



Finding Thabo, a cognitive stimulation project by

THE REACH TRUST



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Executive Summary

- We believe all children deserve to reach their full potential.
- **Finding Thabo** is an innovative play based approach to stimulation for 3 to 6 year old children, with a special emphasis on the Grade RR year.
- Inspired by “Where’s Wally?” children search for objects in pictures. The specific objects and sequence of discovery have been carefully designed to ensure stimulation of multiple development areas.
- The activities were developed by a **panel of experts** including a Psychologist, Occupational Therapists, and Speech and Language Therapists, based on research into typical developmental deficits in South African children.
- Finding Thabo recently received an **outstanding 97% score from Education Alliance Finland**.
- The vision is to ensure that children receive high quality stimulation in low resource environments, facilitated by ECD practitioners with little (or no) formal training.
- We have reached 400,000 to date. **But our goal is to reach 1 million children by 2030.** We hope you will partner with us on our journey to transform the education landscape in Africa!



Journey to date

10
pictures
developed

400,000+
children reached
across 9 Provinces
(and in 13
communities across
Botswana)

12 000 +
ECD
Teachers
Trained

1 000+
brain stimulation
activities
developed

WhatsApp
channel
launched

4
languages

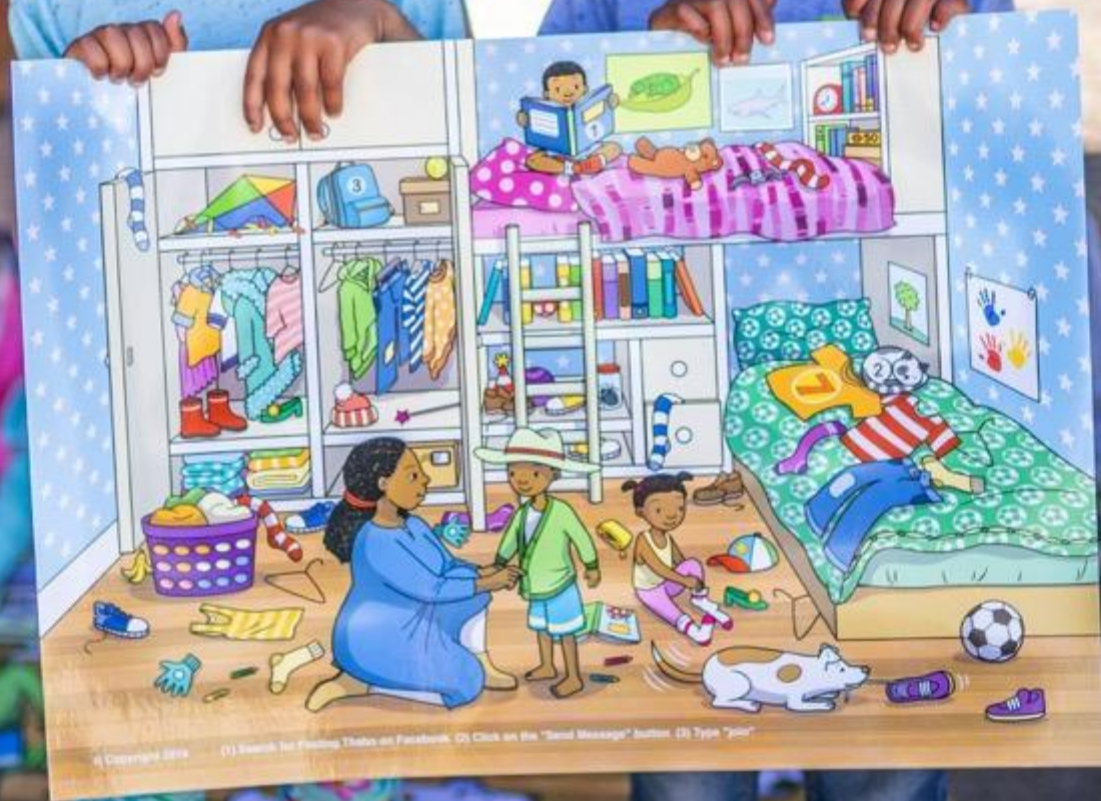


Design Principles

Finding Thabo was developed with a set of key design principles in mind:

- **FUN** - Research shows that children learn best through play. Finding Thabo was designed from a child's perspective to be fun and engaging. It is also fun for caregivers and teachers!
- **SIMPLE to implement** - The majority of teachers and practitioners in South Africa have a low level of training. Finding Thabo is designed to be easy to implement in low resource environments.
- **HIGH QUALITY** - The pictures are beautifully designed to capture a child's attention, while the activities are developed by education experts
- **LANGUAGE AGNOSTIC** - The pictures are wordless, and the activities can be introduced by teachers in their home language. The teacher activity guides are currently available in English, Afrikaans and isiXhosa and isiZulu.
- **ASPIRATIONAL** - Each picture is designed to provide children with an aspirational (yet relatable) experience helping develop confidence and a sense of self worth
- **EVIDENCE BASED** - activities are formulated based on evidence of what a typical African child needs to overcome common developmental deficiencies





© Copyright 2015 (1) Search for Finding Thales on Facebook. (2) Click on the "Send Message" button. (3) Type "join"

Finding Thabo - Overview

“Finding Thabo” is an innovative PLAY based solution, providing stimulation opportunities for children aged 3 to 6 years old. This is a critical time, when young brains are growing and developing at a rapid pace.

After the age of 6, the brain goes through a natural process called “pruning”, when neural pathways that have not been regularly used are removed. It is therefore essential that young children are exposed to regular, high quality stimulation before the age of 6. This helps lay the foundation for a lifetime of learning, enabling them to reach their full potential.

The Finding Thabo pictures are carefully designed to provide holistic brain stimulation in a fun and playful way. All the activities have been developed by experts (Psychologist, Occupational Therapists, and Speech and Language Therapists), based on research on typical developmental deficits in children from vulnerable communities. Each picture represents an ordinary, regular experience, for example riding in a taxi, cooking or going shopping. The core idea is to help caregivers realise that they can stimulate their children as they go about their everyday lives. There is no need for expensive toys, nor highly trained teachers to provide quality stimulation to children. Parents receive instructions via a dedicated channel on WhatsApp or Facebook. This allows for data capture and analysis of usage as well as the ability to reward desired behaviour with airtime or food vouchers.

Finding Thabo is most effective when it is used in both the home environment, and the pre-school space. Here teachers receive specially prepared daily activities that build upon one another following a scaffolding process. Each picture lasts for one month (four weeks) with the teacher receiving daily messages (5 times per week). The daily messages contain a minimum of 5 activities. Thus, each picture provides in excess of 100 unique brain stimulation activities for children per month.

CORE CONCEPTS IN THE SCIENCE OF EARLY CHILDHOOD DEVELOPMENT

Experience Shapes Brain Architecture by Over-Production of Connections Followed by Pruning



Image Source: Harvard University



Executive Function

Executive Function is often overlooked in early education curricula, however when one studies the latest research literature it is clear that this is a vital component of brain development, especially if we want our young children to become the high functioning adults of the future.

As Harvard University describes “executive function is the air traffic control system in our brain”. People with high levels of executive function will become the major innovators and problem solvers of their generation.

While this is a new area of research, the early data indicates that programmes incorporating executive function actually produce better results in mathematics and literacy than those that focus directly on mathematics or literacy! This is because executive function builds a more sophisticated brain capable of processing greater levels of information and undertaking more complex tasks.



We believe that children who are exposed to a high number of these executive function activities are likely to do better at the traditional school subjects as well as become more innovative, while displaying strong critical thinking attributes.

We therefore placed a stronger emphasis on executive function when designing the Finding Thabo activities.





Scaffolded Activities

The following example highlights how the activities from the teacher guide are structured to focus on key developmental areas, for example the foundations for mathematics. The image to the right is a portion of the teacher activity guide (see following page for full slide), and relates to the taxi image (previous screen).

The taxi scene is the second in the series and builds upon the first. For example in the first picture counting activities focus on the numbers 1, 2 and 3. In the taxi scene we build upon that to numbers 4, 5 and 6. But first we reinforce what was taught in the previous month. This is linked to a real object in the picture (the bicycle) and a specific use of the number (practical and participative rather than rote learning). The idea is that this will encourage children to take more interest in the world around them. The activity then progresses to counting 4 objects and then onto 6.

One can observe that the taxi scene has numerous opportunities for counting objects. Numbers are also used in written format (for example, the licence plate of the taxi) so that children become aware of how numbers are used more broadly.

Wednesday	
COUNTING	
<i>Children learn to count through repetition. Only teach higher numbers once the children feel confident with the ones you have been working on.</i>	
Yesterday we spoke about the colour red .	
	Who can find the red bicycle? (Yes, that is the red bicycle.) Let us count how many wheels the bicycle has. One, two. (There are two wheels on the bicycle.)
	Who can find the birds sitting on the ground close to the builder working in the hole? (Yes, there are the birds, next to the builder.) Let us count how many birds there are. One, two, three, four. (There are four birds on the ground.)
	Can you find the leaves next to the rubbish bin? Count how many big leaves there are. One, two, three, four, five, six. (There are six leaves on the ground next to the rubbish bin.)

*The blue writing indicates the introduction or additional information for teachers.
(this information is for you the teacher, you do not need to read it aloud)*

The black writing is a question to ask the children. For example “What is Thabo holding in his hands?”

The red writing represents a possible response from the child or children.



Full page of teacher activity guide

TAXI SCENE (SECOND PICTURE) / WEEK 1

Monday	Tuesday	Wednesday	Thursday	Friday
PERCEPTUAL	COLOURS: RED	COUNTING	FINDING SHAPES: CIRCLE RECAP	LANGUAGE
<i>There are a few items that you will always find in every Finding Thabo Poster. Let us start by finding all those items in this Poster.</i>  Who can show me where Thabo is? (Thabo is sitting in the taxi.) Who can tell me what sound TTThabo starts with? (TTThabo starts with 'T'. Let us all say 'T' for TTThabo.) Can you find the yellow banana peel? (The banana peel is lying on the road.)  Can you tell me what sound BBBanana starts with? (BBBanana starts with 'B'. Let us all say 'B' for BBBanana.)	<i>When teaching children about colours, make sure that you ask questions in many different ways so that children learn to identify, compare and name colours.</i> Today we are learning about the colour red.  What colour are these stripes on the entrance roof of Pick n Pay? (Point to the red ones.) (The stripes on the roof are red.)  What colour is the girl's bicycle? (The bicycle is red.) Can you find anything else in the picture that is red? (radio, shoes, triangle on the ground, etc) Can you see anything in our classroom that is red? What colour is (insert name of a child that is wearing something red) wearing? (She is wearing a red shirt.)	<i>Children learn to count through repetition. Only teach higher numbers once the children feel confident with the ones you have been working on.</i> Yesterday we spoke about the colour red.  Who can find the red bicycle? (Yes, that is the red bicycle.) Let us count how many wheels the bicycle has. One, two. (There are two wheels on the bicycle.)  Who can find the birds sitting on the ground close to the builder working in the hole? (Yes, there are the birds, next to the builder.) Let us count how many birds there are. One, two, three, four. (There are four birds on the ground.)  Can you find the leaves next to the rubbish bin? Count how many big leaves there are. One, two, three, four, five, six. (There are six leaves on the ground next to the rubbish bin.)	<i>It is important for children to learn how to transfer learnt information into different scenarios. Let us see how much the children remember about circles.</i>  Can you find the soccer ball? (Yes! That is the soccer ball.) What shape is the soccer ball? (It is a circle.) Who remembers how to draw a circle in the air? Let us all draw a round circle in the air.  Let us look for some more circles in the picture. Can you find the round clock? (The clock is shaped like a circle.) Everyone draw a big round clock in the air.  Can you find the tyres of the taxi? What shape are the tyres? (The tyres are round, so they must be circles. Let us all make a big round circle with our arms.) (Curve your arms at the elbows and put hands together, interlocking your fingers, to make a circle.)  Can you find the bag that looks like a circle? (This bag is round, just like a circle.) Let us make a round circle shape with our thumb and	<i>It is important to allow children to talk freely and to ask questions about things that they see and observe. It stimulates their thinking and helps them to make sense of the world around them.</i> Today we are each going to have a turn to talk about something you find interesting in the picture.  Look over here at the dog (point). The dog is tied to the pole. I wonder why he is tied to the pole. Is he waiting for someone? I think his owner went into the shop to buy something. The dog has to wait outside because dogs are not allowed to go into the shop. Do you think the dog is scared? What do you find interesting in the picture? Tell me more. <i>***Allow each child to speak freely about something in the poster – if he/she is having difficulty, help him/her by asking some questions about the part that he/she chose.</i>



Training Workshops



Training workshops are conducted with teachers and ECD Practitioners. These workshops are highly practical and utilise role play to help familiarise teachers with the programme.

The key emphasis is on making sure that the teachers enjoy the process and begin to appreciate how much can be learned through play. The content is presented in a very simple and user friendly manner, ensuring that teachers do not feel overwhelmed or intimidated by the programme.



Working with Local Communities



Msesi Dhlamini and Titelo Makofane from Penreach in Mpumalanga.

We work with partner organisations in order to upskill staff and embed knowledge in local communities. These staff then become ambassadors for the Finding Thabo programme, helping to ensure that the resources are well used. They are also trained to undertake assessments of children, which helps optimise the monitoring and evaluation process.



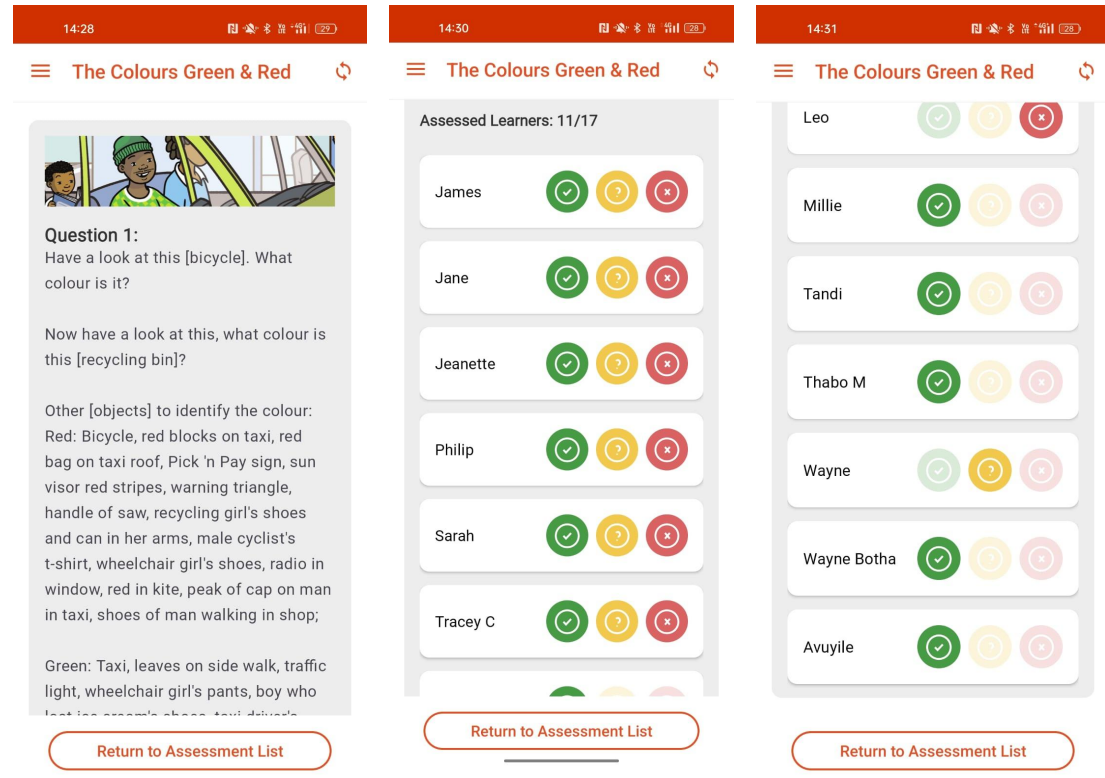
Assessment Application & WhatsApp Support

The Finding Thabo Teacher's Application is used in conjunction with the Finding Thabo printed pictures. Teachers are encouraged to assess children on a fortnightly basis. The questions have been prepared by education experts from The Learning Initiative and align with developmental stages of the NCF.

The application is designed to enable the teacher to easily assess children on an individual level.

Once a few assessments have been completed, a profile is generated for each child which helps the teacher identify which children are struggling with which concepts. This enables the teacher to introduce targeted activities for specific children.

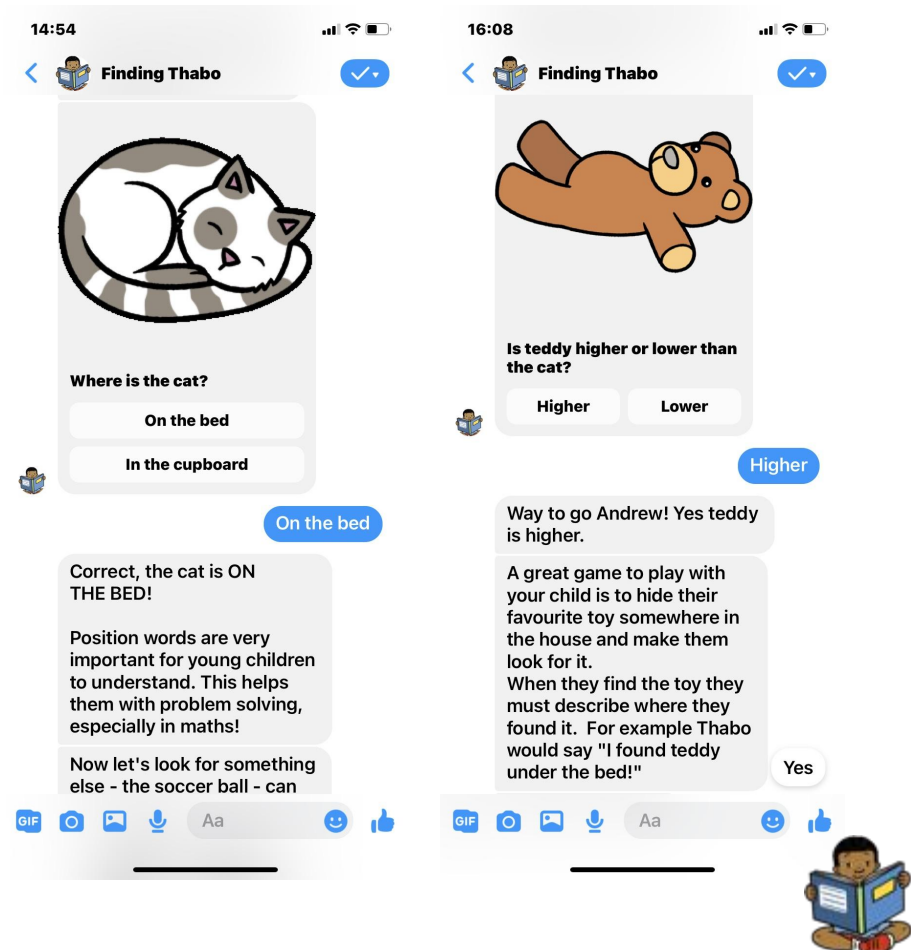
We also provide additional support via a dedicated WhatsApp channel. Teachers are able to ask questions as well as access additional resources and activities. One of the most popular features is the set of short audio clips. Teachers play a short clip, eg the sound of a dog barking, and children must identify what in the picture might be responsible for making that sound.



A Practical example - parent / caregiver model

The screenshots (below right) depict how a parent receives information on their cell phone via an automated chatbot, which provides activities, hints and instructions to the parent, while the child engages with the physical picture (image bottom left). For example the parent would say “Where is the cat?”. The child finds the cat, shows the parent, and then the parent submits the response “on the bed” to the chatbot. The parent then receives additional information on the WHY - an explanation as to why an activity like this is important for the development of young children.

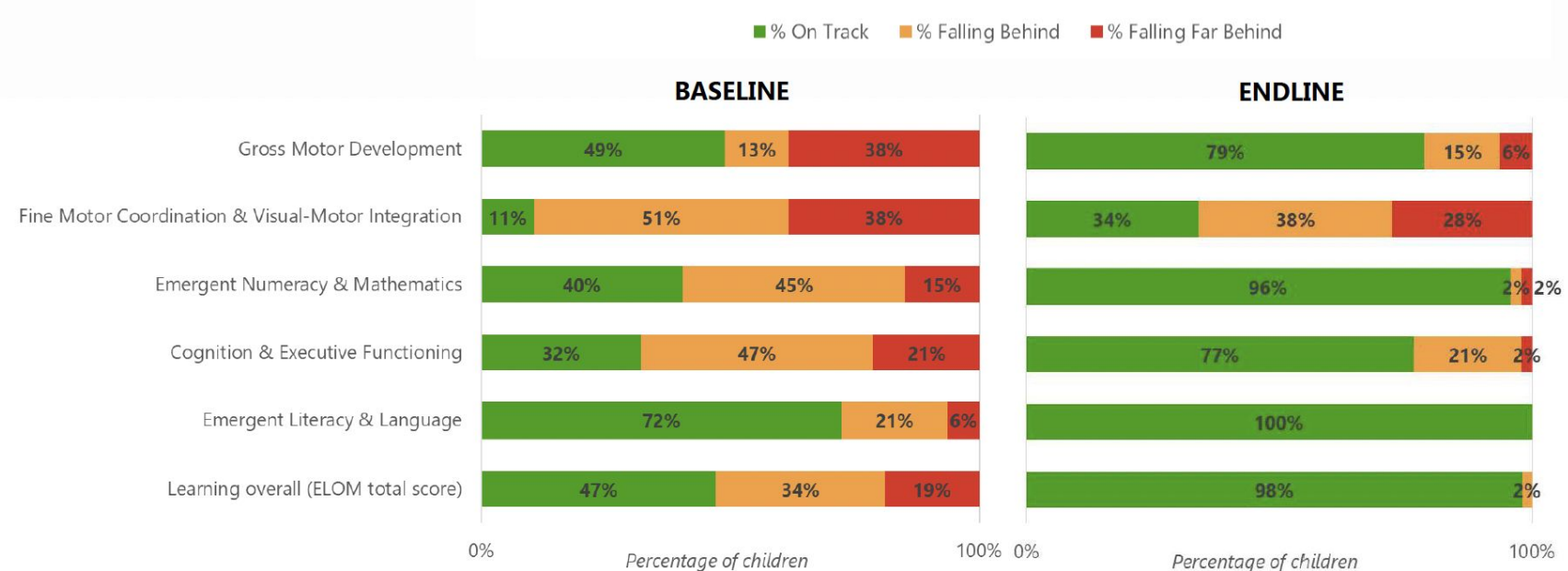
Another key component of the behavioural model is to provide real world examples of developmentally appropriate activities for the children. In this case, in order to reinforce the use of position words, parents are encouraged to play hide and seek with one of the child’s favourite toys . When the child finds the toy they are encouraged to use position words to describe where they found it. “I found teddy UNDER the bed!”



Evidence of impact

ELOM 4 & 5 RESULTS: WHAT PERCENTAGE OF YOUR CHILDREN ARE **ON TRACK** IN THE ELOM DOMAINS?

Your children were assessed on all five ELOM domains. The graphs below compare the percentage of children in each ELOM performance band (on track, falling behind, and falling far behind) at baseline and endline. There was notable improvement in the percentage of children *on track* between baseline and endline, most strikingly in ENM.



The above table was drawn from an ELOM report on children at ECD Centres that have used Finding Thabo as part of the Penreach TDW programme in Mpumulanga. This shows very encouraging improvements, especially in Emergent Numeracy & Mathematics, Cognitive & Executive Functioning, and Emergent Literacy & Language.

Source: DataDrive 2030





Costs for Donors & NGO partner organisations

The table below sets out the Finding Thabo prices for NGO partner organisations. The most popular option is R1 000 and comprises 1 x A2 set of pictures, 1 x teacher activity guide and 4 x A3 set of pictures (so that children can sit in small groups around a smaller picture)

We would be delighted to work together on joint funding proposals.

Description	Unit Cost (ex VAT)	Unit Cost (Incl VAT)
Finding Thabo Picture Set for Teachers (A2)	R300	R345
Teacher Activity Guide (full year's NCF aligned curriculum for the Grade RR year)	R200	R230
Finding Thabo Picture set for children (4 -5 per class recommended)	R125	R144
Training Workshops (excluding transport and venue hire etc)	R4 000	R4 600
Finding Thabo Assessment Application and WhatsApp content and support	Free	Free
Optional extras		
Playmat (1.8m x 1.2m fully washable playmat)	R1 100	R1 265
Monitoring & Evaluation	tba	tba





About The Reach Trust

Established in 2012, The Reach Trust (Reach) has helped millions of South Africans gain access to life changing content via mobile phones. Reach has worked with Governments and multiple UN organisations. Originally named The Mxit Reach Trust, where all programmes were offered via the Mxit Social Network, the closure of Mxit has resulted in a shift in technology strategy, with a greater emphasis on smartphones. Much of the infrastructure and intellectual capital has however been retained.

Reach now focuses on two areas:

- (1) Early Childhood Development (ECD), and
- (2) Up-skilling of out-of-school youth to improve employability.

All beneficiaries are from previously disadvantaged communities. Reach is a registered Public Benefit Organisation



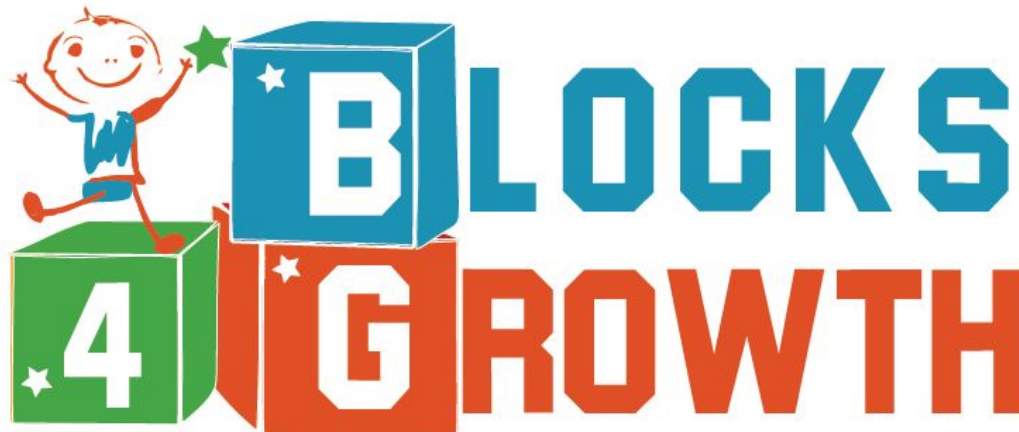
About The Learning Initiative

The Learning Initiative (TLI) was established in 2014 with the aim of making professional services available to disadvantaged communities. Their multi-disciplinary team of specialists have, in association with the Department of Social Development, developed, tested and implemented a ground-breaking, therapeutic intervention called Blocks 4 Growth that promotes holistic child development in 4-5 year old children.

Results have consistently shown statistically significant improvement in the children's functioning.

TLI focuses on enriching the lives of all their beneficiaries (children, parents, teachers, creche owners) by offering support, developing their strengths, transferring skills and changing the culture of education in the creche, home and community at large.

Key components of Blocks4Growth have been utilised in the Finding Thabo activities.



Key personnel



Andrew Rudge
Founder & CEO
The Reach Trust

Andrew spent a decade in banking in the UK before moving back to South Africa and shifting his focus to behaviour change and education technology. As the father of three children he has become acutely aware of the importance of high quality early stimulation to ensure effective neurodevelopment and allow children to reach their full potential.

Andrew holds a Masters Degree in Applied Economics (Cum Laude) from Imperial College, London.



Dr Ingrid Ahlert
Founder & CEO
The Learning Initiative

Ingrid is a Counselling Psychologist and founder of The Learning Initiative.

She has a special interest in neurodevelopment, learning barriers, and family resilience. She loves working with children and appreciates their innocence, inquisitiveness, strength and determination. Through the project she hopes to inspire, empower and equip children, their parents and teachers to become their personal best. She is proud of the passionate team committed to making this dream a reality.

