BREAKING THE POVERTY CYCLE



Social Enterprise Challenge

Early Childhood Education - the Unmet Need of the Century

With Special Call to Action by President Bill Clinton

Around the globe, more than a hundred million children under the age of six living in slums do not get quality education to prepare them for primary school and to be competitive in society. New research shows that early education starting from zero to six years is the critical and an unmet need of this century. Unfortunately, most parents and care providers do not provide adequate early childhood education. Government, NGOs and private sector efforts are not enough to solve this challenge. Social enterprises may be an effective option to address this issue. However, building social enterprises will be difficult.

Can we provide quality early education to ten million children under age six in urban slums by 2020?

Written by:

Hitendra Patel, Julius Bautista, Karla Gomes and Ronald Jonash







Dear Friends:

We are living in an era, where opportunities and challenges come hand in hand. Many enterprises around the globe are creating smart solutions around such challenges that are elevating the quality of human life. However with rising population and scarce resources, what we need is to create innovative platforms that would address these challenges and deliver more sustainable solutions.

I believe that the Hult Prize Competition is one such inspiring platform that can deliver solutions to address some of the key pressing challenges by utilizing the collective minds and efforts of some of the brightest young dynamic innovators from across the globe. In the past, we have tackled housing, energy, education, food security and healthcare challenges on a global level and the competition has yielded teams with some of the most powerful and reforming ideas. They managed not only to develop these ideas but also implement them in serving the greater good.

This year's Hult Prize competition will address the pressing challenge of early childhood education and helping the not so privileged children with their right to have quality education. Governments, the private sector and NGOs have been striving to reduce the cost of education and improve the access however these efforts are not showing the desired effect. More than 100 million children under the age of six in developing countries fail to reach their potential in cognitive development which not only have effect on their life but also their families, communities and nations in which they live.

In order to stem this crisis and alleviate the burden on those working to survive on just a few dollars a day, we must offer smart solutions that will drive down cost, motivate parents and create awareness on the importance of early childhood education. Social enterprises, which creatively combine the tools used by governments, NGOs, and the private sector, offer some of the most promising opportunities for innovation in these areas. Through the Hult Prize challenge, you will be part of the solution as you develop accessible, affordable educational programs capable of delivering quality early education to the millions of underprivileged children who desperately need to get education at the earliest levels in or near the world's cities.

Access to quality early education is every child's birth right. As you work to create business plans that advance shared opportunity, shared responsibility, and shared prosperity, I encourage you to take the opportunity to learn from other companies and organizations that have made strides in this area. I commend all of you who choose to answer this important call, and I look forward to seeing the many outstanding ideas the competition will produce.

Sincerely,

Riu Chiutau







Contents

Go beyond traditional business models

Authors

Research Team

Acknowledgements

education to prepare them for primary school and to be competitive in society	•
Over a 100 million children under the age of six live in slums and do not get proper education We believe that quality early education is a right and should be available for all children	5 5
New research shows that early education starting from zero to six years is the critical ar an unmet need of this century	
Providing education earlier will give a lifetime worth of returns Brain science shows that neurons in the brain begin to activate and connect on birth through	6
six confirming the importance of providing early childhood education As a result, early childhood education is key for preparing children for primary school and	7
beyond	8
Unfortunately, most parents and care providers do not provide adequate early childhood education	9
For most parents and other care providers, providing shelter, food, healthcare and love is the r focus for children between zero and six	
Limited time/money make it difficult for parents to provide their kids with early childhood education even if they want to	ation 10
Government, NGOs and private sector efforts are not enough to solve this challenge	10
NGOs offer better solutions but are not scalable	10
Private sector provides high-quality early childcare solutions but are too expensive	11
Social enterprises may be an effective option to address this issue	11
However, building successful social enterprises will be difficult	12
There is limited know-how about early childhood education and how it should be delivered	12
Most early childhood education systems are inadequately prepared to provide early education Social enterprises need to provide affordable solutions while operating in a challen environment	
Can we provide quality early education to ten million children under age six in urban slum 2020?	
Addendum: Create Successful Social Enterprises	
Find customers who can pay Use existing channels	16 16
Make offerings affordable and accessible	16
Build with local parts and knowledge	16



16

18

18

18

Figures

Figure 1.	Children Under Six Living in Slums	5
-	Growth Gap	
	The Ability to Change Brains and Behavior Decreases Over Time	
Figure 4.	Synapse Pruning and Formation	7
Figure 5.	Child Development Stages	7
Figure 6.	HighScope Perry Preschool Study Through Age 40	8
Figure 7.	Framework for the Social Enterprise Solutions	12
Figure 8.	Innovation Value Chain	12





"Mothers from informal settlements, all around the world, face the difficult decision each day to either pull out older child from school to take care of their younger siblings, stay home with their children, or go to work to make a living and leave their children in precarious childcare centers. In each case, the healthy growth and development of these children is compromised due to untrained siblings, lack of stimulation, unsafe physical environments, and caregiver neglect. Therefore, more than 100 million of children under six in developing countries fail to reach their potential cognitive development which not only have effect on their life, but also their families, communities and nations in which they live." - President Clinton

More than a hundred million children under the age of six living in slums do not get quality education to prepare them for primary school and to be competitive in society

Over a 100 million children under the age of six live in slums and do not get proper education There are over 450 million children below the age of six in urban areas worldwide. Out of these, approximately 100 million live in slums (see Figure 1).

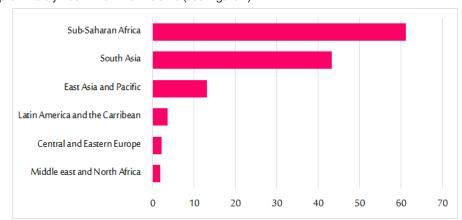


Figure 1. Children Under Six Living in Slums (in millions)²

In 2013, 1.2 billion people in the developing world lived on less than US\$2 a day.³ Low-income urban children experience more disadvantages compared to children from higher income-level families. They are usually less healthy and their language skills are less developed, which means they are generally much less well prepared to enter a school education program either socially, emotionally or physically.⁴

Education is one of the main factors that could help eliminate poverty and is a driver to creating wealth and improving people's lives. According to studies from UNESCO, if all children in low income countries left school with basic reading skills, 171 million people could be lifted out of poverty, which is a 12% cut in global poverty.⁵ Countries need educated people to succeed, and children that have adequate education are more likely to be successful. Nevertheless, due to their low income, many poor children don't have access to school or drop out to increase the family income, a factor that continues the cycle of poverty. According to UNESCO, an extra year of schooling in his/her childhood increases the individual earnings over a lifetime by 10%.⁶ It is estimated that each additional year of schooling for children with a nation increases average annual gross domestic product (GDP) growth by 0.37%.⁷ Studies have also shown that for every dollar invested in early childhood education results in a return of investment of \$7-\$13.⁸

There is not a clear agreement about what constitutes the exact age range of children involved in early childhood education. For the purpose of this document we will refer to the education provided to children between zero and six years of age. These tender years can open great opportunities for children, but they can also be fraught with great risks; children's experiences during these years have significant long-term consequences for their families, communities, and nations.

We believe that quality early education is a right and should be available for all children

In September 2010, UNESCO reaffirmed early education as a right of all children and as the basis for development. According to UNICEF, a quality education must include the following five elements⁹:

- Healthy learners, ready to participate, supported by families and communities
- Physical environments that are healthy and safe, while providing adequate protection for students
- Relevant content aligned with age-appropriate goals, rational development and standardsbased curriculum structures
- 4. Processes through which teachers use information to frame meaningful learning experiences



"Today we know how crucial the early years are for ensuring children's well-being and preparing them for primary school, a safe journey through education, and healthy, productive lives beyond". "And delays in early childhood interventions are difficult and costly to reverse later in life." — Jesko Hentschel, World Bank

 Outcomes that meet international standards - like literacy and numeracy - to attain life skills required to a productive member of a family and society

New research shows that early education starting from zero to six years is the critical and an unmet need of this century

Providing education earlier will give a lifetime worth of returns

Figure 2 shows the growth gap as the result of not getting early childhood education. Those who do not get quality early childhood education are less prepared for primary school, high school and in the workplace. The gap between the "haves" and "have-nots" increases to create virtuous cycle for the advantaged and vicious spiral for the disadvantaged. Figure 2 makes a compelling case for change.

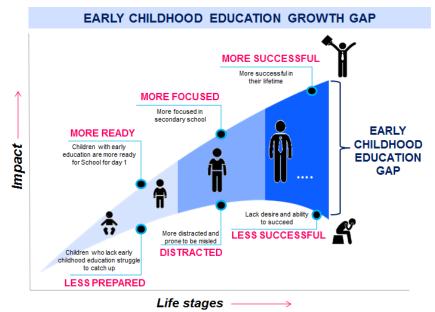


Figure 2. Growth Gap

Pat Levitt's research shown in Figure 3 provides insights for the importance of early education. According to Levitt, "It is easier and less costly to form strong brain circuits during the early years than it is to intervene or "fix" them later." The graph also shows that brain development at a later stage requires increasingly more and more effort. It is clear that those who invest early will get a lifetime worth of returns.

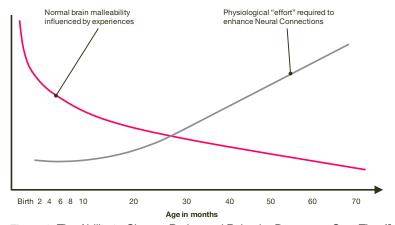


Figure 3. The Ability to Change Brains and Behavior Decreases Over Time¹⁰



Brain Development

"The first five years of life have a dramatic effect on later adult development. Seven hundred new neural connections are formed every second, laying the foundation for the learning, behaviour and health we need to grow up as productive adults."

- James Heckman, Nobel-prize winning economist

Brain science shows that neurons in the brain begin to activate and connect on birth through age six confirming the importance of providing early childhood education

A person's brain starts developing even before birth and continues rapidly during life's early years. The normal process of brain development includes "neural proliferation" and "pruning." At the time of birth, and even before then, the brain starts making connections and those that are not used are pruned away (see Figure 4). Children that did not receive enough stimulation and education in the early years will require much greater efforts to develop specific brain functions as they mature. This shows the importance of early education as it is easier to shape the brain in the early years when it is forming hundreds of new neural connections or synapses every second. The experience and stimulation given to the child will result in either strong or weak connections. These connections are associated with different functions and they evolve into more complex functions as time goes by. For example, children will first develop vision and hearing, which is then followed by higher cognitive functions.¹¹

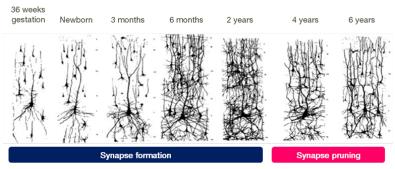


Figure 4. Synapse Pruning and Formation¹²

At each stage of brain development there are opportunities for learning. Whether or not a person can take full advantage of those opportunities depends significantly on the learning that takes place during his or her younger years, the period when the individual develops the ability to learn. The years up to age six are particularly important for later learning. During infancy a child gradually develops sight, hearing, receptive language, and speech. Between the ages of one and six, the brain develops very rapidly as the child acquires executive functions such as: working memory and self-control; higher cognitive functions (e.g. solving puzzles); fine motor skills (e.g. picking up objects and writing); and, gross motor skills (e.g. walking and running).

Early education must address the needs of children at each stage of their development (see Figure 5)¹³:

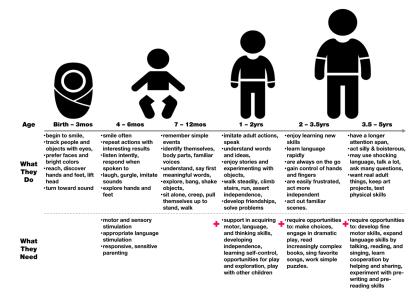


Figure 5. Child Development Stages



"Coming to school without words is like coming to school without food or adequate health care. It makes it harder for kids to develop their creativity and imagination, to learn, excel, and live up to their full potential. It should spur us to action just like child hunger and child poverty." - Secretary Hillary Clinton

As a result, early childhood education is key for preparing children for primary school and beyond

In order for young children to develop their brains, which prepares them for school and increases their potential for future success, they need to be able to have a safe and loving environment to encourage productive experimentation. This is best encourage by receiving stimulation from various environments and experiences and sustained activities to promote learning from repetition. Being deprived of these key factors greatly decreases the potential for a child's long-term prospects.¹⁴

There are multiple terminologies for the activities and programs devoted to children's education: early childhood development (ECD) as used by the World Bank and UNICEF; Early Childhood Care and Education (ECCE) as used by UNESCO; and Early Childhood Education (ECE) as used in schools and research articles.

ECE consists of activities, experiences and programs that are intended to impact the child's development prior to entering primary school. ¹⁵ The ages that fall under "early childhood" vary (zero to five, ¹⁶ zero to eight, ¹⁷ etc.), but it is generally agreed that ECE is done in the period before entering kindergarten or primary school. ECE aims to ensure that the child receives the appropriate stimulation, diverse experiences and sustained activities that will maximize the development of executive functions: memory, cognitive functions, communication and motor skills as mentioned above.

Early interactions with their parents, siblings, teachers, caregivers and other people will deeply affect a child's development and the level of education they can achieve. Children need to receive a combination of stimulation, support, nurturance and opportunities to learn in order to maximize their adaptability and success in later years.

It is in the domain of "opportunities to learn" where even small investments pay off for the long term (see Figure 5). For example, the numbers of words that children are exposed to as well as the number of positive or negative reinforcements received from their caregivers will make a big impact. Children with higher exposure to words and positive reinforcements before the age of three will have better vocabulary, language development and reading comprehension, which, by the age of nine can be already noticeable and will continue to make a difference for the rest of their lives. As more and more years pass the gap between children from low and high socio-economic level will only increase.¹⁸

Figure 6 brings to life the impact of preschool education in all aspects of life, whether preparedness for primary school, commitment for high school and earning potential.

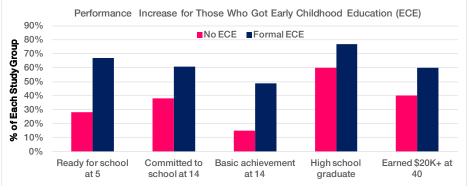


Figure 6. HighScope Perry Preschool Study Through Age 40¹⁹

Unfortunately, most parents and care providers do not provide adequate early childhood education

For most parents and other care providers, providing shelter, food, healthcare and love is the main focus for children between zero and six

Parents believe that in the early years, shelter, food, healthcare and love are key for child development and education will be provided by other institutions

When a child is born, a natural bond between the baby and the parents is formed. Parents have unconditional love for their child and will do anything to ensure that they can provide shelter, adequate nutrition and healthcare to their child. Most of the time parents do not think of education as an important element needed by their child at the early stages of their life. There is a common belief that education should, and will be provided when they are older... at least when they enter primary school. Education at the early stages of life is not seen as critical, especially from the ages zero to three. This way of thinking is an obstacle that keeps children from receiving education early in their lives, a misapprehension that can have repercussions for the rest of their lives.

Siblings, relatives and other care providers act and think similar to parents

Parents play a critical role in children's development. Parents living in slums earn a very low wages and work long hours trying to make enough to meet the basic needs of their families. They are forced to leave their children with older siblings, grandparents or other care providers who will not give the children what they need to develop fully. The caregivers do not do this intentionally but, like their parents, they are unaware of the importance of early education. When an older sibling takes care of the younger ones, they simply continue their family's familiar - and ineffective - approaches to teaching young children leaving their brothers and sisters no better off than kids of previous generations.



"I first met Rachel when I was working the Aga Khan University in Nairobi Kenya, in 2011. Rachel takes care of many children through an "innovative" concept called baby care centers, which moms - she calls them mang-entreprepages—onen their

2011. Rachel takes care of many children through an "innovative" concept called baby care centers, which moms - she calls them mama-entrepreneurs- open their door to take care of children. One day Rachel took us on a tour of many of these baby care centers, and I will never forget that day. We took off our shoes, opened the first door and went into this darkness and it was hot, it was enveloped by this smell of urine and feces, and it was crowded. I was not sure of what was going on, and when I started to walk my foot hit something and I looked down and I saw that it was a baby. And when I looked a little bit harder all around me I saw 30 to 35, maybe even more babies. All I could hear was silence." - Sabrina Premji, Co-Founder of Kidogo

Most day care centers focus on providing food and safety and not necessarily education

In some cases parents are able to leave their children in day care centers. These centers might be formal or informal groups formed by women in the community, in churches, other non-profit organizations, or even by the government. While parents are working, children can be left at these places, which provide a safe space where they can be fed and supervised. People overseeing children often do not educate them. It is, not because they do not want to, but because they are unaware of the importance of early education, and because they do not have the knowledge, skills or materials required to improve children's development.

Cultural norms exert pressure on parents to continue interacting with their children as in the past

Customs and beliefs are passed from generation to generation. Parents will do what they learned from their own parents and will try to educate their children the best way possible based on their own experience and what they were taught. Cultural norms make parents behave in a certain manner and are unlikely to change. The thought process and definition concerning what is right or wrong varies from country to country, from community to community. New options to positively impact ECE, even if they present great opportunities, must be accepted by the specific culture into which they are being introduced.

Parents and caretakers are providing informal education to their children however they can all do more to give children a better future

As an integral part of cultures and societies, parents do impart education to children between ages zero and six. These parents take the time to play, sing, talk and engage children in daily household activities. These activities do stimulate the brain development and better prepare children for success. However, more parents and caretakers could do more to integrate education as part of the portfolio for raising children and giving them a brighter future.

"I still remember my first visit to Govindpuri, one of the largest slum clusters in Delhi. Families had many children; most of them didn't go to school. When I asked, mothers said, "Yes, we want our children to go to school, but they have to support the family." At that time, many of our mothers were bravely managing their families, single-handedly, with 7-14 year olds helping out... — Geeta Dharmarajan, Executive Director, Katha, India

Government Efforts

Bangladesh has been successful in improving access to education and academic completion at all levels. As of 2010, about 76% of youth aged 15-19 completed primary education. But despite these steps forward, the country is still educationally deficient - 5 million Banaladeshi students are still out of school. Poor and disadvantaged students in urban slum areas and rural remote areas lag behind. Moreover, the remaining inequities of early childhood education are still large. Enrollment in early childhood development is quite low at present...The low enrollment of preschool combined with significantly high grade 1 repetition rates (at 7 percent), raises the issue of Bangladeshi primary school entrants' preparedness. Source: World Bank Bangladesh

Community Initiatives

In the mid-1980s, Bodh Shiksha Samiti began as an initiative program for providing primary school education to children of the urban poor in the slums of Jaipur, Rajasthan in India. What began with a school in a single slum, has, over the years, expanded to schools in seven slums. The approaches developed by Bodh over the years place great significance on community and parental involvement in the education of children. Every Bodh teacher, in the slum schools as well as in other schools, visits the household of one child in her group on average every day. She shares her impressions of the child's progress, and gets to understand the parent's perceptions. She records her findings in the cumulative assessment record book of the child, which is prepared monthly. This home visiting process truly seems to work to build a real partnership between home and school. Currently Bodh has three programs: its work with primary school children in slums; preschool programs in slum schools; and an extension program with government schools.

Source: http://www.ecdgroup.com/download/va1iaeco.pdf

Limited time/money make it difficult for parents to provide their kids with early childhood education even if they want to

Parents have limited time to educate their children

Parents living in slums work long hours and just make enough money to survive. As a result, the time spent with their children is very limited and does not allow them to give the caring and education they require. A study showed that 86% to 98% of the words used by each child by the age of three were derived from their parents' vocabularies. Without being exposed to other activities and knowledge it will be difficult for children to develop skills and neural pathways to perform better in this context. The lack of adequate social, emotional, cognitive or language development will reinforce the cycle of limited education that leads to poverty. As mentioned above, early interactions are crucial for children's development.

Studies have shown that children whose parents are less educated start their schooling unprepared for instruction. This leads to learning deficits from the beginning of life and results in academic failure in comparison to richer children, whose parents are better educated and have prepared their children for instruction at school.

Families have limited funds to pay or time to take their children to child care facilities that are able to provide early education

No matter what the real benefits of ECE are, the low income that families in urban slums generate does not allow them to pay for child care. In countries where the government offers this service for free, the number of facilities is small, often remote and difficult to access. Very often transportation is not available and parents cannot afford to spend the time required to reach the facility, instead, they would rather leave the children at home or bring them along to work and spend that time trying to generate more income.

Government, NGOs and private sector efforts are not enough to solve this challenge

Government efforts in urban slums mainly focus on primary and secondary education

Many governments that know about the importance of ECE have established plans in the past ten or twenty years to address this issue. In Africa in the past ten years, for instance, there has been activity around ECE, especially after the 2000 Dakar Framework for Action which commits participating countries to "Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children." There have been projects, studies, conferences, and funding provided around this topic. In the Middle East, government agencies have been assigned to set the policies and strategies for ECE programs. In Asia, typically there are individual ministries that lead ECE program efforts that are then executed by multiple agencies. In some cases the work is shared between several ministries such as education, child welfare and/or local government.

And yet, only 12% of children are enrolled at the ECE levels because of two reasons - (1) there is a lack of funding as plans are not linked to larger programs such as poverty reduction and social development, and (2) there has been no serious consideration as to how to actually implement ECE outside of the long-established urban primary school systems. In the Asia Pacific region, most countries have increased access rates for pre-primary education, but millions of children in the Asia Pacific region still do not have access to ECE services because of their poverty. In the Middle East, services particularly targeted to those in the 0-5 bracket are scarce.

The general picture painted by the situation is that the investments in programs and initiatives around ECE are not yielding the desired results.

NGOs offer better solutions but are not scalable

NGOs - including international developmental agencies, charitable organizations, and faith-based groups - have been a major provider of ECE services in many countries in the region. The not-for-

profit private sector can provide more innovative and flexible facilities than state-run services and are more open to the involvement of parents. They often provide much needed services.

There are some minor successes. For example, Teachers without Borders trained people who were called "Rowers": educators who received training on early childhood education and were ready to deliver early stimulation to children at different settings. The success of the program was based on providing the right kind of education while keeping a flexible approach that allowed them to work in small groups or families. Another example is Mexico where an initiative started by the government called CONAFE trains parents, educational agents, volunteers and other members of the community to interact with children through interactive sessions or home visits. Lastly, a community-based initiative is the Kenya Community Childcare Initiative in Nairobi that focuses on providing education to children in slums. However, most of these NGOs and nonprofits offer solutions that are not scalable.

Private sector provides high-quality early childcare solutions but are too expensive

The private sector offers high-quality private programs which have seen successful enrollments. For example, private institutions accounted for 22% of the total enrolment in ECE in Cambodia in 1999 and 30% in 2007. In Vietnam, the numbers for those same years were at 49% and 57%, respectively.

New technologies are changing the way instructors teach and children learn. Virtual classrooms have become more and more popular in the developed world. Open Online Courses provide an opportunity to reach thousands of students, teachers or caregivers, at a time without regard to classroom "space" or location ... and at a lower cost than conventional brick-and-mortar schools. New cutting-edge technologies - such as the speech recognition software, Lena - are emerging and helping to improve children's education. For instance, Lena collects, processes, and analyzes the language environment and development data for children who are between 2 to 48 months. It tracks the number of words that parents or caregivers speak to children, the interaction between them, which increases the parent's awareness of the positive impact of speaking to children.

Studies have shown that integrating technology into education has a strong, positive impact on student performance when implemented appropriately. Digital content along with the use of tablets or laptops and internet are accelerating the speed at which information can be shared, no matter the location and time. Gaining knowledge is easier and more accessible for many more people. However, private for-profit services remain too costly for poor families.



"Social enterprises, which creatively combine the tools used by governments, NGOs, and the private sector, offer some of the most promising opportunities for innovation in these areas." – President Clinton

Social enterprises may be an effective option to address this issue

Social enterprises deliver both social impact to improve lives and business profit that promises scalability and sustainability of their ECE projects. They deliver social impact by improving the education of the world's most vulnerable people. While social enterprises can be either for-profit or not-for-profit organizations, they all aim to utilize a pricing strategy and business model that will create a sustainable, consumer or partner-driven business model. This helps reduce or eliminate dependence on donations and cash injections. Education will benefit from the emergence of more social enterprises that integrate school education within the economic activities of a community.

Social enterprises offering early childhood solutions will need to have a deep understanding about how children learn from zero to six years of age and also through different development stages. They also need to understand what learning outcomes prepare children for primary school and beyond. As a result, the enterprise will need to be clear of what metrics to use and what to measure to show that their solutions actually delivers the expected outcomes.

The good news is that children are naturally curious and want to learn. They develop intellectually, socially and physically through playing. Their brain development is less if limited to a few activities and more if exposed to a variety of activities. The type of stimulations, frequency of stimulation and



Kidogo

Founded in 2014, Kidogo is a start-up social enterprise committed to improving access to early childhood care and education in urban slums in East Africa. Kidogo operates high-quality, affordable, play-based Early Childhood Development centers that are either in partnership with local organizations, or with local women running existing home-based day care centers through micro-franchising.

diversity of stimulations all contribute to defining the growth of the child's brain and his/her future preparedness. Another contributing factor for brain development is providing regular and frequent feedback. The feedback reinforces and focuses learning outcomes for the child. This feedback could be provided by self, parents, siblings, relatives, friends, care takers or through technology. Figure 7 shows a framework to help define solutions that may fit with the challenge.

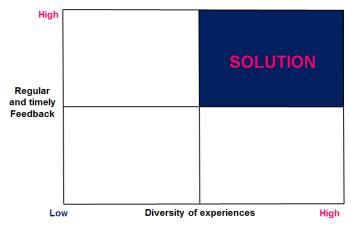


Figure 7. Framework for the Social Enterprise Solutions

The enterprise will need bigger, better, bolder, faster and cheaper solutions across the elements of the innovation value chain (see Figure 8) if it is to succeed. Those solutions that integrate the participation of slum dwellers are considered even more compelling because they create employment, purpose, and economic wealth for these individuals. Robust and scalable business solutions that create economic wealth across the value chain for all stakeholders are needed to improve the quality early education for people in slums.



Figure 8. Innovation Value Chain

Efforts are already in place to create solutions around food security and health. For that reason, we encourage solutions that focus on building awareness, defining early childhood education, and providing early childhood education solutions.

However, building social enterprises will be difficult

There is limited know-how about early childhood education and how it should be delivered Most individuals do not know what early childhood education is

Very few people around the world understand the importance of early education and the negative impact on children's lives when it is not provided. For years, and even generations, the belief that love, shelter, nutrition and healthcare were the only factors that children need at their early stages prevented individuals, families and even whole societies from providing the right stimulation to children. Awareness campaigns must take place to make parents understand the importance and impact of not offering early education to their children.

Or they do not know how to deliver it

Some parents may, knowingly or intuitively, understand that their children need early education,

but this does not mean that they realize what their children need at the different stages of their development. Since parents are responsible of providing early education to their children, an appropriate education and training program for them must be put in place. Parents need to understand that from the time their child is born that, they must be exposed to positive interactions, stimulation and other age-appropriate activities.

Most early childhood education systems are inadequately prepared to provide early education Early childhood educators are scarce and do not have adequate training

A system to recruit, certify and train teachers will be required. As of now, the quality and training of teachers in low income countries is another barrier that affects education. There is an average of 43 students per teacher in low income countries, which makes the job much more difficult even for well-trained and experienced teachers.²¹

Traditional training will not be enough. Teachers need to understand how to treat children who come from a wide variety of home environments to positively impact their education. For instance, lack of self-confidence or self-discipline impacts children performance and development. There are other more complex reasons such as trauma and family violence in early life which creates specific learning difficulties that often block children's capacity to learn. Teachers working in slums should be exposed and use different methods that have proven to have a positive impact in different parts of the world. In Rio for example, a new pedagogical system successful in a slum was implemented in 150 schools. The program integrates neuroscience and didactics, and is thus able to fill in the learning gaps which prevent children from making progress.²²

Technology solutions are difficult to access

There are several factors that prevent children from accessing technological solutions. Limited resources will prevent day care facilities from acquiring tablets or other electronic devices that could improve early education. Along with that, their poor infrastructure very often does not provide internet access. A lack of buying power often prevents families from being able to afford low-cost cell phones or other devices that could promote home education for their children. And in the cases in which families do have a wireless device, intermittent electricity and unreliable internet access can often limit their practical use.

Facilities do not have the necessary resources, technology and infrastructure to provide quality education

Overall, we see that learning infrastructure is not adequate for educational needs. It is common to find a one-room school where a large group of children from different ages gather to study. Lack of appropriate electricity, clean water and sanitation is common, This leads to children becoming ill and often makes them miss school.

In general, the number of ECE schools compared to the number of poor children is very low, and their location is often not easy to access. Transportation is not always available and parents have to go to work and do not have time to take their children to school. In many areas, the facilities and the surroundings are affected by floods or in locations that are hard to reach. This difficulty in accessing schools makes parents less likely to take their children to a day care facility.

Social enterprises need to provide affordable solutions while operating in a challenging environment

Consumers are difficult to serve

People in slums make less money. The jobs that people do access are often irregular and provide fluctuating income. Social enterprises will need to have business models that can accommodate inconsistent consumer income and potentially address income insecurity as well.

Slum dwellers typically have incomes between USD1.00 to USD5.00 a day. Social enterprises that target this segment will have to provide low-cost solutions that consider financing and savings opportunities within this income level.

Solutions need to consider cultural norms and gender biases

A social enterprise solution can only succeed if the local customs, traditions and beliefs are integrated into the business model. By focusing on these key aspects, the probability for people to accept and align with the program greatly increases.

Finances must be efficient

Social enterprises need to operate with razor-thin margins in an environment of fluctuating demand and supply. In informal business (which dominates the economic landscape in urban slums), relationships with teachers, other suppliers and customers are also informal. There are few, if any, contracts. To reduce cost, social enterprises will need to grow significantly to enjoy economies of scale while maintaining quality education. Both working capital and scaling up can be managed through financing. Unfortunately, financing for companies working in the slums or targeting poor slum dwellers is limited to a few micro-financing institutions.

Assets must be able to bear risk

Social enterprises working in slums are exposed to higher risk from supply chain inefficiency, fire hazards, natural disasters, corruption and high crime rates. Most insurance organizations are unable to assess the risk, claims and premiums accurately enough in slums to build a viable business. Social enterprises have to manage their environment and assets to ensure business continuity in the face of risk that most enterprises in wealthier regions have insurance for.

Partners across the value chain are difficult to work with

Formal and informal schools (whether privately or publicly owned/managed), tutors, professors and parents must ensure quality early education to children in slums. Along with these players, suppliers of training, infrastructure, material, content and technology must work together to ensure quality, low cost and accessible solutions. Additional partners to incorporate health, nutrition, water, sanitation and hygiene are required. Social enterprises will face significant challenges in building a consistent and predictable supply chain.



"I commend all of you who choose to answer this important call, and I look forward to seeing the many outstanding ideas the competition will produce." – President Clinton

Can we provide quality early education to ten million children under age six in urban slums by 2020?

This challenge seeks solutions to the problem of providing quality early childhood education to those living in slums. The winning business solution should have a significant measurable impact. A list of questions to help develop a good winning business solution is provided below. It should have a sustainable business model. It should provide quality education to children from the time they are born up to the age of six. It should have a staged implementation plan with clear milestones and funding required for each milestone. Overall, the winning solution should scale rapidly to serve an ever increasing number of children in a relatively short time.

Metric	Guiding Questions
Right Target	 Does your solution provide education to children 0-5 years of age?
Better Availability and Accessibility	 Do parents know where to go? Are caregivers everywhere? Is it replicable and scalable? Is it sustainable?
Improved Quality	 Does your solution focus on multiple stages of children's development? Will children get diverse experiences and feedback? Are you ensuring quality of education? Are the caregivers and teachers well-prepared? Does the solution stimulate learning in different ways
Better Reliability	 Do parents trust the care providers or teachers? Are your solutions culturally accepted? Is there monitoring of progress?
Increased Affordability and Reduced Cost	 Is it affordable? Do you use technologies that reduce cost and can train more caregivers? Do you use local people and local materials?

Addendum: Create Successful Social Enterprises

To develop a solution, lessons learned by other companies, NGOs and social enterprises in other industries should be considered. IXL Center uses the innovation value chain to find growth and opportunity in new areas. There are bright spots around each section of the innovation value chain – market, delivery, offering, production and business model – that should be considered as inputs when developing solutions for the poor (see Figure 8).

Find customers who can pay



- Target profitable customers and segments
- Know your customers' needs and behaviors
- Plan for consumers who lack trust

What you should ask:

- Who is your target customer? Social enterprises typically target those who earn more than 2 USD/day.
- What are your customers' needs and purchase behavior? Offerings need to delight customers and be integrated in to existing behaviors.
- How will you build trust and credibility for your consumers? Making the wrong decision has much more serious consequences for the poor, so customers must trust in what they pay for.

Use existing channels



- Tap existing channels
- Use powerful influencers
- Leverage virtual solutions

What you should ask:

- What existing distribution channels of major corporations or local business can you work with? Channels that have already been built may cost money, but they are effective and ready immediately.
- Who or what are the influencers that can accelerate acceptance of your offering? Strong relationships and word-of-mouth networks can scale social enterprises quickly.
- How can you use new and existing technology to move goods and services virtually? Finding solutions that leap-frog the developed world with technology can be more cost-effective.

Make offerings affordable and accessible



- Right-size solutions
- Hold people and organizations accountable
- Focus on human-centered design

What you should ask:

- How can you build your offering in pieces? Low-income families can pay for things bit by bit more easily than all at once.
- What can you do to ensure accountability? Audits and monitoring should be embedded to keep business trustworthy.

 Who are you designing for? Your customers are more likely to pay for things that were designed with them in mind.

Build with local parts and knowledge



- Use parts that are available where you are delivering
- Apply insight and knowledge of the community
- Build with assets of value

What you should ask:

- What do you need to replace parts of your offering with locally available supplies? You can save money and time by building closer to home.
- Who has knowledge that can help you be more successful on the ground? Navigating communities often requires local support and engagement.
- What assets will make your enterprise more valuable by itself? Just because something is free, does not mean it is valuable to your operations.

Go beyond traditional business models



- Provide value exchanges and microfranchises
- Create intangible value
- Create a business model with flexibility

What you should ask:

- How does your solution capture the value you create? Capturing value is a critical step to making your social enterprise economically self-sustainable.
- What do you offer people that is difficult to put a price on? Your offering will be more interesting
 if you free up people's time, or increase self-esteem, dignity, security or happiness.
- What are the different stages of your business model? You may need to finance operations differently during the pilot and early stages than you do at scale.

Companies who are able to think broadly and holistically about the entire business innovation value chain are more likely to be able to capture value. Social enterprises developed for the Hult Prize, like Aspire, Reel Gardening, Pulse, Poshnam, Origin and Sokotext, have worked across these segments to scale offerings that will help end food insecurity in urban slums. They are working on the ground, today, to produce at lower cost, find offerings that delight consumers, deliver quickly and effectively, build brands that inspire trust, and use partners and networks to help capture new value in new ways. How can you do the same for a child's early education?

AUTHORS



Dr. Hitendra Patel

Managing Director, IXL Center; Hult Professor of Innovation and Growth; Hult Prize Board Member Hitendra Patel is the Managing Director of the IXL Center. He helps Fortune 1000 companies identify and

Hitendra Patel is the Managing Director of the IXL Center. He helps Fortune 1000 companies identify and implement new growth engines or helps them build innovation capability. He has written all the cases for the Hult Prize and is on its advisory board. Previously, Hitendra worked at Monitor, ADL, and Motorola.



Julius Bautista Consultant, IXL Center

Julius works on product development and research efforts at IXL Center. He has contributed to the development of white papers, articles and books around the topic of innovation. Additionally, Julius co-wrote the One Laptop per Child (OLPC) case used by Hult Prize for the 2012 challenge. He is also a mentor at the Hult Innovation Olympics helping MBA students generate breakthrough ideas for OLPC to educate more children in developing countries.



Karla Gomes Consultant, IXL Center

Karla has more than four years of consulting experience working in Strategy and Organization (S&O) related projects where she worked with public and private sector clients for various industries such as energy, finance and construction, among others.



Ronald Jonash Partner, IXL Center

At Arthur D. Little for 25 years, Ron led the effort to translate strategic planning methods to the institutional and non-profit sector as well as the effort to transition a technology innovation practice to a broader strategic innovation practice. Ron was also head of the Innovation practice at the Monitor Group for five years before launching the Center for Innovation Excellence and Leadership and the Global Innovation Management Institute.

RESEARCH TEAM



Leticia Gonzalez-Reyes Hult Prize Regional Director, Hult Prize

Leticia creates and manages relationships for the Hult Prize Foundation. She has designed and implemented the strategic plan for the first Hult Prize Regional competition in Latin America, in 2013, and has worked in partnership with IXL Center for the execution of the Hult Prize Accelerator Program in 2014. Leticia has a B.A. in International Relations from Ibero-Americano University and a Master in Social Entrepreneurship from Hult International Business School in London.



Rohan Sakpal Associate Consultant, IXL Center

Rohan is an MBA graduate from the Hult International School and currently an Associate Consultant at the IXL Center working on business development and innovation consulting projects. Prior to IXL Center, Rohan has over 5 years of experience in procurement, supply chain and operations with an Indian conglomerate Godrej and Boyce Co Mfg Ltd. He specializes in commodity sourcing, metal market trading and new product packaging development.



Arnaldo Arnal Associate Consultant, IXL Center

Arnaldo is an Industrial Engineer and a recent graduate of a Masters of International Business at Hult International Business School. He is currently working as an Associate Consultant at IXL, where he is working with organizations for new business growth by establishing innovation management capabilities. In his past three years he has focused on optimizing processes of the Supply Chain in both Service and Manufacturing industries.



Arturo Jimenez Associate Consultant, IXL Center

Arturo is an MBA graduate from the Hult International Business School and currently an Associate Consultant at the IXL Center. He is a candidate for Corporate Sustainability and Innovation degree at Harvard Extension School. He has an Industrial Engineer degree from Universidad del Norte and is part of several entrepreneurship and innovation clubs and initiatives.

ACKNOWLEDGEMENTS

Special thanks to the following individuals and organizations for their input and insight: Hillary Clinton, Former Secretary of State, Senator and First Lady of the United States Laura McSorley, Teach for America

Sam Carlson, Lead Education Specialist for the World Bank in India

Maria Isabel Amal de Gomez, Specialized Psychologist in Child Development

Lynn Foden, Chief of International Operations at Room to Read

Seema Aziz, Managing Trustee, Care Foundation

Patti Miller, Director, Too Small to Fail

Ann O'Leary, Vice President and Director, Next Generation

SELECTED REFERENCE SITES AND SOURCES

- ¹ http://www.unicef.org/eapro/EN-FINAL_FULL_REPORT.pdf
- ² Data on the graph is extrapolated from several sources: (1) the Lancet Child Development Series report (2) 2005 and 2015 population reports from the UN
- ³ http://www.worldbank.org/en/topic/poverty/overview
- 4 http://www.unesco.org/education/poverty/news.shtml
- ⁵ EFA GMAR, UNESCO, p.8 http://unesdoc.unesco.org/images/0019/001902/190214e.pdf
- ⁶ EFA GMAR, UNESCO, http://unesdoc.unesco.org/images/0019/001902/190214e.pdf
- ⁷ EFA GMAR ,UNESCO, p.7 http://unesdoc.unesco.org/images/0019/001902/190214e.pdf
- 8 Range is extrapolated from several sources: (1) http://www.acgov.org/ece/documents/economic_investment_funding. pdf (2) http://www.waisman.wisc.edu/cls/cbaexecsum4.html (3) http://www.ncsl.org/research/human-services/new-research-early-education-as-economic-investme.aspx
- http://www.unicef.org/education/files/QualityEducation.PDF
- 10 http://grahamscharf.com/early-childhood-recommended-resources/
- 11 Graph source: P. Levitt (2009), http://developingchild.harvard.edu/index.php/download_file/-/view/1110/
- 12 http://developingchild.harvard.edu/resources/multimedia/interactive_features/coreconcepts/
- ¹³ http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTCY/EXTECD/0,,contentMDK:20260280~menuPK:524346 ~pagePK:148956~piPK:216618~theSitePK:344939,00.html
- $^{14}\,http://siteresources.worldbank.org/EDUCATION/Resources/ESSU/Education_Strategy_4_12_2011.pdf$
- 15 http://www.healthofchildren.com/E-F/Early-Childhood-Education.html
- 16 http://www.education.com/reference/article/Ref_What_Early_Childhood/
- 17 http://www.unesco.org/new/en/education/themes/strengthening-education-systems/early-childhood/
- 18 http://centerforeducation.rice.edu/slc/LS/30MillionWordGap.html
- ¹⁹ Graph source: Schweinhart, L. J. et. Al. (2005), http://www.oecd.org/education/school/48980282.pdf
- ²⁰ http://centerforeducation.rice.edu/slc/LS/30MillionWordGap.html
- ²¹ EFA GMR 2012 table 10, p391 http://unesdoc.unesco.org/images/0021/002180/218003e.pdf
- 22 http://www.theguardian.com/teacher-network/teacher-blog/2013/sep/17/teaching-favela-schooling-street-children-pedagigy-neuroscience-achievement-gap

The Hult Prize and IXL Center have compiled research for this case from known and credible sources. The authors have attempted to use accurate information as much as dynamic data can be accurately measured and reported. The authors explicitly disclaim to the extent permitted by law responsibility for the accuracy, content or availability of information located throughout this case or for any damage incurred owing to use of the information contained therein.

About IXL Center



The Center for Innovation, Excellence and Leadership's vision is to Make Innovation Management a critical business discipline in corporations and business schools around the world. Its mission is to help corporations and individuals develop world-class innovation management capability while driving significant business impact. IXL Center delivers this through Training, Coaching and Advisory services to create innovation breakthroughs and to build the innovation capabilities of individuals, teams and organizations. Clients achieve bigger, bolder, better results more quickly and cost effectively though blended learning and action learning programs and collaborative research projects. IXL Center is a global community of innovation thought leaders and practitioners with offices in Bolzano, Boston, Dubai, London, San Francisco, Shanghai, São Paulo and Seoul. Learn more about us at http://www.ixl-center.com.