



A formative evaluation of LPC's Montessori Preschool Programme¹

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¹ This is a summary of the evaluation. The full evaluation report can be found under project #457 on <http://www.knowledgco-op.uct.ac.za/kco/proj/completed>.

EXECUTIVE SUMMARY

This dissertation reports on the formative evaluation of an early childhood programme (ECP) targeting learners from farmworkers' families, implemented by Learn and Play Centre² (LPC) in the township of Mfuleni, located in Cape Town, South Africa. The ECP comprises four programme components implemented at nursery, crèche, preschool and grade R levels. This evaluation focuses on the programme implemented at the preschool level. It applies the Montessori approach to deliver educational services to learners between the ages of three to five years. It also provides support services to caregivers/parents who cannot afford the school fees.

This evaluation seeks to unpack the implementation of the preschool programme component and assess its fidelity to the Montessori model. It also seeks to assess its effectiveness in producing the desired academic and social outcomes. The evaluation addresses the following evaluation questions relating to service utilisation, service delivery, and programme outcomes:

1. Did the intended target beneficiaries participate in the programme? If so, did they receive the intended programme services and dosage?
2. Was the programme implemented with fidelity to the classical Montessori approach?
3. Did the programme satisfactorily develop the beneficiaries' academic and social skills?

The evaluation used data derived from administrative records, surveys and the Early Learning Outcomes Measure (ELOM) to address the evaluation questions. At the time of the evaluation, LPC did not have a well-articulated programme implementation plan or performance indicators. As such, the evaluator derived implementation parameters specific to the Montessori education model/approach from the literature to assess the service delivery and service utilisation. Furthermore, the organisation did not have a monitoring system, with well-defined outcome indicators. Primary data was therefore collected using the ELOM instrument, administered to a non-random sample of 37 learners. Results were benchmarked against those of a comparable group of learners from Quintile 1-3 schools.

² The name of the implementing organisation and its base of operation has been altered to retain the organisation's anonymity.

The following findings emerged from the evaluation:

- Although the programme is in its formative years, there is evidence to suggest that it effectively assists caregivers/parents to apply for financial assistance.
- Keeping in mind that a full roll-out of the Montessori model is still underway, the evaluation confirmed weak fidelity to the classical Montessori model.
- Learners in the programme were not found to outperform the ELOM age validation sample, in any of the domains measured.
- Age, gender, programme dosage, and the financial source of school fees were identified as significant predictors of ELOM performance.

INTRODUCTION

Background to Evaluation

Early childhood development (ECD) programmes are critical interventions implemented before learners (under 6 years) enter primary school, with the aim of improving the learning outcomes associated with subsequent schooling. The socio-economic impact of ECD interventions extend beyond childhood (Gertler et al., 2014; Heckman et al., 2010, 2016).

The positive impact of early interventions has been confirmed in both developed countries (Havnes & Mogstad, 2011; Kisker et al., 2002; Ludwig & Miller, 2007) and developing countries (Berlinski & Galiani, 2005; Cortazar, 2015; Pholpirul, 2017), including African countries (Hazarika & Viren, 2013; Martinez et al., 2012; Raine et al., 2003).

However, in African and sub-Saharan countries, the results are mixed, with a higher percentage of learners repeating the school year compared to other developing countries (UNESCO, 1996), or failing to attain the final grade of primary school (Louw et al., 2011; UNESCO, 2006; UNESCO, 2006; Zoch, 2017).

In South Africa, the poor academic performance of learners from disadvantaged communities can also be explained by the socio-economic status (SES) gap created by apartheid (Moloi & Strauss, 2005; Reardon, 2011; Spaull, 2011; Van der Berg, 2008, 2015). In an attempt to address this problem, the government offers to all learners aged between five and six an early childhood intervention (Grade R) (Atmore, 2013; Kotzé, 2015; Rensburg, 2015), expected to be compulsory by 2019.

However, the number of eligible learners (0-6 years) attending ECD programmes³ in South Africa continues to be low. The ECD attendance in 2016 was estimated at 35.7% at national level and 33.7% in the Western Cape (ETDPSETA, 2018, p.57). In an urban⁴ informal area, such as Mfuleni (a township in Cape Town), learners are less likely to attend ECD programmes and those who do are likely to be enrolled in unregistered ECD centres (Bidwell & Watine, 2014; Kotzé, 2015). Unregistered ECD centres are typically constrained by their lack of access to financial resources. This situation limits the investment that can be made in adequate nutrition for learners, improvement of infrastructure, acquisition of appropriate preschool material, or the training of teachers, all of which constitute a major challenge for ECD centres in South Africa (Atmore, 1998, 2013; Rensburg, 2015).

Due to low uptake and participation in ECD interventions and the general poor quality of these interventions, South African learners continue to perform below international levels (Howie et al., 2017; Van der Berg & Louw, 2007). The situation is more pronounced for learners from low SES families (Kotzé, 2015; Spaull, 2011; Zoch, 2017) who continuously repeat a number of school grades (Louw et al., 2011; Van der Berg, 2015).

It is in this context that a structured early childhood programme (ECP), which is the focus of this evaluation, is implemented in the Mfuleni township. This programme has the potential to offer an affordable early intervention to learners from low SES families in the Mfuleni township.

³ Governmental ECD programmes are, for the most part, synonymous to Grade R, while those implemented by NGOs and private organisations typically include other early interventions before the learner enrolls in Grade R.

⁴ The problem of unregistered ECDs occurs in both urban and rural areas. However, statistics from Kotzé (2015) reveal that, while there is an increase in the number of learners attending ECD programmes in rural areas, this is not the case in urban areas.

Learn and Play Centre's early childhood programme

The pre-school was officially opened in 1992 in the premises of a disused school and named Learn and Play Centre (LPC), in 1998.

With the objective of reducing the SES gap in South African society, and of creating a society with a strong academic and social foundation to enable citizens to succeed in life, the LPC implements an early childhood programme (ECP) that targets learners from farmworkers' families. The low SES of learners' families has led the organisation to complement the programme with a nutritional component, together with a supportive structure for caregivers/parents to obtain government subsidies or sponsorships to fund the education of their learners.

The programme comprises four programme stages: nursery, creche, preschool, and Grade R. The learners admitted into the nursery programme stage generally progress to subsequent programme stages. However, external learners (learners not already in the programme) can be admitted to any ECP component depending on their ages. The learners are exposed to three languages: English, Afrikaans and Xhosa.

Although the ECP comprises the different programme stages of child development, this evaluation focuses on one component, the preschool programme stage.

Preschool Programme Theory

The programme theory presented in Figure 1 was elicited and constructed based on qualitative inputs provided by LPC board members and the school principal, during preliminary consultations.

The classrooms for the preschool programme stage are physically organised according to five learning areas: practical life, sensorial, languages, mathematics, and cultural.

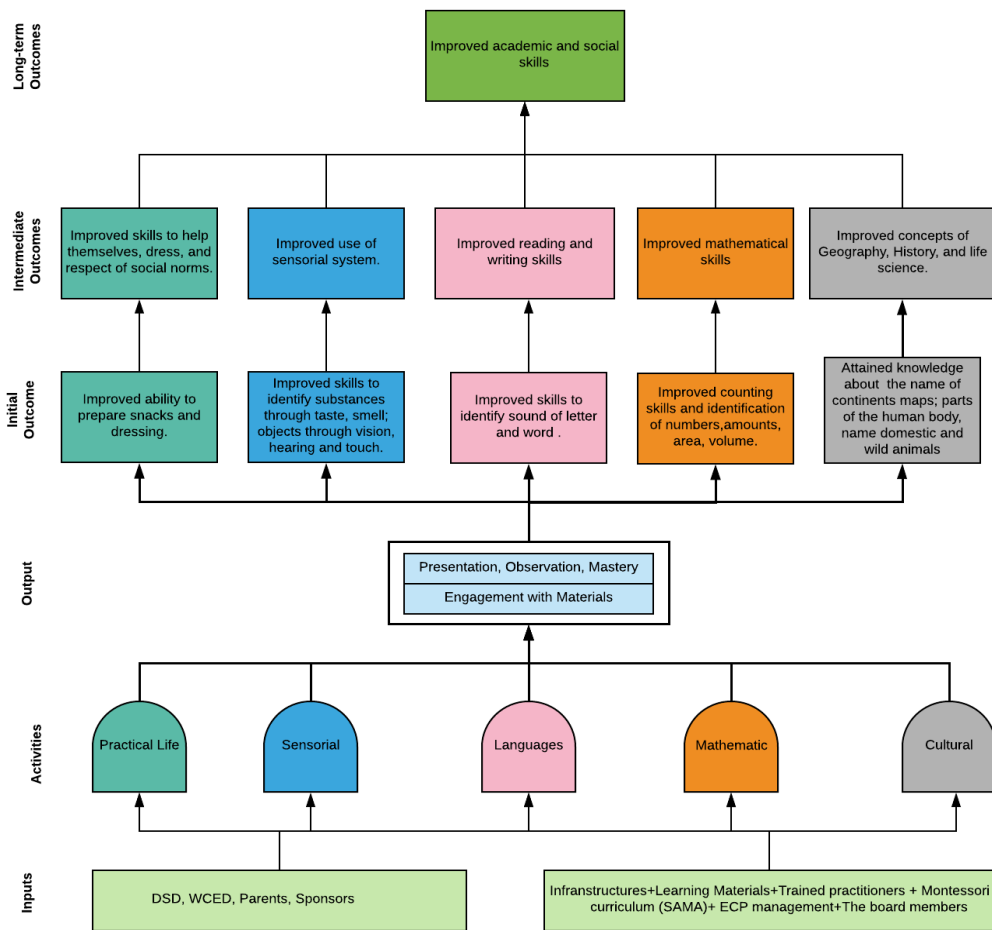


Figure 1. The preschool programme theory.

Within the learning areas, learners are free to choose the activity to work with, and/or to repeat the activity and to move on to another activity when they need or want to do so. The educator introduces the learner to the learning process. If the chosen activity is new to the learner, s/he supports and guides the learning process and, if necessary, registers the mastery of the activity, and provides an extension activity.

The study conducted a literature review to understand the plausibility of the programme. The literature review offers evidence of the positive impacts of ECD interventions on academic and socio-economic domains (Gertler et al., 2014; Heckman et al., 2010, 2016; Hill et al., 2015), particularly for learners from low SES backgrounds in both developed and developing countries (Heckman & Masterov, 2007; Karoly, 2016; Temple & Reynolds, 2007), including African

countries (Krafft, 2015; Martinez et al., 2012; Raine et al., 2003). Studies also confirm that Montessori programmes are more effective than traditional ECD programmes (Bauchmüller et al., 2014; Lillard et al., 2017; Dereli Iman et al., 2017; Kayili, 2018), especially when implementers comply with the principles of the classic Montessori approach (Lillard & Heise, 2016; Lillard & Heise, 2016).

Aims of the evaluation

This formative evaluation is therefore a combined process and outcome evaluation. The current evaluation seeks to unpack the implementation of the preschool component, assess its fidelity to the Montessori education model, and assess the short-term academic and social outcomes of the beneficiaries.

Because the LPC programme doesn't have written and well-articulated M&E framework, the evaluation uses parameters derived from a theoretical Montessori programme to conduct the process evaluation. To conduct the outcome evaluation, the study uses Early Learning Outcome Measure (ELOM). Results were benchmarked against those of a comparable group of learners from Quintile 1-3 schools. ELOM was specifically designed for use in evaluations of early learning programmes.

Evaluation questions

The following evaluation questions (relating to service utilisation, service delivery, and programme outcomes) were derived based on the stated aims of the evaluation:

1. Did the intended target beneficiaries participate in the programme? If so, did they receive the intended programme services and dosage?
2. Was the programme implemented with fidelity to the classical Montessori education model?
3. Did the programme satisfactorily develop the beneficiaries' academic and social skills?

EVALUATION FINDINGS

The evaluation revealed that although the programme is in formative years, it effectively assists caregivers/parents to apply for financial assistance. However, the evaluator recommends the implementers to consider re-defining the target population and implement a parallel intervention aimed at addressing chronic absenteeism amongst learners, so that they are exposed to full programme dosage.

The evaluation also confirmed that a full roll-out of the Montessori model is still underway in LPC classrooms. There is scope to improve both process and structural quality, including reconsidering the educator-learner ration, and equipping the Mathematics learning area with the full range of Montessori materials. Such improvements will facilitate the development of beneficiaries' academic and social skills.

The evaluation also found learners' characteristics (age and gender) and the preschool programme variables (preschool programme dosage, and financial source of the school fees) to be significant predictors of ELOM performance. The evaluator recommends maintaining the financial support offered to caregivers/parents who cannot afford the school fees.

Limitation of the evaluation

The nature of quasi-experimental design and lack of data for socio-economic variables to determine the propensity scores.

Strong assessment of process quality was beyond the scope of this intervention, due evaluation budget and timeline.

The time difference in the data collection between the treatment group and matched control group which might be associated to some unknown time-related factors that could have affected one group of participants differently and resulted in differences in the measurement process.

Because LPC did not maintain reliable data on learners' receptivity of the preschool programme (dosage received), attendance was used as a proxy. This limit the assessment that the evaluator could make in this regard.