

Preparing the Ground: Early Learning Opportunities Can Make the Difference

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For decades, educational researchers have found that children from disadvantaged families often lack access to stimulating learning activities^{1 2}. Back in 1995, a famous study called “The early catastrophe. The 30 million words gap” by Hart & Risley³ uncovered a large gap in language exposure of toddlers between high and low-income families. At the same time, a stimulating learning environment at home or in childcare settings is important for child development and later schooling outcomes.

Capturing information on early learning opportunities

TIMSS and PIRLS⁴, two large-scale educational assessments of IEA⁵, include an “Early Learning Survey”^{6 7}. Parents of fourth-grade students are asked how often⁸ they engaged with their children in early learning activities such as reading books, telling stories, counting things, or playing with construction toys, before they entered school.

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¹ <https://www.sciencedirect.com/science/article/abs/pii/S0049089X03000772>

² <https://srcd.onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-8624.2006.00911.x>

³ <https://eric.ed.gov/?q=The+Early+Catastrophe.+The+30+Million+Word+Gap.&id=EJ672461>

⁴ <https://timss.bc.edu/>

⁵ <https://www.iea.nl/>

⁶ https://timssandpirls.bc.edu/timss2015/questionnaires/downloads/T15_HQ_4.pdf

⁷ https://timssandpirls.bc.edu/pirls2016/questionnaires/downloads/P16_HQ.pdf

⁸ Response options: often, sometimes, never or almost never

This survey has inspired us to examine whether the importance of early learning opportunities for later schooling outcomes hold in different countries and cultures around the world. Our analysis included data from more than 30 education systems that participated in TIMSS 2011, TIMSS 2015 and PIRLS 2011. The results were published in a policy brief of IEA's *Compass: Briefs in Education series*⁹.

High-educated parents engage more frequently into activities stimulating early learning

The analysis shows that highly educated parents engaged more often in learning activities with their children during early childhood than parents with lower levels of education. This finding holds across all countries.

Early learning activities are related to higher school performance

Our analysis also shows that students who – according to their parents – were more frequently engaged in early learning activities achieve higher scores in the reading, mathematics, and science tests. The positive association between the frequency of early learning activities and achievement holds irrespectively of the education level of parents.

Children of highly-educated parents more frequently attend pre-primary education, and for a longer period of time

Moreover, compared to children with parents with lower levels of education, those with highly-educated parents attended pre-primary education for a longer period of time (Figure 1). For example, 82% of children with at least one parent holding a university degree attended institutionalized pre-primary education for 2 years or longer, while only 69% of other children did.

Why this matters and what we can learn from it

How frequently parents engage in early learning activities is related to students' performance in primary school around the world. Further, children who attend pre-

⁹ <https://www.iea.nl/publications/series-journals/iea-compass-briefs-education-series/september-2018-preparing-ground>

Figure 2: Percentage of children who attended pre-primary education by parental education level (international average)

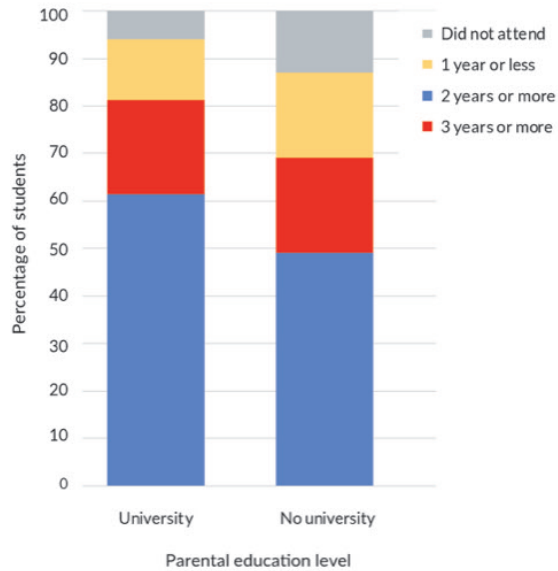


Fig. 1 Percentage of children who attended pre-primary education, by parental education level (international average).

primary education also have higher levels of achievement later in school.^{10 11 12 13}

It therefore seems that early learning opportunities at home or pre-school can help mitigate the learning gaps between socially disadvantaged and advantaged children. Therefore, we recommend efforts be made to increase participation in early childhood education programs, especially for disadvantaged children. Further, awareness should be raised amongst parents and caregivers regarding the lifelong impact of early learning, and opportunities should be offered to learn how to be more responsive to children’s needs.

¹⁰ https://timssandpirls.bc.edu/timss2011/downloads/T11_IR_Mathematics_FullBook.pdf

¹¹ https://timssandpirls.bc.edu/pirls2011/downloads/P11_IR_FullBook.pdf

¹² <http://timssandpirls.bc.edu/timss2015/international-results/wp-content/uploads/filebase/fullpdfs/T15-International-Results-in-Mathematics.pdf>

¹³ <https://www.iea.nl/publications/series-journals/policy-brief/november-2014-participation-arab-countries-early>

This text has been posted on the blog international-education.blog and it is available in different languages on international-education.blog

Meinck, S. & Stancel-Piątak, A. (2020). Preparing the ground: early learning opportunities can make the difference. Retrieved from <https://international-education.blog/en/preparing-the-ground-early-learning-opportunities-can-make-the-difference/>

The blog International-Education.Blog is an outcome of the project OCCAM. This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 76500.

