



MOZAMBIQUE

Evaluation of the UNICEF Mozambique Accelerated School Readiness Pilot Programme: Final report

Can accelerated school readiness programmes help to prepare Mozambique’s children for primary education?

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EDITORIAL INSIGHT

Reviewers commended this piece of research for its robust methodology combining quantitative and qualitative methods, and its clear, comprehensive and systematic presentation of recommendations based on the impact evaluation findings, which can be taken up realistically at the policy, programme and advocacy level. It also scored well on innovation and on potential for impact in addressing learning poverty, including through the use of cost analysis to help identify programme scale-up potential.

Reviewers also commented on the strong engagement throughout the research process of diverse stakeholders, from local communities and government representatives, to teachers and parents. Ethical considerations were also reported to a high standard and lessons learned were clearly documented.

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Children aged 5-6 attend an Accelerated School Readiness class at the Cazembe Primary school, Mozambique. The programme, piloted in the Zambezia province, aims to prepare children entering grade 1 to take full advantage of learning experiences.



Primary school enrolment in Mozambique has doubled in the last 15 years, yet this achievement is not reflected in children's learning outcomes. Only 6 per cent of children reach basic reading competency at the age of 8, while just 32 per cent of children complete primary school.

Children's readiness for school is a crucial factor in determining their future educational outcomes. However, only 3.5 per cent of children in Mozambique are currently covered by preschool provision. Accelerated school readiness (ASR) programmes – a rapid form of early childhood education intervention – aim to improve equity of access to pre-primary education. Such programmes have been shown to improve children's school attendance, learning and long-term academic achievements.

Working with Save the Children and the Mozambican Ministry of Education and Human Development, UNICEF Mozambique implemented an ASR pilot programme in the province of Zambézia from 2016 to 2019. An evaluation of the pilot, conducted during 2017 and 2018, clearly showed that it is possible to establish a low-cost ASR initiative in Mozambique, with positive and long-lasting effects on children's development.

PURPOSE

UNICEF Mozambique commissioned the American Institutes for Research to conduct a mixed methods impact evaluation of the ASR pilot programme in Zambézia. The research aimed to:

- determine the impact of the ASR programme on children's school readiness, on-time enrolment and academic achievement in Grade 1 of primary school
- identify aspects of community context and programme implementation (such as engagement of local families) that appeared to facilitate or hinder the programme's success
- calculate the cost-effectiveness of the programme.

This programme is a good way to prepare the children, because they leave preschool for elementary school with a good notion. Teachers also like it because their work is made easier.

– Parent discussing perceived benefits of ASR programme, quoted in evaluation report

BOX 1 COMPONENTS OF THE ASR PILOT PROGRAMME IN ZAMBÉZIA

- **120-hour summer school readiness programme** – for children aged 5–6 years, run by trained community volunteers.
- **13 weeks of home-based education sessions** – run by parents for parents to help improve parenting skills, foster a positive home learning environment and promote children's early success in school.
- **Capacity building for schools and teachers** – to help support a smooth transition to primary school for children.

APPROACH

The impact evaluation involved both quantitative and qualitative data collection as well as a cost analysis.

Quantitative data on school readiness, enrolment and academic achievement

Schools in two similar districts of Zambézia took part in a longitudinal, cluster-randomized controlled trial in 2017 and 2018 to investigate whether the ASR programme improved children's readiness for school, their enrolment in primary school and their academic achievement.



An equal number of schools in the Morrumbala and Derre districts (30 schools per district) were randomly selected for the trial. Within each district, 15 schools formed a treatment group, with the remaining 15 schools serving as a control group for comparison. Children aged 5–6 years who were due to start Grade 1 at the treatment schools in 2018 were invited to join the ASR programme before beginning school. Participants' academic achievements were compared with those of children from communities around the control schools who met the equivalent criteria but did not take part in the ASR programme. None of the children who took part in the research had previous experience of early childhood education.

Children from the treatment and control groups were assessed at three points during the trial: a baseline assessment was made just before children began the ASR programme (November 2017); a midline assessment was conducted when the children began Grade 1 (March 2018); and an endline assessment was completed at the end of Grade 1 (November 2018).

Save the Children's International Development and Early Learning Assessment (IDELA) was used to evaluate the children in six outcome areas. IDELA is an easy-to-use, rigorous global tool that has been proven to measure children's early learning and development.

BOX 2 **WHAT DOES IDELA MEASURE?**

- Emergent numeracy
- Emergent literacy
- Executive function (e.g., ability to pay attention, remember rules, exhibit self-control)
- Socioemotional skills (e.g., self-awareness, empathy)
- Motor skills
- Approaches to learning

Ratings in each of the six areas are combined to calculate the overall IDELA score for the child.

Other quantitative data captured school enrolment and attendance figures as well as measurements of parents' and caregivers' attitudes to education, their aspirations for their children and their parenting practices. Data were analysed using a difference-in-differences approach to compare changes in outcomes, including the average overall IDELA score, for the treatment and control groups over the course of the trial.

Qualitative data on perceptions of the programme

Focus group discussions and interviews were conducted with volunteer programme leaders, teachers, parents and caregivers, as well as Save the Children and UNICEF staff. Qualitative data were used to assess perceptions of the ASR programme implementation, and to uncover aspects that were felt to facilitate or hinder its success.

Cost analysis

An 'ingredient' modelling approach was used to analyse the overall costs of the ASR programme. This involved systematically identifying each of the costs involved, including those that may have been omitted from budget or expenditure data (such as volunteer time), as well as costs shared between the programme and other operational activities. The approach also distinguished between costs associated with setting up the programme and costs that recur during its operation.

The achievement of those who were not in the project was also positive because those who were at the project helped those who were not – they learned something from the others. So it is positive on everyone's part.

–Teacher discussing student performance at the end of Grade 1, quoted in evaluation report



The cost-effectiveness ratio of the ASR programme was calculated by dividing the estimated cost of implementing the programme per child by its impact on IDELA scores and primary school attendance.

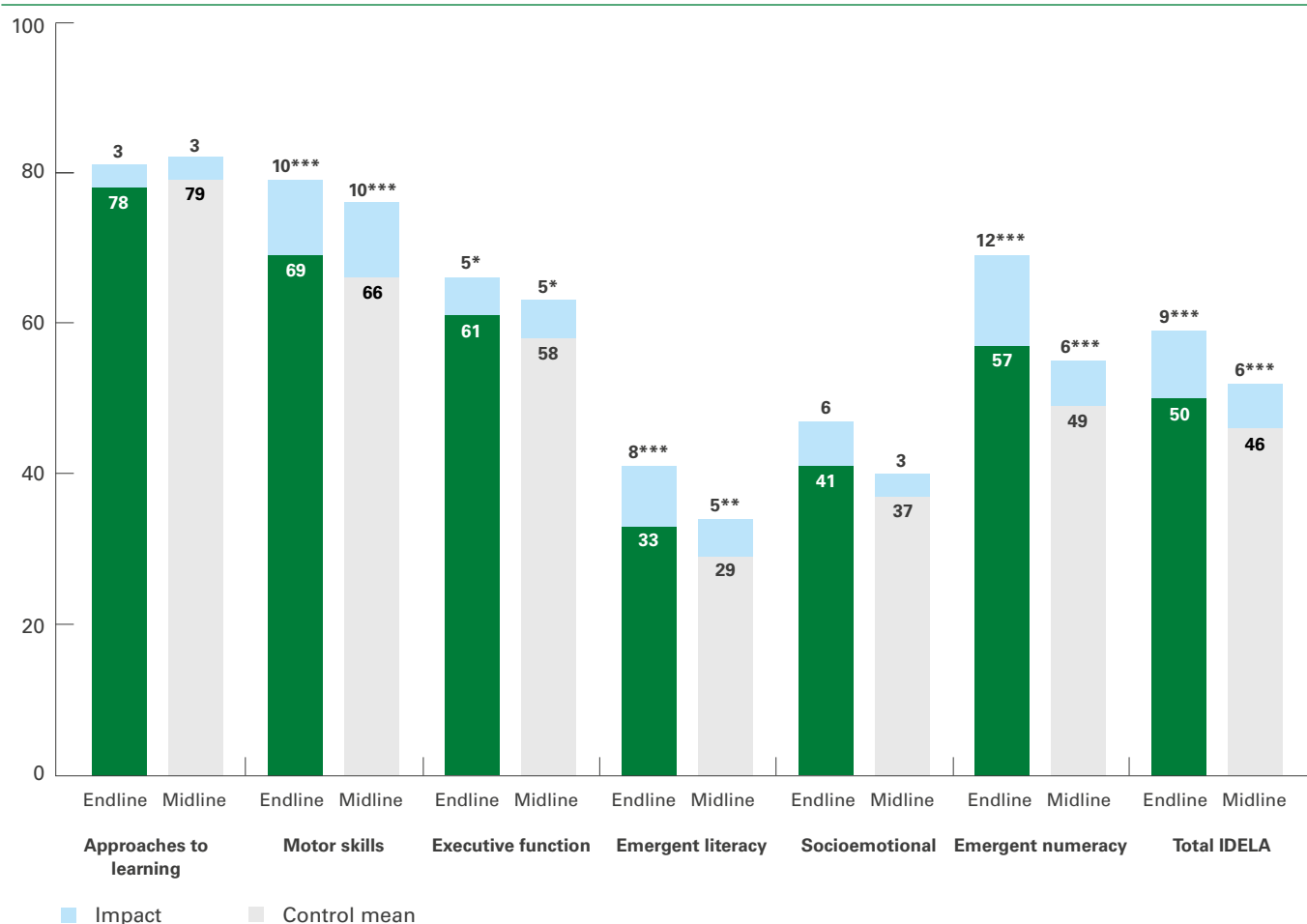
KEY FINDINGS

School readiness improves primary school performance

Participation in the ASR programme was found to significantly improve children's performance in Grade 1. The performance of non-participant classmates improved too, suggesting that they benefited from a wider 'peer effect'. The overall IDELA score for programme participants increased by 17 points on average between the baseline and endline assessments (equivalent to 0.93 standard deviations above the mean).

Although the skills of children in the control group improved during Grade 1, children in the treatment group showed a greater improvement. Increased skills were first observed at the midline assessment, immediately following the four-month ASR programme. The same result was seen at the endline, nine months after completion of the programme. Analysis showed that girls and boys benefited equally from the programme.

FIGURE 1
Mean IDELA scores for children in the control group, and programme impact on IDELA scores



Source: Authors' calculations.

Enrolment and attendance increases

The ASR programme had a positive effect on school enrolment and attendance. Children who had participated in the programme were 34 per cent more likely to enrol in Grade 1. Attendance in general was 12 per cent higher in treatment schools than in control schools. A particularly positive effect was seen among girl participants, who were 11 per cent more likely than their control group peers to be attending school at the end of Grade 1.

TABLE 1
Impacts on primary school attendance by gender – single difference

	ITT	ENDLINE MEAN				N
	Impact difference	Treatment		Control		
		Boys	Girls	Boys	Girls	
Dependent variables	(1)	(6)	(7)	(8)	(9)	(10)
Is this child currently attending school?	0.108*(0.05)	0.90	0.91	0.83	0.74	1,023

Source: Author's calculation.

Parent-to-parent sessions benefit children

The qualitative data provided parent and community perspectives on the context in which the ASR programme was implemented, as well as on parent-to-parent education sessions, and on the overall effects on the children themselves.

Involving local parents in conducting home-based education sessions was perceived as a key strength of the ASR programme. Parent-to-parent sessions proved effective in improving parents' awareness of their children's diet, personal hygiene, dressing and timely arrival at school each morning. Gender norms around childcare were identified as a challenge, and earmarked for future consideration. While women were more engaged in the parent-to-parent sessions, men still typically dominated household decision-making, including around children's education.

The use of local parents as relatable group leaders, combined with the programme's ability to create a space to share experiences, lent credibility to the parent-to-parent sessions. Parent leaders played a particularly important part in guiding sessions in local languages, as not everyone spoke Portuguese, Mozambique's official language. Parents reported that the sessions gave them an opportunity to share their own experiences and to learn from others, helping them to improve their children's school readiness and attendance.

Academic impact

Interviews with teachers confirmed that programme participants performed at a higher level than non-participants. This was particularly the case in terms of the children's Portuguese oral comprehension and vocabulary, and executive function, including the ability to focus and follow directions.



ASR programming is cost-effective in Mozambique

Analysis indicated that full implementation of the ASR programme cost the Government of Mozambique about US\$60 per child. This is lower than the cost of similar programmes elsewhere in sub-Saharan Africa – for example, a study in Malawi calculated a programme implementation cost of US\$93 per child. It was also estimated that if some elements of the Mozambican ASR programme could be delivered as part of other government programmes, the cost could be reduced to US\$39 per child. To increase the average IDELA score attained by children by 17 points – as achieved by participants in the pilot programme – the cost-effectiveness ratio was found to be US\$3.50 per IDELA point increase. This level of cost-effectiveness has positive policy implications for scaling up the ASR programme throughout Mozambique.

TABLE 2
Impact and cost-effectiveness of the ASR programme on the IDELA constructs

IMPACT		COST-EFFECTIVENESS (USD)
Total IDELA	17*** points (0.93 SD)	\$3.50 (\$6.50 per 0.1 SD)
Emergent numeracy	21*** points (0.98 SD)	\$2.90 (\$6.10 per 0.1 SD)
Emergent literacy	14*** points (0.70 SD)	\$4.30 (\$8.60 per 0.1 SD)
Executive function	9* points (0.37 SD)	\$6.70 (\$16.20 per 0.1 SD)
Motor skills	19*** points (0.78 SD)	\$3.20 (\$7.70 per 0.1 SD)

Note: In United States 2017 dollars. The per-child cost is \$60 and includes in-kind costs.
Source: Authors' calculation.

INFLUENCE ON POLICY AND PROGRAMMING

It is hoped that the strong engagement with Ministry of Education and Human Development officials at all levels from the outset of the impact evaluation will have a positive effect on the uptake of its recommendations. Similarly, from a demand perspective, the community engagement of local leaders, parents and families should help to drive the expansion and uptake of the ASR programme.

The study's midline results were shared in November 2018 at an international conference organized by UNICEF and the Universidade Pedagógica in Quelimane, Mozambique. Many education partners from Zambézia attended and participated in the discussions. UNICEF Mozambique also presented the midline findings at a 2018 meeting with the Mozambican Ministry of Education and Human Development and donors, to support the case for early childhood education.

Finally, the research strengthened collaboration between UNICEF, the World Bank and UNESCO on a diagnostic assessment of early childhood education to inform an education sector analysis and plan for Mozambique.



BOX 3**KEY RECOMMENDATIONS FOR ASR PROGRAMMING IN MOZAMBIQUE**

- Scale up the ASR programme in further districts of Zambézia as well as in other provinces.
- Include extended training for volunteers as part of the programme and strive to maintain a gender balance among them.
- Strengthen the use of parent-to-parent sessions as a key component of the ASR model, by providing small incentives to attend and encouraging more fathers to do so.
- Maintain Portuguese as a language of instruction for ASR activities to help children adapt to primary school.



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UNICEF staff and representatives from the National and Provincial Directorates of Education conduct a joint monitoring visit at the Mecanga Primary School, Derre District to discuss key results and implementation challenges at the school and community level.

LOOKING AHEAD

UNICEF Mozambique will disseminate key messages from the impact evaluation to encourage dialogue and resource mobilization towards scaling up the ASR programme in Mozambique. The results will also be shared on global and regional platforms to promote the programme more widely as a cost-effective, scalable early learning intervention.

Using evidence from the impact evaluation, UNICEF will continue to work with the Government of Mozambique to develop an investment case and plan for scaling up an effective, nationwide system of preschool education that is accessible to all children. A national ASR programme in Mozambique could be the first step towards establishing such a system led by the Government and supported by UNICEF and other donor organizations.



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