

2018



Basic Concepts  
Building Thinking - Harnessing Potential *unlimited*

# An Evaluation of the Basic Concepts Programme

PROPOSAL

ALACRITY DEVELOPMENT AND THE ELOM  
TEAM

# Table of Contents

INTRODUCTION .....	2
EVALUATION METHOD .....	2
Evaluation Questions.....	2
Evaluation Design .....	2
Sampling Plan.....	3
Data Collection .....	4
Data Analysis Approach .....	5
Evaluation Plan .....	7
TEAM.....	9
Principal Investigators .....	9
Project Management .....	9
Advisory .....	10
BUDGET .....	11

# INTRODUCTION

The ELOM Team and Alacrity Development Pty (Ltd) hereby present this proposal to the D.G Murray Trust to conduct an evaluation of the Basic Concepts Programme. The evaluation will assess the extent to which the programme improves the school preparedness of Grade R learners who attend schools that use the Basic Concepts curriculum. The evaluation will also investigate the relationship between Early Learning Outcomes Measure (ELOM) scores (collected at baseline) and Test of Basic Concepts Knowledge (TBCK) scores at end line (a predictive validity sub-component).

## EVALUATION METHOD

### Evaluation Questions

1. Does the Basic Concepts Programme improve the school preparedness of programme learners, and if so, by how much?
  - a. Are programme outcomes moderated by:
    - i. Child factors?
    - ii. Support and supervision of educators?
    - iii. Classroom size?
    - iv. Qualities of the District (Quintile, Language and Rural/Urban mix)?
2. Do Early Learning Outcomes Measure scores (ELOM) predict Test of Basic Concepts Knowledge (TBCK) scores?

### Evaluation Design

An experimental or quasi-experimental evaluation design using multi-stage cluster random sampling will be employed. A comparison group will be sampled from schools who are not receiving the intervention.

If possible, we will randomly allocate schools or classrooms to either receive the intervention, or to not receive the intervention. If this is not possible, we will sample

from existing Basic Concepts schools or classrooms to create the intervention group, and identify suitable schools who do not receive the intervention to act as a quasi-experimental comparison group.

In addition, programme participants' outcomes at baseline will be compared to the norms of the ELOM reference group – a national sample of children, already collected by the ELOM Team.

## Sampling Plan

The following sampling will be employed by this evaluation:

1. Randomly select 10 intervention schools and 10 comparison schools from each of the John Taolo Gaetsewe District and the Pixley Ka Seme District, to realise a target total of 40 schools.
2. Randomly select 8 children in each intervention school and randomly select 4 children in each comparison school for a total of 240 children (160 intervention children; 80 comparison children).

The table below presents the suggested sampling frame:

Intervention Group	Districts	Number of Schools per District	Number of Children per School	Total Children per Group
Treatment	Pixley Ka Seme	10	8	80
	John Taolo Gaetsewe	10	8	80
	Sub-Total			160
Comparison	Pixley Ka Seme	10	4	40
	John Taolo Gaetsewe	10	4	40
	Sub-Total			80
Total				240

The calculation of the sample size followed the guidelines for power presented below:

Statistical Power Calculation, Using G\*Power:

- Analysis: Analysis of Variance with fixed effects and interactions.
- Effect Size = 0.25
- Power = 0.80
- Alpha = 0.05
- Sample N = 196
- Adjustment for Attrition = 1.20
- Adjusted Sample N = 235 (240 for sampling purposes)

## Data Collection

Baseline data collection will be conducted using the Early Learning Outcomes Measure (ELOM). Data will be collected in February 2019, over a maximum of 3 weeks, by 4 trained ELOM assessors. These assessments will be conducted with Grade R children who are younger than 70 months of age.

Two of these assessors will be seTswana speaking, and will conduct data collection in the John Taolo Gaetsewe District. Two of the assessors will be Afrikaans speaking, and will conduct data collection in the Pixley Ka Seme District.

Endline data collection will be conducted at either the end of Grade R (November/December, 2019) or at the start of Grade 1 (February, 2020). Data will be collected using TBCK and will be facilitated by Basic Concepts Unlimited.

We will collect demographic information related to the child's height-for-age, home language, age and gender, as well as the name of the school and its quintile allocation.

We will request any records related to educator and school support from Basic Concepts Unlimited. We will also conduct interviews with programme staff and beneficiaries as is necessary.

The table below presents the evaluation questions, along with their instruments and data sources:

Evaluation Question	Data Source/s	Data Collector/s
Does the Basic Concepts Programme improve the school preparedness of programme learners, and if so, by how much?	<ul style="list-style-type: none"> <li>• ELOM assessment scores</li> <li>• TBCK assessment scores</li> </ul>	<ul style="list-style-type: none"> <li>• Trained ELOM assessors</li> <li>• Basic Concepts Unlimited</li> </ul>
Are programme outcomes moderated by: <ul style="list-style-type: none"> <li>- Child factors?</li> <li>- Class size (Educator Child Ratio)?</li> <li>- Support and supervision of educators?</li> <li>- Qualities of the District (Quintile, Language and Rural/Urban mix)?</li> </ul>	Demographic and programme data	Basic Concepts Unlimited
Do Early Learning Outcomes Measure scores (ELOM) predict Test of Basic Concepts Knowledge (TBCK) scores?	<ul style="list-style-type: none"> <li>• ELOM assessment scores</li> <li>• TBCK assessment scores</li> </ul>	<ul style="list-style-type: none"> <li>• Trained ELOM assessors</li> <li>• Basic Concepts Unlimited</li> </ul>

## Data Analysis Approach

In order to answer Question 1, we will compare child scores before they receive the Basic Concepts Programme, with those scores after they receive the Basic Concepts Programme. If there is a difference between the endline scores of children who **do** receive the programme and those who **do not** receive it, we will have evidence that the programme has an effect. If we can use a true experimental design as noted above, with a true counterfactual, then causality can be established with the greatest certainty.

In order to answer Question 2, we will compare child performance on the ELOM domain scores before the intervention, and child performance on the TBCK after the intervention. Only the comparison group will be analysed when answering this question.

We will also try to understand how both of these questions are influenced by the district, school, teacher, child and the interaction between Basic Concepts Unlimited and the school.

A more detailed description of the analysis is presented below:

TBCK scores will be entered as the dependent variable in all General Linear Models (ANOVA or Regression). ELOM scores will be entered as the independent variable. Other variables, like quintile, age, gender, level of deprivation (as measured by height-for-age) will be entered to account for their influence on the relationship between ELOM baseline score and TBCK endline score. Intervention school or comparison school will be entered as the primary grouping variable, and district will be entered as a secondary grouping variable.

This model, and different variations of it, will allow us to determine whether there is a difference between children whose schools participate in the programme, and those who do not.

We will also be able to determine whether the ELOM predicts performance on the TBCK by examining the baseline and endline performance of the comparison group.

## Evaluation Plan

This table breaks down the method, described above, into the evaluation process. The process is comprised of 4 chronological phases with specific activities aimed at answering the research questions.

PHASE 1: Desktop Reviews and Contextualisation	Research Activity	Activity Objectives	Timeline
	Review of programme documentation.	Familiarise with the Basic Concepts programme, and identify contextual factors that may influence the programme. Identify best practices among similar early learning programmes.	Q1 2019
	Review of academic literature.		
	Develop interview schedules for Basic Concept Beneficiaries.	Prepare for quantitative data collection.	
	Develop any necessary data collection tools, in collaboration with Basic Concept, to support measurement of child, home background, and practitioner factors.	Prepare for additional quantitative and qualitative data collection.	
	Contact and schedule interview times with participating stakeholders	Prepare for qualitative data collection.	
PHASE 2: Baseline Assessments	Finalise research sample	ELOM assessment data collection.	Q1 2019
	Contract ELOM assessors		
	Train assessors on programme context		
	Arrange fieldwork logistics		
	Obtain ELOM assessments		
	Analyse ELOM data		
	Write and submit baseline report	Update Basic Concepts management team on research progress and baseline status of sample.	



	Research Activity	Activity Objectives	Timeline
PHASE 3: Endline Assessments	Obtain TBCK data from Basic Concepts Unlimited	TBCK data collection and comparison to ELOM data.	Q1 2020
	Analyse TBCK data in relation to ELOM data		
PHASE 4: Reporting	Review of assessment findings.	Provide a useful and informative research report to Basic Concepts Unlimited.	Q1 2020
	Write and submit final report (refine as needed).		

# TEAM

## Principal Investigators

Jessica Horler and Matthew Snelling will be the principal investigators for this study. Co-directors of Alacrity Development, both graduated from the University of Cape Town in 2015 with Master's degrees in Programme Evaluation, and in 2015 with Honours degrees in Psychology.

Matthew's work has included formative evaluations, outcome evaluations, statistical reporting, M&E system development, database design, and the development of technologically advanced data collection tools. Matthew also worked as statistician in the development of the first valid and culturally sensitive measure of child development for South African children between the ages of 4 and 5 and a half years old – the Early Learning Outcomes Measure (ELOM). He provides ongoing statistical and evaluations support to the ELOM Learning Community.

Jessica's work has included the development of M&E systems and implementation frameworks, outcome evaluations, literature reviews, and the development of Theories of Change. Jessica is well-versed in rigorous research design and experienced in both quantitative and qualitative tool development and data analysis. She has experience in managing large-scale evaluations of early learning programmes in low income communities and capacity building in M&E.

Matthew and Jessica will be supported by the rest of the Alacrity Development team.

## Project Management

Elizabeth Girdwood (BBusSci MComm) will act as project manager of the study, and will manage the budget. An economist by training, with a background in organisational development and management consulting, Elizabeth has extensive experience both in on-the-ground development programme implementation, and the high-level financing and structuring thereof. Internationally, as part of the team at the UK's largest foundation, the Children's Investment Fund Foundation, and Imperial College London's Partnership for Child Development, she has concentrated on child-focused interventions, and has spent the last few years of her career back

in South Africa researching education and early childhood development. Most recently, she has been part of the development of ELOM since 2014.

## Advisory

Andrew Dawes and Linda Biersteker will oversee the study as advisors. Andrew and Linda are the co-principal investigators in the development of the ELOM.

Andrew Dawes (MSc) is Associate Professor Emeritus in the Department of Psychology at the University of Cape Town and a Research Associate in the Department of International Development the University of Oxford, where he works on the Young Lives longitudinal study of children growing up in poverty in India, Ethiopia, Peru and Vietnam. He was co-founder of the University of Cape Town Children's Institute, and was a Research Director at the Human Sciences Research Council for five years, responsible for research on early development, child protection and indicator development. In 2010 he was elected a Fellow of the Association of Psychological Science (APS). In addition to nine co-authored and edited volumes he has produced in excess of 160 journal articles, book chapters, and major research reports.

Linda Biersteker (MA) is an ECD consultant with nearly 40 years of research, training and programming experience in the early childhood development sector, has produced numerous publications and undertaken a number of assignments for government, academic institutions, NGOs and international agencies. Formerly Research Director at the Early Learning Resource Unit she has been working as an independent consultant since 2014. Linda is an experienced researcher and has undertaken extensive research on ECD policy, programming and training strategies in South Africa, the SADC region and internationally. She has also been involved in ECD training at universities and in the NGO sector on ECD curriculum and programming as well as research methods and assessment.

## BUDGET

There is no need to train additional ELOM assessors for the purposes of this evaluation. A few organisations based in the Northern Cape have already expressed the desire to have trained ELOM assessors.

We propose training 3 to 4 of their Afrikaans and Setswana speaking staff during the scheduled ELOM training week in October 2018, and then seconding them from these organisations for the period of three weeks. The costs of the five-day training week will thus be covered by Innovation Edge.

Alternatively, we can call on the services of other accredited ELOM assessors should this process run into scheduling challenges.

BC EVALUATION BUDGET			
Personnel	Line Item	Budget	
	Advisory	R 35 000	
	Principal Investigators	R 40 700	
	Programme Management	R 50 400	
	Data Management & M&E expertise	R 66 600	
	Other Personnel	R 76 500	
	Total Expenditure Personnel		<b>R 269 200</b>
Direct Costs	Test kits (4 @ R500)	R 2 000	
	Mobile phone/tablet and data per assessor (R2500)	R 10 800	
	All Printing	R 1 500	
	Communications	R 1 500	
	Assessment support materials	R 3 000	
	BC meetings	R 24 000	
	Fieldwork travel costs (Assessor transport & acc)	R 72 000	
	Contingency @10%	R 11 480	
	Total Direct Costs		<b>R 126 280</b>
<b>Total Budget</b>			<b>R 395 480</b>