such as dance, swimming or scouts
- Were involved in the ECEC centre or school they attend.

At the same time, the study found that moderate engagement in most activities was more strongly associated with children's learning than daily frequency. For example, children who attended special activities three or four times a week had higher scores than children who attended such activities every day. An exception was reading, where the findings show that reading five to seven days a week with children was more strongly correlated with children's emergent literacy and their social-emotional skills than reading to them less frequently. Nonetheless, reading to children three to four times a week was still associated with stronger skill development than reading to children once a week or not at all.

### **Early childhood education and care also makes a positive difference**

Almost all children in England and Estonia attend some form of early childhood education and care (ECEC) setting by the age of three. In the United States, 51% of children in this study had attended ECEC by the age of three years or younger, although children from high socio-economic families had higher participation rates.

Children in the United States who had attended ECEC demonstrated higher emergent literacy skills and much higher emergent numeracy skills than children who had never attended ECEC, regardless of their socio-economic background. Attending ECEC was not, however, significantly associated with children's

self-regulation or social-emotional skills in either a positive or negative direction. IELS found no discernible benefits from starting ECEC before three years of age.

### **Most five-year-olds use electronic devices**

Most of the five-year-olds in the study (83%) used a digital device at least once a week and 42% did so on a daily basis.

There were no clear relationships between the regular use of electronic devices and children's development and skills. There was, however, a positive relationship between the frequency of device use and the mental flexibility skills of children in Estonia and the United States but this was not the case in England. There were also some positive associations between device use and emergent literacy in England and the United States, but not in Estonia.

### **Children's learning is inter-related and mutually reinforcing**

There were positive relationships between each of the 10 dimensions of children's early development and learning in this study. Emergent literacy and emergent numeracy were strongly correlated, and these also correlated positively with self-regulation skills, particularly mental flexibility and working memory. At the same time, there were positive associations between the cognitive aspects of the study (emergent literacy, emergent numeracy and self-regulation) and children's social-emotional skills, particularly with empathy and prosocial behaviour. Thus, children's learning gains in any one area support ongoing development in other areas of their development.

### **Notes**

← 1. Emergent literacy refers to the skills children develop that are a precursor to literacy and enable them to understand and communicate with others. In this study, there was no assessment of whether children could read or write.

← 2. Emergent numeracy refers to simple problem solving and the application of concepts and reasoning in relation to numbers and counting, working with numbers, shape and space, measurement and pattern

← 3. Self-regulation refers to the skills children develop to inhibit their impulses and direct their thought processes, enabling them to concentrate, retain information and complete short tasks.

← 4. Social-emotional skills refer to children's abilities in interacting well with others and in managing their emotions.