

HOW PREPARED ARE OUR CHILDREN FOR PRIMARY SCHOOL? EVIDENCE FROM ASER PAKISTAN 2012-2018

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The promise of Early Childhood Education

Children do not get to choose the socioeconomic class to which they are born, so why does socioeconomic class get to determine the child's success in school and beyond? Research shows that children born to disadvantaged families are already at a disadvantage in their education, even before they set foot in the classroom for the first time.¹ These gaps only widen once children start school, with disadvantaged children attending low-resource schools and advantaged students attending the 'best' schools. This cycle is exacerbated by initial preparedness for school: children from disadvantaged backgrounds are less prepared for school than children from more advantaged backgrounds, where the former are likely born to families that cannot teach their children basic competencies such as learning the alphabet or counting numbers and cannot afford to invest in preparing their child for school.

Early Childhood Education (ECE) works to rectify this situation. According to the World Development Report (WDR) 2018 on Learning, early childhood development and ECE "can launch children on higher learning trajectories" by teaching them the basic skills they might not be able to learn at home.² Early childhood is also especially important and an area largely emphasized in international discussion recently due to it being a "critical time" for the development of cognitive and character skills for the child (especially in a cost-effective manner, with a 7-10% annual social return on investment)^{3,4}. ECE thus promises to reduce inequalities amongst children from poor and rich backgrounds by ensuring the former is just as prepared for school and is given a chance to develop their cognitive and character abilities to the same level so they can thrive at school and beyond.

The promise of ECE can only be realized if universal access to quality ECE is given. This is especially important in a country like Pakistan, where net enrolment ratios⁵ are 77% at primary school, 49% at middle school and 31% at high school; one out of three children don't reach Grade 5;⁶ and those that remain in school are barely learning.⁷ The good news is that Pakistan, among 193 other nation states,⁸ is a signatory to the United Nations' Sustainable Development Goals (SDGs)⁹; among the goals all member states have vowed to achieve by 2030 is SDG 4 on education and, most relevant to this discussion, SDG 4.2:

*"By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education"*¹⁰

1 Lee, Valerie E & Burkam, David T. (2002), "Inequality at the Starting Gate: Social Background Differences in Achievement as Children Begin School," Economic Policy Institute.

2 The World Bank (2018), "LEARNING to Realize Education's Promise," World Development Report 2018 (WDR 2018), pp. 79.

3 Heckman, Moon, Pinto, Savelyev & Yavitz (2010), "The Rate of Return to the High/Scope Perry Preschool Program," J Public Econ, vol. 94(1-2), pp. 114–128.

4 The Heckman Equation, "Four Big Benefits of Investing in Early Childhood Development," available at <https://heckmanequation.org/resource/4-big-benefits-of-investing-in-early-childhood-development/>.

5 Net Enrolment Ratio: "Total number of pupils of the official primary school age group who are enrolled at primary or secondary education, expressed as a percentage of the corresponding population." (Government of Pakistan, Pakistan Education Statistics 2016-17, pp. 176).

6 Government of Pakistan, Pakistan Education Statistics 2016-17, pp. 38.

7 The Economist (2018), "Pakistan is home to the most frenetic education reforms in the world," available at <https://www.economist.com/briefing/2018/01/04/pakistan-is-home-to-the-most-frenetic-education-reforms-in-the-world>.

8 UNDP (2015), "World leaders adopt Sustainable Development Goals," available at <http://www.undp.org/content/undp/en/home/news-centre/news/2015/09/24/undp-welcomes-adoption-of-sustainable-development-goals-by-world-leaders.html>.

9 As part of the United Nations' 2030 Agenda for Sustainable Development

10 United Nations' Sustainable Development Goal 4.2, available at <https://sustainabledevelopment.un.org/sdg4>.

Pakistan has thus pledged to provide all girls and boys access to quality ECE by 2030, a promise that can pay vast dividends if achieved. It has been just over 3 years since countries began implementing this agenda, making it important to track if any initial progress has been made to preparing our children for school. This note studies the 'quality' component of ECE provision, with 'access' being covered in the preceding note by Aslam and Saeed (2019).

Have we made any progress?

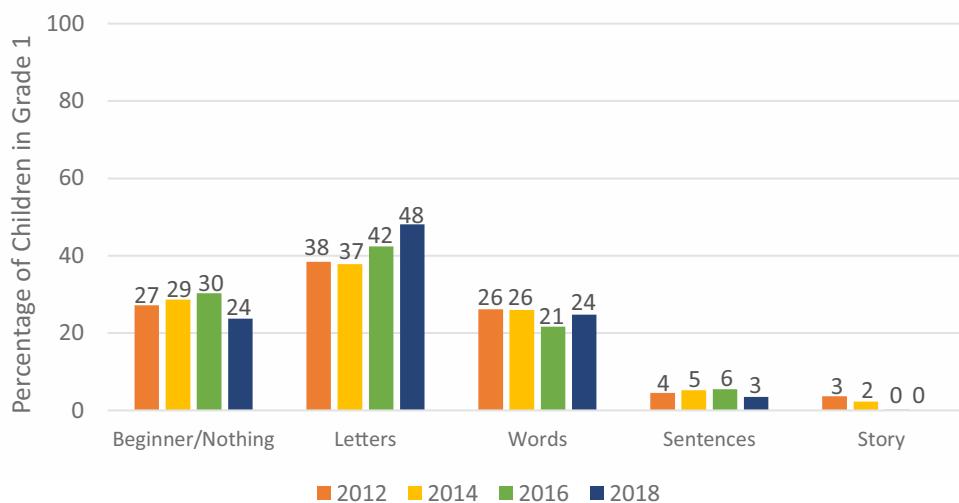
The national and provincial governments of Pakistan have demonstrated their commitment towards achieving SDG 4.2, making significant progress in their work on ECE in recent years. Most notable are the National Early Childhood Care and Education (ECCE) Curriculum (2017), ECCE Policy (2015) in Sindh and the ECE Policy (2017) in Punjab. With the framework for ECE starting to take shape, where do we stand nationally in terms of quality?

The quality of early learning and ECE can be assessed by looking at child learning levels in Grade 1 to see the child's level of preparedness for primary school. The Annual Status of Education Report (ASER) Pakistan is the largest citizen-led survey in Pakistan and collects data on more than a quarter million children¹¹ from across Pakistan annually. Among the data collected is the learning levels of children aged 3-16 using carefully designed tools to gauge reading skills in the local language as well as English (as a second language) and to assess arithmetic skills. ASER Pakistan thus provides a reliable dataset with which to determine child preparation for primary school by analyzing child learning levels in the first grade.

Local Language Reading Skills

The Pakistan National Curriculum for Urdu (2006) states that among the competencies children should have by the end of Grade 1 is the ability to read and understand basic sentences. In 2012 however, 27% of children enrolled in Grade 1 could not even identify letters in their local language and 38% could only identify letters (refer to Figure 1). These figures saw little movement in the following years, with the percentage of children being able to read basic words (a prerequisite for learning to read sentences by the end of the year) hovering around 25%. ASER Pakistan 2018 shows some improvement on this front with a fewer proportion of

Figure 1: Grade 1 Learning Levels
Local Language (Urdu/Sindhi/Pashto) Reading Skills



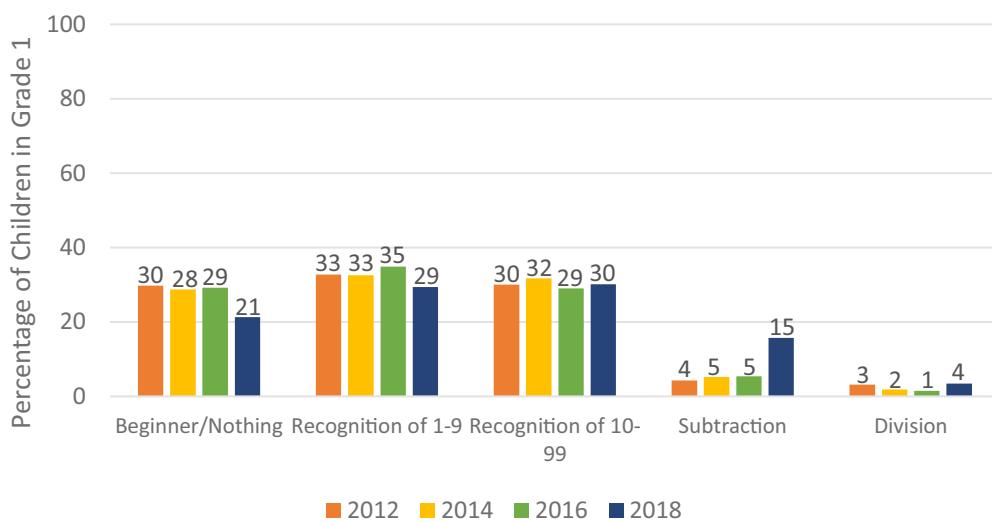
¹¹ From a comparison of ASER Pakistan 2012 to 2018.

children not being able to even identify letters (24%), more children being able to identify letters (48%) and words (25%), however fewer children being able to read simple sentences (3%) and a story (0%). That being said, the data shows that there has been a deterioration in learning levels for the mean child over the 6-year period, with learning levels being higher for the mean child in 2012 than in 2018 (statistically significant at a 99% confidence level).

Arithmetic Skills

According to the Pakistan National Curriculum for Mathematics (2006), by the end of Grade 1 students should be able to work with numbers up to 100, add and subtract two-digit numbers, work with abstract concepts such as currency, time and date, and learn to identify basic shapes and patterns. With that in mind, 30% of children in Grade 1 in 2012 could not even recognize single-digit numbers, 33% could only identify single-digit numbers and 30% could just identify two-digit numbers (refer to Figure 2). Again, the proportions saw little movement in the proceeding years until 2018. In 2018, 9% less children could not even identify single-digit numbers (now 21%) and 4% less children could only identify single-digit numbers (29%). Further, 12% more children could now perform basic subtractions (16% compared to 4% in 2012). This improvement in learning levels over the 6-year period for the mean child is statistically significant at a 99% confidence level, assuring us that improvement is actually taking place.

Figure 2: Grade 1 Learning Levels
Arithmetic Skills

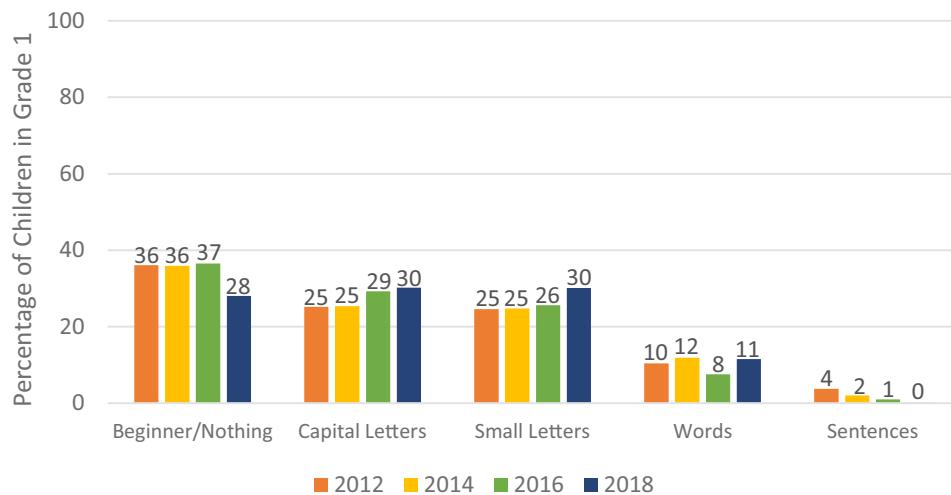


English Reading Skills

Among the reading competencies for the first-grade student in the Pakistan National Curriculum for English Language (2006) is the ability to read a short story (comprising of a few sentences) that the student is familiar with. From 2012-2016 however, we see around 36% of students being unable to even identify capital letters, 25% only being able to identify capital letters (29% in 2016), and 25% being able to identify small letters (refer to Figure 3). 2018 appears to be promising in the move towards primary school readiness in English, with 8% less children not being able to even identify capital letters, 5% more children being able to

identify capital letters (1% increase since 2016) and 5% more children being able to identify small letters. The proportion of children at the higher end of the spectrum, however, is not much higher in 2018 for those who can read words and actually lower for those who can read basic sentences. A statistical significance test to check for the change in mean learning levels is not particularly meaningful in this case as the mean values are too close to signify any reasonable improvement or deterioration.

Figure 3: Grade 1 Learning Levels
English Reading Skills



Next Steps

The promise of ECE as a tool for levelling the playing field between children from different backgrounds, increasing learning and producing a productive population with strong cognitive skills is evident. It is also clear that Pakistan's policymakers and politicians are cognizant of the importance of ECE and are making commitments at both national and provincial levels. Why, then, do we not see solid progress? As discussed above, there has been a deterioration in the local language reading skills and little change in English reading skills since 2012 for Grade 1 students. On the other hand, there has been a solid improvement in arithmetic learning levels since 2012 for Grade 1 students. That being said, there are still large numbers of children who do not even have the most basic competencies in any of the three subjects (24% in local language reading, 21% in arithmetic and 28% in English reading in 2018). It is therefore crucial to ensure that all children are provided access to quality ECE that particularly focuses on all three competencies, placing an added emphasis on the languages (especially English) where children are especially struggling.

