
Playing Every Day on Sesame Street

Global Learnings from a Play-Based Pilot Intervention in India, Mexico, and South Africa

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Research has shown that playful learning helps foster the development of young children. Adult guidance of this play in meaningful ways can unlock the transformative power of education. Lack of knowledge about guided play, however, often leads to children growing up without opportunities to learn through play. Considering this, the authors analyze findings from the pilot phases of Play Every Day, an intervention based in urban communities in India, Mexico, and South Africa. This program is designed to shift the perceptions of care givers about play and its relationship to child development and to allow them to guide children in learning through play. The authors describe the program's intent to contribute to global knowledge of best practices for promoting playful learning. They discuss developing a global framework and contextualizing its delivery to empower care givers as ambassadors of learning through play in young children's lives. **Key words:** guided play; Play Every Day project; play in India; play in Mexico; play in South Africa; scaffolding play; Sesame Workshop

IT IS WELL ESTABLISHED THAT PLAY is an integral component of early-childhood development . Research has shown that playful learning helps foster the development of young children and lay the foundations for them to become creative, engaged, lifelong learners. Thus, play constitutes an important part of a child's daily routine, an often underused space in which valuable teaching and learning can take place (Brooker 2013, Kelly-Vance 2008).

Even more, for parents and care givers, the capacity of adults to guide play in meaningful ways can unlock the transformative power of education for young children. However, lack of knowledge about how the benefits of guided play contributes to early-childhood development (ECD), particularly in low-resource and low-income settings, continues to result in young children growing up without adequate opportunities to develop through play (Lansdown 2005).

We analyze findings from the pilot phases of Play Every Day, an intervention based in urban communities in India, Mexico, and South Africa designed to shift care givers' perceptions about play and its relationship to child development and learning and to empower them to guide children effectively in learning through play. This program intends to contribute to the knowledge of best practices for promoting playful learning. Using findings from formative research done through a series of community events at which care givers and children experience and practice guided play, this study seeks to demonstrate the universalities of play between care giver and child and the importance of cultural contextualization both to support care givers' understanding of the value of play for children's development and to enhance their role as play mentors.

Although play is both a universal phenomenon and a cultural construct (Haight 1999, Oke 1999, Edwards 2000, Parmar 2008), the design-based research of this pilot offers a series of recommendations for intervention design that supports care givers' confidence as play mentors, their understanding of the value of play in children's development, and the time they spend engaging their children in guided play activities using a variety of materials.

Project Overview

Sesame Workshop and The LEGO Foundation launched Play Every Day, a multicountry project aimed at empowering care givers to leverage play in support of children's early development and lifelong learning and to contribute to global understanding of best play practices as an integral part of daily life.

Implemented in disadvantaged urban and periurban communities of India, Mexico, and South Africa between April 2016 and December 2018, Play Every Day invited care givers and children to engage in various play activities in three development phases of play workshops, followed by a scaled-up intervention rolled out in each country.

Overarching Principles

Among the types of play described by Fisher (2011)—free play, guided play, and didactic instruction—principles of guided play informed Play Every Day. Although free play and didactic instruction are both associated with positive learning outcomes, evidence suggests that child-led play with some degree of adult guidance and scaffolding is most effective for achieving positive educational

outcomes with preschoolers. Under guided play, a child leads in active, engaged play while a supervising adult asks questions aimed at pointing the child toward specific learning outcomes in a playful, fun, and relaxed way. It often involves selected toys or props with which a child interacts to gain knowledge and a supervising adult who closely observes and interacts with the child.

To that end, the trained play workshop facilitators of the Play Every Day project coached caregivers to guide play gently but meaningfully by designing settings to highlight learning goals (e.g., learn new words), ensuring that children lead the play experience so they can freely explore within that setting (e.g., a pretend restaurant), and scaffolding the learning that takes place (e.g., making comments, encouraging children to question, and extending the children's interests). The workshop emphasized activities that focused on children's enjoyment and ability to take the lead, which is important in maintaining children's interest and thereby promoting the greatest developmental gains.

Balance between Standardization and Contextualization

The project maximized its multicountry model to standardize a framework, implementation process, and research approach, while judiciously contextualizing education content and day-to-day operations based on the needs assessment findings. Specifically, Play Every Day: consulted local and international experts on play and early-childhood development and care givers throughout the process of designing the Play Workshops and Intervention; recognized cultural norms, potentially sensitive issues, and current play beliefs in each country to develop play activities and learning materials that speak to them through inclusive sampling of participants across gender, ethnic, racial, socioeconomic, and disability groups during the Play Workshops and Intervention; and employed varying activities under the same types of play (e.g., use different found objects for a building activity and vary scenarios for imaginative play).

Informed by a needs assessment conducted in Delhi, Johannesburg, and Mexico City to better understand the role of play in children's lives and care givers' perceptions of the value of play in children's development (Foulds 2017), Sesame Workshop used the three development phases to test play activities, materials, messaging, and delivery platforms to ultimately design an intervention that will help care givers develop an awareness of the importance of play for children's development and engage their children in play in various ways.

Although this analysis focuses on the testing specific to care giver participation, project outcomes focused on both care giver and child. For

example, the project intended that participating care givers would have greater knowledge about the importance and benefits of play for children's long-term cognitive and socioemotional development. They would spend more time engaging with children in a variety of guided play activities with a variety of materials. They would increase confidence and joy of playing with their children. And they would exhibit a higher quality of interaction with their children (e.g. affective warmth, joy, feeling words) during play activities. The project sought to make participating children, for their part, spend more time engaging in a variety of guided play activities with a variety of materials and demonstrate more creative and flexible thinking skills.

To help develop a scaled-up intervention that supported care givers' confidence as play partners and their knowledge of the value of play in children's development, the project undertook two phases of research. The first phase, a needs assessment helped inform the curriculum framework and the initial workshop design, including materials, messaging, and activities. Findings from the second phase, three rounds of piloting focused on iterative testing and refinement of the workshop experience, helped inform the scaled-up intervention.

Needs Assessment Findings

During the needs assessments, there were four primary goals: to learn more about families' access to materials and media that support play; to understand the role of play in children's lives; to assess care givers' understanding of the value of play; and to examine barriers to play. To address these four goals, in-country research teams carried out interviews at several sites in each country. Data collection instruments included a demographic questionnaire and a set of interview protocols, one for adults and one for children between three and six years old. Sesame Workshop drafted the interview protocols and country teams adapted each protocol for the respective country. The protocol for adults included a variety of question types: open-ended, close ended, and Likert scaling. In the used Likert scaling, respondents either read or listened to a statement and chose from five responses: neither agree nor disagree, strongly agree, agree, disagree, and strongly disagree).

The protocol for children included open- and closed-ended questions. Sample sizes varied by country. In India, researchers conducted interviews with

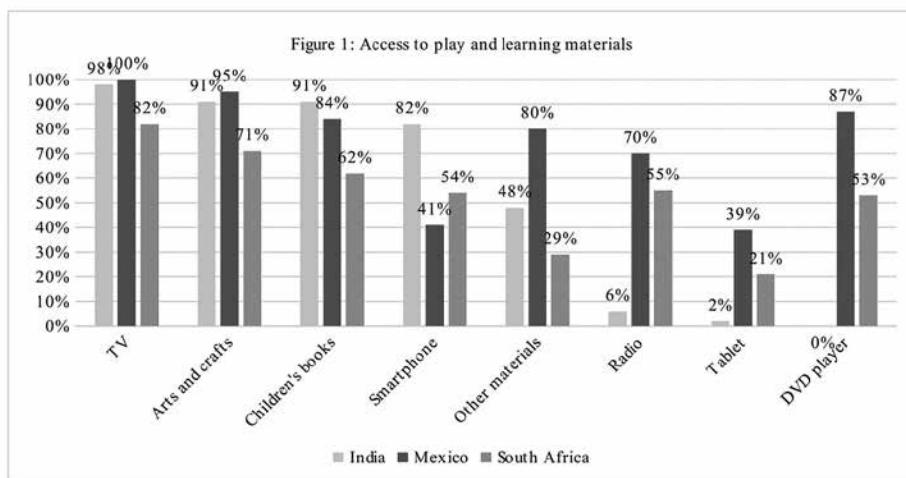
one hundred pairs of care givers and their children in four zones in Delhi: East Delhi, West Delhi, North Delhi, and South Delhi. Researchers conducted all interviews in Hindi. In Mexico, researchers conducted interviews with sixty-four pairs of children and care givers in three states in Mexico: Puebla, Mexico City, and Monterrey. Researchers conducted all interviews in Spanish. In South Africa, researchers conducted the needs assessment with eighty-five pairs of children and care givers at three early childhood-development (ECD) service providers near Johannesburg: Diepsloot, Protea South, and Meadowlands. Researchers conducted interviews in English, Zulu, Sepedi, or a mix of English and Sepedi or Zulu.

Needs Assessment Findings: Access to Material and Media

Many but not all families in the three countries had access to books and arts and crafts; access to other learning materials varied. Care giver and children's access to materials and media varied in similar ways in India, Mexico, and South Africa. India and Mexico had the greatest access as shown in figure 1.

For all families interviewed, television was the most commonly used media. South Africa had the least access of the three countries. Access to smart phones was the second most common device in the three counties. Tablets and DVD players were the least used in all countries.

For children, the most common activity across all media devices surveyed was playing games daily on a tablet or smart phone. Children reported limited



device use for social media, streaming or downloading videos, or using apps.

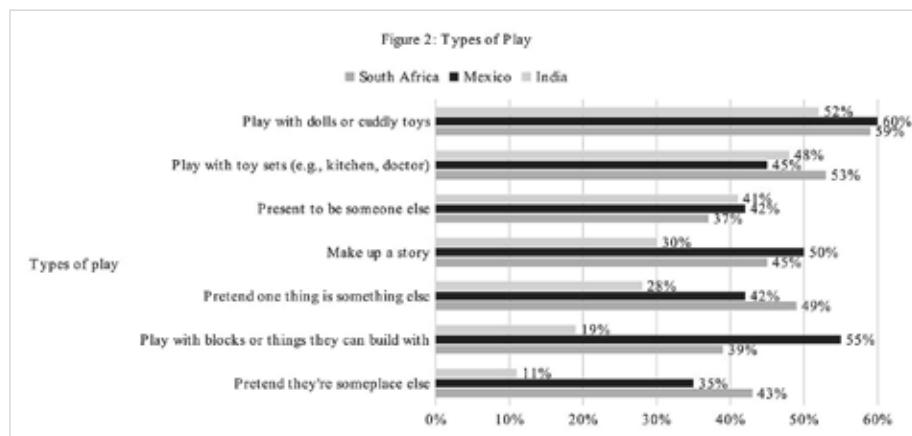
Needs Assessment Findings: The Role of Play in Children's Lives

There are many similarities in the role of play in children's lives in India, Mexico, and South Africa. Generally, children of the three countries played with toys to about the same degree. Imaginative play, however, was more prevalent in Mexico and South Africa than in India. The majority of children sampled preferred outdoor play. For indoor play, small living spaces limited the range of play activities, particularly in India and South Africa. Concerning types of play, there are similar findings on preferences for play with dolls, stuffed animals, and toy sets. The findings indicate variances in imaginative play, like pretending to be someone else or making up a story, as shown in figure 2.

Preferred play objects included scarves, marbles, stones, and balls. Preferred games include hide-and-seek, soccer, and general ball play. Play object preferences based on gender emerged: girls indicated preferences for dolls while boys noted preferences for car toys. Overall, children tended to pick up play objects that were familiar to them.

Needs Assessment Findings: Barriers to Play

There are many barriers to play, including resources, time, energy, and knowledge, that limit time spent in play for both children and care givers. Poorly resourced communities are major barriers to play for care givers. As one Indian care giver explained, "There are so many worries about meeting our household expenses. Who has time to play?" (Purple Audacity Research and Innovation 2017). The

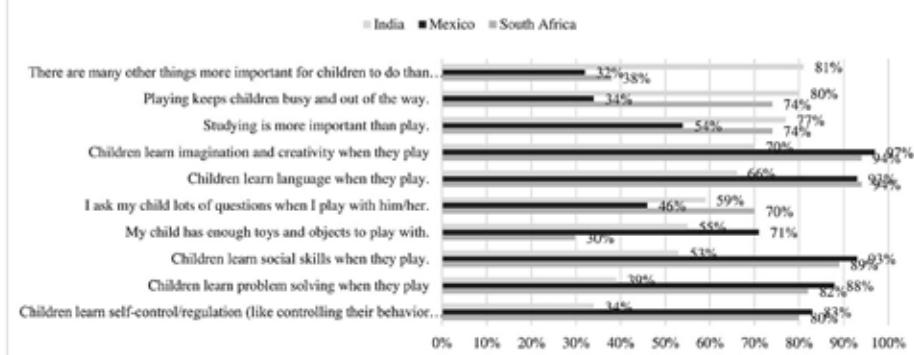


rate of unemployment, as high as 60 percent among South African participants, underscored these issues. As one care giver remarked, “We don’t have electricity. . . We are also staying in a shack and no one is employed.” Figure 3 also shows this disparity, as less than a third of South African care givers strongly agree that they have enough toys for their child to play with.

Work in and out of the house places demands on care givers’ time and energy. For children, the demands of schoolwork limit the amount of time available for play. Knowledge of technological advancements and care givers’ understanding about how to use various play objects compound these issues. In Mexico, respondents discussed their frustration with not understanding technological games, as care givers find that children prefer digital devices over children’s books. South African care givers blame technology for children playing more with phones. Indian care givers expressed frustration that technology has changed how children play from their own childhood, where care givers noted that they have more experience with outdoor games learned during their childhood.

Another significant barrier to play was care givers’ various valuations of play. Most did not have a holistic understanding of its benefits. Although the extent to how much care givers valued play varied among the three countries, each country reported that most care givers understand and valued play because it supports the acquisition of life skills, social skills, imagination, creativity, care giver bonding, and language learning when playing. Despite these benefits, the overwhelming majority of care givers believe that play and formal education are mutually exclusive. As shown in figure 3, although care givers in all three

Figure 3: Care Givers’ Perceptions of Play



countries agree that play helps their children learn many different skills, they also agree that studying is more important than play. In fact, 77 percent of Indian care givers, 54 percent of Mexican care givers, and 74 percent of South African care givers reported that they agree or strongly agree with this statement.

Most participating care givers strongly agreed that they enjoy playing with their children and that play supports bonding between the care giver and child and the child's skill acquisition. Parents also agreed that children improve their imagination, creativity, and language skills when they play. South African and Mexican care givers, however, scored these traits higher than Indian parents.

These variances extended to other benefits of play—for example, perceptions of play among Mexican and South African care givers showed they placed a higher value on play than their Indian counterparts, as illustrated in figure 3.

Project Planning

In response to the needs assessment findings, Play Every Day employed three types of play as delivery mechanisms for targeted project messaging: making and building; imagination exploration; and dream to be a grown-up (see figure 4). The three types of play were selected and based on needs assessment findings, which suggests that they resonate with families across all participating countries (Foulds 2017). They were also selected based on their holistic benefits across four domains of learning and development: emotional, social, physical, and cognitive or creative.

Piloting Play Every Day: Formative Research

Prior to roll-out of the intervention, Sesame Workshop conducted three development phases focused on testing activities and materials to identify those that supported shared engagement, compelling key messages, and the motivating factors and challenges to care giver participation. The key guiding questions of Play Every Day formative research included: How can future workshops design activities and use materials that support shared engagement between child and care giver during the workshop and for play at home? How can play workshops leverage and reinforce compelling key messages that resonate with care givers? How can program design address existing motivating factors and challenges to

Figure 4. Play Every Day Types of Play

Type of Play	Global	Country-specific
Making and building: Manipulating one or multiple objects to construct something new, both permanent and temporary, such as building a train out of empty water bottles and strings or a castle with blocks.	<ul style="list-style-type: none"> Build block structures Design an obstacle course Make instruments Explore different types of matter to create a sculpture or painting Build a ramp to race toy cars Design the strongest bridge 	India <ul style="list-style-type: none"> Use dough, rolling pin, and flat board (<i>chakla belan</i>) to make snakes, birds, and other objects Mexico <ul style="list-style-type: none"> Use wooden blocks to pretend to build a home or school buildings South Africa <ul style="list-style-type: none"> Make skipping ropes from plastic bags Use toilet roll holders to make snakes Use recycled materials to make traditional musical instruments
Imagination exploration: Creating a plot, either spoken or enacted, that draws on elements of the fantastical. This type of play often involves transforming people, objects, and situations in a representational way, such as pretending that I am a dragon or a straw is a magic wand	<ul style="list-style-type: none"> Create a fantasy land using the surrounding environment (e.g., a mat on the floor becomes a boat, the floor the river, and other children people living by the water) Use objects to supplement the world you are creating (e.g., pretend wooden blocks are large bricks) 	India <ul style="list-style-type: none"> Pretend to be an action hero and play house (<i>ghar-ghar</i>) using objects around the house, including mothers' stoles and bed sheets to build capes and other elements of a costume Mexico <ul style="list-style-type: none"> Enact legend of Tlaloc, Aztec God of rain, who has the ability to send hail, rain, thunder and lightning Play "I'm the wolf," a traditional Mexican game where one child/care giver pretends to be "the wolf" while the others must avoid being caught South Africa <ul style="list-style-type: none"> Enact the traditional Zulu folktale The Cheetah and the Lazy Hunter Enact the fable The Magical Story of Modjadji The Rain Queen
Dream to be a grown-up: Enacting the role of someone the child has seen or interacted with in his or her social environments, such as a doctor or teacher. This type of play often involves transforming people, objects, and situations in a representational way, such as pretending that I am a doctor or a banana is a telephone receiver	<ul style="list-style-type: none"> Doctor and patient at a clinic Teacher and student at a school Police officer and a community member in a neighborhood Taxi driver and passenger on the road Painters creating a masterpiece Engineer solving a problem 	India <ul style="list-style-type: none"> Teacher or student using stoles as costumes and sticks as pointers for a make-believe chalkboard Policeman or policewoman catching thieves using caps and sticks as props Mexico <ul style="list-style-type: none"> Vendor at a street market using recycled newspapers to demarcate stands South Africa <ul style="list-style-type: none"> Community doctor or nurse using recycled clothing as doctor's coat

care giver participation and engagement?

The tools used to collect data during the three development phases included workshop observations; interviews and focus group discussions with children, care givers, and facilitators; and facilitator and care giver surveys. As the education and production teams developed additional content, like facilitator-training videos and videos specifically for care givers, data collection methods

Figure 5. Data Collection in Three Phases of Play Every Day

	Phase 1 (Prototype)	Phase 2 (Alpha)	Phase 3 (Beta)
India	Observations: 4 workshops Interviews: <ul style="list-style-type: none"> • 116 care givers 	Observations: 30 workshops Interviews: <ul style="list-style-type: none"> • 96 children • 128 care givers • 12 facilitators Care giver survey: 24 respondents Care giver video testing: 8 respondents	Observations: 20 workshops <ul style="list-style-type: none"> • 8 children • 8 care givers Interviews: <ul style="list-style-type: none"> • 15 care givers • 4 facilitators
Mexico	Observations: 3 workshops (Mexico City & Puebla) Interviews: <ul style="list-style-type: none"> • 14 care givers • 6 children • 26 facilitators 	Observations: 5 workshops (Mexico City & Monterrey) <ul style="list-style-type: none"> • 44 children • 44 care givers • 4 facilitators Interviews: <ul style="list-style-type: none"> • 16 children • 16 care givers Care giver survey: 84 respondents Facilitator survey: 12 respondents Care giver video testing: 20 respondents	Observations: 4 workshops (Mexico City & Monterrey) <ul style="list-style-type: none"> • 16 children • 16 care givers • 4 facilitators Interviews: <ul style="list-style-type: none"> • 16 children • 16 care givers Care giver survey: 40 respondents Facilitator survey: 18 respondents
South Africa	Observations: 4 workshops (Gauteng) Interviews: <ul style="list-style-type: none"> • 21 children • 26 care givers • 20 facilitators 	Observations: 2 workshops (KwaZulu-Natal) <ul style="list-style-type: none"> • 29 children • 29 care givers • 6 facilitators Interviews: <ul style="list-style-type: none"> • 7 children • 8 care givers • 6 facilitators Care giver survey: 29 respondents Facilitator survey: 6 respondents Care giver video testing: 10 respondents	Observations: 4 workshops (Gauteng) <ul style="list-style-type: none"> • 26 children • 26 care givers Interviews: <ul style="list-style-type: none"> • 14 care givers Care giver FGDs: 2 FGDs (10 people/FGD-Eastern Cape) Home visit care giver survey: 5 respondents (Gauteng) Facilitator survey: 7 respondents (home visit-Gauteng) & 9 respondents (Eastern Cape) Facilitator FGDs: 7 participants (home visit-Gauteng) & 9 participants (Eastern Cape) Home visit facilitator FGD: 7 respondents (Gauteng)

expanded. Additionally, as the development phase evolved both in scope and size, data collection methods evolved. Development phases took place in Delhi (India); Mexico City, Monterrey, and Puebla (Mexico); and Gauteng, Eastern Cape, and KwaZulu-Natal (South Africa).

As with the needs assessments, sample sizes varied as did data collection methods (figure 5).

Key Findings

Lessons learned through formative research informed refinement of key messages, activities, materials, and workshop structure.

Key Messages

Formative research highlighted the importance of contextualized play messaging for the care givers as a fundamental component of a play-based intervention. Although care givers in all three countries faced challenges, these challenges varied from context to context. As a result, the play messaging did not resonate equally as seen in figure 6. As the figure shows, in the initial round of testing, some messages performed better in one context than another. For example, although messaging about care givers' capacity to serve as a play mentor worked in South Africa, it did not work in India and Mexico. These findings supported further refinement and contextualization of key messages and their related activities. As an example, figure 6 shows initial play messaging while figure 8 shows the refined messages used in each country for the scaled-up intervention.

Figure 6. Comparison of Tested Messages (Phase 1: Prototype Phase)

Messages that resonated	Messages that did not resonate
• You have the materials at home you need to play. (I, M, SA)	
• You have the knowledge and skills to be a play mentor for your child. (SA)	• You have the knowledge and skills to be a play mentor for your child. (M) • You can be a great play partner. (I)
• Play helps kids learn and tell stories as they use their imaginations. (M)	• Play helps children learn new words and tell stories. (I, SA)
• Be a model play partner, demonstrating the social skills that will help your child to be a good play partner to others. (SA)	• Be a real playmate by acting out social skills that will in turn help your kids to be good playmates with everyone else. (M)
• Play gives children the skills they need to succeed in the future, just like study. (I)	

From these findings, teams refined messaging to ensure greater alignment with the targeted audience, leading to country-specific messages. (figure 7).

Once contextualized, the research indicated that a common trait of effective key messages was their functionality or practicality, that is, something that care givers could integrate easily in their daily routines, that did not imply extra resources, and that could be done in short periods of time. More specifically, messaging that resonated most with care givers used recycled materials as play objects. In India, for example, using recycled materials as play objects provided previously unknown play opportunities. Care givers reported that, before the initiative, they believed that learning-based toys were too expensive. Through Play Every Day, these care givers viewed recycled materials as opportunities for play-based learning (IDEOSYNC 2018). In Mexico, caregivers reported that learning about transforming recycled materials allowed them to experiment with and think differently about play at home. As one mother explained, “It is easy to play with simple things, without complications, without toys. I was surprised today that we could make puppets with materials that we have at home and sometimes think that are useless” (Dussel and Martinez 2018, 11).

Adapted key messaging also began to support care givers’ changing perceptions of play as they reported increased confidence and positive perceptions of play. In South Africa, participants said that the workshops changed how they thought about play. Meaningful play experiences, they learned, do not require large amount of time or store-bought toys and also keep children safe

Figure 7. Refined Key Messages

India	Mexico	South Africa
• Play with your child for an hour because today's play is tomorrow's happy reality.	• Play reinforces skills and habits such as planning and social skills that your child needs throughout their lives.	• Play teaches sharing, caring and respecting others.
• One hour of play helps children learn good values and become responsible citizens.	• You can play anywhere, anytime!	• Play helps children learn new words, to help them succeed at school.
• One hour of play helps children understand numbers better and develops math skills.	• You can make everyday activities playful.	• Play with your children, anywhere, anytime.
• One hour of play helps children learn skills for reading and building vocabulary.	• You can play with materials you have at home.	• There is no cost to play, you have everything you need.
	• Play reinforces skills and habits such as planning and social skills that your child needs throughout their lives.	

and off the streets. Further, when their children seek their attention, care givers reported a change in perception for each reason a child asks for attention. Rather than scolding the child, care givers reported playing with them instead (Brink, Spencer-Smith, and Roberts 2018).

Play Materials

The inclusion of key messaging on take-home materials also supported messaging pickup, generating continuity with the experience developed in the workshops. In Mexico and South Africa, care givers reported that they did indeed use the take-home activity cards at home and that the wordless storybooks supported imaginative play outside of the workshops. In Mexico, for example, caregivers explained how the take-home activity cards helped them integrate play into everyday activities.

Care givers considered the information included on the activity cards to be a form of practical and precise advice, easy to develop and include in their daily life. Also, it gave them another opportunity to experiment with play outside the school, increasing the time they spend playing with their children. These results were confirmed by comments such as the following:

Interviewer: Did today's activities affect your beliefs and perceptions about play?

Care Giver 1: Yes, because when we went to the market he also had fun, he picked other things, he organized the shopping list for his lunch and all that. Play can be applied, that is, not being at school. You can also play anywhere.

Care Giver 2: To be honest, yes, because at times I do not have too much time available to play with her at home, and now with these sessions and everything, I've tried to have a little more time to spend incredible moments with her, for example, the workshops at home or when we go somewhere together. (Dussel and Martinez 2018, 13).

In South Africa, wordless storybooks supported imaginative storytelling and provided an opportunity for care givers, particularly low-literacy care givers, to engage in playful bonding moments with their children. Care givers enjoyed the storybooks as did their children. Many care givers explained that their children would return home from school and ask to play with the books. Care givers also appreciated the books' focus on creative thinking as well as the opportunity to engage in storytelling, particularly for those care givers who were unable to read or had low-literacy levels (Brink 2018). Rather than

serve as directives, the take-home materials acted as springboards to support care givers' experimentation with play outside of the workshop, even when challenged by limited resources, time, or literacy levels.

Play Activities

Although the lessons learned are organized by key domains, a clear overlap exists. Effective materials and messaging that support improvements in care giver outcomes are only as effective as the associated activities. Like the messaging and materials, activities care givers found easily integrated into their existing habits showed the highest engagement and the greatest pickup.

The greatest challenge to replicability was caregiver confidence. We found care givers most comfortable with making and building activities that were familiar to them. In Phase 1, the activities in each workshop were not linked, so that families may have participated in a making and building activity and then moved on to a "dream to be a grownup" activity that was unrelated to the previous activity. Adding to these challenges, care givers experienced difficulties with activities based on imaginative play. Observations and interviews with care givers revealed that they were uncomfortable acting silly in front of others. Many of them did not have experience with such play in their childhood or as adults. As vocalized by one Indian mother, the prevailing theme was: "My neighbors will say what is she doing? Is she a child?" (Purple Audacity Research and Innovation 2017).

Subsequent phases then reframed the approach to activities so that they adopted a more scaffolded approach, grounding the experience in making and building activities care givers felt most comfortable with. From there, activities increased in difficulty, that is an increased focus on pretend play, the type of play care givers struggled the most to understand and engage in, as indicated in the needs assessment and Phase 1: Prototype Phase.

Formative research found that scaffolding works. A scaffolded approach encourages continuity of play because the segue from one activity to another becomes a natural progression rather than the more jarring start and stop of the initial workshop phase. In addition, using a toy built in a making and building activity to support imaginative play in an imagination exploration activity provided a clear meaning to the set of activities. This continuity and clear meaning ultimately supported care giver confidence as knowledgeable play partners who understand the value of acting silly in play.

Scaffolding also proved successful in disrupting care givers' tendency

to focus on getting it right rather than the process of play and the skills built through meaningful play experiences. In initial phases, given the discontinuity and time-bound nature of activities, we found that care givers felt constrained and competitive with other participating care givers, particularly during making and building activities. With scaffolding, because there was a natural flow to

Figure 8. Evolution of Scaffolded Activities

Phase 1: Prototype Phase			Phase 3: Beta Phase		
Workshop	Activity	Description	Workshop	Activity	Description
Workshop A: Making and building	Sipho has a Job	Children built something that they can use at home, school or church	Workshop A: Who am I?	My story book	Child and care giver create a storybook with recycled materials
Message: <i>You can play with the materials you have at home.</i>	Water Bowling	Children had to build a tower with plastic bottles		Telling my story	Child and care giver read/tell story together
	Amazing Maze	Families built a maze and drove a car through the maze		Bringing my story to life	Child and care giver act story out
Workshop B: Imagination Exploration	Heroes	Children had to imagine being a hero, and dress up like their imagined hero	Workshop B: What can I do?	I can tell a story	Child and care giver tell a story using story cards from magazines
Message: <i>Play helps children learn new words and tell stories.</i>	Find the Present!	Care givers had to overcome obstacles and find their birthday present	Message: <i>There is no cost to play, you have everything you need.</i>	I can make an instrument	Child and care giver add music to their story and build a musical instrument
	Imagination Rhymes	Children told a story through story cards		I can be on TV	Child and care giver act out story on "TV"
Workshop C: Dream to be a Grown up	Let's go shopping	Care givers and children took turns being shopkeepers and customers	Workshop C: Where can I go?	My marvelous travel machine	Child and care giver invent time machine with recycled materials
Message: <i>You have the knowledge and skills to be a play mentor for your child.</i>	Let's go for a drive	Care givers and children dressed up as drivers and passengers and did imagined driving in different modes of transport	Message: <i>You can play with your child anywhere, anytime.</i>	I can travel anywhere	Child and care giver travel in their time machine
	World's Best Cook	Children were cooks while care givers were aliens, so the children had to explain the food they are cooking		I could visit the zoo / farm	Child and care giver use their time machine to visit a zoo/farm and discover a new and unique animal
Workshop D: All skills	Indigenous Instrument Making	Children and care givers used recycled material to make musical instruments	Workshop D: How does my world work?	My world has shops	Child is a shopkeeper and care giver is the shopper
Message: <i>Be a model play partner, demonstrating the social skills that will help your child to be a good play partner to others.</i>	The Zoo	Care givers and children pretended to be animals in the zoo	Message: <i>Play teaches sharing, caring and respecting others.</i>	My world has special people	Child and care giver prepare a meal for someone they admire with the items they bought at the shop

activities, care givers focused more on the process of the play experience with their child than on what other care givers were doing.

Figure 8 embodies the evolving approach to scaffolded activity design among all country teams and the example provided represents South Africa's approach. As evidenced in Phase 1: Prototype Phase, activities were organized by activity type. Based on research findings, each workshop included elements of each activity type, grounding the entire play experience in making and building a play object to then use in the following activities to support imaginative play and care giver confidence.

Play Workshop Structure

Finally, in addition to the content of the workshops themselves, the structure evolved through testing as research revealed ongoing barriers to care giver engagement. To address barriers to care giver engagement, workshop messaging, activities, and materials focused on care givers' limited free time, knowledge of the ways to engage in play with children, and the assumption that play requires store-bought materials. Through the pilot phases, however, additional challenges emerged that either revealed additional layers to known barriers or unveiled previously unconsidered obstacles.

For example, time conflicts arose between the scheduling of workshops and care givers' work schedules. In South Africa, the communities served by play workshops often relied on day-labor work, meaning that availability varied from week to week. In India, given the original length of workshops (approximately from two to two-and-a-half hours), regular attendance for the entirety of the workshop was a challenge for mothers because of their household responsibilities. Combined with the location of workshops, which required them to travel long distances, participation was a major challenge. In Mexico workshops scheduled in the morning or midday limited care giver engagement because most care givers worked during the day.

To address these challenges, countries experimented with alternative delivery platforms and structures. South Africa tested two models, a workshop experience and a home-visiting model. The home-visiting model allowed for greater flexibility for those communities that relied most on day labor. For those attending the workshop experience, implementing partners provided transportation and meals to help incentivize consistent participation.

In Mexico, the team experimented with the workshop timing, exploring workshops scheduled for after school. In India, the team experimented with

shorter but more frequent workshops, using partners more centrally located in the communities served. The team in India also leveraged the power of WhatsApp to test the potential effectiveness of a workshop experience delivered via text message. Although some participating care givers attended in-person workshops and received messaging through a facilitated play workshop, others received these same messages via WhatsApp only. In testing message recall and self-reported behavior changes, care givers who received the facilitated experiences showed much greater message recall and application of play messaging at home, making it clear that a text message does not replicate the learnings and value of a live experience.

In addition to the structure and scheduling of the workshops, the language of instruction for each workshop represented both opportunities and challenges in South Africa, particularly in Gauteng. Phase 1 in Gauteng focused on English as language of instruction. Through observation and facilitator feedback, research found code switching (when a speaker alternates between two or more languages in the context of a conversation) to be both a key to participation and a challenge for engagement. Although most care givers were comfortable using English, children were less likely able to understand and so appeared disengaged during discussions with facilitators. As facilitators noticed these issues, they started to code switch between English and Zulu to help ensure everyone understood the activities given that most participants were native Zulu speakers. Subsequent phases incorporated content in both English and Zulu to provide a more inclusive space. Although code switching marginalized the few who did not speak Zulu and extended the length of the workshop, it became an integral part of the workshop experience in a linguistically diverse community.

Conclusion

Although lessons are still being learned through an impact evaluation of the scaled-up intervention, research gathered during a year of testing and refinement demonstrate the importance of centering participants' joys and challenges in the intervention design process. For an intervention focused on care givers to demonstrate an effect on knowledge, attitude, and behaviors, an approach that grounds intervention design in their existing knowledge, perceptions, and realities is required.

Through iteration and testing of refined workshop messaging, materials,

activities, and structures to address the multitude of barriers to play for families in India, Mexico, and South Africa, research in the Phase 3: Beta Phase, the final round of piloting, care givers reported a greater understanding of the value of play, spending more time playing with their children, and increased confidence as play mentors.

As research teams also observed, care givers in all three countries reported increased confidence, particularly as their experiences evolved. In Mexico researchers noted a marked difference in the ways care givers engaged from the first workshop to the last. Although, during the first workshop, care givers led play activities, they engaged in play with their children in a more relaxed manner in the final workshop. Noted observations include care givers had their children take the lead in making lists for the supermarket, personalizing lunch boxes with drawings and adornments, and making snacks and sandwiches (I. a. Dussel, LEGO Formative Research Report (Beta Phase): Findings Mexico 2018).

Mexican care givers also noted the acquisition of new skills in their children because of the play workshop experience, skills like decision making, creativity, and problem solving, aspects that care givers observe doing construction or building activities as well as when they invented stories with their children (I. a. Dussel, LEGO Formative Research Report (Beta Phase): Findings Mexico 2018).

In South Africa, care givers reported that the workshops taught them the importance of play for children's development. Care givers noted that children benefit academically from play activities, play helps children learn new words to help them succeed at school, play prepares them for future roles, and play helped children learn imagination and creativity. Care givers also reported confidence in their ability to provide play experiences that would help their children learn (Brink 2018).

During the needs assessment in India, findings showed care givers had negative perceptions of play. One respondent explained, "What will people say if we play with a child?" (Purple Audacity Research and Innovation 2017). After participating in the pilot play workshops, however, researchers found perceptions of play starting to change. Formative research findings found that, although the concept of an adult playing and having fun with a child was new for care givers, after participating in the pilot play workshops, several care givers reported they now understood the value of spending time playing with their children (IDEOSYNC 2018).

By first developing a global framework and then contextualizing delivery of that framework through multiple rounds of formative research,

we designed and piloted an intervention that draws from both localized and global learnings to inform future interventions designed to support care givers' confidence and capacity as ambassadors of learning through play. This process of program design, grounded in the intersections of global best practices and local knowledge, specific to existing perceptions of play, provides both a conceptual and practical framework to inform future interventions focused on promoting playful learning in young children's lives.

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