Learning During the Early Years: WHAT IS IT? WHY DOES IT MATTER? AND HOW DO WE PROMOTE IT?

Children need healthcare and nutrition to survive, but to thrive they need early stimulation. Parents and caregivers can provide this early stimulation, which lays the foundations for future learning and life success. Children are born ready to learn, and we must maximize their potential in the early years when their brains develop faster than at any other time in life. Countries can use a range of simple, affordable interventions to support young children and their families to promote early stimulation and scale-up access to early learning.
In this short note, we share with you the basic science of child development. We explain how children develop skills and what it means to promote early stimulation and early learning, and how to work with parents to promote better outcomes for young children. We highlight a range of different interventions to support young children and their families and share successful approaches countries are using to scale up access to early stimulation and quality early learning. Many of these approaches are simple and affordable, and many can be integrated into existing programs.

This work cannot wait
The world is facing a learning crisis rooted in children’s earliest years when we fail to invest in early stimulation and learning. Too many children cannot read, write or do basic math even after several years of primary school, eventually leaving school without the basic skills they will need to succeed in the workforce and live productive lives. We can—and we must—do better.

Moving from ensuring children survive to ensuring they thrive
Child survival has increased dramatically, largely due to improved nutrition and healthcare. But to ensure children thrive, we need to promote early stimulation, beginning at birth, to build the foundation for lifelong success.

Providing early stimulation
Simple, everyday activities—talking, singing, reading, and playing—stimulate babies’ neural development and build strong brains for life. Children learn through interaction and stimulation: they need to see, feel, hear, and taste to learn about the world around them. Engaged parents and caregivers are critical to provide these opportunities in a child’s earliest years before the child begins more formal early learning.

Expanding early learning
Even before children enter primary school, more formal early learning opportunities become important. Participation in preschool, playgroups, and other organized early learning can help children develop the early language, literacy, numeracy, and social skills they will need to succeed in primary school and beyond.

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Children are born ready to learn and in their early years their brains develop faster than at any other time

- In their earliest years—beginning even before birth—children develop the capacities on which their life-long learning, participation in society, contribution to the economy and well-being will depend.

- During the early years, the brain matures faster than at any other time of life and it is the most malleable it will ever be (figure 1). This malleability is a double-edge sword, presenting both a window of opportunity and vulnerability.

- Brain development is sequential and cumulative: simpler networks develop first and then more complex ones.

- All development—physical, sensory-motor, cognitive, and socio-emotional— is interdependent, constituting a web of dynamic links that ultimately influence lifetime success. Establishing strong foundations can lead to a virtuous cycle of development and life-long learning.

- Children need nurturing care and stimulation, protection from stress, healthcare and nutrition, and opportunities to play and learn during this critical period.

Skills developed in the early years build the foundation for future success

Between birth and when they enter primary school, children develop important skills that form the foundation for future learning, productivity and lifetime success. These skills include:

- **Cognitive skills** allow children to maintain attention, understand and follow directions, communicate with others, and solve progressively more complex problems. Children develop these skills by exploring the world around them, testing hypotheses, and learning to communicate (first through gestures, then language).

- **Executive function skills** are especially important, because they include the abilities that help children to focus and pay attention, plan and manage time, set goals, and regulate their own behavior in different contexts.

- **Social and emotional skills** allow children to get along with others and manage negative emotions and aggressive behaviors.

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**HOW DO CHILDREN DEVELOP SKILLS IN THEIR EARLIEST YEARS?**

Synaptic development for sensory pathways through which children see and hear

Through “attachment” children form bonds with parents and caregivers and build foundations for exploration and autonomy

Synaptic development for early cognitive and social and emotional skills

- **Language development**: Children increasingly express themselves through speech as vocabulary increases rapidly
- **Problem solving**: Children explore the world around them and test how things work
- **Early numeracy and literacy**: Children should begin to understand the connections between sounds and letters, understand bigger/smaller and name and draw shapes, etc
- **Executive function and self regulation**: Children should be able to follow simple directions and have some self-regulation and control to behave as they will be expected in primary school
WHAT DO CHILDREN NEED DURING THEIR EARLY YEARS?

A safe, secure and nurturing relationship with at least one caregiver

Opportunities for stimulation and exploration:
- Opportunities to see, feel, hear, taste and touch
- Positive and engaging interactions with caregivers (talking, singing, reading, playing games)

Socializing with peers:
Socializing becomes increasingly important: children need to interact with peers to develop social skills

Stories!
Children should listen to stories and engage with content, ideally understanding how to open a book and how text unfolds to build early reading foundations

Structured opportunities and learning through play:
More structured activities to develop skills through play-based activities targeting key domains and interactions with other children

Developmentally-appropriate high-quality, activity-based learning in the early primary grades

HOW CAN WE INTERVENE TO SUPPORT CHILDREN AND THEIR FAMILIES?

Support pregnant women and build the capacity of parents and caregivers to engage children in early stimulation

Build parenting skills, including non-violent discipline, and encourage parents to talk, sing and play with children, as well as telling stories (reading to them if they can)

Make quality, affordable childcare available to families to ensure that children are in safe and stimulating environments

Establish playgroups:
Playgroups help children socialize and can be used to promote effective parent-child interaction

Establish or expand preschools:
Preschools (formal or informal) provide structured, play-based learning and socialization

Improve early grades of primary education to ensure developmentally appropriate programming to foster a love of learning and help children build strong foundations
WHEN AND HOW DO DEFICITS BEGIN TO EMERGE IF WE MISS THESE WINDOWS OF OPPORTUNITY?

Differences in brain development are evident as early as a few months of age.

Children may be delayed in speaking.

Large gaps in vocabulary begin to emerge.

Children may have trouble focusing, regulating their behavior, sitting still or interacting with their peers.

Children struggle with basic tasks at primary school and fall behind peers who have had access to better early learning opportunities.

Why Does Early Learning Matter?

Today’s learning crisis has its roots in children’s earliest years. Deficits emerge early and have lifelong consequences if children don’t get what they need to thrive in their earliest years.

We fail children in their earliest years when we don’t ensure they get what they need to succeed such as health, nutrition, early stimulation and protection from stress.

Children from less advantaged families hear fewer words than children from wealthier families; in some countries this word gap is as high as 30 million words by the age of 3 years.

Children who make it to primary school enter underprepared and are behind before they even start.

Young adults don’t have the skills they need to be productive, employed citizens.

Countries don’t have the workforce they need for economic growth and stability.

Countries waste money through inefficient systems. Children repeat grades, drop out or spend years in classrooms without learning.

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Early Learning Works!

We have evidence from countries around the world demonstrating that children who attend early learning programs have better education outcomes.

**Children who attend early learning programs stay in school longer.** A global study of 12 low- and middle-income countries found that adults who attended preschool when they were children had stayed in school almost one year longer than adults who hadn’t.*

**Children who attend early learning programs have higher reading and math scores at age 15.** A global study of 65 countries found that in low- and middle-income countries, children who had attended preschool scored, on average, 83 points higher in math and 67 points higher in reading than children who didn’t.*. These tests are scaled for an average score of 500, meaning these are large and significant score differences (.83 and .67 standard deviations).

*all else constant

QUALITY MATTERS

As we scale early learning, it is critical that we invest in quality programs that will deliver better child outcomes.

Children need stimulating interaction, developmentally appropriate play-based activity, and capable and responsive caregivers and teachers. To ensure that we deliver quality early learning programs, we need to:

- Build workforces that are adequately trained, supported and remunerated
- Engage parents frequently in programs that offer opportunities to practice skills, not just listen to lectures
- Design classrooms and curricula that are child-focused, developmentally appropriate, and activity-based to promote responsive learning environments
- Ensure that services and programs are tailored to local contexts, utilizing local materials and languages
- Prioritize reaching the most vulnerable children and their families
- Build and strengthen systems to monitor and improve quality
How Do We Promote Early Learning?

There are many different ways to promote early stimulation. Integrating these messages into existing programs has proven to be an effective way to reach parents and children. Formal and informal preschools have shown to be effective vehicles for delivering critical early learning skills. If we think creatively, we can leverage existing service delivery channels, as well as new ones, to do even more.

**COMMUNITY HEALTH WORKERS**
Community health workers or other extension workers can deliver messages to parents to promote early stimulation at child health check-ups or community events.

**VOCATIONAL, SKILLS & YOUTH EMPLOYMENT PROGRAMS**
Training tracks for preschool teachers or childcare center operators can be developed within skills training programs to provide a better qualified workforce, more and higher quality early learning programs and employment for those in need.

**WAITING ROOMS**
Waiting rooms (for example in health clinics) can be used to give parents information, model behavior, organize activities for children and have stimulating toys and books.

**HOME VISITS**
Home visitors (often community health workers) can deliver messages to parents to promote child development and demonstrate techniques for early stimulation, reaching those in their homes who don’t access other services.

**Some countries where this is working:**
- Antigua, Jamaica, St. Lucia
- India, Liberia, South Africa, Tanzania
- Jamaica, Pakistan

We need to support and engage parents and caregivers to promote child development.

For programs targeting parents, evidence suggests that the most effective programs provide simple messages, opportunities to practice skills, frequent contact and coordination across services.
**EARLY READING CAMPAIGNS & COMMUNITY LIBRARIES**

Building children’s literacy from a young age is critical to later success in school and life. Engaging parents to tell children stories and to read (if they are able) with children can be done through information campaigns or specific outreach to groups or individuals.

**Some countries where this is working:**
- Kenya, Mozambique, United Kingdom, United States, Uzbekistan

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**RADIO, TV AND MOBILE TEXTING PROGRAMS**

New—and old—technologies offer us opportunities to reach children and families at low cost, at scale. Radio, mobile texting and TV can all be used to reach parents with information on how to promote child development through early stimulation, positive discipline and health and nutrition.

**Some countries where this is working:**
- Guatemala, India, Paraguay, Zanzibar

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**CASH TRANSFER PROGRAMS**

Cash transfer programs have expanded rapidly in all parts of the world in the last decade. Conditional or unconditional mechanisms can be used to ensure parents receive information (including on nutrition, health and early stimulation) and support to promote their children’s development.

**Some countries where this is working:**
- Burkina Faso, Colombia, Brazil, India, Kenya, Tanzania, Turkey

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**CHILDCARE, INCLUDING HOME-BASED AND AT WORKSITES**

Worksite childcare—organized on-site or nearby—can help ensure children are in high-quality programs while their parents work.

**Some countries where this is working:**
- Bangladesh, India, Indonesia

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**COMMUNITY PLAYGROUPS**

Bringing children together to play is important to promote social skills and can be good preparation for primary schools. Community playgroups can be organized at no or low-cost with limited resources. They also offer an opportunity to reach parents with information and support.

**Some countries where this is working:**
- Nicaragua, Pacific Islands, Sri Lanka, Vietnam

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**PRESCHOOLS**

Access to preschool is rapidly increasing in all parts of the world. Quality preschools are important to help children develop the cognitive and socio-emotional skills they will need to succeed in primary school.

**Some countries where this is working:**
- Bangladesh, India, Indonesia
In ETHIOPIA, pre-primary enrollment has grown from less than 5% in 2005 to 50% in 2016.

- The Government’s model of establishing pre-primary “O Classes” within existing primary schools allows rapid scale-up through existing sites within communities.
- The Government has expanded primary school grants to include O-Class funding, improved curricular materials, and launched training programs for pre-primary teachers and school leaders and it is conducting a study to measure quality and learning outcomes.

In TURKEY’S Mother-Child Education Program builds parenting skills to promote child development.

- This program costs just US$15 per family and operates nationwide, engaging mothers in weekly group sessions for six months. During the sessions, a range of topics are covered, including early stimulation, reproductive health and school readiness.
- Evaluation results are impressive: Mothers trained in the program speak to their children more and use less violent discipline. Children who benefited from the program performed better in their first five years of primary school and stayed in school longer than children who were not enrolled.

COLOMBIA finances home-based childcare in nearly every municipality, reaching 800,000 children and providing employment for community leaders.

- Community leaders, known as community mothers, receive basic training to operate home-based childcare centers. Each center can serve up to 15 young children and provides nutrition, health and activities to promote cognitive and socio-emotional development.
- Families pay a small fee to the community mother but the bulk of program financing comes from a national payroll tax.
- Children who have participated in the program for at least 18 months show improved cognitive and socio-emotional skills compared to children with less exposure.

ZANZIBAR uses radio-based interactive audio instruction to reach children with early learning.

- This affordable program has been sustained with Government and community finance for more than 10 years.
- Sessions are led by community members with basic training and are held in spaces donated by communities.
- Local materials, local language and an activity-based curriculum keep children and communities engaged.

MEXICO’S Progresa program has been operating at scale for 30 years, using cash transfers to encourage parents to invest in their children.

- Targeted families receive cash transfers every two months, conditional on children accessing health and education services. Families with young children are eligible for additional nonconditional cash support.
- Parents participate in sessions on child development, health and nutrition.
- Enrolled children younger than three years old have demonstrated greater language abilities and fewer behavioral and socio-emotional problems than children who do not participate.

EARLY LEARNING AT SCALE: Countries are using a variety of approaches to reach children and their families with quality programs.
VIETNAM expanded access to preschool for five-year-old children from 66% in 2011 to 84% in 2016, while improving quality and closing the achievement gap.

- Lunch subsidies for poor and ethnic minority children encourage enrollment and attendance.
- A new quality assurance system is working, with 34% of schools achieving the highest quality rating by 2016 (compared with zero in 2012).

INDONESIA provides communities with block-grants to operate community-based playgroups at a cost of just US$30 per child per year.

- The program has reached nearly 800,000 children and led to modest and sustained impacts on child development, especially for the most disadvantaged children, closing the achievement gap between richer and poorer children.
- Conservative estimates suggest that this intervention had a benefit-cost ratio ranging from 1.3 to 4.3.

UZBEKISTAN’S ambitious new program promotes early reading, engages parents, and expands access to preschool in rural areas.

- In less than five years, more than 55,000 children have enrolled in 1,220 new half-day preschools with 2,000 newly-trained teachers.
- Local government financing paid for building improvements.
- A campaign to engage parents and promote early reading has reached 275,000 young children with storybooks in the home and weekly story hours at community libraries.

BANGLADESH provides cash transfers to 600,000 families with young children to support child development.

- The Income Support Program for the Poorest (ISPP) project benefits an estimated 2.7 million people in eligible low-income households across the country.
- Mothers attend regular sessions that promote early stimulation, building bonds with newborn infants and developing motor, cognitive, social, and language skills.
For more information on the World Bank’s Early Childhood Development work:

For more information on the World Bank’s Early Learning Partnership:

To access the World Development Report 2018 (WDR 2018)—LEARNING to Realize Education’s Promise:

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