

IDENTIFYING BEHAVIOURAL BARRIERS AFFECTING ECD OUTCOMES IN THE WESTERN CAPE USING BEHAVIOURAL SCIENCE

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A new perspective on early childhood development

Children need positive social and educational interactions from caregivers in the early years of their life, particularly in the first 1000 days, to achieve their full development potential. Evidence suggests that substantial quality interactions with caregivers (e.g., socio-emotional communication, play-based learning activities, early education, etc.) can help to improve children's cognitive and physical development and prepare them to succeed in school. Accordingly, the developmental consequences of a lack of caregiver engagement can be severe for young children, given the crucial role these early years play in their development. Across South Africa, many young children are at high-risk of not achieving their full development potential due to caregivers not engaging effectively. For instance, in 2018, only 59% of caregivers report reading to their children, and 15% of caregivers report never playing with their children.

The emerging field of behavioural science offers a new way of thinking about improving ECD outcomes among young children by providing caregivers with the support they need to take the many actions that are critical to healthy child development. Awareness, motivation, and incentives may all contribute to improved caregiver behaviour. However, behavioural science suggests that features of the environment may be even more influential, because of how the environment influences caregivers' abilities to make decisions and take actions. Thus, there is an opportunity for behavioural interventions to help bridge the gap between intentions and actions, lead caregivers in South Africa to engage in activities that help promote young children's development, and improve the effectiveness of more traditional ECD interventions.

Over the past decade, ideas42 has developed a methodology for applying behavioural insights to address problems in the policy and social sectors. In collaboration with the Policy and Strategy Unit at the Department of the Premier in the Western Cape Government, in 2021 ideas42 conducted a problem definition exercise to understand what ECD related challenges in the Western Cape may be particularly well-suited to be addressed through behavioural science-based solutions. Problem definition revealed a promising opportunity to use applied behavioural science to uncover insights into how the environment influences caregivers' decisions and actions related to engaging in quality interactions to promote cognitive development and early learning with their young children. Thus, a deep investigation into how the context influences caregiver behaviour was the focus of this most recent phase of work, behavioural diagnosis.

Activities completed during diagnosis

Between January-March 2022, ideas42 employed our behavioural diagnosis approach to identify the barriers and drivers of caregivers' behaviour, with the ultimate goal of leading caregivers across the Western Cape to engage in activities that help promote young children's development and improve the effectiveness of more traditional ECD interventions. The activities we completed included:

- Conducted an in-depth desk review into the scientific literature on the selected behaviour.
- Employed ideas42's "behavioural mapping" process, developed to specifically tease out the psychological and contextual features that are necessary to research further, and led staff from the Western Cape Government through a "behavioural mapping" session to build capacity.
- Prepared for qualitative research into the context by drafting research instruments, organizing logistics for fieldwork, and applying for ethical approval. The Western Cape Government lead

the coordination of fieldwork activities by engaging with partners to organize fieldwork; and liaising with the Department of Social Development to gain ethical approval.

- Conducted qualitative research – through extensive in-depth interviews with fifteen caregivers in the Cape Town metro area – to understand how features of the context contribute to behaviour.
- Analyzed data from the qualitative research to elevate key behavioural barriers and drivers by coding interview transcripts to pre-defined themes (decided upon during behavioural mapping); conducting an in-depth review all excerpts for each theme; and elevating emergent insights.
- Synthesized insights into actionable lessons that can be taken forward to solution design.
- Generated recommendations for further work, including preliminary design ideas that can be fully developed during a future Design phase of the methodology.

Research methodology and characteristics of caregivers

To diagnose the barriers and drivers of caregiver behaviour, ideas42 conducted qualitative research, in the form of fifteen in-depth interviews with young children’s primary caregivers in Masiphumelele and Atlantis, in the Cape Town metropolitan area. ideas42 and the Western Cape Government collaborated with two local non-governmental organizations to recruit caregivers and coordinate the interviews: The Foundation for Community Work (FCW) and The Learning Initiative. Caregivers who participated in the interviews were all the primary caregiver of at least one child under 5 years old. See more details on the characteristics of participating caregivers in the table below.

Table 1. Characteristics of Caregivers

Research location	Masiphumelele	Atlantis
Total number of caregivers	8 interviews	7 interviews
Racial group	8 Xhosa	3 Xhosa, 4 Coloured
Employment status	7 of 8 employed	7 unemployed
Relation to child	6 mothers, 1 father, 1 aunt	6 mothers, 1 grandmother
ECD programme engagement	8 children attend creche	7 children receive home visits
Ages of children	2-5 years old	7 months – 5 years old

Overview of the diagnosis insights

Behavioural diagnosis revealed that for the most part, caregivers are highly motivated to engage in positive behaviours to promote their children’s development. Caregivers articulated the importance of providing responsive care to their children (one key component of the [WHO’s framework for Nurturing Care](#)) and discussed regularly engaging in communication-oriented activities to promote early learning. However, caregivers are missing many opportunities to engage in play-based activities to promote early learning with their children (an essential part of the WHO’s guidance for Nurturing Care). This is especially true for caregivers with children under 3 years old. Thus, the insights presented in the section below highlight barriers faced by caregivers in engaging in play-based activities for early learning with their children.

“I need to be a role model to her. To give the love, always. Play with her sometimes. To make sure that they are ok every day, and that they feel free to talk to me.” – Caregiver

We elevated five discrete behavioural barriers which prevent caregivers from engaging in play-based early learning activities with their children. Although we’ll discuss the barriers individually in the section below, it should be noted that they often overlap, and are interrelated, with many barriers affecting one caregiver at the same time. Similarly, not all barriers will affect every caregiver equally. While caregivers’

experiences will differ in practice based on their demographic characteristics, all the barriers elevated in this report affect caregivers across demographic groups. Underpinning the five insights is a key behavioural science concept: *scarcity*. When caregivers live in a context where resources are scarce – be it the money, time, or food – they must devote much of their mental bandwidth to thinking about these resources (for example how to allocate them, how to get more of them, etc.) In this way, *scarcity* depletes caregivers' finite mental resources, such as their attention or working memory, and can lead them to make poorer-quality decisions. Diagnosis revealed that *scarcity* affects both if and how caregivers decide to engage in play with their children and if they follow through to act on those intentions.

“(We didn’t read last night because) we were actually worrying... we didn’t have money for bread, so that was taking up all of my (mental) space last night...we were meant to read the Jonah story.” – Caregiver

Identified behavioural barriers

1. Engaging in play-based learning is simply not on caregivers' radars

Caregivers have a strong *mental model*, or view of the world, that to be a good caregiver is to give children love and attention and meet their basic needs (e.g., food, shelter, hygiene, etc.). Engaging in play-based activities to promote early learning is not even on their radars. Caregivers' *mental models* are informed by their life experiences. For example, many caregivers were raised in households where playing with children was not the *norm* (i.e., caregivers stated that they rarely engaged in interactive activities with their own caregivers), and so play does not seem like an essential caregiving activity. Additionally, for caregivers living in the context of poverty, safety, food, clothes, and hygiene are top-of-mind: caregivers can't always meet these needs for their children. Caregivers are also acutely aware when the basic needs of another child in their community aren't met. When caregivers were asked “How do you know if a child in your community is well cared for?” most replied that a well-cared-for child is a one who is clean and well fed. The *availability heuristic* means that because caregivers can easily recall the importance of meeting children's basic needs, the perception of their relative importance is increased. Further, caregivers subscribe to the *identity* of a ‘good caregiver’ and take actions that reflect the mental model they have of what it means to be a ‘good caregiver’: prioritizing love, attention, and meeting children's basic needs (i.e., other elements of caregiving, such as engaging in play-based interactions, aren't even on their radars).

“It’s (the role of a caregiver) to make sure that they are safe, taking good care of them. As myself, I make sure that they are clean, they have clothes, they have food. Everything.” – Caregiver

“I get many compliments, because people always tell me you look good after your kid, because you’re a small young mother. Your kid doesn’t ask us for bread, and he doesn’t wear dirty clothes. Stuff like that...” – Caregiver

2. Caregivers assume their children aren't ready for learning yet

Caregivers have the perception that children's cognitive development occurs ‘naturally’ and is outside of their control. This is because whereas caregivers know what actions they can take to promote children's physical development and language capabilities, and can see direct impacts on their children from their efforts, it is not clear if or how they can contribute to their child's cognitive development. This leads caregivers to experience low *self-efficacy* with regards to cognitive development: caregivers don't believe they have the capacity to execute the behaviours necessary to help their children develop. Additionally, for caregivers with older children (+3 years old), the impacts of engaging in specific learning-oriented activities, such as reading or writing, are *salient*. For instance, a caregiver who teaches their child to write can visually see how the child's writing is progressing. However, the impacts of play-based learning on children's development are less *salient*. This leads caregivers to assume that play's primary role is for entertainment.

Additionally, diagnosis revealed that caregivers usually only begin to consider engaging in learning-oriented activities when children signal that they are interested in learning (e.g., by remembering something they were told), or show they are developing (e.g., by learning how to write their name). As children only begin to provide these cues when they are older (+3 years old), caregivers may assume younger children aren't ready to learn yet. Caregivers use their child's age as a rule-of-thumb, or *heuristic*, when deciding when their child is ready to engage in learning-oriented activities. The fact that children commonly start school or creche when they're around 3 years old further cements caregivers' perceptions that children start developing cognitively around age-3.

“Out of my perspective, I think two years old or maybe three (is when a child should start learning). Can I add something to the question? I will send my child to creche when he's three years old. Because the child will be able to speak then. Because when I asked him what happened today, he can tell me what happened at creche.” – Caregiver

“What can you do to help your children grow properly?” – Interviewer “Nothing, we don't do anything. They grow on their own. I don't do nothing.” – Caregiver

3. Caregivers aren't sure how to engage in play-based learning with their children

Caregivers typically rely on external sources for guidance on how to engage in play-based learning activities with their children. For example, caregivers often reference information from ECD teachers, use physical props or toys to play with children, or take direction from their children on how an activity should be conducted. While these types of external sources can serve as inspiration for caregivers (particularly for caregivers living in a context of scarcity who have little cognitive capacity), they can also crowd out other ideas caregivers may have about how to engage. Caregivers often *anchor* to what they've heard from their children, children's teachers, and other external sources about what they can do to help children learn, and other ways of engaging may seem less viable, feasible or effective.

External guidance about how to engage in play also reinforces caregivers' *mental model* of who can help children learn. Unlike teachers or ECD practitioners, caregivers typically have limited formal experience with early-childhood development topics. Their lack of understanding makes it difficult for them to assess how much they do or don't know – a psychological phenomenon called the *hard-easy effect*. Accordingly, caregivers are under-confident in their abilities to engage in learning-oriented activities. They assume that activities are more difficult or complex than they really are, and so they may decide not to engage at all.

“My child likes to cut things, paint, write – he does these things at the centre. Even when he's home he says mama give me scissors I want to cut...if I have them, I give them to him, but if I don't have them I don't...he just goes outside...if I don't have what we need, I'll tell him no it's for school.” – Caregiver

“We have pens and crayons and stuff to work with. All the stuff he needs. If I don't have that, then he does it at school, so I'm just going to tell him to ask the teachers to ask for those things, like stationery and stuff.” – Caregiver

4. Caregivers are not regularly prompted to engage in play for learning

Caregivers have busy schedules and many tasks to complete within their daily routines. The context of *scarcity* causes caregivers to narrowly focus on meeting their most urgent or pressing unmet needs (e.g., keeping children safe, cooking food for the child, etc.), and crowds out other concerns or tasks that would otherwise compete for their attention. When caregivers are *tunneling* on meeting these pressing unmet needs, they typically only consider engaging with children in play-based learning activities when a child prompts them to do so. In the absence of being prompted by a child to play, caregivers will tend towards

the *status quo* or default option when they are completing their household chores: sending children outside to play with others or letting them watch TV. For children who are too young to explicitly prompt caregivers to engage but need play-based activities in order to develop, this has particularly strong negative implications as caregivers may never be prompted to engage with them.

"I want to play more with him...but I think about things that must be done (in my house). I do things by the time – what time I must cook, what time I must bathe, what time I must watch TV. I have a schedule for everything. Sometimes I'm busy doing something else I can't just stop and play with him." – Caregiver

"Are there times when it's easier to play with her?" – Interviewer "When I have time. When I don't feel any pressure, I'm not rushing anywhere. I have time I sit there." – Caregiver

5. Caregivers change their mind when they experience or anticipate discomfort

Caregivers must split their cognitive bandwidth, physical energy, and limited free time between their children and completing other important tasks. Accordingly, if caregivers expect or experience discomfort from playing with their child, they will change their mind about engaging to preserve these precious resources. In this sense, caregivers are *present biased* and will favor taking actions that (a) provide them immediate rewards (i.e., sleeping) or (b) must be completed (i.e., cooking). This is partially because it can take years for caregivers to see the benefits of engaging in play-based learning with their children (rather than providing immediate rewards as such as in the activities outlined above).

Caregivers are especially likely to act in a *present biased* way when engaging in play presents immediate costs. Costs that can deter caregivers from engaging in play with their young children include anything from time-spent to feelings of emotional pain. Emotions have significant influence on whether caregivers will play with their children due to *affective forecasting*. Caregivers will tend to estimate what their and their child's emotional response will be to playing and decide not to engage if they expect to experience emotional discomfort (e.g., if the caregiver feels overwhelmed by other pressing tasks, if a child becomes frustrated or bored with an activity, if the caregiver feels guilt about how they don't enjoy playing, etc.). This is especially present for caregivers living in the context of chronic scarcity who have limited and inconsistent financial and/or socio-emotional support structures in place to help them manage discomfort.

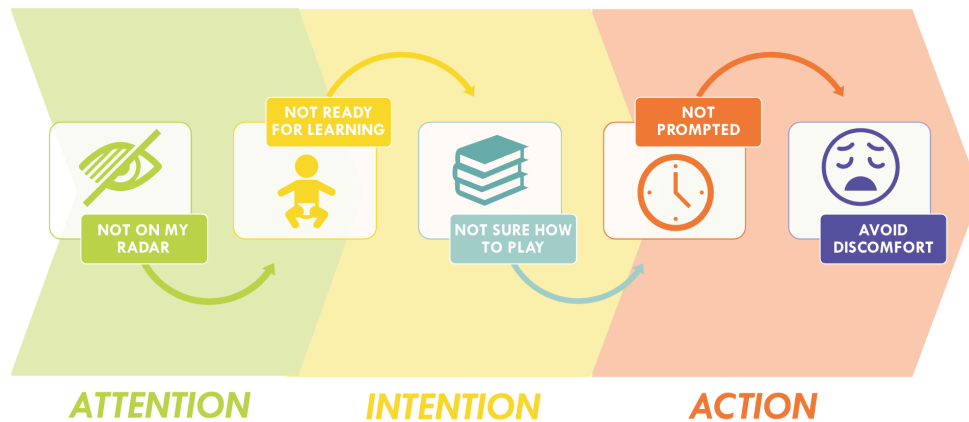
"I don't make him do these things if he doesn't want to...then I must leave him because I don't want to upset him or make him angry" – Caregiver

"I give up quickly when he doesn't want to listen...I say okay I'm going to try another 2-3 times, but then I just drop it because I say you are wasting my time." – Caregiver

Recommendations for future work

These five behavioural barriers affect different components of caregiver behaviour. Some of the barriers affect whether caregivers even place *attention* on play-based learning. Other barriers affect whether caregivers form the *intention* of playing with their children, and how strong that *intention* is. And finally, some barriers affect whether caregivers follow through on their intentions and take *action* to engage in play. Although each of the barriers affects a different component of the behaviour, all components must be addressed to change caregivers' behaviour and improve outcomes for young children in the Western Cape. Thus, we recommend all barriers are targeted in future work to design behaviour change interventions. See a visual depiction of the five barriers, and how they map to different components of the behaviour, in the figure below.

Figure 1. Overview of behavioural barriers



Future work – in the form of ideation, prototyping, and deep user-testing – is needed to ensure intervention designs directly address the barriers, are feasible to implement, and are desired by caregivers. However, some potential, preliminary design directions emerged. Designs to target caregiver behaviour should:

- Reshape caregivers' understanding of the benefits of play
- Enable caregivers to plan for how to operationalize play
- Present caregivers with opportunities to integrate play into their everyday lives
- Provide guidance and scaffolding for caregivers on how to engage in play-based learning
- Provide psycho-social support to caregivers
- Facilitate connections and idea-sharing between caregivers of young children
- Make young children's (i.e., under 3-years old) cognitive development visible to caregivers

Lastly, it is also worth noting that the barriers that we elevated during diagnosis are specific to caregivers whose children are engaged in some sort of ECD programming (i.e., creche or home visits through the local NGOs). There are likely different barriers which affect caregivers whose children aren't engaged in ECD programming. Further behavioural diagnosis work into the barriers which affect these caregivers could be beneficial for improving ECD outcomes in the Western Cape.

As outlined in this report, there is a clear opportunity to improve ECD outcomes in the Western Cape by focusing on caregivers' quality interactions with their young children. ideas42 looks forward to a continued partnership with the Policy and Strategy Unit at the Department of the Premier in the Western Cape Government. We propose to continue joint fundraising efforts for the design phase of our methodology in order to develop, prototype, and test solutions to help and encourage caregivers engage in quality interactions with their children.