

Improving School Readiness through Early Childhood Development in Uganda

A Summary Brief of Findings from an Independent Evaluation of the Aga Khan Foundation Uganda's Madrasa Early Childhood Program

March 2021








Study Overview

The Aga Khan Foundation Uganda (AKFU), through its Madrasa Early Childhood Program (MECPU), seeks to improve early childhood services in three districts in Uganda and to strengthen the role of district education officials to coordinate and monitor the delivery of early childhood services. One of the overall objectives of the program is to strengthen the capacity of caregivers in Early Childhood Development (ECD) centers to support primary school readiness of children.

The independent evaluation sought to understand:

- The impact of MECPU’s activities on children’s school readiness
- The teaching practices and learning environments in MECPU ECD centers and how they compare to other ECD settings
- The associations between ECD teacher practices and children’s school readiness

The study used a quasi-experimental design. AKFU treatment schools were predetermined prior to the evaluation; thus, random assignment to treatment and control conditions was not possible. In 2018, a baseline evaluation of the program was conducted, covering all 40 of the program’s supported ECD centers in Kampala, Wakiso, and Mukono districts. In addition, 40 matched comparison ECD centers in the same districts were selected. The study targeted children between the ages of 4-6 years old and their teachers. An endline evaluation of the program was completed in late 2019. Evaluators assessed children’s school readiness, interviewed teachers, and observed classrooms during literacy or numeracy lessons.

Study Sample at Endline	Treatment	Comparison	Grand Total
 Children assessed	389	363	752
 Teachers interviewed	32	60	92
 Classrooms observed	33	61	94

Analyses compared treatment and comparison schools on children’s school readiness, teachers’ backgrounds, and teaching practices. All differences described in this brief are statistically significant at $p < 0.05$.



The Impact of the Madrasa Early Childhood Program



Children’s School Readiness

Children were assessed using the International Development and Early Learning Assessment (IDELA), a tool used globally to measure children’s school readiness in key developmental domains: Motor Skills, Early Literacy, Early Numeracy, Social Emotional Skills and Executive Function.¹

¹ Executive Function in IDELA tests inhibitory control and short-term memory

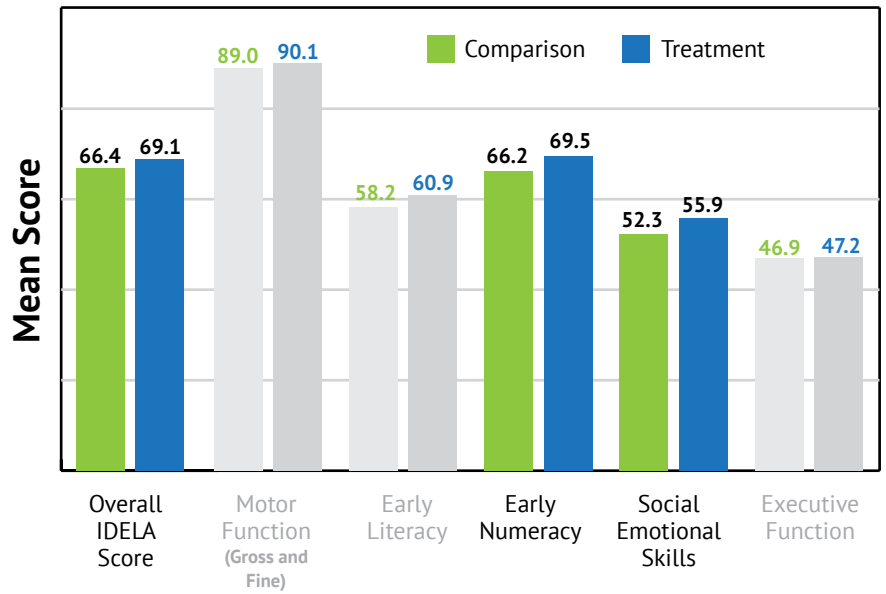
Treatment school children outperformed comparison school children on the assessment overall.²

Treatment children also performed better than comparison children in the individual domains of **Early Numeracy** and **Social Emotional Skills**. There were no notable gender, district or geographical (urban, peri-urban or rural) differences in children’s performance.

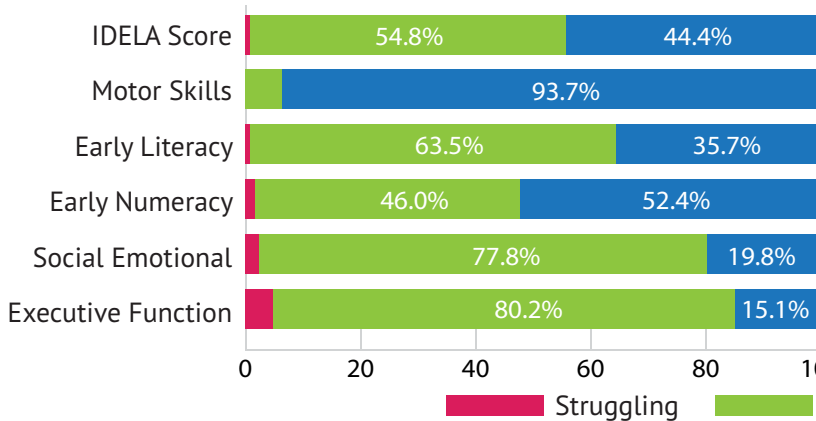
The effect size³ of the program on treatment children’s learning outcomes is 0.18, which is a medium-sized effect and similar to effects found in other high-quality ECD interventions in low- and middle-income countries⁴.

Treatment children who are six years old and graduating to primary school outperformed comparison school children in Early Numeracy. Treatment children’s mean score in Early Numeracy was 74.3 while comparison children’s mean score was 71.4.

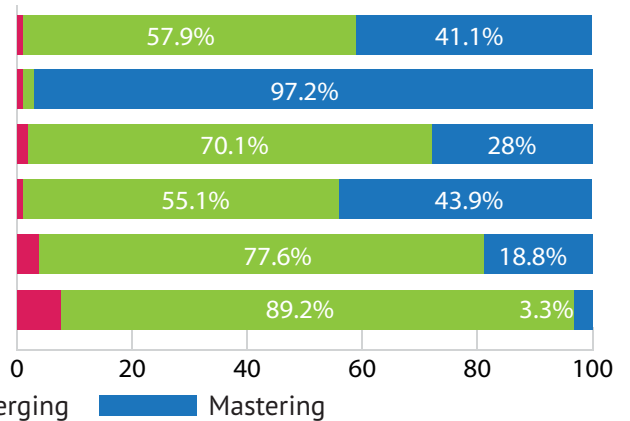
When segmented into “struggling”, “emerging” and “mastering” skill levels, 6-year-old treatment and comparison children performed similarly overall on IDELA. They both need the most improvement in the social emotional and executive function domains.



Proportion of Treatment School 6-year-olds by Domain and Performance Level



Proportion of Comparison School 6 year-olds by Domain and Performance Level



Recommendations

1 In addition to continuing practices in areas of strength (early numeracy, motor skills), focus efforts on improving children’s school readiness in domains where they struggle the most and master the least, namely: executive function and social emotional skills. These areas may currently receive less focus than traditional academic topics such as literacy and numeracy, but are no less important for school readiness. Efforts can be increased to help teachers develop and execute lesson plans which aim to improve these skills in children.

2 Overall, children performed better in early numeracy than early literacy. There should be a greater focus on promoting age-appropriate activities that help children build print awareness, expressive vocabulary, letters, phonological awareness and listening comprehension.

² The overall IDELA score is calculated by averaging the scores the tool’s five domains: motor skills (gross and fine), early literacy, early numeracy, social emotional skills and executive function.

³ Effect size helps to determine the magnitude of an intervention’s effect and allows the comparison of effects across different interventions whose outcomes may be assessed using different measures.

⁴ Kraft, M. A. (2019). ‘Interpreting Effect Sizes of Education Interventions’, Annenberg Institute at Brown University, EdWorkingPaper: 19-10.



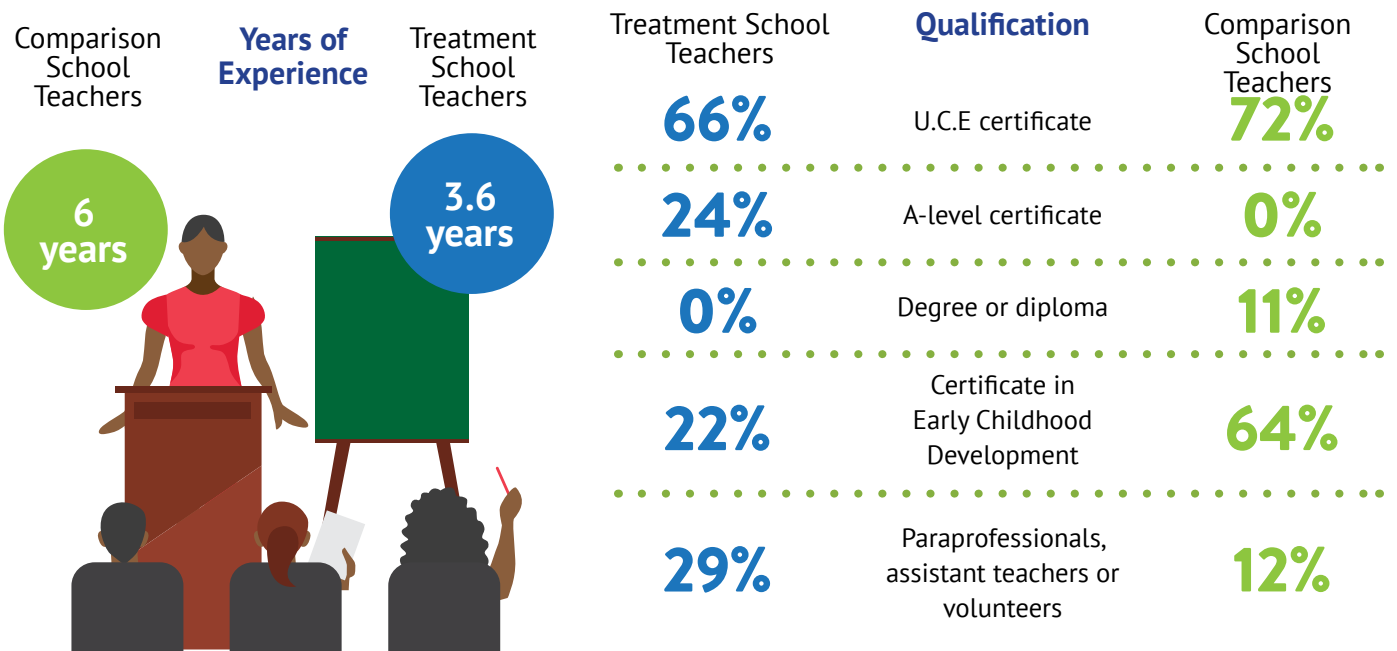
Teacher Findings

Teachers in both treatment and control schools were similar in many ways – they generally had similar backgrounds and experiences, were observed in their classrooms by the school management team and reported cooperating with other teachers in their school to improve their teaching. There were no clear differences in the teaching practices between treatment and comparison teachers and both types of teachers wanted additional instructional support.

The following findings highlight some of the key differences found between teachers in the two groups.

Background and Support

Comparison school teachers have more years of experience as teachers than treatment school teachers. Comparison teachers also have more experience specifically working in pre-primary education and are more likely to be professional teachers.



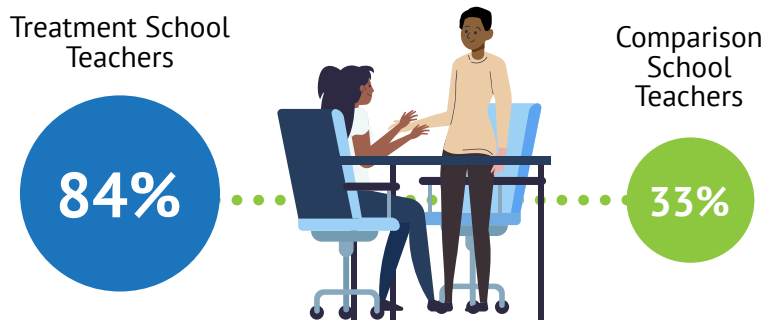
Teachers in comparison schools report being more regularly observed than those in treatment schools.



88% of comparison school teachers are observed, mostly weekly

55% of treatment school teachers are observed, mostly monthly

Treatment school teachers are significantly more likely to report being mentored by someone other than their head teacher.



Treatment school teachers are less likely to report being paid on time.





Classroom Findings

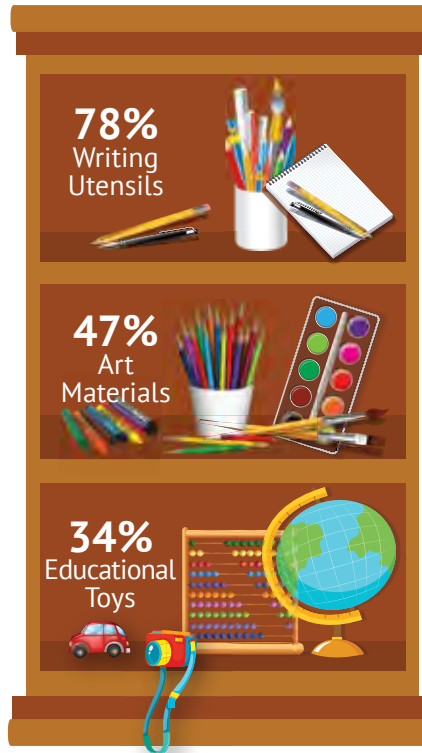
Presence and Use of Materials

Classroom materials were much more readily available in treatment schools. These included materials for art, fantasy play, blocks, educational toys, storybooks, and for books in the local language and English.

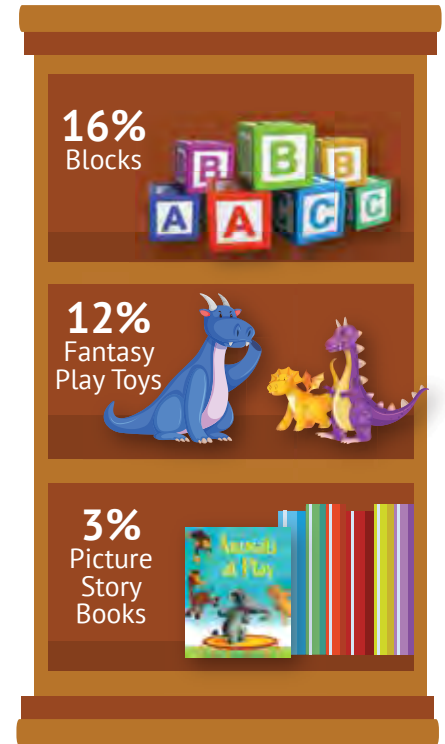
However, on the whole, treatment school teachers were less likely than comparison school teachers to use learning materials when they were available.

Treatment school teachers were significantly more likely to promote free play in their classrooms and to encourage equal participation of both boys and girls.

Treatment school classrooms often use:



Treatment school classrooms don't often use:



Supporting Documents and Plans

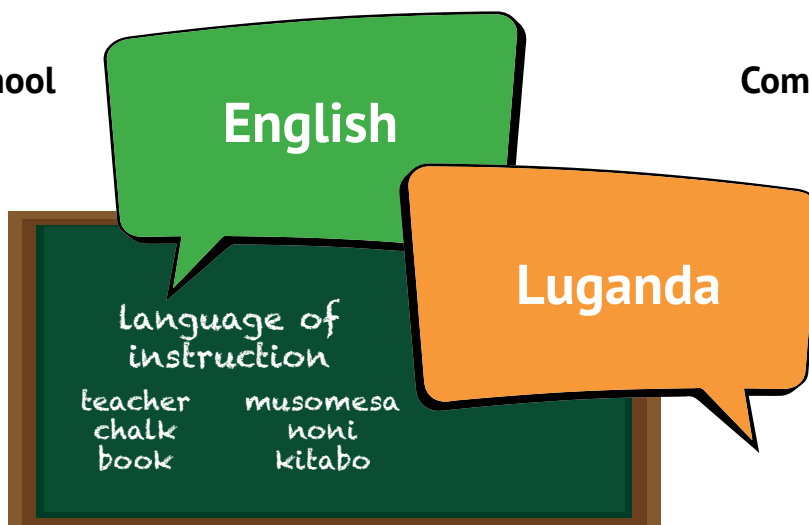
Treatment school teachers were also more likely to report having documents to support their teaching, including:



Language of Instruction

The majority of teachers primarily teach in a combination of English and the local language, Luganda. However, while 32% of comparison teachers use English alone, only 3% of treatment teachers do the same. This demonstrates a reversal from baseline results where more treatment school teachers taught in English. In Uganda, children in the early grades should be taught in their local language, so this decreased use of English in treatment schools is a positive finding.

Treatment School Classroom



Comparison School Classroom



Overall, the evaluation did not reveal many differences in teaching practices between treatment and control schools, making it difficult to determine which (if any) practices may account for the differences in child learning outcomes.

Recommendations for Improving MECPU

1

Teachers need more help utilizing teaching materials and need additional materials, such as those for dramatization activities. Some improvements can also be made in the quality of materials, such as providing age-appropriate books for beginning readers.

47%
of teachers feel that AKFU acted on their suggestions for improvement of trainings

2

Further investigation is needed as to why treatment school teachers are less likely to say that someone from within the school administration observes their teaching. School leaders may disengage when AKFU's mentors are more engaged; if this is the case, school administrations should be encouraged to stay engaged.

32%
of teachers do not believe there is in anything about AKFU's training and support that needs to be improved

26%
of teachers believe the provision of instructional materials can be improved

Teachers most appreciated the following training topics, which should be maintained by the program:



21%
of teachers believe time management can be improved during trainings



Broad Findings on ECD Teachers and Classrooms

In addition to comparing AKFU-supported and comparison schools, the evaluation also revealed important teaching and classroom practices that were true across schools and have broader implications for early learning.

Positive Practices

The evaluation uncovered several positive practices among both treatment and comparison ECD teachers and classrooms. These practices should be encouraged by school stakeholders.



1. Most teachers say that they cooperate with other teachers in lesson planning and finding better ways to deliver lessons.
2. Most report that a mentor supports them with ECD in their classroom.
3. Most children are engaged during lessons and are rarely left alone by their teacher.
4. Classroom observations showed that most teachers use positive teaching practices like including boys and girls equally in the lesson and redirecting students' attention when they go off-task.

Areas of Improvement

Some areas in both treatment and comparison ECD classrooms which require improvement include:



1. Teacher support

- Teachers generally found the support they receive to be adequate, but many would like more support in literacy, numeracy and classroom management.
- Teachers selected for training in MECPU tended to be younger and lack pre-primary certifications, but all teachers (including those with more years of experience) can benefit from ongoing support and training.

Recommendation: Broaden selection criteria for teacher training so that as many teachers receive ongoing support and training as possible. Provide opportunities for younger, less qualified teachers to become certified in pre-primary education.



2. Classroom practices, resources and management

- Only slightly more than half of teachers reported having enough teaching resources in their classrooms, with readers and toys being the most needed – especially in comparison schools.
- Some schools teach in English only, instead of the local language which is appropriate for the early years.
- Teachers struggle to provide individualized instruction to learners based on their unique needs.
- Physical punishment is reported as a common classroom management method. Most observations found positive teaching practices, but about 20% reported negative physical or verbal interactions between teachers and students.

Recommendations:

- Provide additional resources to support classroom instruction, including readers and teacher guides in the local language. This can include teacher-made or community-created resources.
- Train teachers and provide support so they can differentiate their teaching and instruct children according to their specific needs.
- Instances of physical punishment towards children should be followed up and addressed by the school stakeholders and teachers should receive more support to utilize positive discipline and non-violent classroom management strategies.



3. Absenteeism

- Teachers reported missing school almost 2 times in the past week, an amount that is detrimental to their children's learning outcomes.

Recommendation: The significant rate of teacher absenteeism should be followed up by school stakeholders so it can be reduced in order to improve learning outcomes for students through better teacher time-on-task.



4. Attrition from pre-primary teaching

- Only about 30% of teachers report that they plan to stay pre-primary teachers over the next 1-5 years, indicating potential future attrition.

Recommendations:

- Teachers are mobile within and across schools. Therefore, it is important to train more than one teacher per class so all classes have at least one appropriately trained and resourced teacher at any given time.
- Make efforts to ensure a career in pre-primary education is attractive for teachers. Tactics may include ensuring adequate salary and benefits; providing professional development opportunities; providing adequate teaching materials and support; and giving teachers a voice in decision-making.



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