

Final Outcome Evaluation Report

March 31, 2015

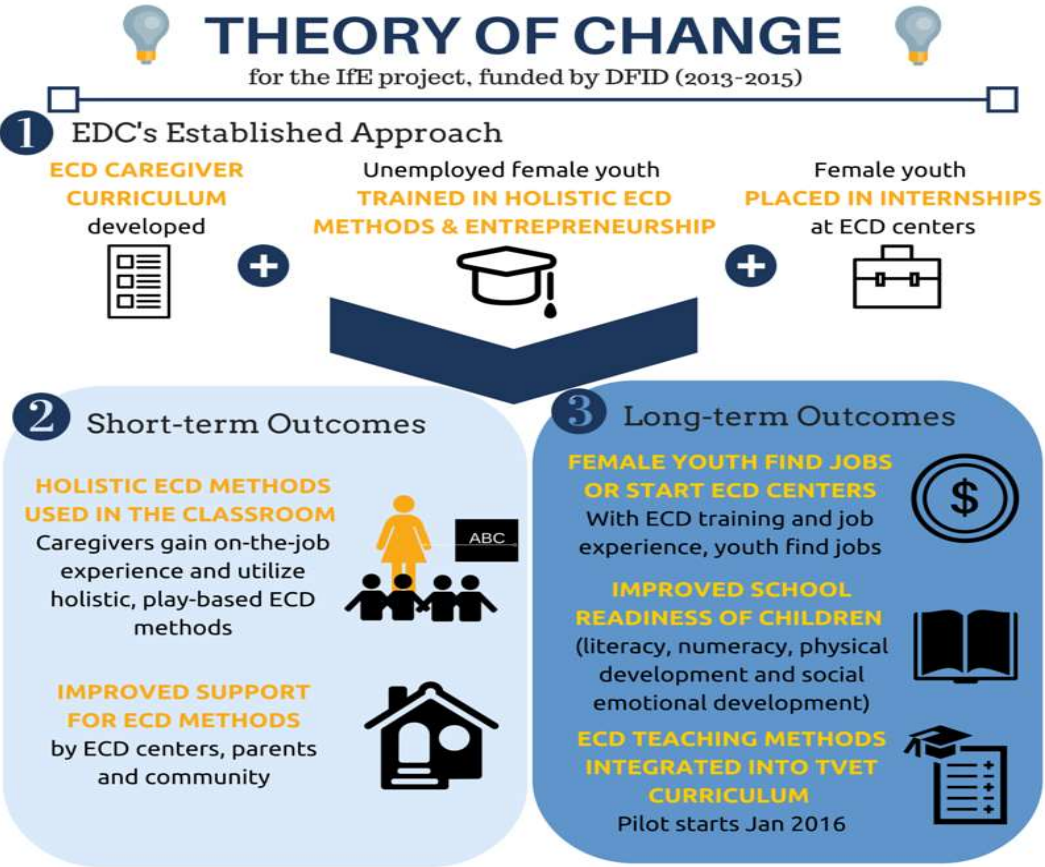


EXECUTIVE SUMMARY

The Early Childhood Caregiver Professional Development and Certification Program¹ is an innovative project funded by DFID and designed and implemented by Education Development Center, Inc (EDC). The project's key objectives are:

- Train and place unemployed female youth as early childhood development (ECD) caregivers, and
- Promote better school readiness among children attending those centers.

Participating young women were trained by two local implementing partners in a new play-centered approach to teaching pre-primary students that focuses not only on children’s cognitive development (literacy and numeracy skills) but also prepares them for school (physical development, and social emotional development). Upon completion of the ECD caregiver training, the young women are placed in participating ECD centers where they work as interns to implement holistic child-centered ECD practices and strategies in working with pre-primary children. In addition the project aimed to garner support for holistic play-based ECD instruction through raising awareness and mobilizing parents, ECD center directors and the community around evidence-based holistic child-centered ECD instruction. Further, given that ECD methods currently were not taught at the TVET level, the project focused on gaining support at the government level to incorporate ECD teaching methods into the TVET curriculum.



¹ Program referred to as the “Junior Caregiver Program” (JCP) throughout the rest of the report

To evaluate the effectiveness of the proposed intervention, EDC’s approach to the evaluation design was two-fold: At the first level, a pre-test/post-test knowledge assessment tool would be conducted with female youth who participated in the program, followed by a follow-up survey after the program completed to gather the trainees’ feedback on the program. At the second level of the evaluation, a comparison group quasi-experimental design was used to assess the effectiveness of the program in improving school readiness of children through the observation of teaching practices and a pre-post knowledge assessment of children’s pre-literacy and numeracy skills. As outlined in the proposal, there are five outcome indicators (Table 1). The final indicator results can be found in Table 1 below.

Table 1. Key project indicators

Indicators	Result
1. Percent of trainees satisfied with training	92.0%
2. Percent of trainees with increased knowledge of ECD as a result of training	94.6%
3. Number of trainees placed in ECD centers	158
4. Percent of placed trainees applying ECD practices from the curriculum	99.3%
5. Percent of tested children with improved school readiness, compared with children in comparison centers	58.0%

A mixed methods approach was used to assess the project results and outcomes. The key findings are outlined below.

Caregiver Knowledge. Overall, caregivers demonstrated high levels of knowledge on both the pre and post knowledge assessment tests. At post-test, knowledge assessment tests showed significant gains at the $p < .001$ level for caregivers for both sections (Modules 1-5 and Modules 6-10) of the assessment exam. Overall, the knowledge assessment results showed significant gains in caregiver knowledge from pre-test to post-test for both sections (Module 1-5 and Modules 6-10). Additionally, by post-test the majority of caregivers passed the knowledge assessment test. **For Modules 1-5 nearly all caregivers (97.5%) passed the post-test, with nearly two-thirds scoring above 70%. For Modules 6-10, the majority of caregivers (97.4%) also passed the Modules 6-10 knowledge assessment test.** In fact, nearly three-quarters (72.8%) of caregivers scored over 70%. These results suggest that caregivers who completed the caregiving training have a solid knowledge base in early childhood development topics.



Impact of Program on Caregivers. To assess the impact of the Junior Caregiver Program (JCP) on youth who participated in the program, a follow-up survey was administered to 150 caregivers after the end of the program. Overall, the youth trainees reported that they were largely very satisfied with the Junior Caregiver Program. Youth were particularly satisfied with the experience gained through their ECD internships as well as with the ECD content itself, feeling that the content they learned prepared them well for their ECD internships.

Trainees were asked about how they perceived their work readiness after participating in the Junior Caregivers Program. **Trainees reported a high level of confidence in their work readiness after**

participating in the program with nearly all trainees who “agreed” or “strongly agreed” that they possessed skills to find and retain employment. Trainees were the most confident in their skills and competencies to succeed in the workplace with nearly three-quarters (73%) of trainees who “strongly agreed.” Youth trainees also largely felt that they knew how to find a job/work, had the skills needed to get the job that they wanted and had the confidence to find work.

By the end of the program, employment of youth had increased from 24.0% to 40.0%. The majority of employed youth (88.3%) are currently employed as caregivers at ECD centers. Roughly 5% of employed caregivers reported that they were running their own ECD center.

A key component of the IfE theory of change was to address female youth unemployment through training young women in ECD and placing them in internships. Before the JCP, the majority of youth (48.7%) were “idle,” neither working nor studying. Only a quarter of youth were working; the remaining quarter was studying. By the end of the program, employment of youth had significantly increased from 24.0% to 40.0% ($p < .01$). Those who reported that they are currently working, only around a third (30.0%) were also working before participating in the JCP; the majority (53.3%) were unemployed before participating in the training program, which suggests that the project may have contributed to reduced unemployment for these female youth. The majority of employed youth (88.3%) are currently employed as caregivers at ECD centers. Roughly 5% of employed caregivers reported that they were running their own ECD center.

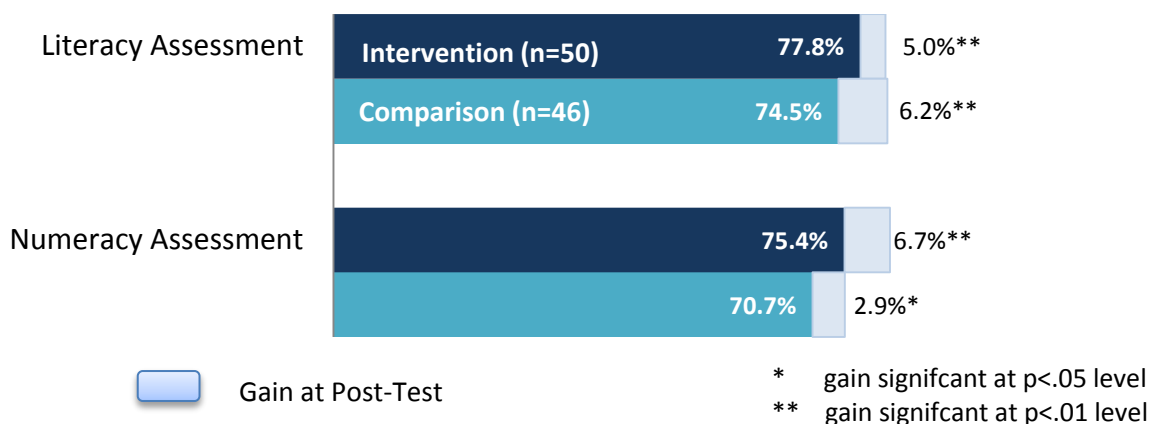
Caregiver ECD Teaching Practices. To assess how well trained ECD caregivers implement practices that they learned in training, ECD classrooms were observed by trained observers. The observation protocol focused on observing three main areas: **Building Relationships**, **Positive Discipline** and **Activities to Support Children’s Development**. Overall, the observation findings show that both comparison group caregivers and the intervention group caregivers largely practiced ECD methods and practices in the classroom. In fact the female youth who served as caregivers in the intervention group were observed performing a larger percentage of ECD practices in the areas of Building Relationships and Activities to support children’s development than the comparison group caregivers. Further analysis showed that although caregivers were practicing many important ECD practices, they were not always consistent in how they used these practices. Although it was observed that the intervention group performed more of these activities, the findings suggest that the caregivers in the comparison group performed them more consistently during the course of the observations. Given that many of the caregivers in the comparison group were more experienced compared to those in the treatment group who were newly trained and had only been in the classroom for a few weeks when they were observed, the higher level of consistency at which caregivers in the comparison group performed these activities may be due to the simple fact that they were more experienced in the classroom and already familiar with the children.



Caregiver in Musanze

School Readiness. To assess the school readiness of pre-primary learners in ECD centers, data was collected to assess children’s cognitive development (literacy and numeracy skills) as well as development in other key development domains (i.e. physical development and social emotional development). Data was collected through a literacy and numeracy knowledge assessment to assess the cognitive development of children. Additionally, as the program evolved, the program included interviews with caregivers, parents and center directors to assess qualitatively the physical and social emotional development of children.

Figure 1. Average Literacy and Numeracy Assessment Results at Pre-test and Post-test



Assessment data found that children in both the intervention and comparison cohorts displayed a high level of foundational literacy and numeracy skills, and also showed some growth in those subtests where they did not perform at a high level at the baseline. At the baseline, children in both groups performed similarly on the literacy assessment. **At the endline, only one sub-test showed significant differences in performance between the intervention and comparison groups – Task 3a Alphabet (recitation) – where learners in the intervention group performed better than the learners in the comparison group.** It is important to note that although children in the intervention and comparison cohorts were given the same literacy assessment, the length in time between pre-test and post-test differed due to changes in project timelines. The comparison cohort received an additional 6 weeks of instruction before the post-test was administered. It is, therefore, impressive how well the intervention group performed compared to the comparison group. As seen in the figure above, at post-test the intervention group and comparison group performed nearly the same.

For the numeracy assessment, despite the fact that the period between the pre-test and post-test assessments for the comparison group was on average 6 weeks longer than that of the intervention group, analysis of post-test results by group showed the intervention group performing better than the comparison group in four out of five subtests.

Analysis of urban versus rural children for both the literacy and numeracy tests showed an interesting trend. For both groups, urban learners performed better at pre-test. Further analysis of the intervention group shows the gap between rural and urban learners in literacy and numeracy achievement closing from pre-test to post-test, with rural learners largely catching up to urban learners in a very short time. Meanwhile, the comparison group showed a growing gap between rural and urban from pre-test to post-test. **These results suggest that a**

In the intervention group, analysis shows the gap between rural and urban learners in literacy achievement closing from pre-test to post-test, with rural learners largely catching up to urban learners. Conversely, in the comparison group this gap widened from pre-test to post-test.

holistic, child-centered approach to pre-primary may help in closing the gap in literacy performance between rural and urban learners. Additional research and analysis is needed to better understand this phenomenon.

To assess whether children who attended pre-school in ECD classrooms with trained caregivers in the intervention group demonstrated physical and social emotional development, a survey was administered with youth caregivers in March 2015. Nearly all trainees (99.3%) reported that they saw gains and/or skill development in the children in their ECD classroom during the course of their internship. Overall, caregivers in intervention classrooms largely felt that children in their ECD classrooms experienced knowledge gains and/or skill development in many of the key developmental domains, including physical development (gross motor skills, fine motor skills) as well as social and emotional development (social relationships and behavior, solving conflict, and emotional awareness).

Overall, findings suggest that the holistic play-based methods used by caregivers in the intervention group have resulted in children performing similar, if not better, than children in the comparison group who were exposed to rote learning. **This finding demonstrates that holistic play-based ECD instruction does not take away from important cognitive development (literacy and numeracy skills); children continue to develop these skills. Instead, in addition to cognitive development, findings show that children also saw non-cognitive development, which is also necessary for children to thrive in the long-term in school settings.**

Community/Policy Impacts. In addition to addressing female unemployment and improving school readiness of children, another key component of the JCP was to garner support for holistic play-based ECD instruction in Rwandan communities. The project's approach was two-fold: addressing the government needs of implementing their ECD policy, while raising awareness and mobilizing parents and communities to support holistic ECD programs. Overall, findings from focus group discussions (FGDs) and a qualitative survey with ECD center directors and parents found that through ECD training and participation in the project, there has been a shift in their perception of ECD instruction. The project has seen increased support for holistic ECD methods with many ECD centers and parents beginning to request additional training for existing caregivers in ECD methods. Parents also reported being inspired by the new play-based methods and are beginning to mobilize other parents on the importance of interacting with their children through play in order to foster holistic development. In fact, new ECD programs have started emerging with the support of parents.

An unexpected outcome of the project was the high level of support and buy-in at the policy level. The Workforce Development Authority (WDA) approached EDC about potentially aligning the Junior Caregiver Curriculum with the formal TVET system in order to create new occupational tracks. High ranking authorities from MINEDUC, Rwanda Education Board (REB) and WDA sat down with EDC technical staff to identify possible occupations where the curriculum could be used, and align the occupations with the TVET qualification framework. A list of 19 occupations was created.

This report summarizes the evaluation methodology, key findings, and conclusions for EDC's innovative project. Following an introduction of the intervention, the report is divided into several sections: methodology, findings, and conclusions. The Annexes include details of the project indicators, literacy and numeracy subtests, and the data collection instruments.

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INTRODUCTION

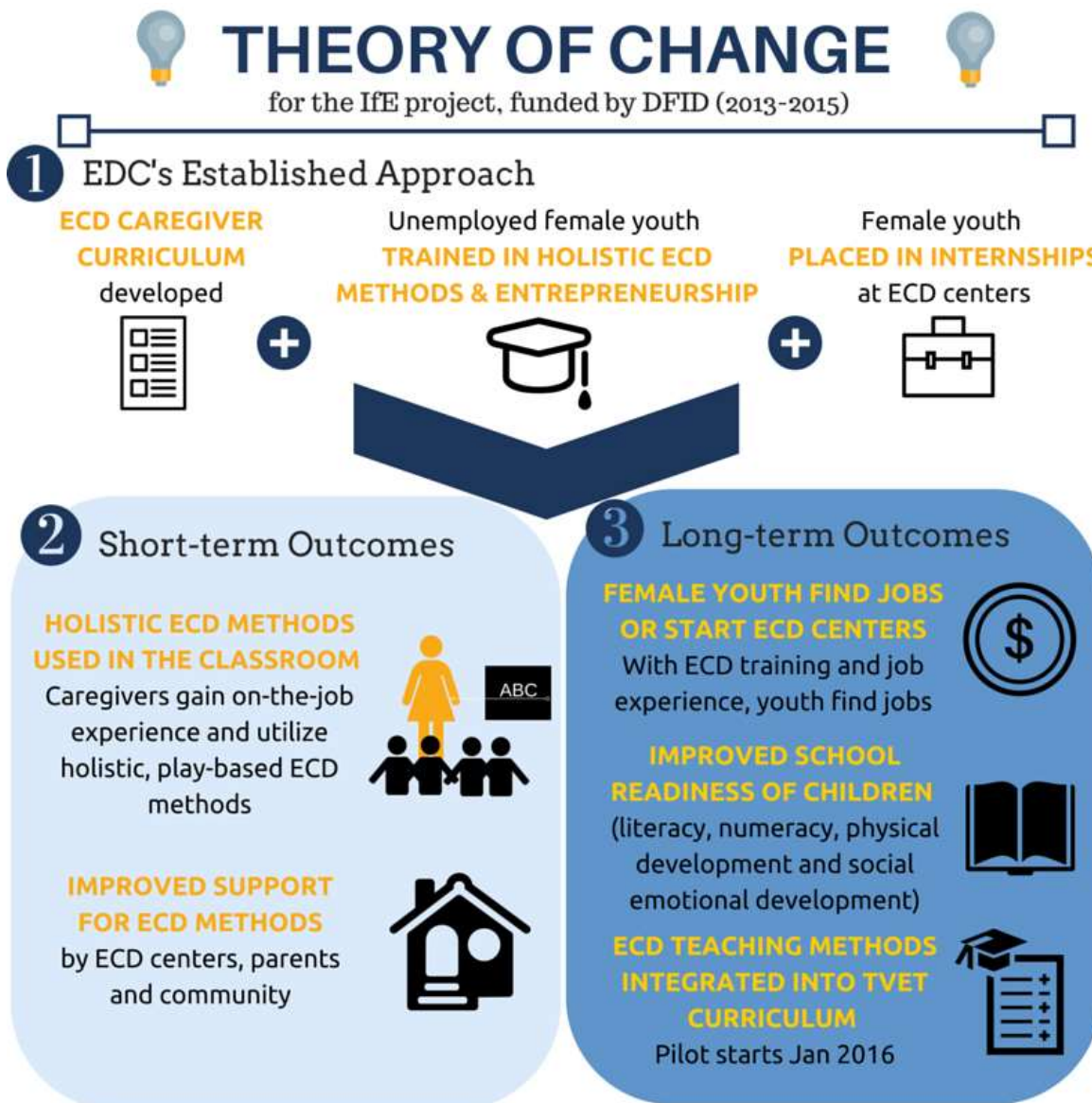
PROJECT PROCESS OF INNOVATION

The EDC Early Childhood Caregiver Professional Development and Certification Program, or Junior Caregiver Program (JCP), aimed to address two challenges in Rwanda: school readiness for disadvantaged children and unemployment among female youth. Running from February 2013 to March 2015, the program trained young women who have completed nine years of basic education to become certified early childhood development (ECD) caregivers in disadvantaged communities and thereby gives opportunities for young children to acquire the school readiness skills they need to thrive in school. The idea for the project was born from EDC's experience in workforce development and formal education in Rwanda. EDC recognized a promising opportunity that could address multiple issues: unemployment, a lack of school readiness and the need for a more effective pre-school experience for children.

To ensure adaptability and the ability of the project to adjust to changes in the operating environment, as well as changes to project assumptions, the project utilized an adaptive management approach, allowing the project to adapt as program plans and circumstances change. At the onset of the EDC Junior Caregiver Program (JCP), a key assumption was that given the fact that in Rwanda there were no formal licensing procedures to open ECD centers nor formal certifications for ECD teachers, it was expected that many existing pre-primary centers did not have formally trained ECD caregivers and as such could not prepare children in the spectrum of school readiness skills needed to thrive in primary school. With this in mind, the program proposed to train young unemployed women in holistic child-centered approaches to ECD and to place them in 3-month internships in ECD centers. The aim of this approach was to improve the school readiness of children, as well as to address female unemployment by training young women in ECD methods and providing them with experience and opportunities to get certified in ECD at the end of the program.

With this flexible management approach, during program design and implementation, the project evolved and was adapted to the current ECD context. Firstly, it was discovered that many existing ECD caregivers were secondary school graduates with a normale primaire certificate, who were qualified to teach primary school. By choice or circumstance, these young women were teaching in pre-schools, but had no formal training in holistic play-based ECD methods, as was our initial assumption. However, it was found at the baseline that even without a formally trained ECD teacher, the children had strong pre-literacy and pre-numeracy skills. Although the sample of children we tested did well on the cognitive tests, it was observed that the existing caregivers relied on rote memorization, a technique often used in primary schools, rather than practices better suited to early childhood education. As such, the project shifted focus, expanding the definition of school readiness from its original definition that focused on cognitive development (pre-literacy and pre-numeracy skills) to also include physical and social and emotional development, which are also important skills needed to thrive in primary school, but were not being nurtured with existing teaching practices. Given that a baseline had already been collected

and there was not enough time to develop and test a tool to measure social and emotional development, these elements were evaluated through qualitative research at the end of the project. The training program for caregivers was designed to focus on utilizing a holistic development approach to the pre-primary learning environment. The ECD caregivers program introduced trainees with a new play-centered approach to teaching pre-primary students that focused not only on children’s cognitive development (literacy and numeracy skills) but also preparing them for school (physical development, and social emotional development). It was expected that given their training, trained caregivers could improve both the cognitive and non-cognitive development skills of children in their ECD classrooms during the course of their internships.



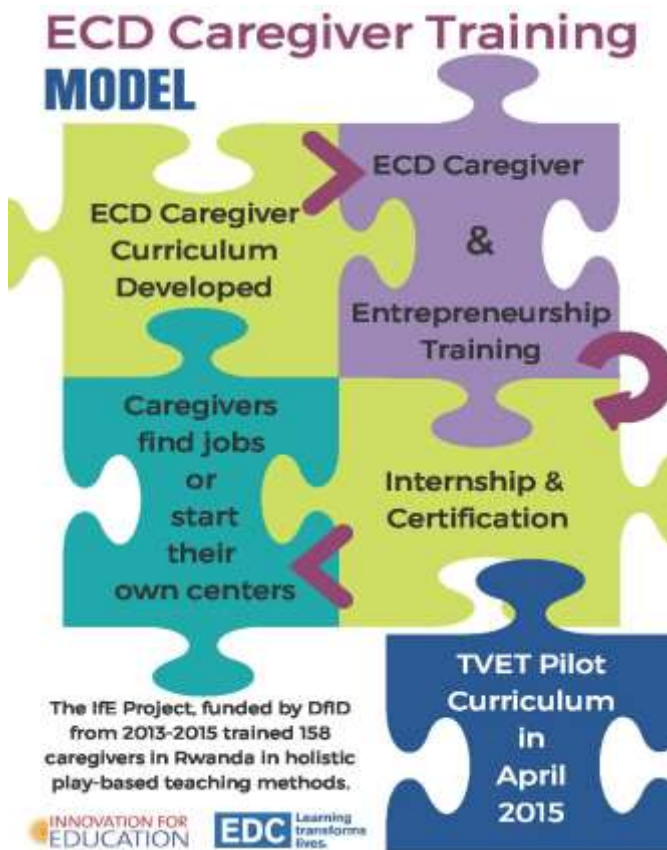
In addition to the shift of how school readiness was measured and approached in the JCP, the project expanded its original focus from children and female youth to a larger audience. Given that in existing

ECD centers, the majority of caregivers were teachers that were trained in a teacher-centered approach, rather than ECD best practices, the project began to expand its focus to gain support by parents, ECD center directors and the community for evidence-based holistic child-centered ECD instruction. Further, given that ECD methods currently were not taught at the TVET level, the project focused on gaining support at the government level to incorporate ECD teaching methods into the TVET curriculum. The diagram above highlights the project’s revised theory of change.

ECD CAREGIVER TRAINING MODEL

Approximately 200 young women in 4 districts of Rwanda were trained in holistic ECD practices by 16 Master Trainers from two implementing partners, SOS and SFR. The project developed and used materials and training that reflect the prevailing knowledge and best practices in early childhood education developed over the past two decades.² Research showed that exposing pre-school children to new ideas while introducing new vocabulary and developing fine motor skills correlates with later success.³

EDC’s caregiver training curriculum assisted caregivers to purposefully work with children in these areas through 1) building on children’s natural interest in play and 2) establishing a nurturing and supportive relationship between adult (caregiver) and child⁴, a critical factor in any successful ECD classroom. The ECD caregivers were engaged in a 3-month internship in ECD centers, with coaching and mentoring provided by the project. After the internship, the project matched ECD caregivers with centers for permanent employment. The diagram above is a summary of the project’s ECD Caregiver Training model.



² Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8; Adopted in 2009, NAEYC

³ E. D. Hirsch on Paul Tough’s How Children Succeed, Robert Pondiscio, September 26th, 2012, <http://blog.coreknowledge.org/2012/09/26/e-d-hirsch-on-paul-toughs-how-children-succeed/>

⁴ Vygotsky

METHODOLOGY

PURPOSE

The JCP aims to improve the school readiness of children attending ECD centers, address female unemployment and build support for holistic child-centered ECD instruction in Rwanda. The purpose of this evaluation is to assess the results of the IfE intervention as they relate to the project’s objectives. . Specifically, the evaluation study was designed to answer the following questions:

1. Do female youth who participated in the Junior Caregiver Program have increased knowledge of ECD methods?
2. Do female youth who participated in the Junior Caregiver Program utilize ECD instruction from the curriculum in the classroom?
3. Did employment outcomes improve for female youth who participated in the Junior Caregiver Program?
4. Do pre-primary learners in ECD centers who are taught with holistic child-centered approaches demonstrate improved school readiness skills?
5. Has community/policy level support increased for child-centered ECD instruction in Rwanda?

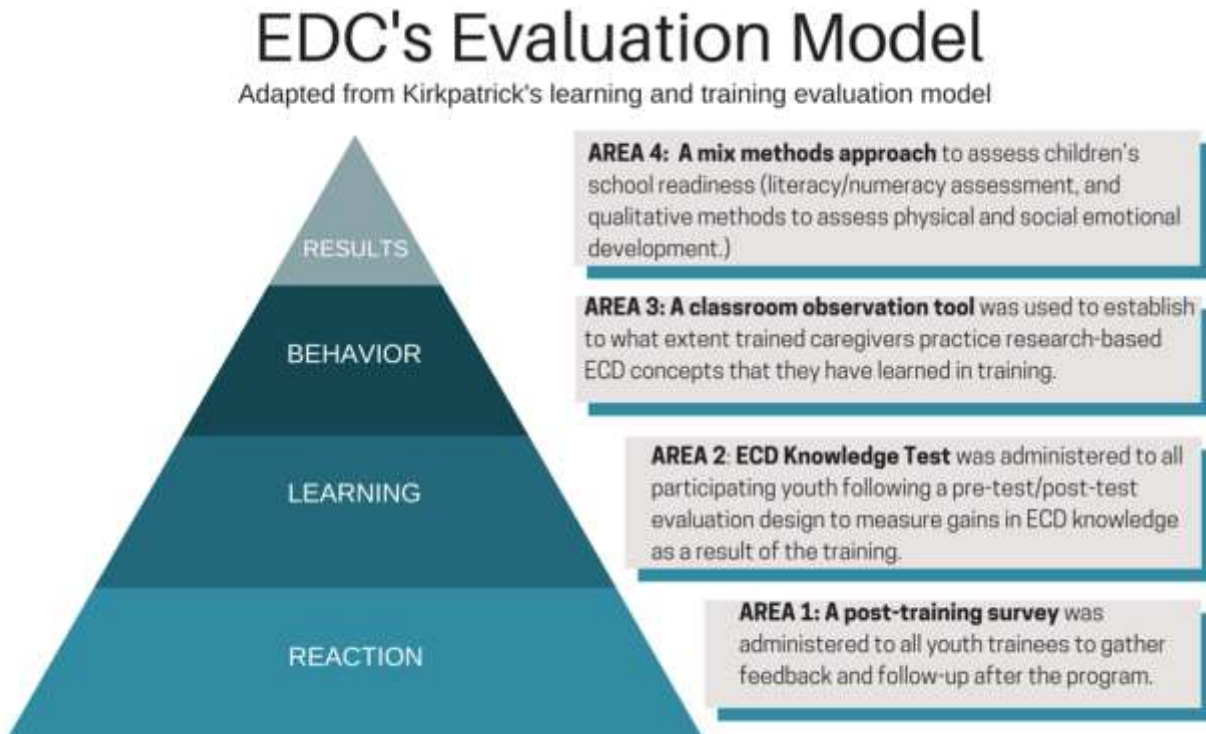
In order to answer these questions a mixed methods approach was used. The table below outlines the project indicators and the tools that were used to collect information for each indicator.

Table 2. Key project indicators

Indicators	Source of evidence
1. Percent of trainees satisfied with training	Caregiver Follow-up Survey
2. Percent of trainees with increased knowledge of ECD as a result of training	Pre-test/post-test assessment of participating youth (caregivers) knowledge of ECD
3. Number of trainees placed in ECD centers	MOU with ECD centers; transition tracking sheet with local partners
4. Percent of placed trainees applying ECD practices from the curriculum	Caregiver Follow-up Survey
5. Percent of tested children with improved school readiness, compared with children in comparison centers	Pre-literacy and Pre-numeracy Assessment of children in intervention and comparison cohorts in same centers Caregiver Follow-up Survey to obtain caregiver perception of children’s physical and social emotional skill levels at the end of their internship.

EVALUATION METHODS

To evaluate the effectiveness of the proposed intervention in improving school readiness of children attending ECD centers and taught by the graduates of our ECD training, EDC used Kirkpatrick's learning and training evaluation model, which consists of four areas: 1) Reaction, 2) Learning, 3) Behavior, and 4) Results.⁵ EDC's adapted model is as follows:



In order to supplement the rigorous quantitative data collection, qualitative methods were used to explore specific facets of the project and to give voice to participants' and stakeholders' experiences. Interviews were conducted with caregivers, parents, ECD Center Directors and government personnel to gain additional information about the outcomes of the project.

EVALUATION DESIGN

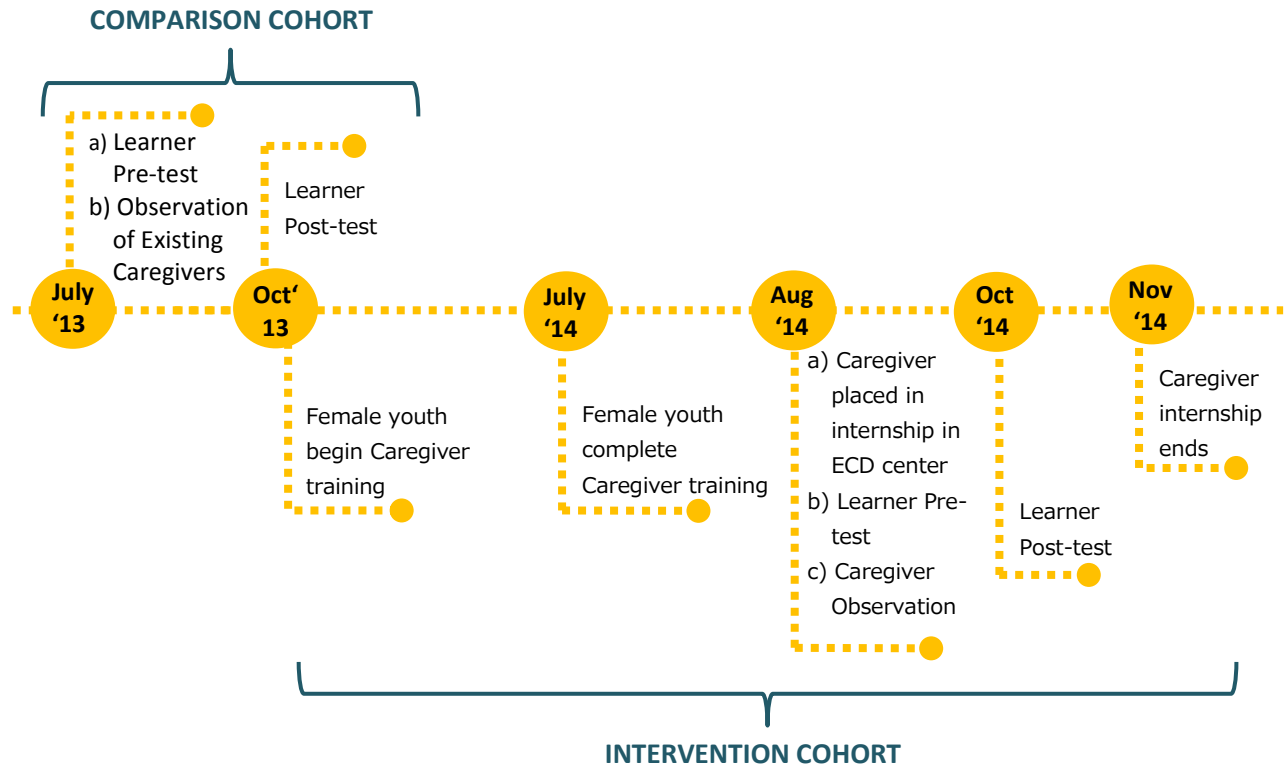
At the onset of the project, the original evaluation design was twofold: At the first level, a pre-test/post-test knowledge assessment tool would be conducted with female youth who participated in the program, followed by a follow-up survey after the program completed to gather the trainees' feedback on the program. At the second level of the evaluation, a comparison group quasi-experimental design would be used to assess the effectiveness of the program in improving school readiness of children. The original design of the second level of the evaluation was a comparison group quasi-experimental design

⁵ Kirkpatrick's model is widely used in evaluation of trainings and has 4 levels: reaction to the training, learning from the training, behavior change following the training, and the results of the behavior change.

with a comparison group of five to ten centers matched on key variables with the intervention centers where the graduates of the caregiver training would be placed. Data would be collected for both the intervention and comparison groups through observations of teaching practices, school readiness tests for children and interviews with caregivers.

Upon examination of the reality of early childhood centers in Rwanda, it became apparent to the EDC team that it would be very difficult to create a true comparison group of ECD centers given the range in types of ECD centers (private, government, faith-based, etc.) to serve as a counterfactual in the study of the effectiveness of the intervention in improving school readiness of center participants. With this in mind, a new evaluation design was developed for the second level of the evaluation, which potentially offers much stronger internal validity. The EDC team proposed to implement a cross-sectional evaluation design, drawing both comparison group and intervention group of children from the same ECD centers. Cross-sectional design belongs to the family of quasi-experimental designs and is widely accepted as a rigorous methodology by education researchers worldwide. The cross-sectional design is a variation of short time series quasi-experimental design, and it produces reliable estimates of impact of an intervention. Existing caregivers in ECD centers and learners would be assessed first as the intervention curriculum was being developed and would serve as the comparison group. The comparison cohort of learners was assessed to measure the natural growth before intervention. The following year, the next cohort of children at the ECD centers would participate in the intervention. At which point, caregivers that were trained in holistic, child-centered approaches would be placed in the same ECD centers for 3-month internships. A random sample of students were tested in pre-literacy and pre-numeracy at the beginning of the caregivers internship and then at the end. Learner assessment results were compared with baseline comparison scores established at the beginning of the project to ascertain whether the placement of ECD-trained caregivers resulted in an increased growth rate in tested areas. Below is a timeline of the comparison and intervention cohorts.

Figure 2. Comparison and Intervention Cohort Timeline



The following section outlining the evaluation design in more detail is separated into 1) Caregiver knowledge assessment, 2) Caregiver follow-up survey, 3) ECD children assessment of foundational literacy/numeracy skills, and 4) Caregiver Classroom Observation. For each section the methods, sampling, data collection, data analysis, and limitations are described.

1. CAREGIVER KNOWLEDGE ASSESSMENT

EVALUATION METHODS

In order to measure the gains in knowledge of ECD practices as a result of the training, an assessment tool was administered to all participating youth following a pre-test/post-test evaluation design. At the beginning of their training (October 2013), caregiver trainees received a pre-knowledge assessment covering the topics of the first 5 modules. Since the curriculum was developed in two stages, the pre-knowledge assessment covering modules 6-10 was administered in March 2014. The timeline for the pre-post knowledge assessment is as follows:

Table 3. Timeline for the Caregiver Knowledge Assessment

	Oct '13	Nov '13	Dec '13	Jan '14	Feb '14	Mar '14	April '14	May '14	June '14	July '14
Modules 1-5	Pre-test					Post-test				
Modules 6-10						Pre-test				Post-test

SAMPLE

In order to address school readiness for disadvantaged children and unemployment among female youth, the project proposed recruiting and training 200 female youth in ECD. The caregiver knowledge assessment was designed to be a census with all trainees taking the pre and post-tests to gauge increases in ECD knowledge. The project recruited a total of 256 caregivers in the program, higher than the initial target of 200 to anticipate potential dropout. Out of 256 recruited caregivers, 179 took the Modules 1-5 pre-knowledge assessment and 157 took Modules 6-10. However, due to dropouts, late enrollment in the program and in some cases absences when the tests were administered, the matched pre-test/post-test samples were 118 for Modules 1-5 and 151 for Modules 6-10.

Table 4. Caregiver Knowledge Assessment Sample

	Pre-test Mod 1-5	Post-test Mod 1-5	Matched Pre-post Mod 1-5	Pre-test Mod 6-10	Post-test Mod 6-10	Matched Pre-post Mod 6-10
<i>Burera</i>	16	21	12	21	21	21
<i>Gasabo</i>	93	74	58	70	76	67
<i>Kamonyi</i>	48	40	28	41	39	39
<i>Musanze</i>	22	26	20	25	25	24
TOTAL	179	161	118	157	161	151

INSTRUMENT

The caregiver knowledge assessment was designed to gauge the learning of caregivers in ECD information covered during the caregiver training. The caregiver pre-post knowledge assessment tool

was administered in two separate sections to follow the development of the curriculum – the pre-post knowledge assessment test for Modules 1-5 was administered first, followed by the pre-post knowledge assessment for Modules 6-10. The assessment for Modules 1-5 consisted of 27 questions and Modules 6-10 consisted of 31 questions.

DATA COLLECTION

In conjunction with the design of the ECD curriculum, a knowledge assessment was created to test the trainees' understanding of the modules' content. This specially designed tool is used for both pre and post knowledge testing. The knowledge assessment is administered by experienced EDC M&E staff who are familiar with the tool and the curriculum.

DATA ANALYSIS

We measure gains in knowledge of ECD concepts as a result of the training following a pre-test/post-test evaluation design. Difference of means (paired-samples *t*-test) was used to assess knowledge gains among youth trainees between the pretest and posttest. Data are disaggregated by education level and rural and urban area. Bivariate correlations are used to establish relationships between continuous or interval variables.

LIMITATIONS

Since not all caregivers were able to participate in the evaluation, the impact of the training on the knowledge of participants who were not tested might be different. Additionally, lower attendance rate among some caregivers could have impacted their results, thus conflating the findings relating to the effectiveness of the curriculum and training model with consequences of missed sessions. Therefore, a selection bias is a likely limitation of the findings.

A potential validity threat is instrumentation. It is possible that some caregivers may recall items on the test during the training and memorize the answers. In such cases, a higher performance at the posttest might be associated with specific instrument and not an improvement in general knowledge of ECD concepts among trainees.

Finally, external sources of information is a validity threat since it is possible, however unlikely, that trainees may have acquired the knowledge on which they are tested from other sources, such as media or wider community. Recognizing that this validity threat is not likely to impact the results in a significant way, the evaluation design does not take measures to control for it.

2. CAREGIVER FOLLOW-UP SURVEY

EVALUATION METHODS

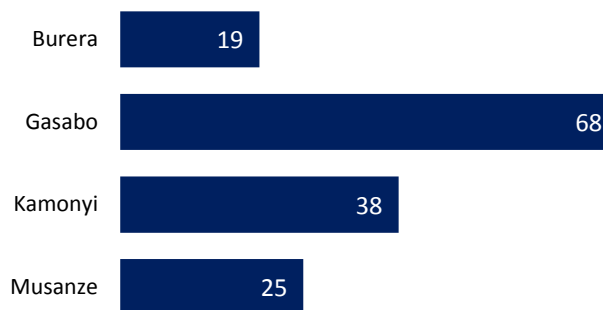
To gather feedback and to assess the status of trained caregivers after attending the Junior Caregiver Program training and placement in ECD caregiver internships, a caregiver follow-up survey was conducted. Although not a part of the original design of the caregiver survey, questions were added to assess children's physical and social emotional development during the course of ECD caregiver

internships to adjust for changes in the project design and the project’s definition of school readiness. In person interviews were conducted with the youth trainees in March 2015 (3 months after the ECD internships ended).

SAMPLE

A total of 150 caregivers from 4 districts who were placed in ECD caregiver internships were surveyed in March 2015, three months after the end of their internship to assess their satisfaction with the program, their current work status and their perception of the school readiness skills that children in their ECD centers had by the end of their internship.

Figure 3. Sample Distribution of Caregivers (n=150)



INSTRUMENT

The caregiver follow-up survey was designed to assess the satisfaction of female youth who participated in the JCP training and to assess their status after participating in the program. The survey was conducted in person and included five sections. The sections were as follows:

- Program Satisfaction
- Internship Experience
- School Readiness of Children in ECD classroom
- Perceived Work Readiness
- Caregiver Employment Status

DATA COLLECTION/ANALYSIS

The survey was administered in person by JCP trainers who were familiar with the caregivers, had experience with the data collection technology and had completed data collection training. The survey was entered electronically using Survey To Go software to enable higher accuracy of data capture, monitoring of data collection process in real time, and data quality checks to ensure data integrity. Survey data was analyzed by EDC analysts utilizing standard statistical methods. Central tendency analysis (e.g., mean, median) were conducted for continuous demographic variables and some scales. Data are disaggregated by district.

LIMITATIONS

Since only caregivers who graduated from the Junior Caregiver Program were included in the follow-up survey, results may not be indicative of all caregivers who participated in the program. Additionally, given that the survey was administered 3 months after the end of the ECD internships, recall bias represents a threat to reliability; inaccuracies of caregiver recollection of the skills and knowledge of children in their ECD classrooms may exist. Self-report bias may exist as well, in which caregivers may respond in a way that makes them look as good as possible and under-report behaviors that are viewed

as inappropriate by the data collector. However, given that the survey was administered within the recommended recall period of 3 months or less, behaviors and perceptions can reliably be assessed using self-report measures.

3. ECD CHILDREN KNOWLEDGE ASSESSMENT

EVALUATION METHODS

The EDC team implemented a cross-sectional evaluation design, drawing both comparison group and intervention group of children from the same ECD centers. We recruited a number of ECD centers and conducted a pre-test school readiness assessment in July 2013 of a sample of children from these centers. These children are the 2013 cohort and will act as the comparison group for the impact evaluation. They were assessed again three months later in October 2013 to measure natural knowledge gains within this time period without any intervention. To establish whether the intervention resulted in increased gains in foundational literacy/numeracy skills, a sample of children was drawn for the intervention cohort from the same centers and assessed two months later. The pre-test assessment of a sample of the intervention cohort was conducted when caregivers began working in these centers in August 2014. Caregivers were placed in classrooms with the 2014 cohort. Originally, it was planned that the children in the intervention cohort would be tested again (post-test) three months later in November 2014, however, the testing data was rescheduled for October 2014 to accommodate schools closing early for the holidays. As such, these children were tested two months later, after being instructed by ECD-trained caregivers.

Thus, four assessments were conducted in the same ECD centers: a pretest and posttest for the comparison cohort of 2013 (which serves as a comparison group), and a pretest and posttest for the intervention cohort of 2014 (which serves as an intervention group) (See Table 3). We anticipate that the selection bias will be substantially reduced using the cross-sectional design since ECD centers draw cohorts of children from demographically similar pools of families, thus making comparison and intervention groups similar in terms of such important characteristics as socio-economic status and parental educational attainment.

Table 5. Timeline for the Children's Assessment of Foundational Literacy/Numeracy Skills

	June '13	July '13	Aug '13	Sept '13	Oct '13	Nov - Dec '13	Jan - July '14	Aug '14	Sept '14	Oct '14	Nov '14
Comparison Cohort		Pre-test	→		Post-test						
Intervention Cohort								Pre-test	→		Post-test

SAMPLE

The sample of learners to be assessed was drawn from three districts in Rwanda – Gasabo, Kamonyi, and Musanze. The assessment was originally intended to be conducted in 4 districts of project implementation (including Burera), however, at implementation it was realized that the selected ECD centers in Burera did not have ECD level 3.

The ECD centers were non-randomly selected through the help of local implementing partners. A total of 13 centers participated in the study. Since the objective of the study was to assess school readiness, children were sampled from the oldest group in the ECD centers. All children were between the ages of 4 or 7 years old. According to the center assessments conducted by EDC in 54 centers, the average number of children in a center is 74 with an average of 2.87 employed caregivers.



Children in a participating ECD center in Kigali City

Children were randomly selected to be assessed at the pretest. All attempts were made to assess the same children at post-test, but some children who were assessed at the pre-test were not present during the post-test assessment. The table below shows details of the final sample.

Table 6. Sample of ECD Centers and Learners

District	Comparison			Intervention		
	ECD Centers	Learner Sample Baseline	Learner Matched Sample Endline	ECD Centers	Learner Sample Baseline	Learner Matched Sample Endline
<i>Gasabo</i>	5	35	22	5	31	29
<i>Kamonyi</i>	4	24	9	1	8	4
<i>Musanze</i>	4	18	15	4	19	17
Total	13	76	46	10	58	50

DATA COLLECTION

To assess children’s foundational literacy and numeracy skills, two child assessment tools were pilot tested and used by trained project staff, following established procedures. To measure literacy, a modified Kinyarwanda literacy assessment was used. To measure numeracy, a modified math

assessment tool was used.⁶ Assessments take approximately 15-20 minutes per child and consist of a series of performance-based questions (recognizing letters and numbers, drawing shapes, pointing to body parts, etc.) designed to measure child's foundational skills in those areas. A description of the subtests is found in Annex A at the end of the report.

DATA ANALYSIS

To draw final conclusions about project effectiveness, we will use an analysis of difference of means (independent-samples t-test) to compare the results from the intervention and comparison cohorts. To measure gains in literacy and math skills between pre-test and post-test results we used a comparison of means statistical test (paired t-test). To measure differences in pre-test/post-test gains between sexes and also between urban and rural locale, the following independent t-tests were conducted for the literacy test, each broken down into subtests (see Annex for detailed information on subtests):

1. Average scores by sex
2. Average scores by urban/rural

For the both the literacy and numeracy tests, we present the following information:

- Percent of students with zero scores

LIMITATIONS

The data have strong internal validity since the study drew comparison and intervention cohorts from the same centers, thus minimizing the selection bias. Given that the sample centers are located in a limited number of districts, the data have limited external validity that makes it difficult to make generalizations for the province or country levels since it is unknown how well the study centers represent other ECD centers in the country.

The literacy and numeracy tools are intended to measure school readiness, but fail to capture several aspects of the intervention such as physical, emotional, and social development. These components of the child-centered approach are measured using other tools. While literacy and numeracy skills are important aspects of school-readiness, this intervention emphasizes psycho-social and emotional aspects of early childhood development, and fine and gross motor skills, as well.

Further, the time lapse between baseline and endline for the intervention group was about 6 weeks shorter than the comparison group due to schools closing early for the holidays. This can potentially skew the results toward the comparison group.

⁶ The literacy assessment is based on the Early Grade Reading Assessment (EGRA) that was adapted by EDC for use in a pilot study of Literacy, Language and Learning (L3) initiative, implemented in Bugesera in 2013. Similarly, the numeracy assessment is based on the Early Grade Mathematics Assessment that was adapted by EDC for use in the Bugesera pilot study. The adaptation of the Kinyarwanda literacy assessment and mathematics assessment was conducted in collaboration with the Rwandan Ministry of Education.

4. CAREGIVER CLASSROOM OBSERVATION

EVALUATION METHODS

In order to assess the extent that trained caregivers practice research-based ECD concepts that they learned in training in the classroom, a caregiver classroom observation was conducted. Particularly, classroom observations aimed to capture how well trained caregivers who participated in the training program utilize and apply the knowledge learned through training in the classroom. The caregiver observation tool was designed to capture the following:

- Classroom Profile (classroom resources and materials, and class size);
- Caregiver Practices in three areas:
 1. Building relationships,
 2. Positive discipline, and
 3. Supporting children’s development.

In order to compare teaching behaviors and practices in the classroom, a random sample of caregivers in the comparison group and the intervention group were selected to be observed in the classroom in order to assess ECD teaching practices. Caregivers were observed twice, one to two months apart. Given the fact that certain practices/behaviors that data collectors were observing for may not be observed depending on the activities planned that day by the caregiver, two observations provided a more comprehensive picture of the caregivers practices/behaviors on a given day. As such, in analysis, the classroom observations were averaged together to provide a better understanding of the caregivers teaching practices on any given day in the ECD center. Findings in the overall results section are averaged classroom observation results.

SAMPLE

Twelve existing caregivers from the comparison group were observed in July 2013 and October 2013 before the female youth were trained and placed in internships. After the caregiver training ended, fourteen newly trained caregivers were observed in August 2014 and October 2014 during their internships with ECD centers. The table below shows the sample of caregivers who participated in the classroom observation.

Table 7. Sample of Caregivers Observed by District and Group

District	Comparison		Intervention	
	ECD Centers	# of caregivers Observed	ECD Centers	# of caregivers Observed
<i>Gasabo</i>	5	6	5	10
<i>Kamonyi</i>	3	3	1	1
<i>Musanze</i>	3	3	3	3
Total	11	12	9	14

DATA COLLECTION/ANALYSIS

Classroom observation data was collected by trained data collectors. Given that data was collected at two points in time to capture a more comprehensive picture of the ECD classroom and teacher practices, observation scores were averaged together to provide a better understanding of the caregivers teaching practices on any given day in the ECD center. Survey data was analyzed by EDC analysts utilizing standard statistical methods. Central tendency analysis (e.g., mean, median) were conducted.

LIMITATIONS

A validity threat is possible which may arise due to a bias from the data collector/observer who is observing caregiver behaviors in the classroom. To reduce this threat, data collectors were extensively trained in how to use the tool and what behaviors they should be observing.

Additionally, the random sample of observed caregivers is small and the sample size may limit the extrapolation that can happen from the data.

RESULTS

CAREGIVER TRAINING AND DEVELOPMENT RESULTS

An aim of the project is to address unemployment for female youth in Rwanda by training unemployed female youth in holistic, early childhood development practices and placing them in three-month internships as ECD caregivers. The caregiver training covered the following topics:

- Module 1: Introduction to Early Childhood Development,
- Module 2: Understanding How Children Think, Behave and Learn,
- Module 3: Creating a Positive and Safe Environment for Children,
- Module 4: Health Promotion,
- Module 5: Creating Learning Materials/Toys from Local Resources,
- Module 6: Physical Development,
- Module 7: Social Emotional Development,
- Module 8: Cognitive Development,
- Module 9: Classroom and Center Management,
- Module 10: Assessment.

This section will explore the results of the caregiver training and development; particularly their knowledge and skill gains as a result of participating in training and assessing whether the skills and knowledge learned in training were utilized and applied in the classroom.

CAREGIVER DEMOGRAPHICS

Through implementing partners, the project enrolled a total of 256 caregivers in the program, higher than the initial target of 200 to anticipate potential dropout. Although 256 female youth originally enrolled in the program, only 253 began Modules 1-5. By the end of Modules 1-5, the program experienced 33% attrition, with 169 youth completing Modules 1-5. In spite of strategies in place to motivate attendance, dropout continued until the very end of the training, however, the number of dropouts in the second half of the training were minimal compared to the initial dropouts in the first phase. The table below shows the distribution of participants in the caregiving training over the course of the training.



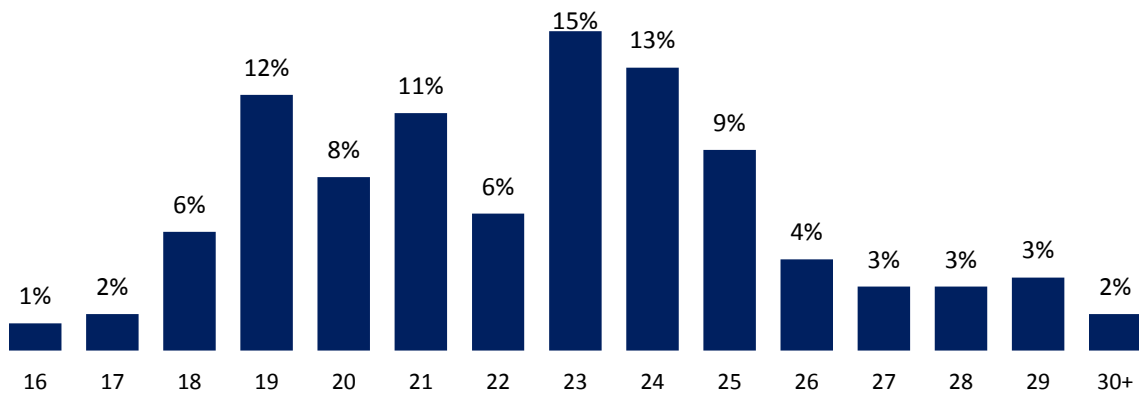
ECD trainees during a lesson

Table 8. Sample of Female Youth in Caregiving Training

	# enrolled in Module 1 - 5	# completed Module 1-5	# enrolled in Module 6 - 10	# completed Module 6-10
Burera	26	21	21	20
Gasabo	118	81	80	74
Kamonyi	61	41	41	39
Musanze	29	26	26	25
TOTAL	253	169	168	158

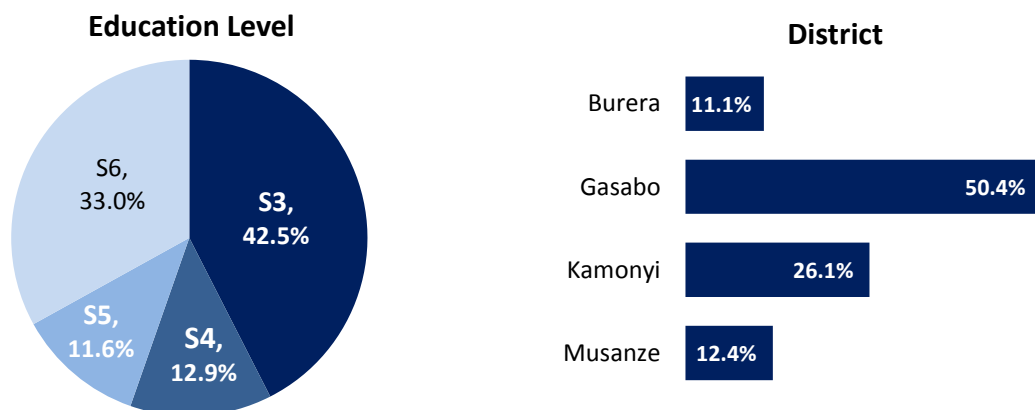
On average, young women who participated in the caregiver training ranged in age from 16 to 37, with a mean age of 22.6 and a median age of 23.

Figure 4. Age of Caregiver (n=232)



Almost half of the enrolled caregivers have completed nine years of schooling, through the third year of secondary. About one-third are secondary school graduates. Caregivers are located in four districts: Burera, Gasabo, Kamonyi, and Musanze. Roughly half of caregivers originally enrolled in Modules 1-5 of the program live in Gasabo District, classified as an “urban” area, and the remaining half live in “rural” districts (See Figure 5).

Figure 5. Education Level and Districts of Caregivers (n=234)



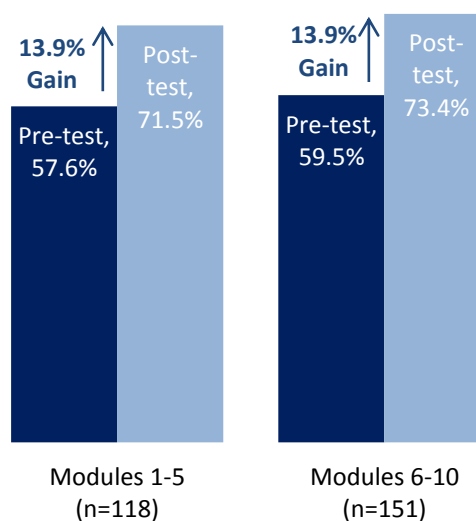
CAREGIVER KNOWLEDGE ASSESSMENT RESULTS

The caregiver knowledge assessment was designed to gauge the learning of caregivers in ECD information covered during the caregiver training. The caregiver pre-post knowledge assessment tool was administered in two separate sections to follow the development of the curriculum. Caregivers were given the pre-knowledge assessment for Modules 1-5 in October, 2013 and for Modules 6-10 in March, 2014. A total of 179 were administered the pre-knowledge assessment for Modules 1-5 and 157 for Modules 6-10. However, due to dropouts, late enrollment in the program and in some cases absences when the tests were administered, the matched pre-test/post-test samples were 118 for Modules 1-5 and 151 for Modules 6-10. Caregiver knowledge assessment results below show data only from the matched pre/post data.

The assessment for Modules 1-5 consisted of 27 questions and Modules 6-10 consisted of 31 questions. None of the caregivers had prior formalized ECD training or any exposure to the holistic, child-centered practices in the curriculum. The passing grade was set at 50 percent in order to be in line with the national level pass rate for WDA exams.

Overall, caregivers demonstrated high levels of knowledge on both the pre and post knowledge assessment tests. At post-test knowledge assessment tests showed significant gains at the $p < .001$ level for caregivers for both sections (Modules 1-5 and Modules 6-10) of the assessment exam.

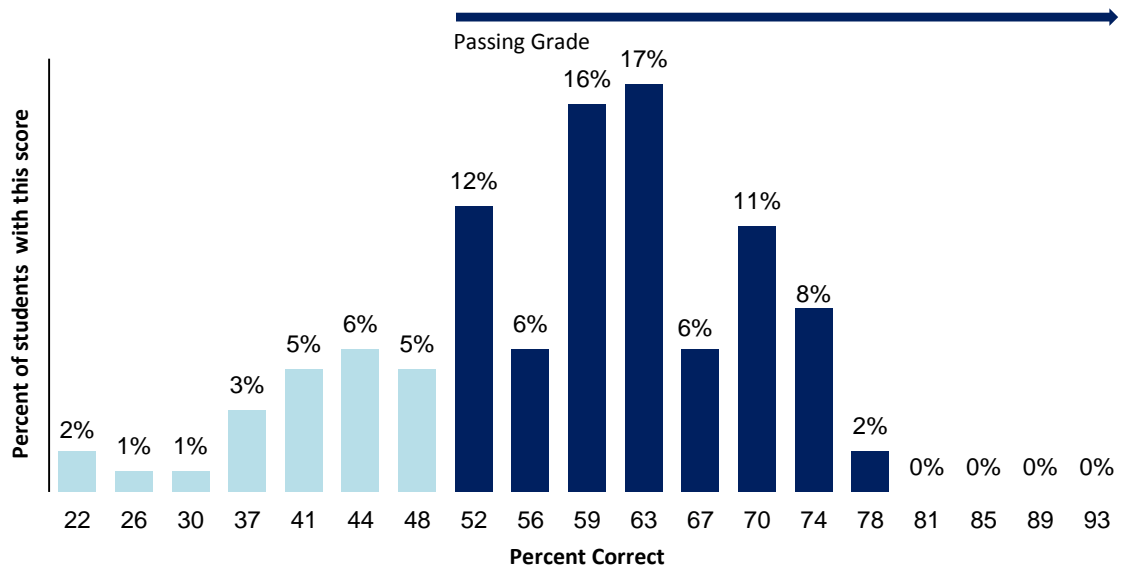
Figure 6. Average Caregiver Knowledge Assessment Scores



Caregiver Knowledge Assessment Results: Modules 1-5

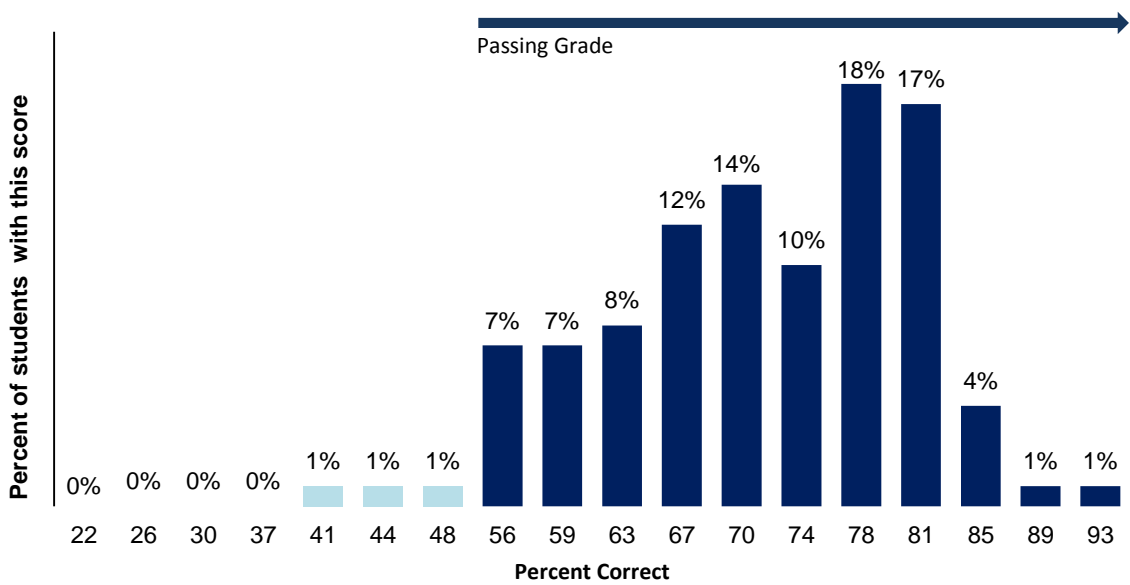
For Modules 1-5, pre-test scores ranged from 22.2% to 77.8% with a mean of 57.6% (standard deviation of 11.88). A total of 91 (77.1%) caregivers scored over the passing grade (See Figure 7). Despite a relatively high amount of caregivers with passing grades at pre-test, only a fifth (20.3%) of caregivers scored above 70%. The figure below shows the distribution of Modules 1-5 test scores with corresponding frequencies.

Figure 7. Distribution of Modules 1-5 Pre-Knowledge Scores (n=118)



By post-test, caregivers' scores on the Module 1-5 Knowledge Assessment improved, with scores ranging from 40.7% to 92.6%. At post-test the average knowledge scores had increased from 57.6% to 71.5% (standard deviation 9.71). Nearly all caregivers (97.5%) passed the post-test, with nearly two-thirds scoring above 70%.

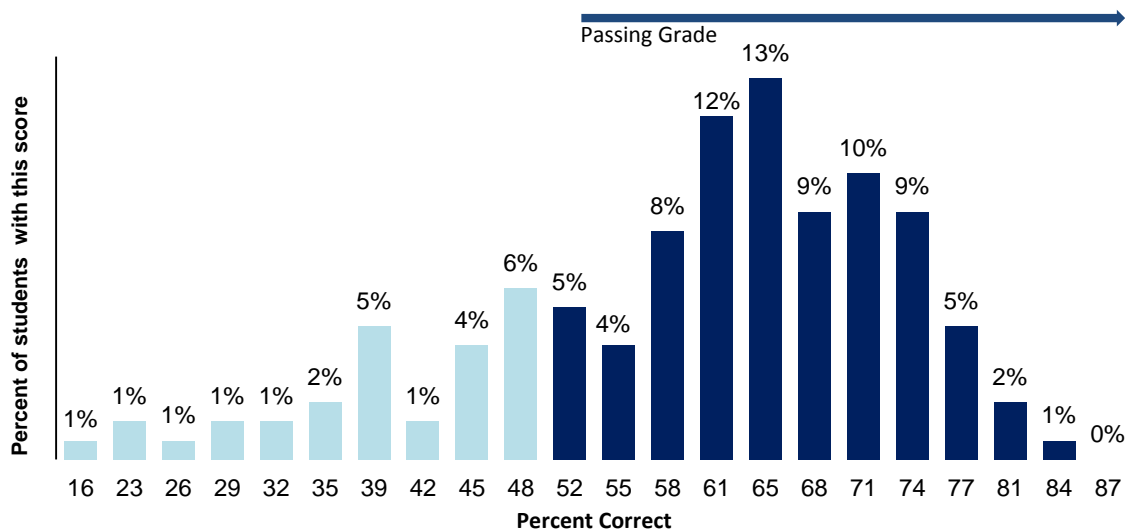
Figure 8. Distribution of Modules 1-5 Post-Knowledge Scores (n=118)



Caregiver Knowledge Assessment Results: Modules 6-10

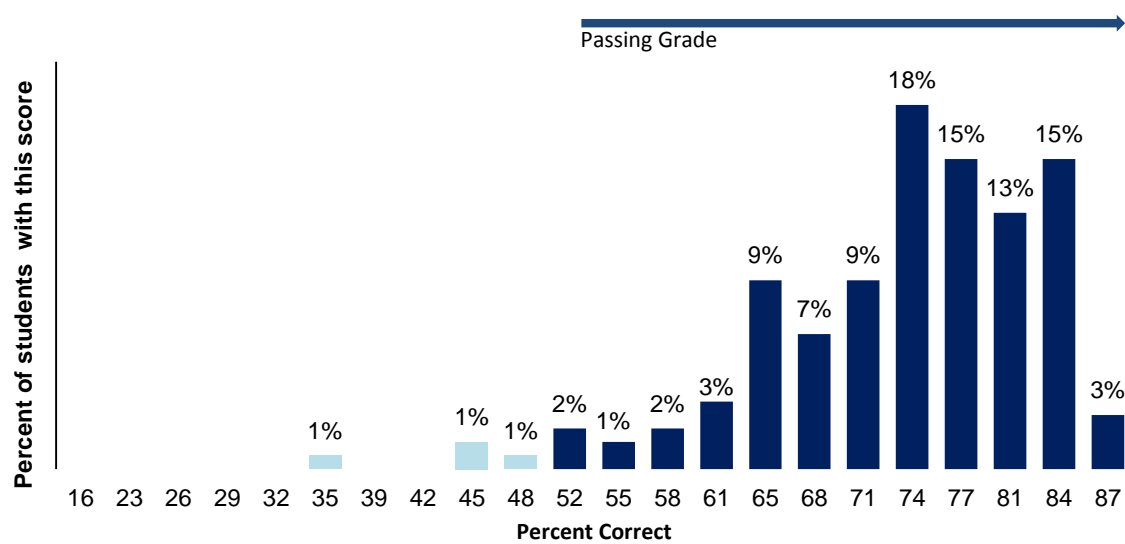
For Modules 6-10, at the pre-test, the range of scores was greater with scores ranging from 16.1% to 83.9%. On average, caregivers answered 59.2% of questions correctly, (standard deviation of 13.6 percent). Overall, at pre-test 116 caregivers (76.8%) passed the knowledge assessment test, scoring 50% or higher (See Figure 9). However, only a quarter of caregivers scored above 70%. The figure below shows the distribution of Modules 6-10 test scores with corresponding frequencies.

Figure 9. Distribution of Modules 6-10 Pre-Knowledge Scores (n=151)



From pre-test to post-test, caregiver knowledge scores improved; on average, caregivers answered 73.4% of answers correctly at post-test compared to 59.5% at pre-test. The standard deviation was 9.44. Overall, at post-test scores ranged from 35.5% to 87.1%, however, the majority of caregivers (97.4%) passed the Modules 6-10 knowledge assessment test. In fact, nearly three-quarters (72.8%) of caregivers scored over 70%.

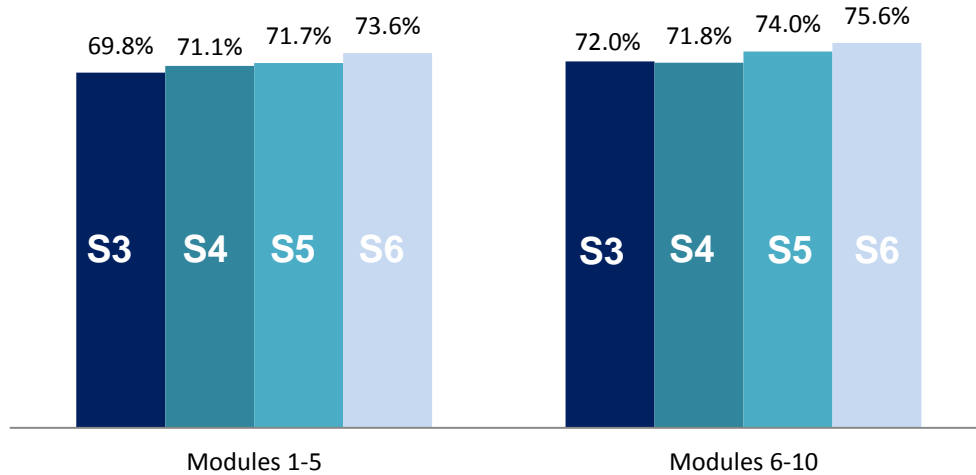
Figure 10. Distribution of Modules 6-10 Post-Knowledge Scores (n=151)



Analysis of Caregiver Knowledge Assessment by Education Level and Rural/Urban

Analyses of average pre-test scores by education level showed that caregivers with more education scored higher on both Modules 1-5 and on Modules 6-10. This trend was consistent at post-test as well. The difference between S3 and S6 average scores was consistent across sections (Modules 1-5 and Modules 6-10). The figure below shows average post-test scores by education level.

Figure 11. Average Test Scores by Education Level at Post-test

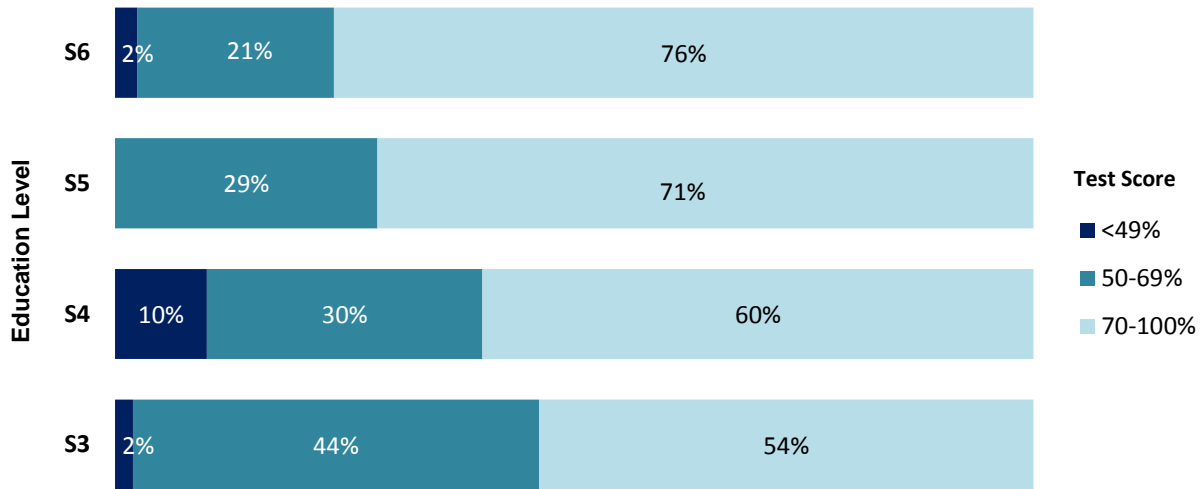


Further analyses of Modules 1-5 data by education level showed that caregivers with more levels of formal education scored higher on the pre-knowledge assessment. The correlation between education level and test score was significant at the $p < .01$ level at pre-test. At post-test, although caregivers with higher levels of formal education continued to score higher on the knowledge assessment, the correlation between education level and test score was not significant at the $p < .05$ level (p -value = .058).

The figure below shows the proportion of Modules 1-5 scores by education level. Nearly three-quarters of caregivers who have completed secondary school (S6) scored between 70 to 100 percent, whereas only about half of caregivers with only nine years of education (S3) scored over 70 percent.

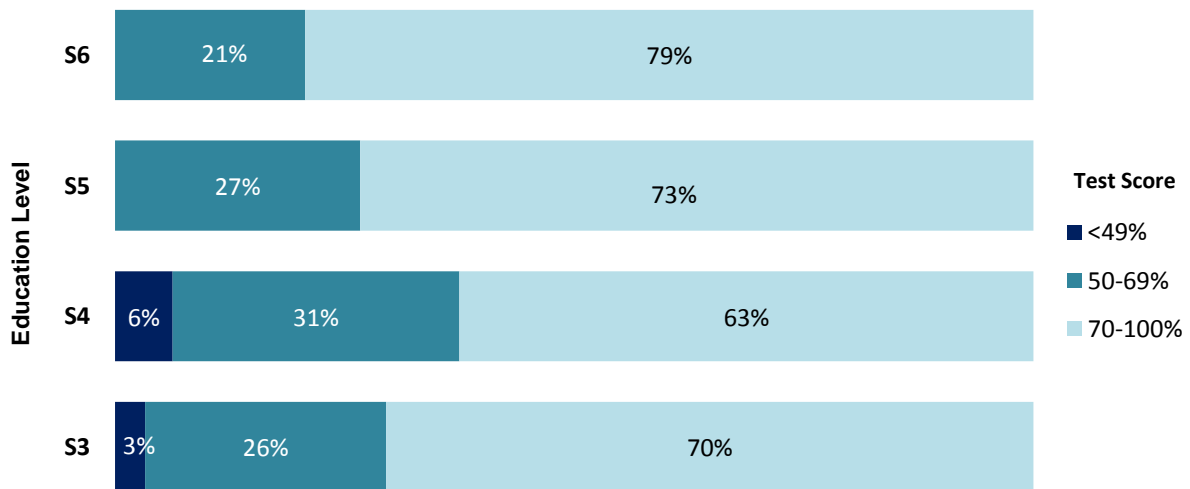
Analysis of gains scores from pre-test to post-test disaggregated by education level showed that although caregivers from all education levels saw significant gains, average gains for caregivers with nine years of education (S3) were significantly larger than the gain experienced by caregivers who had completed secondary education (S6).

Figure 12. Modules 1-5 Scores by Education Level at Post-test (n=118)



Analyses of Modules 6-10 data by education level at post-test showed a similar pattern between education level and score and the correlation was statistically significant at the $p < .05$ level. Caregivers with less education (S3 and S4), were the only caregivers to not pass the assessment with scores less than 50%. Further, larger percentages of caregivers with higher education levels (S6 and S5) scored high on the knowledge assessment (70-100%) than those with lower education levels. For instance, 79% of caregivers who completed secondary school scored over 70%, compared to 70% of those whose highest level of education was S3 and 63% for those whose highest level of education was S4. The figure below shows the proportion of scores for Modules 6-10 by education level:

Figure 13. Modules 6-10 Test Scores by Education Level (n=151)



Analyses of average test scores by urban versus rural area showed that there was no consistent differences in knowledge assessment scores for caregivers in urban and rural areas. For Modules 1-5, the caregivers in rural areas scored slightly higher on average, but the difference was not statistically significant. In contrast, urban caregivers scored higher on Modules 6-10 and the difference in achievement was not statistically significant. The figure below shows the average test scores by urban and rural areas at post-test.

Figure 14. Average Test Scores by Urban Rural Area at Post-test



Overall, the knowledge assessment results showed significant gains in caregiver knowledge from pre-test to post-test for both sections (Module 1-5 and Modules 6-10). Additionally, by post-test the majority of caregivers passed the knowledge assessment test. These results suggest that caregivers who completed the caregiving training have a solid knowledge base of early childhood development topics. The next section will explore through caregiver classroom observations whether the knowledge acquired through training was utilized by trained caregivers in the classroom during their internships.

CAREGIVER OBSERVATION

Teacher practices, teacher-child interaction and the classroom environment are known to impact child development and learning outcomes. In order to assess the extent that trained caregivers practice research-based ECD concepts that they learned in training in the classroom, a caregiver classroom observation was conducted. Classroom observations aimed to capture how well trained caregivers utilize and apply the knowledge learned through the caregiver training in the classroom. The caregiver observation tool was designed to capture the following:

- Classroom Profile (classroom resources and materials, and class size);
- Caregiver Practices in three areas:
 1. Building relationships,
 2. Positive discipline, and
 3. Supporting children’s development.

In order to compare teaching behaviors and practices in the classroom, both the existing caregivers who were not trained by the program in holistic ECD methods (comparison group) and the newly trained caregivers (intervention group) were observed in selected ECD centers. Caregivers were observed twice, one to two months apart. Twelve existing caregivers were observed in July 2013 and Oct 2013 before the female youth were trained and placed in internships. After the caregiver training ended, fourteen newly trained caregivers were observed in August 2014 and October 2014 during their internships with ECD centers.

Table 9. Sample of Caregivers Observed by District and Group

District	Comparison		Intervention	
	ECD Centers	# of caregivers Observed	ECD Centers	# of caregivers Observed
<i>Gasabo</i>	5	6	5	10
<i>Kamonyi</i>	3	3	1	1
<i>Musanze</i>	3	3	3	3
Total	11	12	9	14

Given the fact that classroom observations are a snapshot and certain practices/behaviors that data collectors were observing may not be observed depending on the activities planned that day by the caregiver, two observations provided a more comprehensive picture of the caregivers practices/behaviors on any given day. As such, in analysis, the classroom observations were averaged to provide a better understanding of the caregivers teaching practices on any given day in the ECD center. Findings in the overall results section are averaged classroom observation results.

School Profiles

The caregiver data observation provided a general picture of the teaching and learning environment at the observed ECD centers. Twenty-three ECD classrooms were observed to get a contextual backdrop in

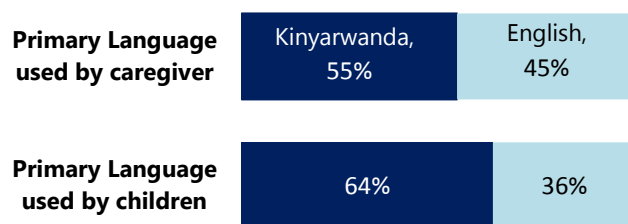
both the comparison and treatment ECD centers. About a half (56.5%) of observed classrooms were located in urban areas, the remaining 43.5% were located in rural areas.

Research shows that the ratio of caregivers to pupils in a classroom is a strong predictor on the quality of ECD care, including the interaction between caregiver and child.⁷ An analysis of student/teacher ratio showed that caregiver-pupil ratios varied across ECD center ranging from 11 pupils per one caregiver to 55 pupils to one caregiver. On average, observed ECD classrooms had a caregiver-pupil ratio of 27: 1 and a median of 28:1. Analysis by geographic location showed higher caregiver-pupil ratios in rural areas, with on average 31 pupils to one caregiver in rural areas compared to 23 to one in urban areas.

On average, observed classrooms showed gender parity in the number of boys and girls present in the classroom. Comparison by location, showed that on average in urban areas there were slightly more girls (53%) in the classroom, than in rural areas (47%).

Language of instruction used by caregivers varied with roughly half (55%) of caregivers using Kinyarwanda, and the remaining half (45%) speaking English. Language used by children was also observed. About two-thirds of children (64%) spoke Kinyarwanda in the classroom.

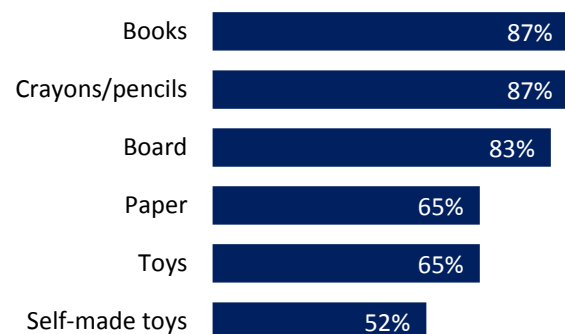
Figure 15. Language spoken in the ECD classroom (n=22)



ECD classrooms were also observed for the extent of classroom resources. Data collectors were asked to observe whether classrooms had six specific materials available in the classroom: toys, self-made toys, books, crayons/pencils, board, and paper. Observations ranged from zero materials to five; no classroom had all six observed materials. On average, ECD classrooms had 4 out of the 6 types of materials observed.

The most common types of learning materials were books, crayons/pencils and boards, with over 80% of observed classrooms having these materials. Paper, toys and self-made toys were less common with less than two-thirds of observed classrooms having these materials.

Figure 16. Percent of classrooms with observed learning materials (n=23)



Analysis by rural/urban showed that more than half of observed ECD classrooms in urban areas had five out of six materials in their classroom compared to less than a third of rural ECD classrooms.

⁷ National Association for the Education of Young Children (1991). *Accreditation Criteria and Procedures of the National Academy of Early Childhood Programs*. Washington, DC: National Association for the Education of Young Children.

Further analysis by group, showed that on average, ECD classrooms in the treatment group had more toys/learning materials compared to the comparison group, with treatment classrooms having on average 4.33 learning materials (out of the observed 6) compared to 3.7 in comparison classrooms.

Overall Results

ECD classrooms were also observed for caregiver practice in the classroom. The observation protocol focused on observing three main areas:

Area 1: Building Relationships (observed practices include: caregiver joining the children at their level, allowing children to speak, encouraging children to express thoughts and demonstrating interest in what children have to say).

Area 2: Positive Discipline (observed practices include: clear rules of behavior are in place, use of praise and attention, models positive conflict resolution practices, does not use negative practices such as hitting, yelling or shaming children).

Area 3: Activities to Support Children’s Development (observed activities include: gross and fine motor skill development activities, language development activities, psychosocial development activities and the use of toys/learning materials).

Based on the observation of an entire class, each practice is scored on a scale from 1 to 4:

(Rating 1) **None.** There is no evidence of the practice, the behavior was not observed.

(Rating 2) **Minimal.** There is minimal evidence of the practice.

(Rating 3) **Some.** There is some evidence of this practice, but it is not used consistently.

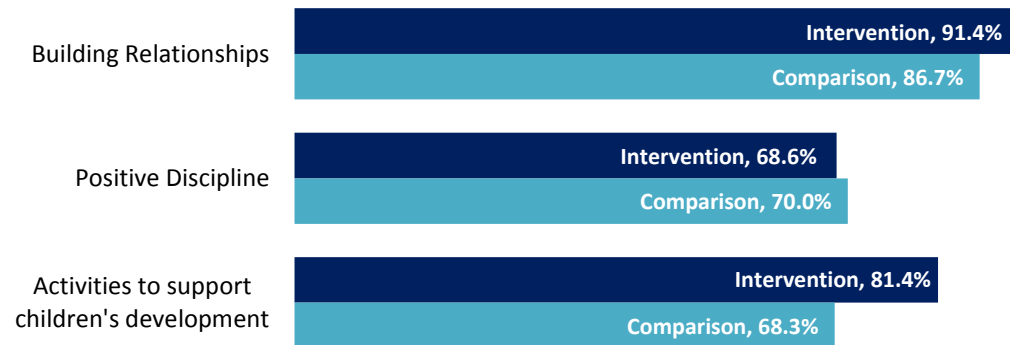
(Rating 4) **Strong.** There is ample evidence of this practice. The caregiver is comfortable with this practice and uses it appropriately and consistently.

In total, 26 caregivers were observed in their classrooms. For each area, data collectors observed for five different activities/practices. The figure below shows the average percent of activities/practices caregivers performed during observation for each area. Overall, caregivers practiced the majority of observed teaching practices. For both groups, caregivers performed nearly all of the five observed activities for Building relationships. The intervention group also on average performed the majority (81.4%) of the observed activities to support children’s development, more so than the comparison group who performed on average 68.3% of observed activities. **Positive Discipline** had the lowest average for caregivers in the intervention group with caregivers performing on average 68.6% of observed activities, which was largely due to the fact that very few conflicts were observed during the course of observation. Similarly, caregivers in the comparison group performed on average 70% of observed Positive Discipline activities.

Overall, the observation findings show that both existing caregivers and the trained caregivers who participated in the ECD Junior Caregiver’s Program largely practiced ECD methods and practices in the classroom. While both groups were using methodology in the three observed areas, in fact the female

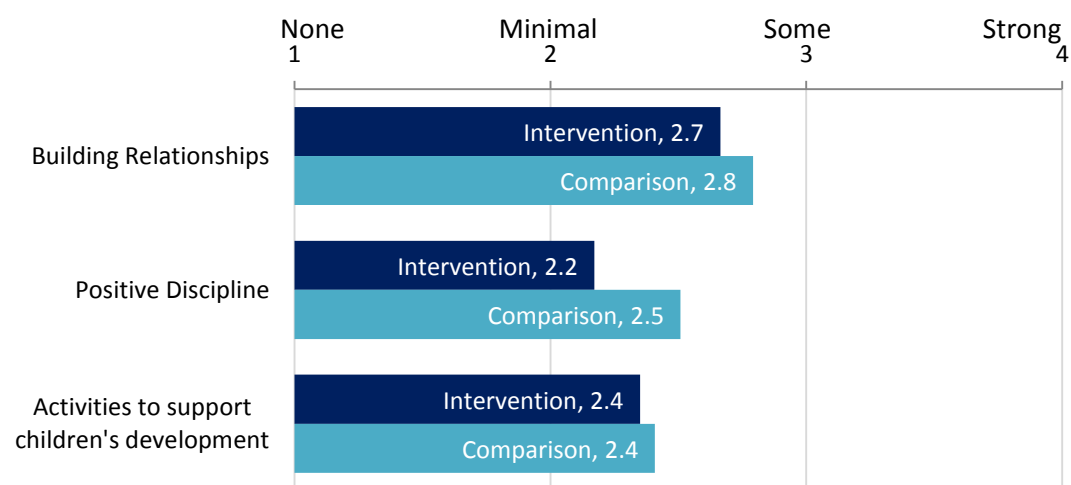
youth in the intervention group were observed performing a larger percentage of observed ECD practices in the areas of **Building Relationships** and **Activities to Support Children’s Development**.

Figure 17. Average Percent of Teaching Practices Observed, by group (n=26)



Further analysis showed that although caregivers were largely practicing many important ECD practices, they were not implementing them consistently. For both groups, on average, the consistency at which caregivers performed activities ranged from minimally to sometimes. Both groups performed Building Relationships the most consistently, with an average score of 2.7 and 2.8 for the intervention group and comparison group respectively. Although, it was observed that the intervention group performed more of these activities, however, the findings below suggest that the caregivers in the comparison group, who did perform these activities, performed them more consistently during the course of the observations, which is reflected in their slightly higher scores below. Given the fact that many of the caregivers in the comparison group were more experienced compared to those in the treatment group who were newly trained and had only been in the classroom for a few weeks when they were observed, the higher level of consistency at which caregivers in the comparison group performed these activities may be due to the simple fact that they were more experienced in the classroom. It is important to note that JCP caregivers are newly trained and inexperienced and despite these facts they are performing more evidence-based ECD practices and nearly as consistently as seasoned teachers in the comparison cohort.

Figure 18. Average Scores for Classroom Observation, by Area and Group (n=26)

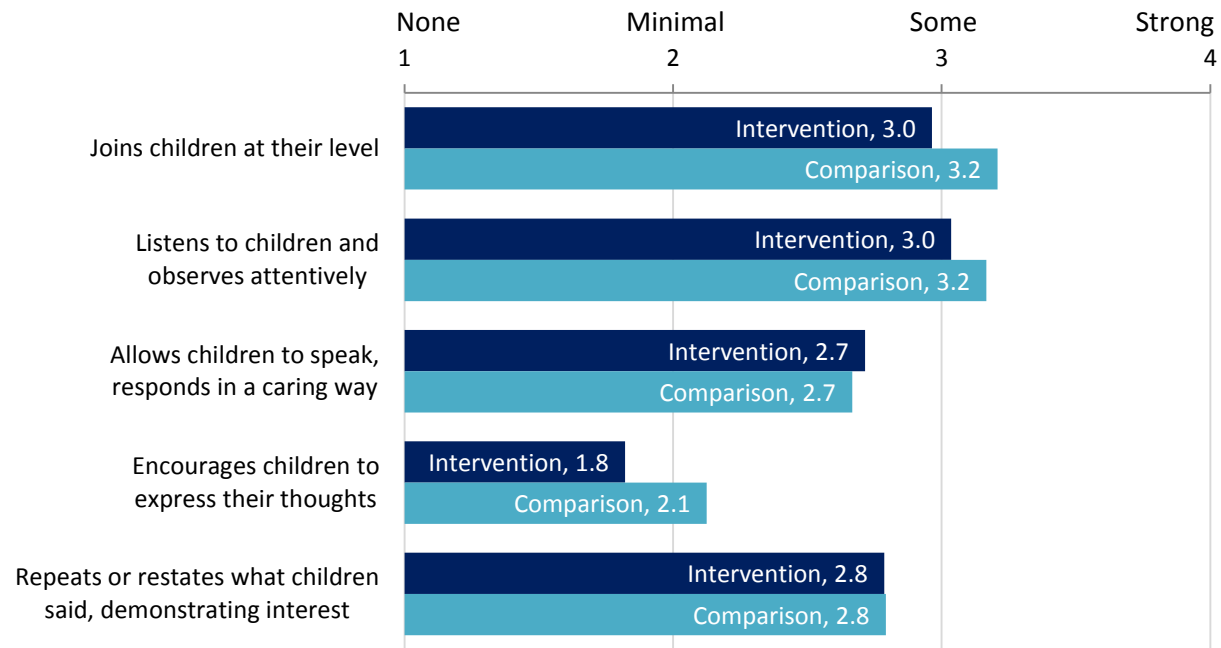


The next sections will explore the three areas of the Classroom Observation tool in more detail.

Building Relationships

Caregivers were observed for five practices that related to building relationships with children in ECD classrooms. In general, caregivers in both groups were observed to sometimes perform the relationship building activities below; however, they were not consistently performed throughout the course of the observation. Observation of both treatment and comparison caregivers found very similar scores in relationship building. Overall, caregivers most consistently joined children at their level and listened to children and observed them attentively. Observations of data collectors who observed the caregivers noted that they observed caregivers from both groups joining children at their level by sitting on the ground or in chairs with children as well as attentively watching the children and engaging with the children.

Figure 19. Average Classroom Observation Score: Area 1 - Building Relationships

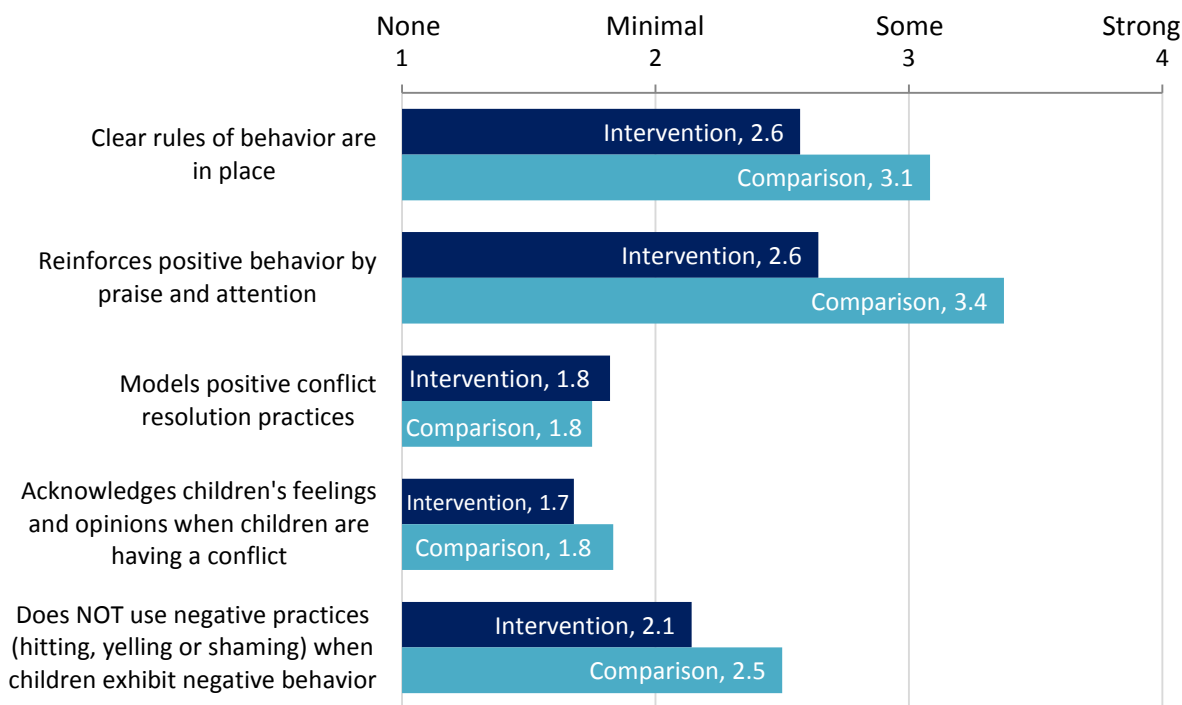


Positive Discipline

Observation of positive discipline behaviors ranged from minimal to no evidence of certain behaviors to some evidence. Caregivers in both groups on average, used clear rules of behavior and reinforced positive behavior by praise and attention the most consistently. Observations from data collectors showed that in many ECD classrooms caregivers from both groups used praise and clapping to reinforce positive behavior and good work done by children in their classroom. Very rarely did caregivers model positive conflict resolution practices (such as listening to points of view of all involved children and

trying to find a peaceful and fair solution). This was largely due to the fact that conflict was not observed during the course of the observation in many classrooms. However, in classrooms where conflict was observed, caregivers were observed listening to children and asking them to verbalize their emotions and acknowledged children’s feelings and opinions. Largely, for those instances where conflict was observed caregivers responded to conflict in a neutral way, stopping most of the negative behavior by re-directing children’s activities and separating quarrelling children. There was only one instance of a caregiver in the comparison group that sometimes punished children for the behavior that caused conflict using negative practices.

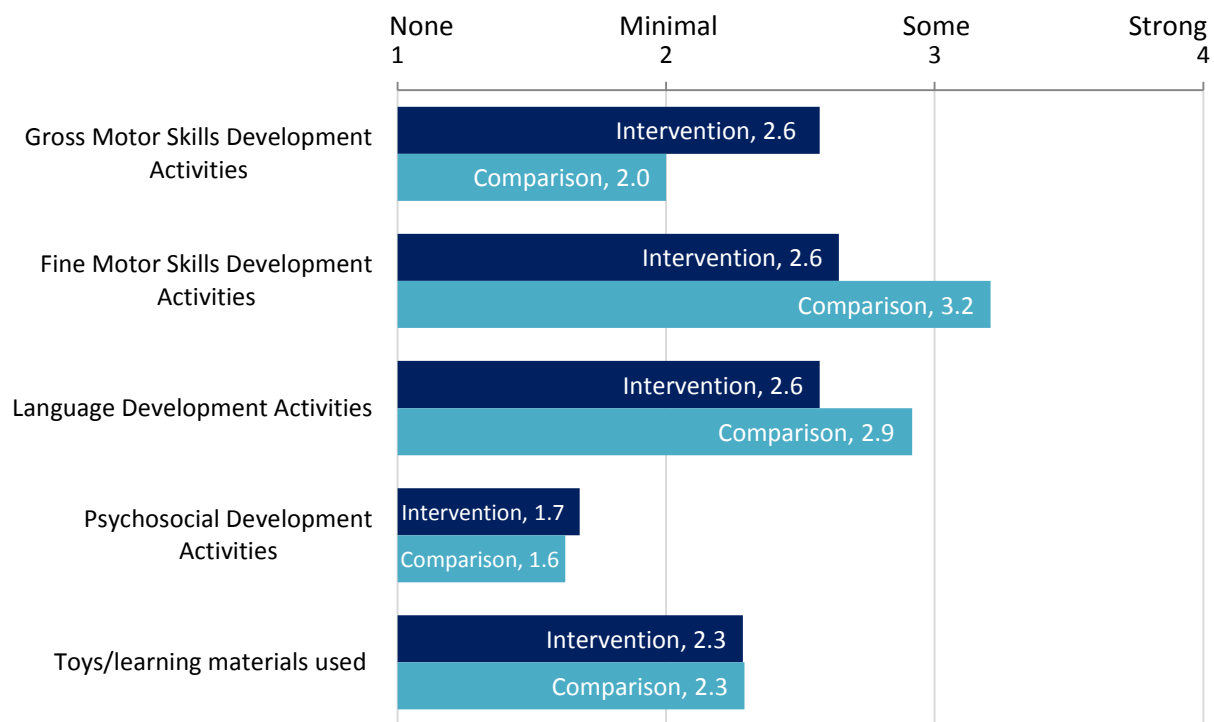
Figure 20. Average Classroom Observation Score: Area 2 – Positive Discipline



Child Development

Observations were also made on whether caregivers performed various activities to support children’s development. The most common activities observed in treatment group classrooms were gross motor skill, fine motor skill and language development activities. For instance, caregivers in the treatment group were observed playing ball with children, and using jumping during activities for gross motor skill development, as well as using drawing, and writing to develop fine motor skills. For the comparison group, fine motor skill development, language development and the use of toys and learning materials were the most commonly observed practices. For both groups, very few psychosocial development activities were observed.

Figure 21. Average Classroom Observation Score: Area 3 – Activities to Support Children’s Development



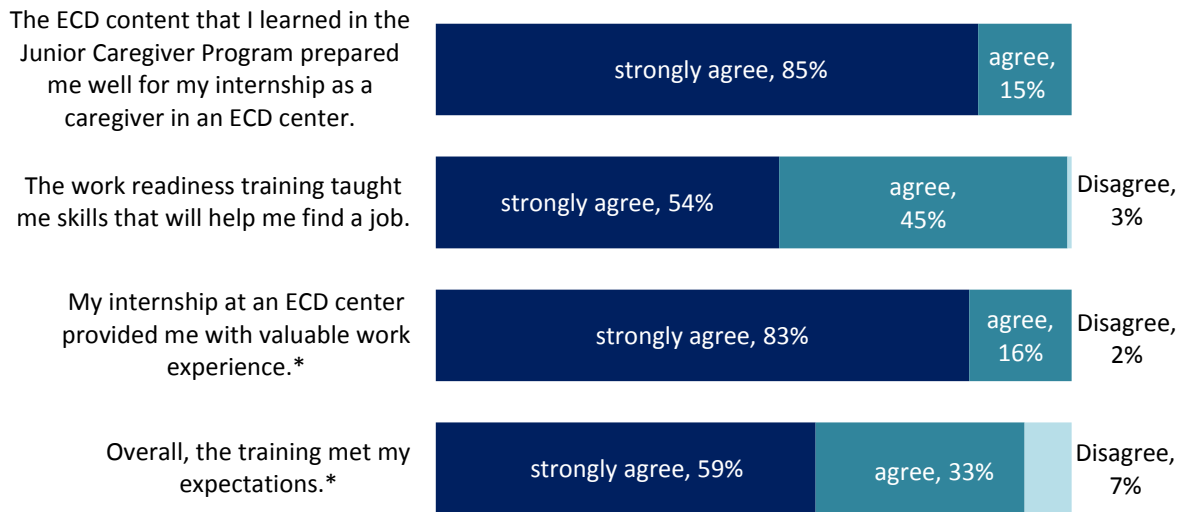
IMPACT OF PROGRAM ON CAREGIVER EMPLOYMENT

A follow-up survey was administered with youth trainees who were placed in internships as caregivers in ECD centers, three months after the end of their internship to gather their feedback and follow-up on their status after the program.

Satisfaction with Program / Internship Experience

Overall the youth trainees reported that they were very satisfied with the Junior Caregiver Program. Youth were particularly satisfied with the experience gained through their ECD internships as well as with the ECD content itself, feeling that the content they learned prepared them well for their ECD internships. The large majority (85%) of surveyed caregivers reported that they strongly agreed that the ECD content prepared them for the internships. Similarly, 83% of trainees reported that they strongly agreed that their internship at ECD centers provided them with valuable work experience. Although, nearly all trainees were satisfied with the work readiness training, trainees felt slightly less satisfied with this component of the program, with roughly half (54%) of trainees who strongly agreed that the work readiness training taught them skills that would help them find a job; the other half of trainees agreed to this statement. The figure below shows the trainees’ responses.

Figure 22. Caregiver Satisfaction with Junior Caregiver Training Program (n=150)

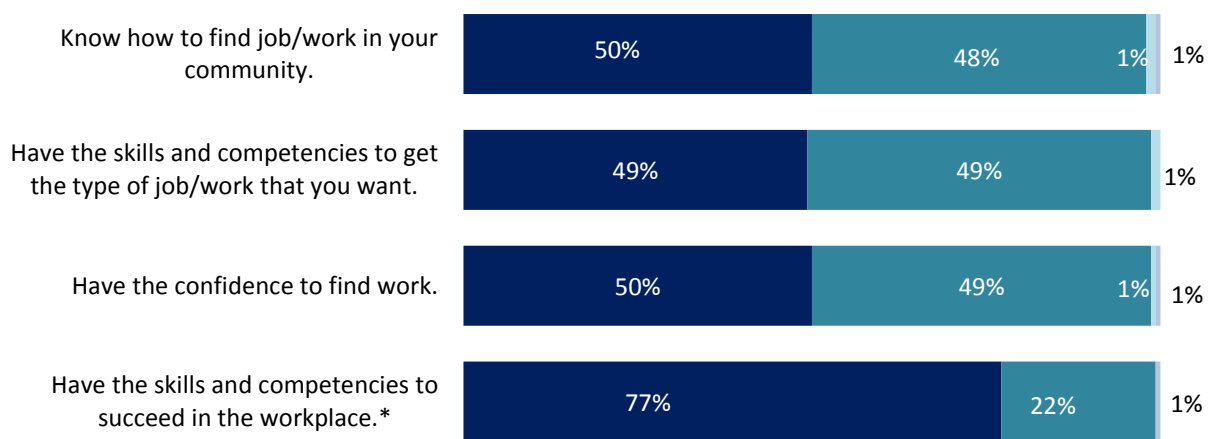


Note: *n=149

Work Readiness

Trainees were asked about how they perceived their work readiness skills after participating in the Junior Caregiver Program. Confidence in one’s skills and knowledge is important in developing a sense of employability. As seen in the figure below, trainees reported a high level of confidence in their work readiness skills after participating in the program with nearly all trainees who “agreed” or “strongly agreed” that they possessed these skills. Trainees were the most confident in their skills and competencies to succeed in the workplace with nearly three-quarters (73%) of trainees who “strongly agreed.” Youth trainees also largely felt that they knew how to find a job/work, had the skills needed to get the job that they wanted and had the confidence to find work.

Figure 23. Trainees Perception of Work Readiness Skills (n=150)



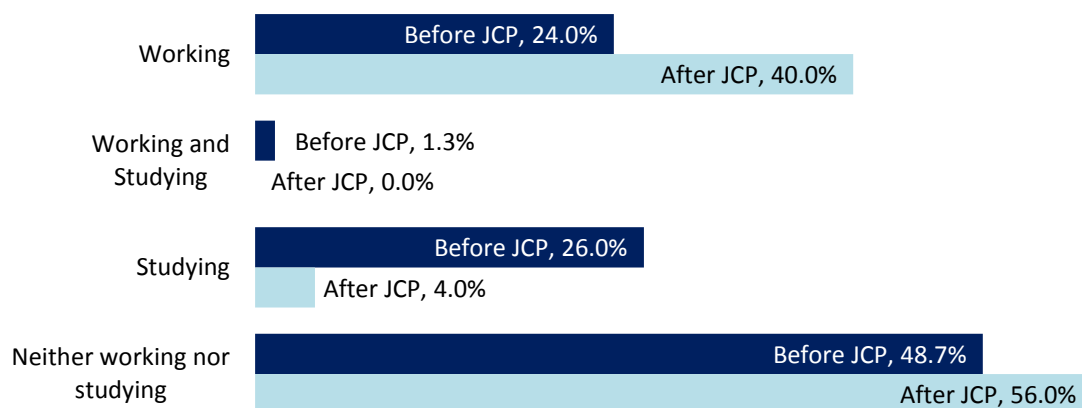
Note: *n=149

■ strongly agree ■ agree ■ Disagree ■ strongly disagree

Youth Employment

A key component of the program’s theory of change was to address female youth unemployment through training young women in ECD and placing them in internships. During the follow-up survey, three months after the completion of the JCP, trainees were asked their status before starting the JCP and their current work status.

Figure 24. Changes in Employment Status of Youth Trainees Before and After the Junior Caregiver Program (n=150)



Before the JCP, the majority of youth (48.7%) were “idle,” neither working nor studying. Only a quarter of youth were working; the remaining quarter was studying. By the end of the program, employment of youth had significantly increased from 24.0% to 40.0%). The percent of youth that were neither working nor studying increased slightly to 56%. About half of youth (47.2%) that reported working before the JCP, are currently neither working nor studying. The reason for this change is unknown. Conversely, those who reported that they are currently working, only around a third (30.0%) were also working before participating in the JCP; the majority (53.3%) were unemployed before participating in the training program, which suggests that the project may have contributed to reduced unemployment for these female youth.

When disaggregated by district, Gasabo (41.2%) and Kamonyi (47.4%) had the largest percentage of youth trainees that reported that they were employed at the time of the survey. In Kamonyi, this is likely due to the existence of many community ECD centers set up by the CARE International project, *Child Survival*, which made finding ECD employment easier. Musanze had the largest percentage of idle female youth, with more than two-thirds (68.0%) of trainees reporting that they were neither working nor studying. This is not surprising given that very few ECD centers exist in rural Musanze. Although there are private ECD centers that cater to wealthier residents in urban areas of Musanze, given the low levels of English of JCP trainees, they would not be competitive and able to get jobs in these centers.

The majority of employed youth (88.3%) are currently employed as caregivers at ECD centers. Roughly 5% of employed caregivers reported that they were running their own ECD center.

The majority of employed youth (88.3%) are currently employed as caregivers at ECD centers. Roughly 5% of employed caregivers reported that they were running their own ECD center.

IfE Case Study: ECD Trainee Opens ECD Center

In a small one-room ECD center sit 10 children with small chalkboards in their laps. The tiny 4-year old fingers meticulously write “1” on their chalkboards and show their work to the caregiver. Pascasie Uwera, 24 years old, started this ECD center in the neighborhood where she grew up. Before Pascasie opened this center in January 2015, there was no affordable ECD center in Gisozi, a low-income neighborhood of Kigali city.

Long before Pascasie entered the Innovation for Education (IfE) program to learn play-based early childhood education techniques, she took care of the children in her neighborhood and volunteered as a caregiver at a nearby NGO. During the IfE caregiver training, Pascasie explored the idea of starting her own ECD center, because she knew that there was a need for affordable childcare in her neighborhood. She spoke with parents in her community about the opportunity and gained the support of the local government officials. The local officials were skeptical at first about the need for another ECD center, but after they visited Pascasie at the center where she was interning and watched her in practice, they agreed to let her start her own. Pascasie agreed upon a price with the parents that was affordable for them, but also enough for her to cover rent and support herself. Parents were so thrilled to have their children in Pascasie’s care that some families transferred their children from other centers to her center, the EMEB Nursery School.

Pascasie uses games to teach her students and she has seen the difference in the children. “Other teachers don’t use games and children can go home and recite, but it’s not practical knowledge. My methods use games to show them rather than tell them,” explains Pascasie.

Gloria, aged four, had never attended school before starting at EMEB Nursery School. She has three older siblings who never attended pre-school because the family could not afford the tuition. When Pascasie went to talk to parents, Gloria’s mother saw this as her first opportunity to send one of her children to a safe and stimulating childcare program. “Gloria is happy. She comes home singing songs and has learned how to speak to people. She can introduce herself and say her name,” says Gloria’s mother. She can see how far ahead Gloria already is from her other children at this age. Gloria’s mother takes solace every day in knowing that her daughter is in a safe place where she is learning the social skills to prepare her for school.



Pascasie Uwera, owner and director of the new EMEB Nursery School in Kigali, Rwanda

As the parents come to pick up their children, Pascasie is there to greet them. She talks to the parents about their children and gives them tips on activities they can do with their children in the afternoons. Pascasie is a natural at this and her passion for enriching children’s life is evident in her interactions with both parents and children.

SCHOOL READINESS OF PRE-PRIMARY LEARNERS

A child who is ready for school has less chances of repeating a grade or being a school dropout, has good relationships with other children and is ready for the academic challenges of primary school. The ECD JCP aims to provide caregivers with the skills and knowledge necessary to promote the development of children physically, socially, emotionally, morally and cognitively in a safe, healthy and stimulating environment.

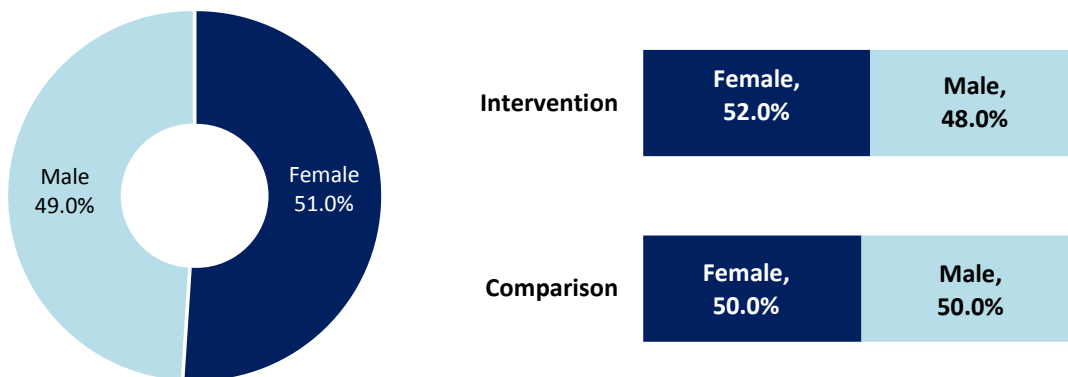
In order to be “school ready” children in preschool need opportunities to do the following: develop fine motor skills, continue expanding language skills by talking, reading, and singing, learn cooperation by helping and sharing, experiment with pre-writing and pre-reading skills. To assess the school readiness of pre-primary learners in ECD centers, data was collected to assess children’s cognitive development (literacy and numeracy skills) as well as development in other key development domains (i.e. physical development and social emotional development). Data was collected through a literacy and numeracy knowledge assessment to assess the cognitive development of children. Additionally, as the program evolved, the program included interviews with caregivers, parents and center directors to assess qualitatively the physical and social emotional development of children. The following sections detail the results of the school readiness assessments and interviews.

STUDENT DEMOGRAPHICS

Literacy and numeracy assessments were conducted with learners in 13 selected ECD centers in the intervention and comparison groups. Pre-test assessments were conducted with 104 learners. At the post-test, all attempts were made to assess the same children, but some children who were assessed at the pretest were not present during the post-test assessment. After a matching procedure, the final data set contained 96 students matched at the post-test (endline). The demographics and assessment results below show data from the matched endline data.

There was close to gender parity in the total sample, with 49% of males and 51% females; this is consistent across intervention and comparison groups (Figure 24).

Figure 25. Sex of Sample, by group (n=96)

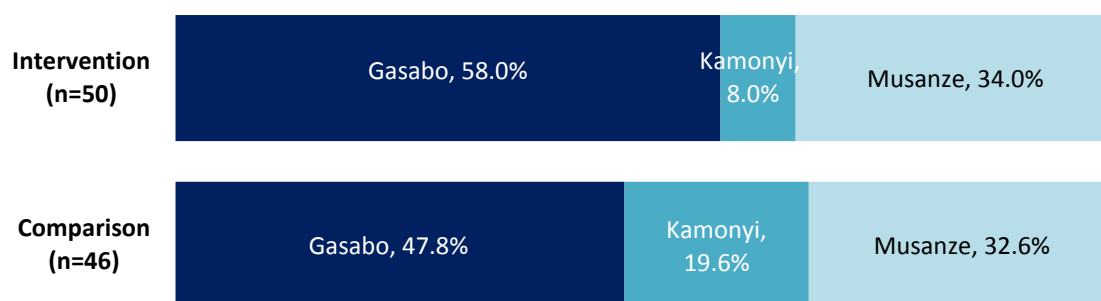


Analysis of learners’ age showed that on average, learners from both groups had a mean age of 5.5 years old. Learners in the intervention group varied slightly more than the comparison group, with

learners ranging from 4 to 7 years old, although the majority (48%) were 5 years old. Learners in the comparison group were fairly evenly divided between 5 year olds (45%) and 6 year olds (54%).

Students were selected from ECD centers in three districts: Kamonyi, Gasabo, and Musanze. While the assessment was expected to be conducted in 4 districts, in fact at survey implementation it was realized that selected ECD centers in the fourth district, Burera, did not have ECD level 3. Nearly half of the learners from the comparison group and 58% of learners in the intervention group participating in the study are located in Gasabo area. About a third of learners in both groups are located in Musanze; the remaining learners are located in Kamonyi (See Figure 26). For the purpose of urban/rural analysis, centers in Gasabo were classified as “urban” and centers in Musanze and Kamonyi were classified as “rural.” Given this classification, for both groups, there was a near even distribution of learners from rural and urban areas.

Figure 26. Regional Distribution of Learner Sample



LITERACY ASSESSMENT RESULTS

Overall Findings

To assess learners’ pre-literacy skills, an assessment was conducted at the baseline and endline for both groups. The assessment was conducted in Kinyarwanda and tasks were not timed. The literacy assessment was comprised of the following seven tasks:

1. **Conversation skills:** children were asked six simple questions, such as “What do you like to do?” and “How old are you?”
2. **Common vocabulary words:** children were asked to perform simple actions and their understanding of the vocabulary of the request was assessed (e.g., “Point to your face,” “Point to a chair”)
3. **Alphabet recitation:** children were asked to recite the alphabet.
4. **Alphabet reading:** children were asked to read the letters of the alphabet, written on a student handout. All letters were capital letters and they were presented out of order.
5. **Concepts of print:** children were shown a book and then asked five questions about reading a book, such as “Show me in which direction you would read the text”.
6. **Comprehension and vocabulary:** children were read a short story and then asked five questions about the story.
7. **Pre-writing skills:** students were asked to draw a circle, a cross, and a letter A.

An analysis of the assessment results showed on average an excellent level of foundational literacy skills for children participating in both the intervention and comparison groups. Children demonstrated close to perfect results on conversational skills, common vocabulary knowledge, and pre-writing skills at the post-test. Children also scored on average between 75 and 95 percent correct on alphabet recitation. The subtest on which children scored the lowest was reading of the alphabet letters: children on average were able to read only about half of the letters at post-test.

The table below shows the average literacy sub-test results at post-test for the intervention and comparison groups. For tasks that children demonstrated high levels of achievement – conversational skills, common vocabulary words, and pre-writing skills – there was very little variance in student scores. However, for the other tasks, there were large standard deviation values for these subtests, indicating a large variability in student scores.

Table 10. Overall Literacy Subtest Results at Post-test, by Group

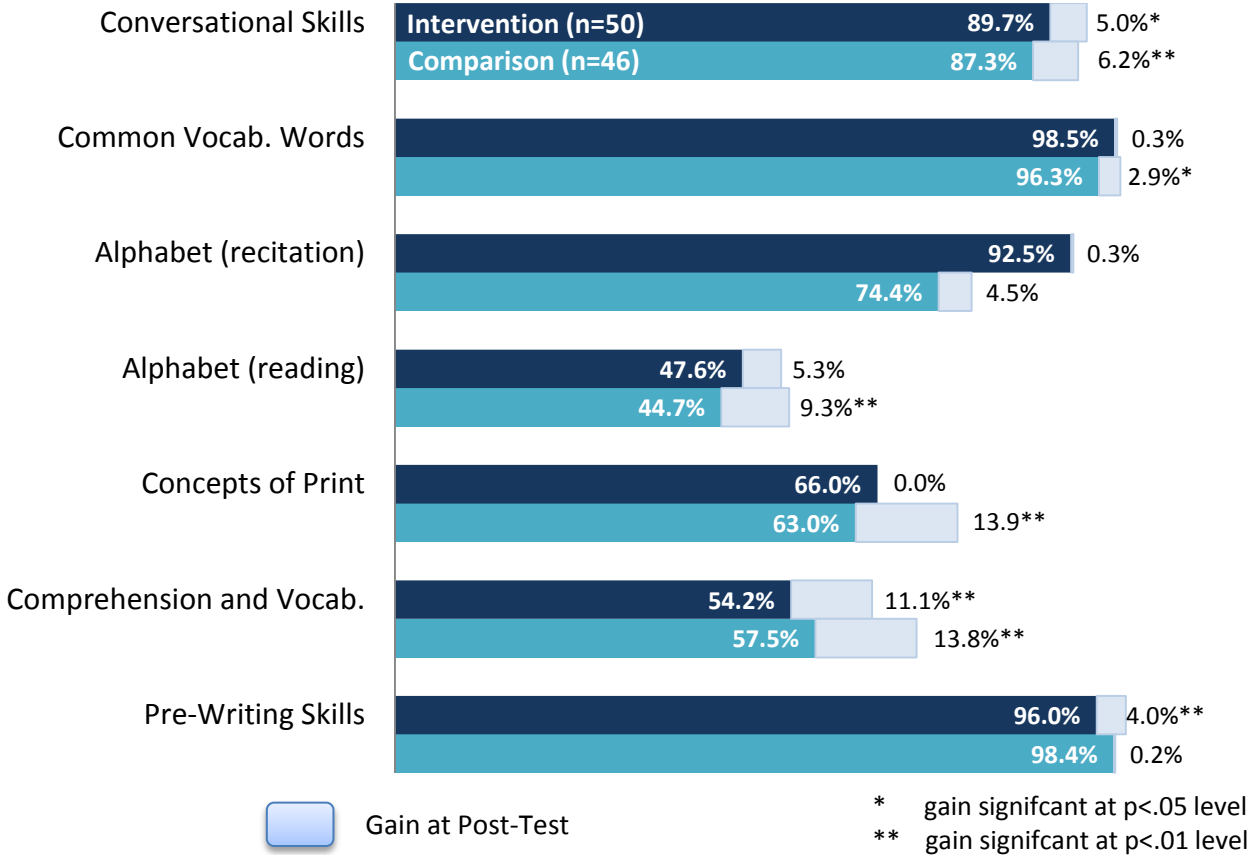
Task	Subtest	Intervention (n=50)		Comparison (n=46)	
		Mean	SD	Mean	SD
1	Conversational Skills (percent correct)	94.7%	9.2%	93.5%	8.9%
2	Common Vocab. Words (percent correct)	98.8%	2.6%	99.2%	2.1%
3	Alphabet recitation (percent correct)	92.8%	21.7%	78.9%	38.6%
4	Alphabet reading (percent correct)	52.8%	44.1%	54.0%	46.4%
5	Concepts of Print (percent correct)	66.0%	26.3%	77.0%	31.0%
6	Comprehension and Vocab. (percent correct)	65.3%	21.1%	71.3%	27.8%
7	Pre-writing Skills (percent correct)	100.0%	0.0%	98.6%	5.6%

The figure below shows the average scores of children in the intervention and comparison groups for all seven subtests at pre-test and the average gain at post-test. Analyses of data by subtest showed that children in both groups performed similarly. The comparison performed better than the intervention group in Concepts of Print and Comprehension and Vocabulary, however, the differences were not statistically significant. For all other subtests, the groups performed similarly. At the endline, only one sub-test showed significant differences in performance between the intervention and comparison groups – *Task 3a Alphabet (recitation)* – where learners in the intervention group performed better than the learners in the comparison group. On average, learners in the intervention group were able to recite 92.8% of the alphabet correctly, compared to 78.9% for the comparison group (this difference was statistically significant at the $p < .05$ level). It is important to note that although children in the intervention and comparison cohorts were given the same literacy assessment, the length in time between pre-test and post-test differed due to schools closing early for the holidays. As such, the period between the two assessments for the

Students in the intervention group performed significantly better in alphabet recitation than their comparison counterparts at post-test.

comparison group was on average 6 weeks longer than that of the intervention group. Given the differences in time between pre and post-test as well as the additional instruction that children in the comparison cohort received during that additional 6 weeks, it is impressive to note how well the intervention group performed compared to the comparison group. In fact, the intervention group outperformed the comparison cohort in 3 out of the 7 sub-tests. For all other subtests the intervention group performed similarly to the comparison group despite the fact that they were assessed after roughly two months instead of after roughly 3.5 months as was the case for the comparison group.

Figure 27. Average Percent Correct on Literacy Sub-tests, by Group at Pre-test and Post-test

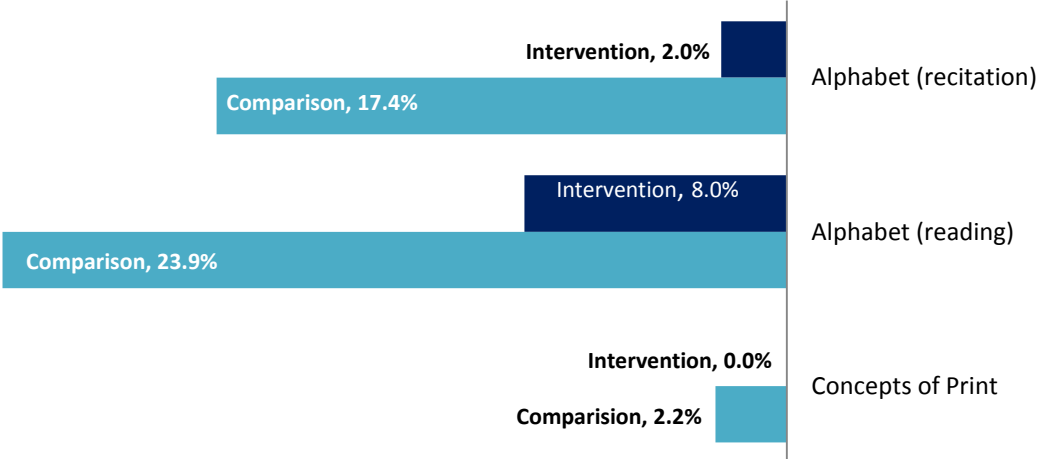


Analysis of gains from pre-test to post-test showed that students for both groups saw small gains from pre-test to post-test on nearly every literacy sub-test. Since children from both groups had high achievement on the tasks at the pretest, it is expected that there would be little growth found between the two measurements. Overall, average gains were slightly larger for the comparison group than the intervention. However, this is likely due to the fact that the length in time from pre-test to post-test for the comparison group was on average 6 weeks longer than the intervention group. As such it is not surprising that the comparison group would have larger gains.

The intervention group saw statistically significant gains⁸ in basic conversational skills ($p < .05$) and comprehension and vocabulary and pre-writing skills ($p < .01$). The comparison group saw statistically significant growth at $p < .01$ level in conversational skills, alphabet reading, concepts of print and conversation and vocabulary. Additionally, the comparison group demonstrated growth that was statistically significant at $p < .05$ level in the common vocabulary words subtest.

The percent of children that scored zero percent on literacy sub-tests was analyzed. At the post-test no children scored 0% in conversational skills, common vocabulary words, comprehension and vocabulary and pre-writing. For the remaining sub-tests – alphabet recitation, alphabet reading and concepts of print— some learners from both groups had zero scores. As the graph below shows, larger percentages of students in the comparison group had zero scores for all subtests. For both groups, alphabet reading had the highest amount of zero scores with nearly a quarter (23.9%) of students from the comparison group scoring 0% on the subtest and 8% of students from the intervention group. Additionally, the comparison group also had a large percentage (17.4%) of learners who were unable to recite a single letter in the Alphabet recitation subtest.

Figure 28. Percent of Tested Learners Scoring Zero on Literacy Subtests at Post-test

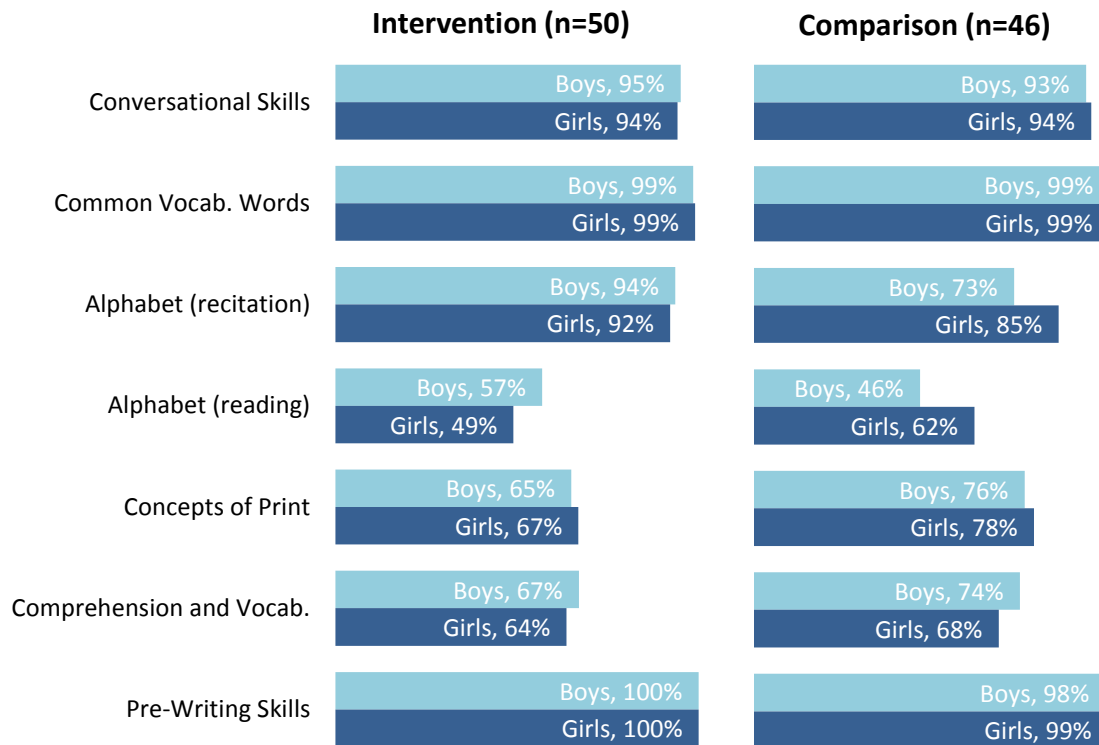


Findings by Sex and Urban/Rural

A comparison by sex showed that girls did better than boys on almost all subtests; though, the difference was not statistically significant. When disaggregated by sex and group, girls in the comparison group performed better than boys in most literacy subtests. However, in the intervention group, the reverse is true, with boys performing slightly better in nearly every literacy subtest.

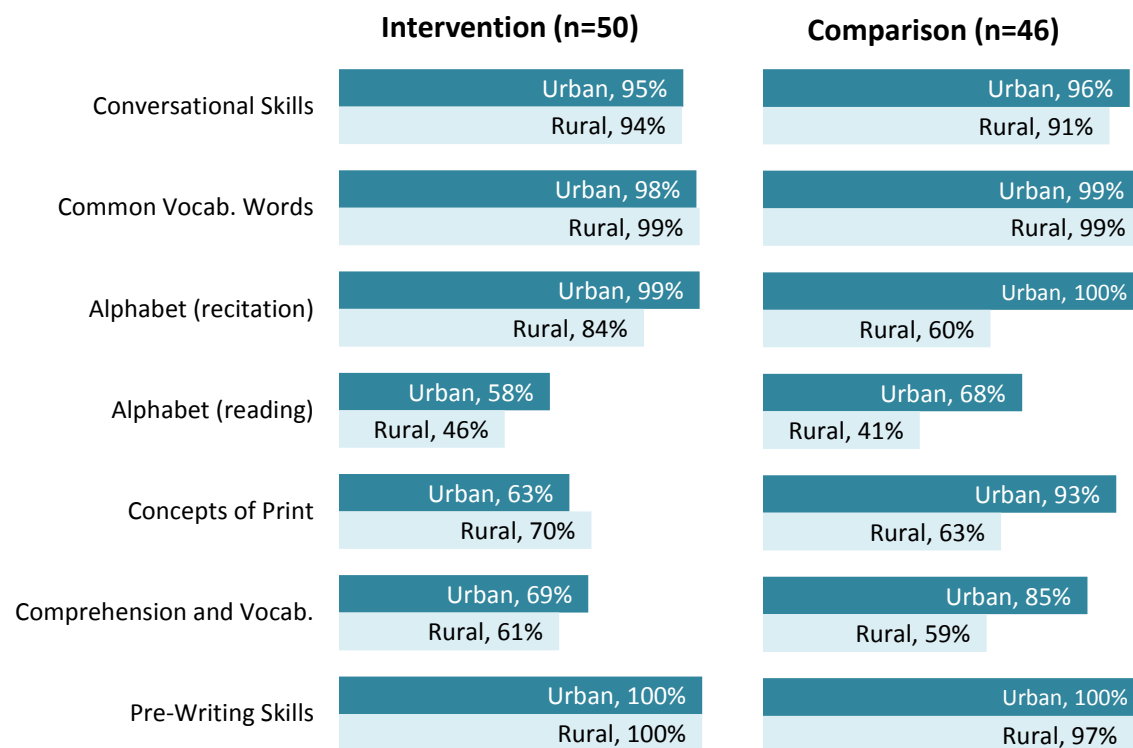
⁸ Comparison of means (paired sample T-test)

Figure 29. Average Literacy Subtests at Endline, by Group and Sex



The figure below shows average achievement on literacy subtests among children in urban and rural areas by group. Analyses of data by urban versus rural area showed that children in urban ECD centers did a little better in nearly every subtest. However when compared by group, these differences in literacy scores between rural and urban learners show an interesting trend. The comparison group showed statistically significant differences in learner achievement between urban and rural areas in five out of the seven subtests. Interestingly, the difference in performance between rural and urban learners in the intervention group is less distinct, with rural and urban learners performing relatively the same in most sub-tests. In fact, only one sub-test (Alphabet recitation) showed a statistically significant difference in scores between rural and urban areas. This finding suggests that the holistic, child-centered approach used in the intervention may in fact contribute to reducing disparities in learner performance between rural and urban areas in literacy tasks.

Figure 30. Average Literacy Subtests at Post-Test, by Group and Urban/Rural Area



Further analysis of the urban-rural gap in literacy achievement scores, supports this finding. For both the intervention and comparison groups, learners in urban areas begin at pre-test with higher achievement levels on literacy sub-tests than rural learners.

In the intervention group, analysis shows the gap between rural and urban learners in literacy achievement closing from pre-test to post-test, with rural learners largely catching up to urban learners. Conversely, in the comparison group this gap widened from pre-test to post-test.

At post-test, in the comparison group, learners in urban areas on average see larger gains from pre-test to post-test than those in rural areas. Given that urban learners started out with higher scores, these larger gains for urban learners result in the widening of the gap in literacy performance between urban and rural areas. Conversely, in the intervention group, the opposite is true. Analysis shows the gap between rural and urban learners in literacy achievement

closing from pre-test to post-test, with rural learners largely catching up to urban learners in a very short time. These results suggest that a holistic, child-centered approach to pre-primary may help in closing the gap in literacy performance between rural and urban learners. Additional research and analysis is needed to better understand this phenomenon.

NUMERACY ASSESSMENT RESULTS

Overall Findings

The assessment of foundational numeracy skills was developed on the basis of the Early Grade Mathematics Assessment and adapted for use in Rwandan early childhood centers. It consisted of five subtests:

1. **Counting:** children were asked to count upwards beginning with 1.
2. **Adding objects:** children were given 20 stones and were asked five questions about adding stones.
3. **Number pairs:** the assessor had some fingers up and some fingers down; children were asked to identify how many fingers were up.
4. **Number identification:** children were shown a list of 30 random one and two-digit numbers and asked to identify them.
5. **Shape recognition:** children were shown a page with various geometric shapes and asked to count circles, triangles and rectangles.

Assessment of foundational numeracy skills showed that children in both the intervention and comparison group performed well on the five numeracy subtests. Assessed children performed very well in counting, number pairs and shape recognition. Children scored between 65% and 75% on number identification. Students performed the worst in the adding objects subtest, where on average students answered between 50 and 60% correct at the post-test.

The table below shows the average numeracy sub-test results at post-test for the intervention and comparison groups. For nearly all subtests there were large standard deviation values, indicating a large variability in student scores. The largest variance for both groups in student scores was in Adding Objects and Number Identification.

Table 11. Overall Numeracy Subtest Results at Post-test, by Group

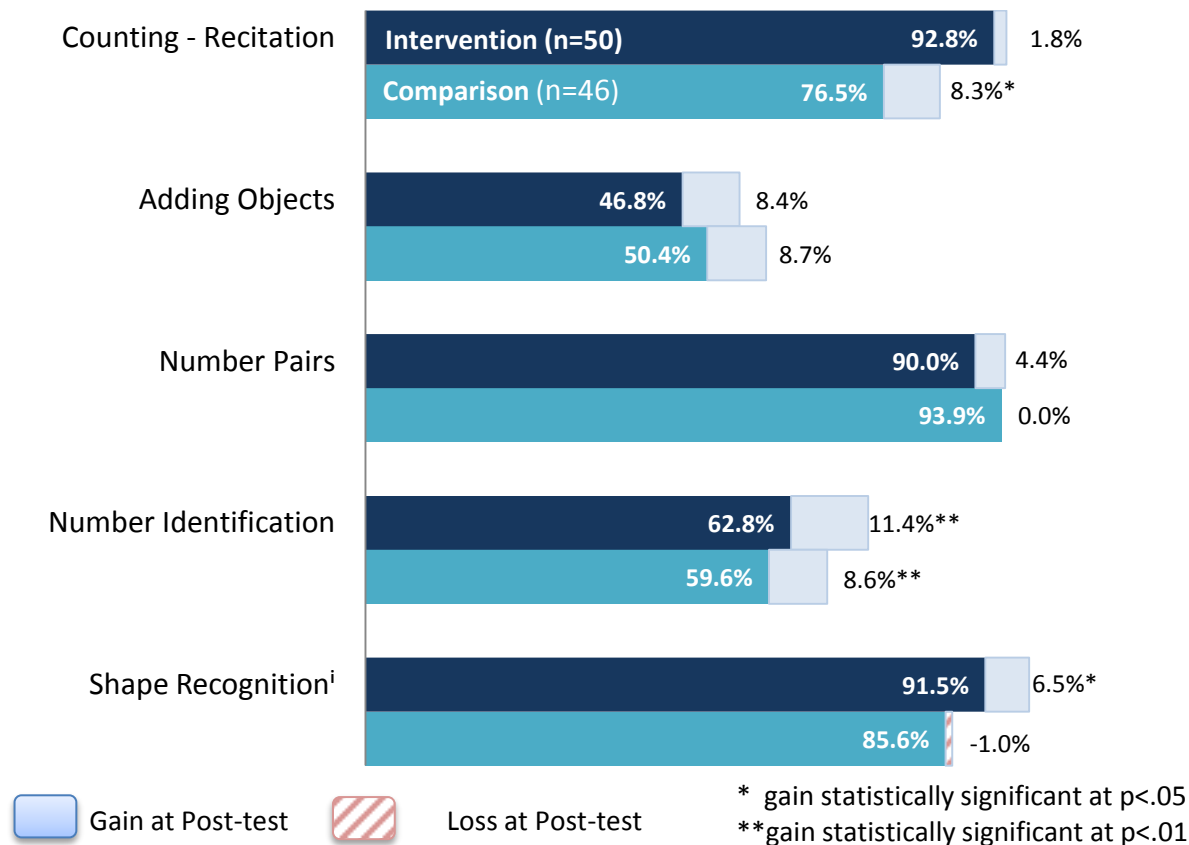
Task	Subtest	Intervention (n=50)		Comparison (n=46)	
		Mean	SD	Mean	SD
1	Counting (percent correct)	94.6%	14.5%	84.8%	25.6%
2	Adding Objects (percent correct)	55.2%	30.4%	59.1%	35.8%
3	Number Pairs (percent correct)	94.4%	18.1%	93.9%	16.3%
4	Number Identification (percent correct)	74.2%	24.6%	68.2%	34.5%
5	Shape Recognition (percent correct) ⁱ	97.9%	6.1%	85.6%	19.1%

ⁱ This sub-test had additional missing data. The sample for this sub-test is as follows: Intervention (n=43); Comparison (n=34).

Similar to the literacy assessment, it is important to note that despite the fact that the period between the pre-test and post-test assessments for the comparison group was on average 6 weeks longer than that of the intervention group, analysis of post-test results by group showed that the intervention group performed significantly better than the comparison group in Counting-recitation ($p < .05$) and Shape

recognition ($p < .001$). The intervention group also had higher average scores in Number Pairs and Number Identification; however, the differences were not statistically significant. The comparison group only outperformed the intervention group in one sub-test, Adding Objects; however, the difference was not significant. Given the differences in time between pre and post-test as well as the additional instruction that children in the comparison cohort received during that additional 6 weeks, it is impressive to note how well the intervention group performed compared to the comparison group.

Figure 31. Average Scores on Numeracy Sub-tests, by Group at Pretest and Post-test



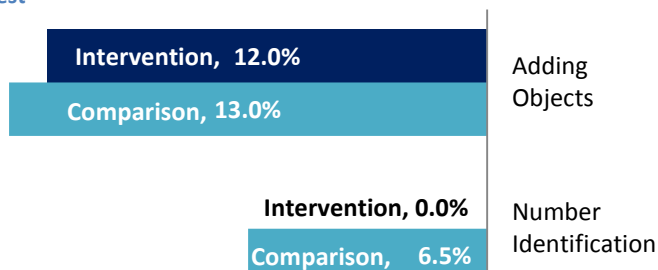
ⁱ This sub-test had additional missing data. As a result the sample is smaller for this sub-test. Intervention (n=43); Comparison (n=34).

Children improved in all subtests but one between the pre-test and the post-test. Overall, the intervention group saw significant gains in sub-test scores in number identification and shape recognition. While the comparison group similarly saw significant gains in number identification, as well as counting recitation, which is not surprising given that the teaching pedagogy in comparison schools focused largely on rote memorization. The figure above shows the pre-test scores and gains at post-test for all five sub-tests.

The figure to the right shows the percent of learners who scored zero percent on the numeracy subtests at post-test. Generally, on numeracy subtests there were very few students who were unable to answer any questions on the numeracy subtests. For the counting, number pairs, and shape recognition

subtests, no students had zero scores. Only 6.5% of learners in the comparison group could not identify a single number. The subtest that was the most challenging for learners in both groups was the Adding Objects subtest; roughly one in ten students were unable to add objects at the post-test.

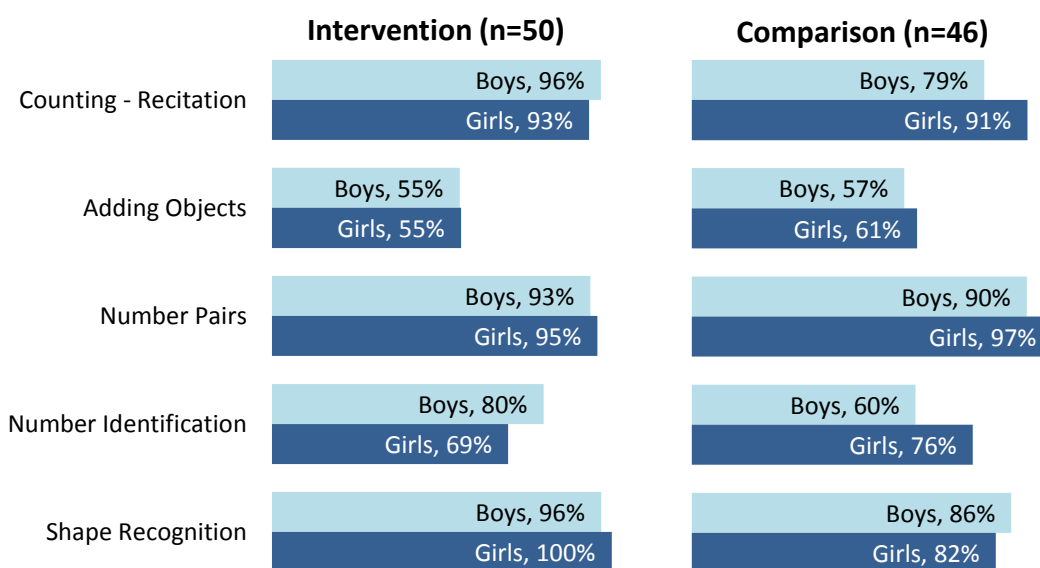
Figure 32. Percent of Learners with Zero Scores on Numeracy Subtests at Post-test



Findings by Sex and Rural/Urban

Girls in the comparison group are outperforming boys on all numeracy subtests. As for the intervention group, results are mixed with girls outperforming boys in some tasks and vice versa. However, differences between boys and girls were not statically significant. The figure below shows the distribution of average scores at endline of boys and girls across the five numeracy subtests by group.

Figure 33. Average Numeracy Subtests at Endline, by Group and Sex



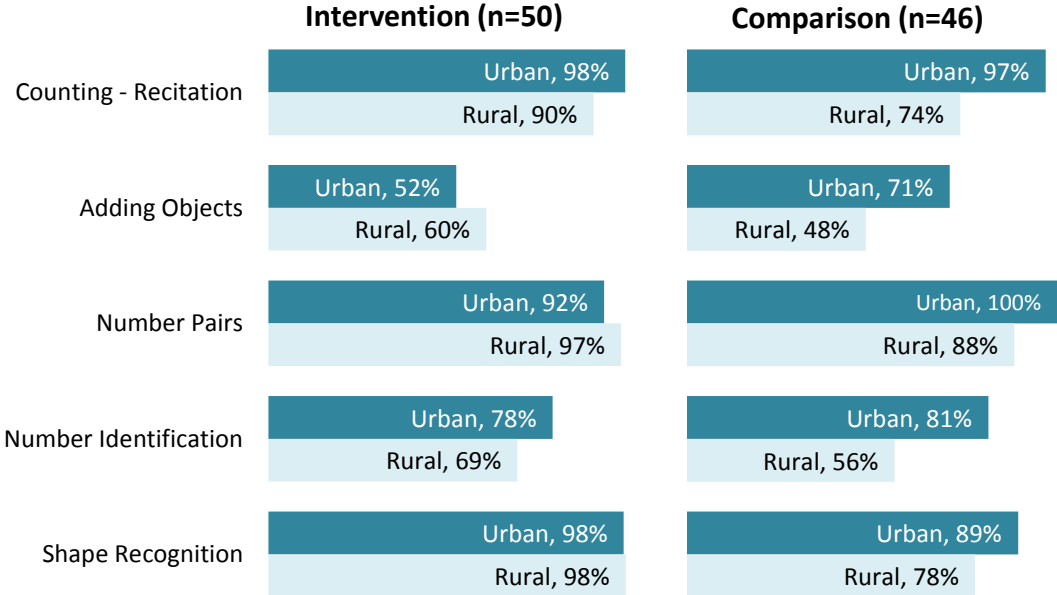
Similar, to the literacy subtests, an urban/rural comparison showed that children in urban centers in the comparison group scored significantly higher than children in rural areas on all subtests. The difference was statistically significant for all subtests except for the shape recognition subtest. As for the intervention group, rural learners and urban learners performed relatively similarly. In fact, in Adding Objects and Number Pairs, rural learners outperformed their urban counterparts. The differences between numeracy achievement scores for rural and urban learners were not statistically significant.

Additional analysis of gains from pre-test to post-test and the gaps between urban and rural learners show similar trends to what was seen on literacy tests. At pre-test children in urban centers for both groups began at substantially higher numeracy achievement scores on all subtests. However, in the intervention group, by post-test that large gap in numeracy achievement between urban and rural

children had decreased substantially. In fact, rural learners had largely caught up to urban learners at post-test. Conversely, in the comparison group, although the gap closed slightly in three out of the five subtests, rural children continued to fall behind in numeracy performance compared to children in urban centers. Given these trends, these findings suggest that the holistic, child-centered approach used in intervention ECD centers may have contributed to closing the gap in numeracy achievement between urban and rural children.

The chart below shows the average scores across the five numeracy subtest at post-test (See Figure 34). Scores from the post-test were used to illustrate differences between skill levels of children in urban and rural centers for both the intervention and comparison groups.

Figure 34. Overall Mean Results of Math Assessment at the Post-test, by Urban/Rural Area



NON-COGNITIVE DEVELOPMENT OF CHILDREN IN INTERVENTION ECD CLASSROOMS

School readiness is a broad term which includes physical readiness, and emotional and social maturity for entry into the schooling system in addition to cognitive development. To assess whether children who attended pre-school in ECD classrooms with trained caregivers in the intervention group demonstrated physical and social emotional development, a survey was administered with youth caregivers in March 2015. They were asked to assess the school readiness skills of children in their classroom during the course of their internship. Given time constraints, surveys were not administered to caregivers in the comparison cohort and as such results cannot be compared between the two groups.



JCP Trained Caregiver and children in Burera

Overall Results

A key assumption of the IfE project is that when youth trainees are placed in internships as ECD caregivers that they will be able to interact with the children and utilize the evidence-based holistic approaches to ECD that they learned through the program, which will ultimately result in the holistic development of children in their classrooms. Nearly all (99.3%) of trainees reported that they were able to use the ECD knowledge that they learned in the Junior Caregiver Program training in the classroom during the course of their internship. The figure below provides the breakdown of the types of ECD practices and methods that caregivers were able to use in the classroom. The majority of caregivers

reported being able to use the ECD practices/methods that they learned in training in their classroom, such as, developing meaningful relationships with children, social emotional teaching strategies, and positive discipline.

Figure 35. ECD practices used in the classroom (n=150), multiple response

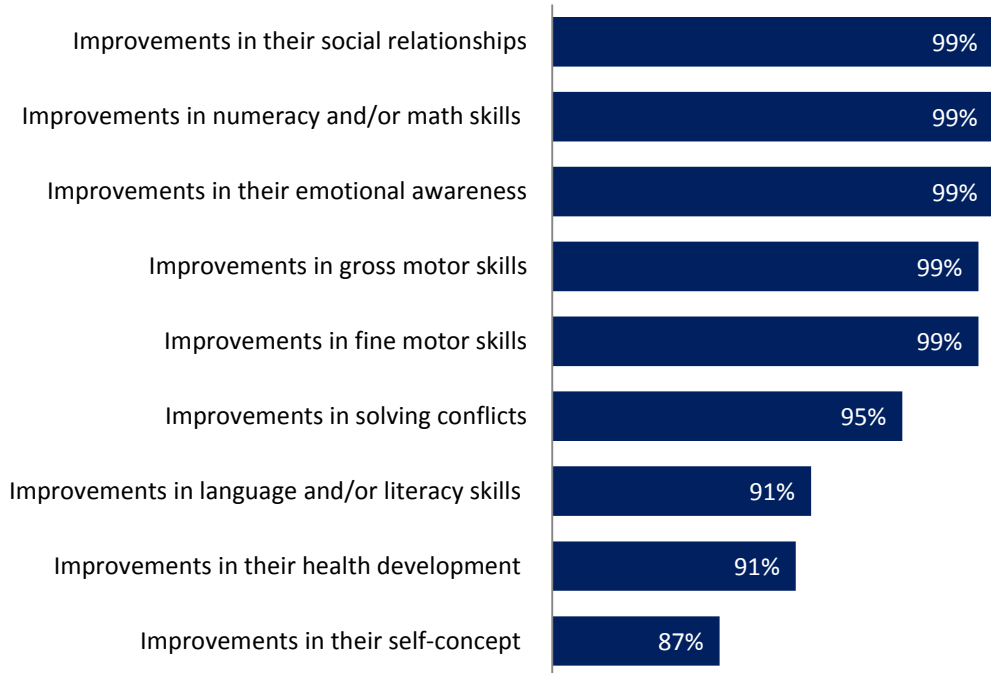


Given that the majority of caregivers (88.7%) frequently interacted and taught the children in their classroom and were able to use ECD knowledge and methods learned through training in the classroom, it can be expected that the holistic ECD practices and methods they used during their internship contributed to student gains and development given their extensive interaction with the children.

Nearly all trainees (99.3%) reported that they saw gains and/or skill development in the children in their ECD classroom during the course of their internship. The figure below shows the domains in which caregivers reported seeing gains. Overall, caregivers in intervention classrooms largely felt that children in their ECD classrooms experienced knowledge gains and/or skill development in many of the key developmental domains, including physical development (gross motor skills, fine motor skills) as well as social emotional development (social relationships and behavior, solving conflict, and emotional awareness).

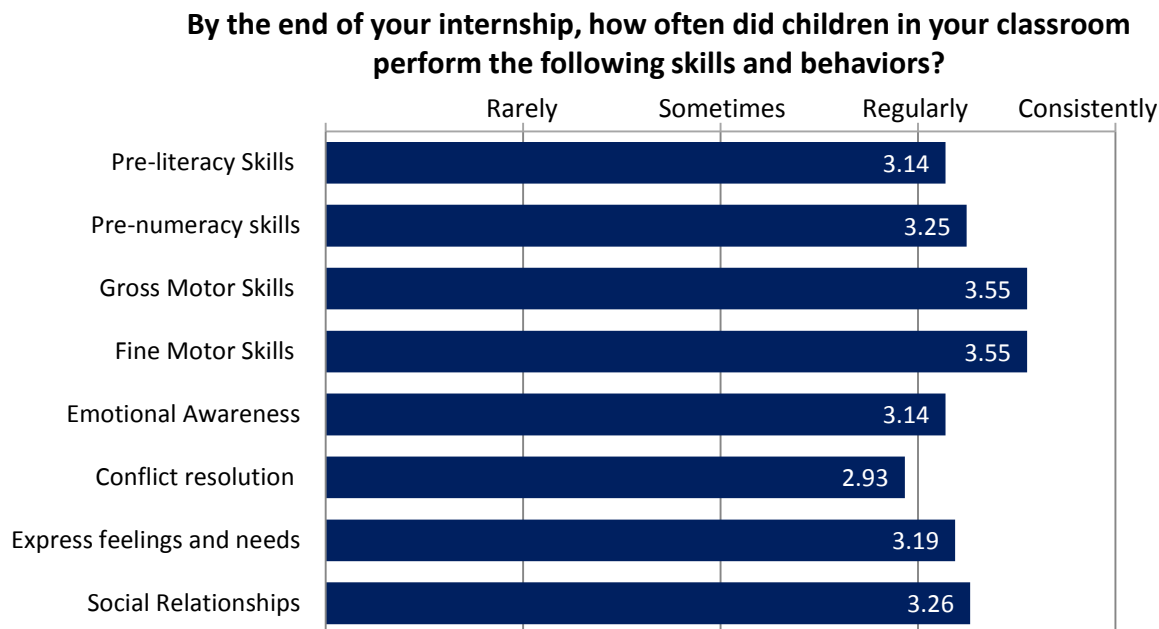
Figure 36. Caregiver observed improvements in school readiness, multiple response (n=150)

What types of improvements in knowledge/ skills did you see during the course of your internship at an ECD center?



To assess how far children in their classrooms progressed in these key developmental skills, caregivers were also asked how often children in their class performed these skills. Caregivers reported that overall, they felt that children in their classrooms performed key school readiness skills regularly. Particularly, caregivers indicated that children demonstrated gross and fine motor skills, with nearly two-thirds of caregivers who said that children in their classroom had mastered these skills and performed them consistently and accurately. For all key domains, less than 10% of caregivers responded that they felt children in their classrooms performed these skills rarely.

Figure 37. Competence level of children in key School Readiness Skills as Observed by Caregiver (n=150)



Caregivers in the intervention group felt that children in their classrooms demonstrated skills and development in key domains for school readiness including physical development and social emotional development. These sentiments were echoed by Center Directors whom reiterated that they observed large changes and development in the children in intervention ECD classrooms. Center Directors noted that they witnessed improvement in children’s social development with children interacting with each other better than before.

Overall, findings from the assessment of children’s cognitive (literacy and numeracy) and non-cognitive development (physical and social emotional development) suggest that the holistic play-based methods used by caregivers in the intervention group have resulted in children performing similar, if not better, than children in the comparison group who were exposed to rote learning. As seen in previous sections, children in the intervention group performed on average the same as comparison children on literacy tests and better than comparison children on numeracy tests. This finding demonstrates that holistic play-based ECD instruction does not take away from important cognitive development (literacy and numeracy skills). In fact, as seen in the results above, children in intervention classrooms saw all the same cognitive gains, as well as, non-cognitive development as well.

IfE Case Study: Holistic ECD Methods Promote School Readiness in the Classroom

Perched atop a hill in a remote village in Kamonyi District sits the Nyagihamba Primary School. At the end of a neat row of classrooms is a dirt floor building where about 70 five and six year olds sit at colorful little tables. At the head of the classroom is Violette Uwizize, aged 25, a graduate of the IfE caregiver training program.



Violette Uwizize, ECD caregiver at Nyagihamba ECD Center in Kamonyi, Rwanda

Violette graduated from secondary school in 2012 and hoped to start university, but for financial reasons could not continue her education. She found part-time work as a caregiver's assistant at the Nyagihamba ECD center and joined the IfE caregiver training program in 2013 with the hopes of learning the techniques to better prepare children in her area for primary school. The director of Nyagihamba Primary School was struggling to find qualified ECD caregivers and was enthusiastic about having Violette gain her certification and return to the school to teach on a full-time basis.

By 2017, the Rwandan government is requiring an ECD center in every cell (small local unit) of the country, yet schools are still hard struck to find the space for new children and qualified early childhood education teachers. Furthermore, since nursery school is not yet under the mandate of the Ministry of Education, early childhood education is not free and parents are responsible for paying the teachers' salaries. The Director of Nyagihamba Primary School applauded the Government's policy, yet expressed concern about the instability of a system that requires payment from families that struggle to afford 500 RWF (71 USD cents) a month for tuition. "If we are training new caregivers, we need to ensure that they can be employed and fairly paid for their work," explains the Director. "Violette is doing a great job and the children love her, but I know that if she got an offer of more stable employment then I would probably lose her."

The Director can see the difference that Violette has made with the children and parents have also commented on the positive changes in their children. "She is professional and has a plan every day. She uses games and does not rely on primary school methodologies," explains the Director. Violette has also seen changes in the children since she started working. The children's attention span has increased and they are more engaged in the activities. Additionally, she notes, the children are more comfortable with a caregiver that treats them with respect and empathy rather than beatings and scoldings.

Violette sees her job as an ECD caregiver not only as an educator, but also as a role model of good social behaviors. "Part of being a nursery school teacher is helping children gain knowledge, but another big part is teaching them how to behave. Good social competencies are the foundation of being able to learn and listen in the classroom," says Violette. Completing the IfE caregiver certification program allowed Violette to gain employment in something she enjoys, while also achieving her goal of helping the children in her area.

When asked what their favorite part of school is, a few confident little hands shoot in the air. "Singing," says the first. "Writing," says the second and demonstrates how she can draw on the chalkboard. When asked how they would describe their teacher, the answers are almost all the same: "We love her because she teaches us so nicely."

COMMUNITY/POLICY LEVEL IMPACTS

In addition to addressing female unemployment and improving school readiness of children, another key component of the IfE project was to garner support for holistic play-based ECD instruction in Rwandan communities. The project's approach was two-fold: addressing the government needs of implementing their ECD policy, while raising awareness and mobilizing parents and communities to support holistic ECD programs. The first is addressed through collaboration with the Workforce Development Authority (WDA) to align the caregiver training curriculum to the formal TVET system. At the parent and community level, the project aimed to raise awareness of best practices in ECD instruction and to mobilize parents, and community leaders as well as other stakeholders to support holistic ECD programs.

Interviews and FGDs were held with government officials, ECD Center Directors and parents to gauge their support for holistic ECD instruction as a result of the project. The results are detailed in the following sections.

COMMUNITY IMPACT OF PROGRAM

The project looked at centers directors, and parents as one of the key constituencies of ECD programs. Their understanding of ECD and support has been vital in influencing the success of the innovation. EDC also organized a workshop with ECD center directors and other key stakeholders to broaden their understanding of what is a play-based ECD approach. EDC designed a five-day training, adapted from the trainer manual. The training was facilitated by EDC master trainers and CEAPS Center Director in four sites (district). In total, 112 people participated in the training including: center directors (CDs) from selected centers, parent representatives (PR) from each selected center, community health workers (CHWs) at sector level, sector education officers (SEOs) and representatives from faith based organizations (FBOs).

Center directors and parents were interviewed once after the 5-day training and then again the end of the ECD internship to gauge perceptions of holistic play-based ECD methods as well as their opinions of the Junior Caregiver Program.

ECD Center Directors

Overall, findings from FGDs and a qualitative survey with ECD center directors found that through ECD training and participation in the project, there has been a shift in their perception on ECD instruction. For instance, before the project began, most center directors did not differentiate between an ECD approach to children's development, and a primary school approach, thus focusing solely on cognitive development. With training, their views changed. The majority of center directors now understand the holistic and play-based approach to ECD as well as the learning environment in general.

Overall, center directors reported being very impressed with the caregivers who interned in their centers. ECD center directors noted that they witnessed a difference in the teaching methods of the JCP trained caregivers and the existing caregivers particularly their increased interaction with the children in their classroom, their use of positive discipline instead of punishment and their use of lesson planning. Additionally, center directors noted improvements in the children in classrooms taught by JCP trained caregivers, including children's interest in learning improving, absenteeism decreasing, and improved social development of children.

Interviewed center directors reported increased support for holistic play-based ECD instruction in the ECD centers and welcomed the new play-based ECD teaching methods. Directors were impressed by the play-centered approach displayed by trained caregivers. In fact, the directors requested the training be replicated with their current caregivers. In some ECD centers, center directors have already started training existing caregivers in the use of the new play based ECD teaching methods.

Parents

Interviews with parents of children in classrooms with JCP trained ECD caregivers showed that parents were largely in support of play-based ECD methods. Parents were impressed with the changes in their children, particularly their children's increased interest in learning.

Parents also reported being inspired by the new play based methods and are beginning to mobilize other parents on the importance of interacting with their children through play in order to foster holistic development. In fact, new ECD programs have started emerging with the support of parents. Currently, over 10 ECD centers or daycares initiated by trained caregivers with mobilization and support of parents have been registered.

"I am nowadays encouraging other parents to play with their kids because I now know the importance of games in holistic development of any child."

Parent from Kampanga

POLICY LEVEL IMPACTS OF PROGRAM

In 2011, the Ministry of Education (MINEDUC) found that less than 10% of children from 3 to 6 years of age were able to access some form of learning opportunities. Furthermore, the National Skills Audit Report found that, *"In the pre-primary category, there are no managers; no trained pre-primary teachers and no administrators. The gap is reported at almost 100%."* With these needs in mind, the Government of Rwanda created an aggressive ECD Policy and Strategic Plan for the years 2011/12-2015/16. The Policy states that by 2017, there will be an ECD center established in each sector of Rwanda.

With this increase in ECD centers comes a great need for trained and certified ECD teachers and caregivers. The Workforce Development Authority (WDA) approached EDC about potentially aligning the Junior Caregiver Curriculum with the formal TVET system in order to create new occupational tracks.

The National Employment Program (NEP), part of WDA’s strategic plan, has a target of creating 200,000 new jobs every year. Creating new jobs is what JMV Muhire, the Head of Curriculum Development at WDA, saw in EDC’s curriculum. Not only does the curriculum provide early childhood education skills, but also offers work readiness training and he saw the potential to train qualified young people in the field of ECD and related industries.

On March 4th-6th, 2015 high ranking authorities from MINEDUC, Rwanda Education Board (REB) and WDA sat down with EDC technical staff to identify possible occupations where the curriculum could be used, and align the occupations with the TVET qualification framework. A list of 19 occupations was created (See Figure 38 below). In an individual interview, Mr. Muhire explained that this list of occupations includes some new jobs as well as occupations that exist, but lack formal training. He continued by saying that the Junior Caregiver Curriculum can be the foundation for these professional courses and the curriculum development committee can build off of it for tracks that require additional training.

Figure 38. List of new TVET occupational tracks that can use the Junior Caregiver Curriculum modules

Occupation	TVET Qualification Framework Level	Priority Level
Pre-school teacher	5	Highest priority
Qualified child care worker	5	
Pre/postnatal advisor/counsellor	5	
Nanny or mother’s helper	3	
Early childhood educator	6	
Domestic worker	1	Average priority
Toy fabricator	3	
Childhood psychotherapist	7	
Toy designer	6	
Disability pre-school teacher	5	
Child care center manager	6	
Midwife	6	
Unwanted pregnancy counsellor	5	
Childhood special needs advisor	6	
Out of school hour care worker	4	
Childhood nutrition worker	4	
Pre-marriage advisor	6	
Maternity support worker	5	
Nurse for early childhood centers	7	Less priority

The policy level support for the project extends beyond WDA. Jacques Habimana, the REB counterpart for this project, has seen for himself the positive impact of the program. He explains that the Government of Rwanda is highly committed to expanding early childhood education, but lacks the resources to train teachers and supply all of the centers that will be established in the next few years. As

the principal at Nyagihamba Primary School expressed, she feels the pressure to create a quality ECD center, but has had difficulties finding qualified early childhood teachers. Mr. Habimana has heard from numerous school principals that they would support a scale-up of the project. “Principals would replace their existing caregivers with IfE caregivers if they could,” he says. REB has created an ECD department at the Teacher Training Colleges, but Mr. Habimana understands that this is not enough to supply all the centers and is looking for other ways to train caregivers and sees the potential with EDC’s curriculum. “The work readiness modules make this unique from other curriculums like Save the Children or Plan International,” Mr. Habimana explained.

The partnership between WDA, REB and MINEDUC to maximize the curriculum in the formal education system and foster sustainability and country ownership is only in the beginning stages. During April 2015, the committee will develop an occupational analysis, competency standards and course structure for the new occupational tracks. The strong buy-in from policy makers has been an unexpected outcome for EDC, but as the project comes to a close, there is little doubt that policy makers will utilize the curriculum to move forward the government’s ECD policy.

CONCLUSIONS

This final evaluation report provides detailed analyses of the outcomes and results of the Innovation for Education Junior Caregiver Program on the ECD environment in Rwanda. The analysis of the data collected through this report enabled us to draw the following conclusions:

ECD Instruction in the Classroom.

As we discovered during the testing of the ECD students, the existing approach to early childhood development focuses on preparing children for school in literacy and mathematics. Centers employ experienced caregivers to work with children on early literacy and math skills. Instruction occurs mostly through rote, focusing on memorization of the alphabet, spelling of words, and simple number operations. Other aspects of early childhood development (such as psycho-social and emotional, fine and gross motor skills) are not included in practiced methodology. While children may be trained in pre-numeracy and literacy skills, our results show that current practices fall short of supporting the development of gross and fine motor skills and socio-emotional skills.⁹ Many current ECD caregivers are not trained in holistic ECD methods and as a result do not practice many evidence-based teaching practices that support children’s physical and social emotional development needs that are critical to developing “school ready” children.

Results from the evaluation suggest that despite the current gap in ECD instruction, extensive efforts are not required to address the need of holistic ECD instruction. As shown through this program, relatively inexperienced young women were able to be trained in holistic child-centered approaches to ECD and were able to utilize these practices in the classroom. Observations of trained caregivers showed that they perform a larger percentage of critical ECD practices in the classroom



⁹ Results of caregiver observation and ECD director and caregiver interviews

than existing ECD caregivers. However, findings suggest that additional practice may be needed to ensure that ECD methods are used consistently in the classroom by relatively inexperienced caregivers.

School Readiness of Children.

Based on the children’s knowledge assessment, the children in ECD centers have solid foundational literacy and numeracy skills. Assessment results showed that caregivers without formal teaching certificates can be as effective, if not more, in teaching pre-literacy and numeracy skills as caregivers qualified to teach primary. In addition to cognitive development, gains were seen in IfE intervention classrooms in many of the key developmental domains, including physical development (gross motor skills, fine motor skills) as well as social emotional development (social relationships and behavior, solving conflict, and emotional awareness). These results make a strong case for the use of holistic play-based ECD methods in the classroom, for as seen in the results above, children not only see cognitive gains similar if not better than children who are exposed to rote learning in the classroom, but also they see non-cognitive gains as well.

If Rwanda’s goal is to create a world-class ECD system, there is a great need for a more holistic approach that fosters cognitive, emotional, social, moral as well as physical development. Overall, the findings demonstrate that the Junior Caregiver Program was effective in improving the school readiness of pre-primary school children. As evidenced in the results above, children in intervention classrooms performed as well as children in the comparison classrooms. In fact, when results across both literacy and numeracy tests are averaged, children in the intervention group performed slightly better on average (81.8% compared to 79.1%) than children in the comparison cohort. Further, as demonstrated through high levels of ECD knowledge and the practice of holistic ECD practices in the classroom, JCP-trained caregivers have demonstrated that they have holistic play-based ECD knowledge and experience that others do not yet have, given that ECD instruction currently is not included in the TVET system.

Given the project’s focus on building support around holistic ECD practices at the community and policy level, the project has garnered extensive support for the expansion of holistic ECD instruction at both the community and policy level. ECD center directors and parents who participated in the program are recognizing the importance of a holistic approach to ECD and are increasingly demanding ECD trained caregivers. Parents and ECD directors expressed concerns over the lack of ECD training for current caregivers and, in support of the new techniques we introduced, have asked if caregivers not participating in the program can also undergo the holistic ECD training program. The project has also seen increased support and commitment at the policy level to embed the curriculum into the TVET framework. The JCP has also contributed greatly to the “holistic development discourse” in Rwanda. Discussions with the MINEDUC indicate that they find the JCP both timely and complementary to Rwanda’s Integrated Early Childhood Development Policy and Strategy (IECDPS). Interviews with government personnel have shown strong buy-in (WDA, MINEDUC, Rwanda Education Board), which provides little doubt that policy makers will utilize the curriculum to move forward the government’s ECD policy in the near future.

These findings show that the Junior Caregiver Program has not only set the groundwork for scale-up of a holistic play-based ECD program and the related certification, but also contributed to the sustainability

of program outcomes through the close collaboration and implementation of the program with MINEDUC, which ensures that the holistic ECD curriculum and practices will continue to be implemented in the future, in the ultimate hopes of continuing to improve school readiness of children after the JCP ends.

ANNEX A. INDICATOR RESULTS

Table 12. Indicator Results

Indicators	Baseline	Target	Result	Source of Evidence
1. Percent of trainees satisfied with training	0	100%	92.0%	Caregiver Follow-up Survey
2. Percent of trainees with increased knowledge of ECD as a result of training	0	100%	94.6%	Pre-test/Post-test assessment of participating youth knowledge of ECD
3. Number of trainees placed in ECD centers	0	200	158	MOU with ECD centers; transition tracking sheet with local partners
4. Percent of placed trainees applying ECD practices from the curriculum	0	85%	99.3%	Self-reported (Caregiver Follow-up Survey)
5. Percent of tested children with improved school readiness, compared with children in comparison centers	0	50%	58%	Assessment of 96 students from intervention and comparison groups

Notes:

- Caregivers were asked in a follow-up survey to respond to the following statement using the scale “strongly agree,” “agree,” “disagree,” or “strongly disagree”: Overall, the training met my expectations. Responses that included “strongly agree” and “agree” were coded as satisfied.
- Gains scores were calculated for the pre-test/post-test caregiver knowledge assessment. Caregivers that had a positive gain score were counted as having “increased knowledge of ECD as a result of training.”
- Count of trainees who were placed in ECD centers. The project did not meet the target of 200 trainees placed in internships due to higher than expected dropout. All caregivers who finished the caregiver program (158) were placed in internships at ECD centers.
- Caregivers were asked in a follow-up survey to answer the following question: “Were you able to use the ECD knowledge learned in the Junior Caregiver Program training in the classroom during your internship?” Caregivers who answered yes were counted in this indicator.
- A total score was calculated by averaging the 7 Literacy subtests and 5 Numeracy subtests. Children in the intervention group who scored higher than the average score in the comparison group (79.1%) were counted in this indicator.

ANNEX B. DESCRIPTION OF LITERACY AND NUMERACY ASSESSMENTS

Kinyarwanda Pre-Literacy Subtests

#	Subtest	Tasks	Results presented as
1	Conversation vocabulary	6 tasks	Percent correct ($\# \text{ correct} / 6 * 100$)
2	Common Vocabulary Words	20 words/phrases	Percent correct ($\# \text{ correct} / 20 * 100$)
3A	Alphabet knowledge (recitation)	24 letters	Percent correct ($\# \text{ correct} / 24 * 100$)
3B	Alphabet knowledge (reading)	24 letters	Percent correct ($\# \text{ correct} / 24 * 100$)
4	Concepts of Print	5 tasks	Percent correct ($\# \text{ correct} / 5 * 100$)
5	Comprehension and Vocabulary	11 tasks	Percent correct ($\# \text{ correct} / 11 * 100$)
6	Pre-writing skills: 3 tasks	1 to 4 points each, 12 maximum points	Percent correct ($\# \text{ correct} / 12 * 100$)
	Average score for all subtests	computed	All percent correct scores added up and divided by the number of the subtests

Numeracy Assessment Subtests

#	Subtest	Tasks	Results presented as
1A	Counting - Recitation	30 numbers	Percent correct ($\# \text{ correct} / 25 * 100$)
2	Adding Objects	5 tasks	Percent correct ($\# \text{ correct} / 5 * 100$)
3	Number Pairs	5 tasks	Percent correct ($\# \text{ correct} / 10 * 100$)
4	Number Identification	20 numbers	Percent correct ($\# \text{ correct} / 20 * 100$)
5	Shape recognition (3 shapes: circles, triangles and rectangles)	9 shapes	Percent correct ($\# \text{ correct} / 9 * 100$)
	Average score for all subtests	computed	All percent correct scores added up and divided by the number of the subtests

ANNEX C. STATISTICAL RESULTS – CHILD LITERACY KNOWLEDGE ASSESSMENTS

Table 13. Overall Literacy Knowledge Assessment Results, by Group

Task	Intervention (n=50)		Comparison (n=46)	
	Pre-test Mean (SD)	Post-test Mean (SD)	Pre-test Mean (SD)	Post-test Mean (SD)
Conversational Skills (pct)	89.7 (13.8)	94.7 (9.2)	87.3 (11.8)	93.5 (8.9)
Common Vocab. Words (pct)	98.5 (3.2)	98.8 (2.6)	96.3 (8.1)	99.2 (2.1)
Alphabet Recitation (pct)	92.5 (22.1)	92.8 (21.7)	74.4 (43.3)	78.9 (38.6)
Alphabet Reading (pct)	47.6 (43.7)	52.8 (44.1)	44.7 (43.9)	54.0 (46.4)
Concepts of Print (pct)	66 (27.2)	66.0 (26.3)	63 (31.5)	77.0 (31.0)
Comprehension and Vocab. (pct)	54.2 (21.4)	65.3 (21.1)	57.5 (27.3)	71.3 (27.8)
Pre-writing skills (pct)	96 (10.9)	100.0 (0.0)	98.4 (3.8)	98.6 (5.6)

Table 14. Literacy Knowledge Assessment Results, by Sex and Group

Task	Pre-test		Post-test	
	Boys Mean (SD)	Girls Mean (SD)	Boys Mean (SD)	Girls Mean (SD)
Intervention Group (n=50)				
Conversational Skills (pct)	87.5 (12.3)	91.7 (15.1)	95.1 (7.7)	94.2 (10.5)
Common Vocab. Words (pct)	99 (2.5)	98.1 (3.8)	98.5 (2.8)	99 (2.5)
Alphabet Recitation (pct)	89.4 (27.6)	95.4 (15.4)	93.6 (19.2)	92.1 (24.1)
Alphabet Reading (pct)	48.3 (42.7)	47 (45.5)	56.9 (44.1)	49 (44.6)
Concepts of Print (pct)	65 (29.6)	66.9 (25.3)	65 (27.8)	66.9 (25.3)
Comprehension and Vocab. (pct)	59.5 (20.2)	49.3 (21.7)	67 (20.7)	63.6 (21.7)
Pre-writing skills (pct)	98.6 (6.8)	93.6 (13.4)	100 (0)	100 (0)
Comparison (n=46)				
Conversational Skills (pct)	84.8 (13.2)	89.9 (9.7)	92.8 (9.8)	94.2 (8.1)
Common Vocab. Words (pct)	97.4 (5)	95.2 (10.3)	99.3 (1.7)	99.1 (2.5)
Alphabet Recitation (pct)	69.7 (46.4)	79 (40.5)	72.6 (42.1)	85.1 (34.6)
Alphabet Reading (pct)	43.3 (47.7)	46 (40.7)	46.4 (48.1)	61.6 (44.4)
Concepts of Print (pct)	62.6 (32.1)	63.5 (31.7)	75.7 (30.7)	78.3 (31.9)
Comprehension and Vocab. (pct)	61.7 (22.9)	53.4 (31)	74.3 (27.2)	68.4 (28.6)
Pre-writing skills (pct)	97.8 (3.7)	98.9 (3.8)	98.2 (7.1)	98.9 (3.8)

Table 15. Average Percent Correct on Literacy Subtests, by Group and Rural/Urban

Task	Pre-test			Post-test		
	Urban (Mean)	Rural (Mean)	Urban-Rural Gap ¹⁰	Urban (Mean)	Rural (Mean)	Urban-Rural Gap
Intervention Group (n=50)						
Conversational Skills	93.1%	84.9%	8.2%	94.8%	94.4%	0.4%
Common Vocab. Words	98.3%	98.8%	-0.5%	98.4%	99.3%	-0.8%
Alphabet Recitation	99.6%	82.7%	16.8%	99.3%	83.9%	15.4%
Alphabet Reading	56.6%	35.1%	21.5%	58.0%	45.6%	12.4%
Concepts of Print	69.7%	61.0%	8.7%	63.4%	69.5%	-6.1%
Comprehension and Vocabulary	59.9%	46.3%	13.6%	68.7%	60.6%	8.0%
Pre-writing skills	100.0%	90.5%	9.5%	100.0%	100.0%	0.0%
Comparison (n=46)						
Conversational Skills	87.9%	86.8%	1.1%	96.2%	91.0%	5.2%
Common Vocab. Words	98.9%	94.0%	4.9%	99.1%	99.4%	-0.3%
Alphabet Recitation	99.6%	51.2%	48.4%	99.8%	59.7%	40.1%
Alphabet Reading	53.2%	36.8%	16.4%	68.0%	41.1%	26.8%
Concepts of Print	77.3%	50.0%	27.3%	92.7%	62.5%	30.2%
Comprehension and Vocabulary	64.5%	51.1%	13.3%	85.1%	58.7%	26.4%
Pre-writing skills	99.6%	97.2%	2.4%	100.0%	97.2%	2.8%

¹⁰ Urban-Rural Gap = Urban mean – Rural mean

ANNEX D. STATISTICAL RESULTS – CHILD NUMERACY KNOWLEDGE ASSESSMENTS

Table 16. Overall Numeracy Knowledge Assessment Results, by Group

Task	Intervention (n=50)		Comparison (n=46)	
	Pre-test Mean (SD)	Post-test Mean (SD)	Pre-test Mean (SD)	Post-test Mean (SD)
Counting - Recitation	92.8 (17.8)	94.6 (14.5)	76.5 (28.5)	84.8 (25.6)
Adding Objects	46.8 (36.1)	55.2 (30.4)	50.4 (36.9)	59.1 (35.8)
Number Pairs	90 (24.3)	94.4 (18.1)	93.9 (16.3)	93.9 (16.3)
Number Identification	62.8 (29.1)	74.2 (24.6)	59.6 (39.7)	68.2 (34.5)
Shape recognition	92 (17.2)	97.9 (6.1)	84.2 (23.7)	85.6 (19.1)

Table 17. Numeracy Knowledge Assessment Results, by Sex and Group

Task	Pre-test		Post-test	
	Boys Mean (SD)	Girls Mean (SD)	Boys Mean (SD)	Girls Mean (SD)
Intervention Group (n=50)				
Counting - Recitation	91 (19.8)	94.5 (15.9)	96.4 (11.6)	92.9 (16.8)
Adding Objects	49.2 (34.4)	44.6 (38.1)	55 (34)	55.4 (27.3)
Number Pairs	88.3 (28.2)	91.5 (20.5)	93.3 (20.1)	95.4 (16.3)
Number Identification	64.8 (29.7)	61 (29.1)	79.6 (22.8)	69.2 (25.6)
Shape recognition	92.4 (16.2)	91.7 (18.3)	96.5 (8)	99.6 (2.2)
Comparison (n=46)				
Counting - Recitation	73.2 (29.5)	79.9 (27.6)	79 (29.2)	90.6 (20.5)
Adding Objects	48.7 (36.6)	52.2 (38)	57.4 (38.3)	60.9 (33.8)
Number Pairs	93 (15.5)	94.8 (17.3)	90.4 (20.8)	97.4 (9.2)
Number Identification	53.3 (43.2)	65.9 (35.6)	60.4 (37.3)	75.9 (30.3)
Shape recognition	85.2 (22.6)	83 (25.5)	86.2 (18.9)	82.1 (20.9)

Table 18. Average Percent Correct on Numeracy Subtests, by Group and Rural/Urban

Task	Pre-test			Post-test		
	Urban (Mean)	Rural (Mean)	Urban-Rural Gap ¹¹	Urban (Mean)	Rural (Mean)	Urban-Rural Gap
Intervention Group (n=50)						
Counting - Recitation	98.2%	85.4%	12.8%	98.3%	89.5%	8.8%
Adding Objects	50.3%	41.9%	8.4%	51.7%	60.0%	-8.3%
Number Pairs	93.8%	84.8%	9.0%	92.4%	97.1%	-4.7%
Number Identification	66.7%	57.4%	9.3%	78.3%	68.6%	9.7%
Shape recognition	95.1%	87.7%	7.3%	97.9%	98.4%	-0.5%
Comparison (n=46)						
Counting - Recitation	87.0%	66.9%	20.0%	96.8%	73.8%	23.1%
Adding Objects	66.4%	35.8%	30.5%	70.9%	48.3%	22.6%
Number Pairs	96.4%	91.7%	4.7%	100.0%	88.3%	11.7%
Number Identification	76.4%	44.2%	32.2%	81.4%	56.0%	25.3%
Shape recognition	92.9%	73.5%	19.5%	89.4%	77.8%	11.6%

¹¹ Urban-Rural Gap = Urban mean – Rural mean

ANNEX E. EVALUATION TOOLS

PRE-POST CAREGIVER KNOWLEDGE ASSESSMENT



IP Implementing Partner:

Izina /Name:**Itariki y'amavuko/Date of birth**...../...../.....

Akarere/District:**Umurenge/Sector**.....**Akagari/Cell**.....

Amashuri yize /Education Level:

1. Imbonezamikurire n'iterambere ry'abana bato ni/Early childhood development (ECD) is :
 - a. Abana biga ibintu bishya(Children learning new things)
 - b. Abana bakura mugihagararo((Children developing physically)
 - c. Abana bakura mubwenge no mumbamutima (Children growing mentally and emotionally)
 - d. Ibi byose bivuzwe haruguru nibyo(All of the above)

2. Imbonezamikurire n'iterambere ry'abana bato rireba abana bafite imyaka (What is the age that ECD refers to)?
 - a. Kuva bavutse kugeza ku imyaka itatu (Birth to 3 years old)
 - b. Mbere yuko bavutse kugeza kumyaka itatu (Before birth to 3 years old)
 - c. Kuva kuri itatu kugeza kuri itandatu(3 to 6 years old)
 - d. Mbere yuko avuka kugeza kugeza kumyaka itandatu (Before birth to 6 years old)

3. Imbonezamikurire n'iterambere ry'abana bato rigamije iki (What is the purpose of ECD centers)?
 - a. Guha abana uburyo bwo gukura mumpande zose (Provide children with opportunities for balanced development)?
 - b. Guha ababyeyi uburyo bwo gukora kubigo by'imbonezamikurire n'iterambere ry'abana bato.(Provide parents with opportunities to work at the center)

- c. Kurinda abana kuba bakomereka cyangwa bahura n'izindi ngorane iyo basigaye bonyine ababyeyi babo bagiye gukora(Protect children from harm if they are left alone when parents go to work)
 - d. Buri kigo cy'imbonezamikurire n'iterambere ry'abana bato gifite iyacyo ntego(Each center has its own purpose)
4. Ni ibihe mubikurikira biri mu imbonezamikurire n'iterambere ry'abana (What are the building blocks of the holistic child development)?
- a. Uburezi (Education)
 - b. Kwita kubuzima (Healthcare)
 - c. Imirire myiza (Good nutrition)
 - d. Ibi byose byo hejuru nibyo (All of the above)
5. Ese abana bafite uburenganzira (Do young children have rights)?
- a. Yego/Yes
 - b. Oya /No
6. Aho ikigo k'imbonezamikurire n'iterambere ry'abana bato kiri hagomba kuba hafasha umwana (ECD center's learning environment should be helpful for children...)
- a. Kwiga uburyo bwo gukina n'abandi (To learn how to play together)
 - b. Kwiga kwandika no gusoma(To learn how to read and count)
 - c. Kwiga kwita k'umubiri wabo(To learn how to take care of their bodies)
 - d. Ibiri hejuru byose nibyo (All of the above)
7. Abana baca muburyo bumwe mubice by'imikurire (All children experience developmental milestones in exactly the same way.
- a. Nibyo/True
 - b. Sibyo/False
8. Gukura mugihagararo harimo (Physical development of children includes):
- a. Kugira ubushobozi mugukoresha ibice binini by'umubiro nko kwiruka cyangwa gusimbuka(Gross motor skills development, such as running or jumping)
 - b. Gukoresha ibice bito by'umubiri nk'intoki nko gushushanya (Fine more skills development, such as drawing)
 - c. Byose (Both)
 - d. Ntanakimwe(Neither)
9. Imikurire y'ubwenge y'umwana igaragarira (One way cognitive development of children is demonstrated is through)

- a. Gutera imbere mukuvuga(Language development)
 - b. Igabiro rifite isuku (Proper nourishment)
 - c. Urukundo rw’ababyeyi(Parents’ affection)
 - d. Imibanire myiza n’abo ushinzwe(Good relationships with siblings)
10. Imikurire mumibanire n’abandi ni ingenzi kubera (Psycho-social development of children is important because...)
- a. Abana bagomba gukurikiza amabwiriza(Children have to follow rules)
 - b. Abana bakeneye kubona uburere bwiza (Children need to have good education)
 - c. Abana bakeneye gukorana n’abandi neza (Children need to learn how to function well within groups)
 - d. Abana bakeneye kwiga uburyo bwo kumva abantu bakuru (Children need to learn how to listen to adults)
11. Ni akahe kamaro k’imikino mubigo bya ECD (What should be the role of play in an ECD center)?
- a. Gukina ni ububryo bwo kugirango igihe gishire bityo rero uwita kubana agomba kubemerera gukina incuro imwe gusa (Play is a harmless pastime; caregivers should allow it once in a while)
 - b. Gukina ni uburere abana bakagombye guhabwa uburyo butuma bakina (Play is educational; children should have opportunities to play)
 - c. Gukina birangaza abana mukwiga ntibagomba gukina (Play distracts from education; should not be allowed in an ECD center)
 - d. Abana bari mu ikigo cya ECD bakagombye gukina n’abantu bakuru (When at an ECD center, children should only play with adults.)
12. Imyitwarire myiza(What is positive discipline”)?
- a. Ni igihe gufasha umwana kwitwara neza biganisha kukuba umwana azahora yitwara neza(It is when disciplining a child leads to positive outcomes)
 - b. Bisobanura uburyo abana babishishikarijwe bibaganisha gukora ibintu byiza kandi bakanahembwa iyo babikoze(It describes an approach when children are encouraged to do the right thing and are rewarded when they do so)
 - c. Bisobanura guhana abana iyo bakoze ibintu bibi (Its refers to punishing children when they do wrong things)
 - d. Ikoreshwa gusa kubana bari mukigero cy’ishuri(It is only used for school-age children)
13. Umwuka w’imibanire y’abantu usobanura iki (What does “social environment” refer to)?

- a. Ni imibanire iri hagati y’umuntu n’abandi bamukikije(Relationships that a person has with people around him/her)
 - b. Ni umwanya ishuri ririmo (Classroom space)
 - c. Ibikinisho, ibitabo ndetse n’ibindi bikoresho (Toys, books and other learning materials)
 - d. Umuntu wo mururyango wa hafi (Person’s immediate family)
14. Abana ntibakagombye kugera kubikinisho, ibitabo ndetse n’izindi mfashanyigisho kugirango batabifatira igihe bashakiye/Children should not have easy access to toys, books and other learning materials so they would not be grabbing them any time they want
- a. Nibyo/True
 - b. Sibyo/False
15. Ikigo mbonezamikurire n’iterambere ry’abana bato cyakagombye gufasha abana kumenya uburyo bwo bakwifatira ibyemezo ubwabo (ECD centers should guide children on how to make decisions for themselves).
- a. Nibyo/True
 - b. Sibyo/False
16. Nibyiza kwemerera abana kwihitiramo niba bakinira mu itsinda cyangwa buri wese kugiti cye(It is a good idea to allow children to decide if they want to play in a group or by themselves)
- a. Nibyo/True
 - b. Sibyo/False
17. Uwita kubana muri ECD yakagombye gufasha abana guhitamo icyo bakina kuko ibyo bakina byose bitanga inyigisho kandi ijyanye n’imyaka y’ukina / ECD caregivers should always direct children’s play, to ensure that whatever they do is educational and age-appropriate
- a. Nibyo/True
 - b. Sibyo/False
18. Isuku ni iki (What is “hygiene”)?
- a. Gukora isuku bigamije kwemeza ko umwana agaburirwa neza (Practices to ensure children are well nourished)
 - b. Gukora isuku bigamije ubuzima bwiza(Practices to ensure good health)

- c. Bifasha abana gukura neza mugihagararo(Paractices to support children’s physical development)
 - d. Ntanakimwe kiri cyo muri ibi bivuzwe haruguru(None of the above)
19. Ni gute uwita ku abana muri ECD yabafasha kugira isuku(How can ECD caregiver help children with hygiene)?
- a. Abigisha kurya gusa ibiryo bifite isuku (By teaching them to only eat foods that are safe)
 - b. Abigisha kugirira isuku imibiri yabo mumirimo yaburi muni no gukina (By teaching them to take care of their bodies through daily routine and play)
 - c. Ababwira ibyerekeranye ni indwara (By talking to them about diseases)
 - d. Uwita kubana muri ECD ntibashinzwe gufasha abana kugira isuku (ECD caregivers are not supposed to help children with hygiene)
20. Imirire ni iki (What is “nutrition”)?
- a. Imirire ni ubuhunga butwereka uko umuntu yatuma umuntu ahora afite ubuzima bwiza (Nutrition refers to a science of how to keep the body healthy)
 - b. Imirire iganisha kukwiga ibyo kurya(Nutrition refers to a science of food)
 - c. Imirire ifasha mukumva impamvu ari ngombwa kwita kumubiri ugahora ukeye (Nutrition helps us understand why it’s important to keep bodies clean)
 - d. Si ngombwa ko uwita kubana muri ECD yumva neza ibirebana n’imirire (It is not important for an ECD caregiver to understand nutrition).
21. Ni izihe nzira z’ingenze mukurinda ubuzima bw’abana bato (Which are the most important ways to protect children’s health)?
- a. Ibiryo, isuku no gukingirwa(Food, cleanliness and vaccinations)
 - b. Ibiryo isuku n’imirire(Food, cleanliness and nutrition)
 - c. Ibiryo isuku(Food, cleanliness and hygiene)
 - d. Gukingira no kujya kureba muganga buri gihe(Vaccinations and regular visits to a doctor)
22. Ni gute uwita kubana muri ECD yafasha muguteza imbere ubuzima bw’abana (How can an ECD caregiver support children’s health)?
- a. Asuzuma abana indwara buri gihe (By providing regular medical checkups)
 - b. Yigisha ababyeyi ibirebana n’imirire, gukingira n’indwara zikunda gufata abana bato (By educating parents about nutrition, vaccinations and common illnesses)
 - c. Atanga indyo yuzuye (By providing nutritious food)
 - d. Bareka abana bagakina (By letting children play)

23. Ni ngombwa gukora ibikoresho by'ibanze byo gukinisha biva mubintu biboneka aho batuye /It is easy to make basic toys from everyday objects around us .
- Nibyo/True
 - Sibyoy/False
24. Abana ntibakagombye gutera akajagari cyangwa umwanda aho bakinira (Children should not make a mess or get dirty when they are playing).
- Nibyo/True
 - Sibyoy/False
25. Ibikinisho ni ingenzi kuko batabifite ntibashobora kwinjira mumikino yigisha (Toys are really important because without toys children cannot engage in educational games).
- Nibyo/True
 - Sibyoy/False
26. Ibikinisho ni ingenzi kuko biha abana amahirwe yo guhitamo amoko atandukanye'imikino (Toys are really important because they provide new opportunities for different kinds of play)
- Nibyo/True
 - Sibyoy/False
27. Ibikoresho ni ingenzi kuko bifasha abana gukura mugihagararo, mubwenge ndetse no mumibanire yabo n'abandi (Toys are really important because they encourage development of different physical, cognitive and psychosocial skills).
- Nibyo/True
 - Sibyoy/False
28. Ni ukubera iki ari ingirakamaro k'umurezi w'abana kumenya imikurire y'umwana mu gihagararo? (Why is it important for a caregiver to understand about children's physical development)
- Kubera ko umurezi akeneye kumenya uburyo yagenzura ibiyobora umwana mu myitwarire ye (Because caregivers need to know how to control children's impulses).
 - Kubera ko umurezi agomba kwigisha abana gukoresha umubiri wabo neza (Because caregivers must teach children how to use their bodies correctly).
 - Kubera ko gukurikirana imyitwarire mu mikurire mu gihagararo ari ingirakamaro mu kumenya uburyo abana bagenda baterimbere. (Because observing children's physical behavior is important to understand how they are progressing).

- d. Gushishikariza abana kwiruka no gusimbuka kuberako batazashobora gukina imikono nk'iyi biga mu mashuri abanza (To encourage children to run and jump because they won't be able to play like this in primary school).
29. Ubumenyingiro mu mikoreshereje y'imikaya minini ni iki? What are gross motor skills?
- Movoma ntoya zikorwa cyane cyane n'ibiganza (Small movements mostly done with the hands).
 - Muvoma nini z'umubiri (Large movements of the body).
 - Ubumenyingiro butarebana n'abana bato (Skills that are not appropriate for small children).
 - Ubumenyingiro bufasha abana kugendera ku binyabiziga nka moto mu mutekano uhagije (Skills that children need to be safe around motorized vehicles).
30. Ubumenyingiro mu mikoreshereje y'imikaya mitoya ni iki? (What are fine motor skills?)
- Movoma ntoya zikorwa cyane cyane n'ibiganza (Small movements mostly done with the hands).
 - Muvoma nini z'umubiri (Large movements of the body).
 - Ubumenyingiro bugendanye no kugira ikinyabupfura ku abana (Skills that relate to children's use of polite behavior).
 - Ubumenyingiro kubirebana n'ibikoresho bikoreshwa n'abana n'intoki (Skills that relate to children's use of hand-held gardening tools).
31. Ni uruhe ruhare rw'uwita ku bana mu gutezimbere imikurire y'umwana mu gihagararo (What is caregivers' role in promoting physical development?)
- Nta ruhare abigiramo; ni uburyo busanzwe abana bakurikira (No role. It is a natural process that children just do).
 - Uwita ku bana agomba kwigisha abana gukoresha umubiri wabo neza (Caregivers must teach children how to use their bodies correctly).
 - Uwita ku bana ateganya ahantu hafasha abana gutezimbere ubumenyingiro bwabo kubirebana no gukoresha imikaya mito n' iminini (Caregivers can create an environment that helps children develop their fine and gross motor skills).
 - Uwita ku bana yakagomye gutegura amarushanwa mu kwiruka (Caregivers should organize athletic competitions).
32. Ni gute uwita ku bana yafasha kongera ubumenyingiro mu mikurire y'imikaya minini? (How can a caregiver support development of gross motor skills?)
- Yemerera abana gukora ibyo bishakiye byose (By allowing children to do whatever they want)
 - Atanga uburenganzira ku bana bwo gukora ibintu bitandukanye imbere no hanze y'ishuri (By providing access to varied movement opportunities both indoors and outdoors)
 - Yigisha Abana gushushanya no kwandika (By sitting teaching children to draw

- and write)
- d. Abasomera (By reading to them)
 - e. Ibivuzwe haruguru byose (All of the above)
33. Ni gute Uwita ku bana yafasha kongera ubumenyingiro mu mikurire y’mikaya mito?
(How can a caregiver support development of fine motor skills?)
- a. Yemerera abana gukora ibyo bishakiye byose (By allowing children to do whatever they want)
 - b. Atanga uburenganzira ku bana bwo gukora ibintu bitandukanye imbere no hanze y’ishuli (By providing access to varied movement opportunities both indoors and outdoors)
 - c. Yigisha Abana gushushanya no kwandika (By sitting teaching children to draw and write)
 - d. Abasomera (By reading to them)
34. Muri ubu bumeningiro bukurikira, Ni ubuhe bw’ingenzi ku mwana witegura gutangira kwiga (Which type of skills is more important for child’s readiness for school?)
- a. Ubumenyingiro mu mikoreshereje y’imikaya minini (Gross motor skills)
 - b. Ubumenyingiro mu mikoreshereje y’imikaya mito (Fine motor skills)
 - c. Byombi bifite akamaro kamwe (Both are equally important)
35. Imukurire mubirebana n’imbamutima n’imibanire n’abandi irebana ni (Social Emotional development refers to...)
- a. Iterambere ry’umuryango mugari (Development of a society)
 - b. Uburyo abana baterimbera mu mikoranire n’abandi (How children develop relationships and interact with others)
 - c. Kwiga gutege amatwi abantu bakuru (Learning to listen to adults)
 - d. Kwemera umuco w’undi muntu (Understanding one’s culture)
36. Shyira akaziga ku nteruro igaragaza Imukurire mubirebana n’imbamutima n’imibanire n’abandi (Circle the items that are elements of social emotional development):
- a. Uburyo wiyumva n’uburyo wumva wihagije (Self concept and self efficacy)
 - b. Kumenya imbamutima n’amarangamutima byawe (Emotional Awareness)
 - c. Kwigenzura (Self Regulation)
 - d. Imibanire n’abandi n’imyitwarire (Social relationships and Behavior)
 - e. Kumenya uburyo bwo gukemura amakimbirane (Knowing how to solve conflicts)
 - f. Ibivuzwe haruguru byose (All of the above)
37. Abana b’imyaka itandatu ni bato cyane kumenya ibyiza n’ibibi (Six year old children are too young to know right from wrong).
- a. Nibyo(True)
 - b. Sibyo (False)
38. Umurezi yakagombye kwemerera abana buri gihe kugaragaza ibyo batumvikanaho

(Teachers should always allow children to settle a disagreement on their own).

- a. Nibyo/True
- b. Sibyo/False

39. Uburyo bwiza bwo gufasha abana kwiga uburyo bitwara ni (A good way to help children learn how to behave is to):

- a. Kubabwira imyitwarire myiza n'imibi (tell them the right and wrong way to behave)
- b. Kubahana iyo batumvishe ibyo ubabwira (punish them when they don't listen)
- c. Urugero rw'uburyo nyabwo bw'imyitwarire (model appropriate behavior)
- d. Kubwira ababyeyi bakajya babatoza uburyo bagomba kwitwara (tell their parents to teach them how to behave)
- e. a na c (a and c) ni ibisubizo
- f. b na c (b and c) ni ibisubizo
- g. Ibivuzwe haruguru byose (All of the above)

40. Kubirebana n'amarangamutima, abana bakagombye (When it comes to feelings, children should):

- a. Kuyafata nkayabo bwite (keep them private)
- b. Kumenyako ko kugaragaza ko urakaye ko Atari ubupfura (know it isn't polite to show that you are angry)
- c. Kubaha amarangamutima y'abandi (respect other people's feelings)
- d. Ugomba kwitonda ntukore ibyo mwarimu adakunda (be careful to not do something that the teacher wouldn't like)

41. Imikurire mu bwenge irebana na (Cognitive development refers to):

- a. Ubumenyigiro kubirebana n'imyitwarire (Skills related to behavior)
- b. Ubumenyigiro kubirebana n'imyigire n'imitekerereze (Skills related to learning and thinking)
- c. Ubumenyigiro kubirebana n'imikurire mugihagararo (Skills related to physical balance)
- d. Ubumenyigiro kubirebana n'umuryango mugari (Skills related to society)
- e. Ubumenyigiro burebana n'ibyumviro bitanu by'umuntu (kubona, kumva, guhumurirwa, kuryohereza no kumvira k'uruhu) (Skills that involve the five senses)
- f. a na c (a and c) ni ibisubizo
- g. b na e (b and e) ni ibisubizo

42. Imikurire mu birebana n'ubwenge bw'abana bitangira hafi y'imyaka yo kujya mu mashuri abanza (Children's cognitive development usually begins at around primary school age)

- a. Nibyo/ True
- b. Sibyo/ False

43. Ibirebana no gusoma no kwandika birebana no (Literacy refers to) :

- a. Kumenya inyuguti (Knowing the alphabet)
 - b. Kumenya uko inyajwi n’amagambo bisomwa (Knowing the sounds of letters and words)
 - c. Kumenya gusoma (Knowing how to read)
 - d. Kumenya uko bandika izina ryawe (Knowing how to write your name)
 - e. Kumenya uburyo abantu bafata igitabo (Knowing how to hold a book)
 - f. Ibivuzwe haruguru byose (All of the above)
44. Imibare bivuga (Numeracy means):
- a. Umwana azi imibare (A child is good at math)
 - b. Umwana ashobora gukora amahurizo y’imibare (A child can solve problems)
 - c. Kubona no kubimbira hamwe ibintu (Seeing and creating patterns)
 - d. Gushobora kubara (Being able to count)
 - e. Ibivuzwe haruguru byose (All of the above)
45. Ubumenyi ni (Science is...)
- a. Ntabwo mubyukuri bijyanye nabari muri ECD (Not really appropriate in preschool)
 - b. Uburyo bwo kwiga no kuvumbura (A process of studying and finding out)
 - c. Harimo kwiga ibidukikije n’umuryango mugari (Includes the study of nature and society)
 - d. b na c (b and c) ni ibisubizo
46. Uwita kubana ashobora gutezimbere ubukorikori binyuze (Caregivers can promote the arts by...)
- a. Kwereka abana uburyo bashobora kugira ubumenyiringiro mu kuvumbura (Showing children how to be creative)
 - b. Kwemerera abana gusiga amashusho byibura rimwe k’umunsi (Allowing children to color at least once a day)
 - c. Gushishikariza abana kuririmba no kubyina bari mu ishuli (Encouraging singing and dancing in the classroom)
 - d. Gufasha abana kwihimbira udukuru (Helping children invent their own stories)
 - e. Gushishikariza abana gukoresha ubuhanga bifitemo muguhimba (Encouraging children to use their imaginations)
 - f. Abita ku abana ntibakagombye kwemerera abana gukora ubukorikori mu ishuli ,ishuli ni iryo kwigiramo gusa (Caregivers shouldn’t allow art at school, school is for learning)
 - g. a,b,d na f (a,b,d and f) ni ibisubizo
 - h. a,c,d, na e (a,c,d and e) ni ibisubizo
 - i. Ibivuzwe haruguru byose (All of the above)
47. Uburyo bwiza ababyeyi bafashamo abana bataratangira ishuli kwiga gusoma ni (A good way for parents to help their preschool aged children learn to read is):
- a. Kubwira abana kumvira abarimu babo (Telling children to listen to their teacher)

- b. Kumenya ko bakoze imikoro yabo yo mu rugo(Making sure they do their homework)
 - c. Gusoma hamwe n’abana (Reading with their children)
 - d. Hoya, Kwigisha gusoma biraruhije ibyiza ni ukubirekera abarimu (None, teaching reading is complicated and best left to teachers)
48. Integanyanyigisho ni (Curriculum is)...
- a. Uburyo bushekeje bwo kuvuga gahunda y’amasomo (A fancy way to say school schedule)
 - b. Uburyo bwo kwigisha (A teaching method)
 - c. Ni imfashanyigisho y’umwarimu mu ishuli (A guide for what teachers will do in the classroom)
 - d. Incamake y’ibigenderwaho n’amategeko mu kigo cya ECD (A summary of an ECD center’s rules and policies)
49. Mu Rwanda integanyanyigisho ya ECD itegurwa na Minitere y’uburezi kandi ishobora gukurikizwa muri ECD zose (In Rwanda ECD curricula are developed by MINEDUC and should be followed in all ECD centers)
- a. Nibyo/ True
 - b. Sibyo/ False
50. Integanyanyigisho ikomatanya igendera ku insanganyamatsiko ni iki? (What is an integrated thematic curriculum?)
- a. Incamake y’uburyo bwo kurerera hamwe abana bazima n’abana babana n’ubumuga mu ishuli hakurikijwe ibikenewe kuri buri kiciro cy’abana (A summary of approaches for integrating children with special needs into the classroom)
 - b. Gahunda itezimbere intego,akamaro n’ubunararibonye bw’abana (A Plan that pulls together the developmental goals, interests and life experiences of children)
 - c. Ibi si ngombwa kuri ECD zo mu Rwanda (This isn’t relevant for ECD in Rwanda)
51. Gahunda ya buri muni (A daily schedule)...
- a. Singombwa ku bana bato,ni byiza kubareka kagakina (Isn’t necessary for young children, it’s better to let them just play)
 - b. Itanga ibintu biteganyijwe bituma umwana yumva amereye neza mu bikorwa bye bya buri muni (Provides a predictable comforting routine for children)
 - c. Yakagombye guhindurwa rimwe mu kwezi kugirango itume abana batarambirwa (Should change once a month so children don’t get bored)
 - d. Yakagombye kuba iteguye ku buryo bushingiye ku byigwa by’amashuri asanzwe (Should be organized by academic subjects)
52. Integanyanyigisho ishingiye ku nsanganyamatsiko (A thematic curriculum)...
- a. Iteguwe kuburyo bugendanye n’imyigishirije isanzwe (Is organized by academic

themes

- b. Igendera ku ngingo zishimisha abana bato (Is based on topics that young children find interesting)
 - c. Irimo ibirebana n'ubumenyiringiro bufasha mu mikurire mu gihagararo, imbamutima no mubijyanye n'ubwenge (Involves activities for physical, social emotional, and cognitive development)
 - d. Yakagombye kwibanda cyane ku bikorwa birebana n'ikura mu bwenge (Should emphasize activities for cognitive development)
 - e. b and c (b and c) ni ibisubizo
53. icyumba cy'irerero cyakagombye (ECD classrooms should)
- a. Kugira intebe ziri k'umurongo zicarwaho n'abana mu ishuli (Have desks in rows, to get children used to being in school)
 - b. Kigira ahantu hatandukanye abana bashobora gusanga ibikinisho by'ibikorwa bitandukanye (Have different areas where children can explore different kinds of toys and activities)
 - c. Cyakagombye kuba gituje bityo abana bagukurikira bakumva mwalimu (Should be quiet, so children can concentrate and hear the teacher)
 - d. b and c (b and c) ni ibisubizo
 - e. Nta na kimwe mu bivuzwe haruguru byose (None of the above)
54. Abayobozi ba ECD bagakoranye n'ababyeyi biciye (ECD center staff should interact with parents by:
- a. Baha abana isuzumabumenyi rikorerwa mu rugo byibura kabiri mu cyumweru (Sending homework with children at least twice a week)
 - b. Baganira kubirebana n'iterambere ry'abana babo kuburyo buhoraho (Discussing their children's progress with them regularly)
 - c. Gushishikariza ababyeyi ndetse n'umuryango kugira uruhare mu iterambere ry'ikigo cy'imbonezamikurire n'iterambere ry'abana bato (Encouraging parent and community involvement in the center)
 - d. Ntabwo bikwiye ko umurezi w'abana abwira ababyeyi uburyo bwo kwigisha abana babo (It is not appropriate for caregivers to tell parents how to educate their children)
55. Urugero rw'ikigo cya ECD kiyobowe neza ni (An example of a well managed ECD center is that):
- a. Diregiteri wa ECD agomba kuyobora ibikorera mo byose muri rusange (The Center Director is in control and detail oriented)
 - b. Ikigo gihife ikipe ncunga umutungo (The center has a management team)
 - c. Ikigo gifite imfashanyigisho n'ibikinisho bihagije (The center has a lot of toys)
 - d. Ikigo gikorana byahafi n'abaturage bagituriye (The center is well connected with the community)
 - e. a,b na d (a,b and d) ni ibisubizo
 - f. b,c na d(b,c and d) ni ibisubizo

- g. Ibivuzwe harugurun byose (All of the above)
56. Isuzuma ry'abana ni (Assessment of children is):
- a. Ntibikwiriye guha abana bato isuzuma (Not appropriate; they are too young for tests)
 - b. Ni igikorwa gihoraho (An ongoing process)
 - c. Riguha amakuru ku birebana n'ubushobozi, ubumenyi n'ubumenyingiro umwana yungutse (Gives you information on their strengths, knowledge, interests and skills)
 - d. Ryerekana niba abarezi b'abana bakora Akazi kabo (Helps to determine if caregivers are doing their jobs)
 - e. b,c na d(b,c and d) ni ibisubizo
 - f. Ibivuzwe harugurun byose (All of the above)
57. Isuzuma ry'uwita ku bana ni (Caregiver assessment is):
- a. Ryagakoze rimwe mu mwaka (Should happen once a year)
 - b. Ni igikorwa gikomeza (Is an ongoing process)
 - c. Rifasha abarezi ba bana guterimbere (Used to help caregivers improve)
 - d. a and c (a and c) ni ibisubizo
 - e. b and c (b and c) ni ibisubizo
58. Mu bikurikira ni ikihe ubona kingenzi mu mikorere myiza ya ECD (Which elements are central to a successful ECD center)?
- a. Imibanire n'imikoranye myiza ifite akamaro (Relationships and Interactions)
 - b. Imiterere y'aho abana barerwa (ibikorwa remezo) (Physical Infrastructure)
 - c. Uburyo by'imyigire (Learning Environment)
 - d. Ibikoresho mfashamyigire n'ibindi bikenewe (Learning Materials and Equipment)
 - e. Integanyanyigisho yerekeye imbenezamikorere n'iterambere ry'abana bato,yuzuye kandi ikubiyemo byose, ikoreshwa mu kigo gishinzwe kwita ku mbenezamikorere y'umwana (Comprehensive, Holistic ECD Curriculum)
 - f. Ibiranga abantu bita ku bana,uburyo bakoreramo n'ubw'imikorere (Quality of Caregivers and Working Conditions)
 - g. Imicungire y'ikigo cy'imbonezamikurire n'iterambere ry'abana bato (ECD Center Management)
 - h. Urahe rw' ababyeyi/abandi bantu bo mu muryango mugari mu iterambere rya ECD (Parent / Community Outreach and Involvement)
 - i. Ibivuzwe haruguru byose(All of the above)

IFE Caregiver Follow-up Survey

DEMOGRAPHICS	
A. District (akarere caregiver avamo)	
A. District (Aho caregiver aba ubu)	
B. ECD Center Name: (izina rya ECD yakoreyemo stage)	
C. Caregiver's Name(izina rya caregiver):	
D. Date of Survey(itariki ubu bushakashatsi bukorewe):	

SATISFACTION WITH PROGRAM

Please respond to the following statements using the scale “strongly agree,” “agree,” “disagree”, or “strongly disagree.”

1. The ECD content that I learned in the Junior Caregiver Program prepared me well for my internship as a caregiver in an ECD center(ibyo nize mumahugurwa byanteguye neza gukora stage nk'uwita ku abana mu ikigo cya ECD).				
Strongly agree(Yego cyane rwose)	Agree(yego)	Disagree(Hoya)	Strongly disagree(Hoya rwose)	I am not sure(simbizi)
2. The work readiness training taught me skills that will help me find a job(Amahugurwa y'akazi kanoze yampaye ubumenyingiro buzamfasha kubona akazi.				
Strongly agree(Yego cyane rwose)	Agree(yego)	Disagree(Hoya)	Strongly disagree(Hoya rwose)	I am not sure(simbizi)
3. My internship at an ECD center provided me with valuable work experience(stage nakoreye muri ECD yatumye ngira ubuzobere n'ubunararibonye mukwita ku abana b'incuke).				
Strongly agree(Yego cyane rwose)	Agree(yego)	Disagree(Hoya)	Strongly disagree(Hoya rwose)	I am not sure(simbizi)
4. Overall, the training met my expectations(muri rusange amahugurwa yamfashije kugera kubyo nari nyategerejeho).				
Strongly agree(Yego cyane rwose)	Agree(yego)	Disagree(Hoya)	Strongly disagree(Hoya rwose)	I am not sure(simbizi)

INTERNSHIP EXPERIENCE

5. During the course of your internship, how often did you spend interacting and teaching the children in your classroom(Mugihe wakoraga stage wagiye kenshi na kenshi uganira ndetse unanigisha abana mu ishuri ryawe ?

- a) Always(buri gihe) b) Usually(buri gihe) c) About half the time(igice cy'igihe cyange) d) Rarely(bucye) e) Never(sinigeze mbikora)

6. Were you able to use the ECD knowledge learned in the Junior Caregiver Program training in the classroom during your internship(washoboraga gukoresha ubumenyi wakuye mumahugurwa ya ECD mugihe wabaga uri mu irerero muri stage?

Yes/yego No/hoya (If no, skip to Question 8)

7. If yes, what were you able to use?Niba ari yego washoboraga gukoresha (select all that apply)

- Develop meaningful relationships with children(agirana umubano usobanutse n'abana)
- Develop meaningful relationships with families/parents
Agirana umubano usobanutse n'abana hamwe n'imiryango yabo kandi awuteza imbere
- Design the physical space (i.e. set up the classroom)
Agena aho ibikorwa bibera
- Develop the schedule and routine
Ategura gahunda n'imirimo isanzwe
- Establish and enforce clear rules, limits and consequences
Ashyiraho amategeko asobanutse mubikorwa n'udukino abana bakora mu irerero kandi agakora ibishoboka kugira ngo yubahirizwe, ashyiraho impaka ntarengwa kandi agaragaza ingaruka zerekeye imyitwarie runaka
- Social emotional teaching strategies
Ingamba zo kwigisha zigamije gufasha abana kugirana na bagenzi babo imibanire myiza ku buryo burambye
- Show sensitivity to individual children's needs
Yerekana ko nawe azirikana ibyo abana nk'abantu ku giti cyabo bakeneye
- Encourage autonomy
Ashishikariza abana kugira ubwigenge mubyo bakora
- Provide instruction to aid in the development of social skills
Atanga amabwiriza yo kwifashisha mu guteza imbere ubumenyiringiro bukenewe kugira ngo umwana amenye gusabana n'abandi

SCHOOL READINESS OF CHILDREN

8. During the course of your internship did you see knowledge gains AND/OR skill development of the children in your classroom(Mugihe wakoraga stage waba warabonye hari ibyo abana bungutse bagatera imbere muri rusanged?)

Yes No (If no, skip to Question 10)

9. If yes, what types of changes? Niba ari yego ibiki wabonye byahindutse ku abana(select all that apply)

- a. Improvements in gross motor skills(bateye imbere mugukoresha imikaya minini)
- b. Improvements in fine motor skills(bateye imbere mugukoresha imikaya mito)
- c. Improvements in their health development(ubuzima bwabo bwabo bwarushijeho kuba bwiza)
- d. Improvements in their self-concept and/or self-efficacy(bateye imbere muburyo biyumva no kumva bihagije mubyo bakora)
- e. Improvements in their emotional awareness(bateye imbere mubirebana n'imbamutima n'amarangamutima)
- f. Improvements in their social relationships and behavior(bateye mumibanire yabo n'abandi ndetse no mumyitwarire)
- g. Improvements in solving conflicts(bateye imbere mubirebana no gukemura ikibazo)
- h. Improvements in language and/or literacy skills(bateye imbere mubirebana n'ubumenyi mundimi no kwandika)
- i. Improvements in numeracy and/or math skills(bateye imbere)
- j. Other (ibindi) (please specify): _____

Please rate the competence level of children in your classroom at the end of your internship on a scale of 1 to 5, with 1 being "rarely displays behavior" and 4 being "consistently and accurately performs behavior."

By the end of your internship how often did children in your classroom perform the following skills and behaviors Nyuma ya stage ese abana bo mu irerero bagiye barushaho kongera ubumenyi ndetse ndetse n'imyitwarire?

1	2	3	4	I am not sure(simbizi)
Rarely displays behavior (gake cyane bagiye bahindura imyitwarire)	Sometimes performs behavior(Rimwe na rimwe imyitwarire yarushijeho kuba myiza)	Regularly performs behavior(Kenshi na kenshi imyitwarire yarushijeho kuba myiza)	Consistently & accurately performs behavior(rwose imyitwarire yarushijeho kuba myiza kuburyo bushimishije)	

10. Pre-literacy Skills (i.e. phonological awareness, early writing skills, alphabet knowledge): Ibirebana no kwiga gusoma no k wandika: iyigamvugo, ubumenyi nshingiro mubijyanye no kwandika, ubumenyi mubirebana no kumenya n'inyuguti

1	2	3	4	I am not sure
11. Pre-numeracy skills ubumenyi ngiro mubijyanye no kubara no gushushanya(count, shapes)				
1	2	3	4	I am not sure
12. Gross Motor Skills Ubumenyi ngiro mubijyanye n'imikoreshereze y'imikaya minini(large movements of the body i.e. running, jumping)				
1	2	3	4	I am not sure
13. Fine Motor Skills (ubumenyi ngiro mubijyanye n'imikoreshereze y'imikaya mito(small movements of the body i.e. drawing, writing, picking up small objects)				
1	2	3	4	I am not sure
14. Emotional Awareness ibijya nye n'amarangamutima n'imbamutima (aware of their own emotions and other's)				
1	2	3	4	I am not sure
15. Conflict resolution ibijyanye no gukemura amakimbirane(ability to compromise and resolve conflict with peers).				
1	2	3	4	I am not sure
16. Express feelings and needs : Ibijyanye n'uburyo bwo kwerekana imbamutima n'ibyo bakeneye				
1	2	3	4	I am not sure
17. Social Relationships: ibijyanye n'imibanire ye n'abandi ari abamuruta, abo bangana n'uburyo afatanyana nabo (positive relationships with adults and peers, shows cooperation)				
1	2	3	4	I am not sure

WORK READINESS

Please respond to the following statements using the scale “strongly agree,” “agree,” “disagree”, or “strongly disagree.”

18. You know how to find job/work in your community.(uzi uburyo bwo gushaka akazi aho utuye				
Strongly agree	Agree	Disagree	Strongly disagree	I am not sure
19. You have the skills and competencies to get the type of job/work that you want. Ufite ubumenyi ngiro n'ubushobozi mugushaka akazi kibyo ashaka				
Strongly agree(yego cyane)	Agree(yego)	Disagree(Hoya)	Strongly disagree(Hoya cyane)	I am not sure(Simbizi neza)
20. You have the confidence to find work : Uriyizera mugushaka icyo gukora.				
Strongly agree(yego cyane)	Agree(yego)	Disagree(yego)	Strongly disagree	I am not sure(Simbizi neza)
21. You have the skills and competencies to succeed in the workplace: Wumva ufite ubumenyi n'ubushobozi bwo gutunganya akazi aho wakorera.				
Strongly agree(yego cyane)	Agree(yego)	Disagree(yego)	Strongly disagree(Hoya cyane)	I am not sure(Simbizi neza)

CAREGIVER EMPLOYMENT STATUS

22. Before starting the Junior Caregiver Program, what was your current work status? Mbere yuko uhugurwa muri ECD wari umerewe ute mubirebana n'akazi

- a. Working (narakoraga)
- b. Working and studying (narakoraga naniga)
- c. Studying(narigaga)
- d. Neither working nor studying (sinigaga ndetse sinakoraga)

23. What is your current work status: Ubu umerewe ute mubirebana n'akazi ?

- a. Working : ndakora (Go to Q 24)
- b. Working and studying : ndiga nkanakor(Go to Q 24)
- c. Studying : ndiga
- d. Neither working nor studying: siniga sinanakora

24. If you are currently working, what type of employment is your main job: Niba ukora ni ubuhe bwoko bw'akazi ukora ?

- a. Employed as a caregiver at an ECD center : uwita ku abana muri ECD
- b. Running your own ECD center : Nyobora cyangwa nkora *mucyange kigo cya ECD*
- c. *Other (please specify) Ibindi:* _____

ECD CAREGIVER OBSERVATION AND INTERVIEW PROTOCOL

Caregiver and Classroom Profile

ECD Center name: _____
District: _____
Observer's name: _____
Observed ECD caregiver's name: _____
Date of observation: _____
Observation started at: _____ (hours) _____ (min)
Observation ended at: _____ (hours) _____ (min)
Number of caregivers in the classroom: _____
Number of girls in the classroom: _____
Number of boys in the classroom: _____
Ages of children in the classroom (please ask caregiver):
4 yr old (circle one): none --- a few --- about half----more than half --- nearly all
5 yr old (circle one): none --- a few --- about half----more than half --- nearly all
6 yr old (circle one): none --- a few --- about half----more than half --- nearly all
7 yr old (circle one): none --- a few --- about half----more than half --- nearly all
Primary language used by caregiver: _____
Primary language spoken by children: _____
Toys/learning materials present? (Circle what you observe) none --- very few --- some----significant amount
What materials are present? (Circle what you observe) toys -- self-made toys--- books ---crayons/pencils---board--
-paper---other

Observations Completed

- Caregiver and Classroom Profile
- Classroom Observation
- Caregiver Interview

Dear Observer,

Please complete the following three sections of the observation protocol during the observation or immediately following the observation. Please provide examples to justify the rating for each of the listed practices. Please refer to the Guidelines for decisions on how to score observed practices.

Practice	None (0): Observed behavior indicates that the caregiver is not familiar with this practice, because she either misses opportunities to use it or acts contrary to the practice.	Minimal (1): Observed behavior indicates that the caregiver might be familiar with the practice but doesn't recognize opportunities to use it.	Some (2): Observed behavior indicates that the caregiver is using this practice, but not consistently	Strong (3): Observed behavior indicates the caregiver is comfortable with this practice and uses it appropriately.
Area 1: Building relationships				
1.1. Caregiver joins children at their level for play, conversation, or reading				
1.2. Caregiver listens to children and observes them attentively				
1.3. In conversations, caregiver allows children to speak, listens to what they say, and responds to what they say in a caring way.				
1.4. Caregiver encourages children to express their thoughts by asking open-ended questions				

1.5. Caregiver repeats or restates what children said, or demonstrates interest in what the child said in other ways				
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Practice	None (0): Observed behavior indicates that the caregiver is not familiar with this practice, because she either misses opportunities to use it or acts contrary to the practice.	Minimal (1): Observed behavior indicates that the caregiver might be familiar with the practice but doesn't recognize opportunities to use it.	Some (2): Observed behavior indicates that the caregiver is using this practice, but not consistently	Strong (3): Observed behavior indicates the caregiver is comfortable with this practice and uses it appropriately.
Area 2: Positive Discipline				
2.1. Clear rules of behavior are in place and the caregiver reminds children about them				
2.2. Caregiver reinforces positive behavior by praise and attention				
2.3. Caregiver models positive conflict resolution practices, such as listening to points of view of all involved children and trying to find a peaceful and fair solution				

2.4. Caregiver acknowledges children’s feelings and opinions when children are having a conflict				
2.5. Caregiver does NOT resort to negative practices such as hitting, yelling, or shaming, when children exhibit negative behavior				

Practice	None (0): Observed behavior indicates that the caregiver is not familiar with this practice, because she either misses opportunities to use it or acts contrary to the practice.	Minimal (1): Observed behavior indicates that the caregiver might be familiar with the practice but doesn’t recognize opportunities to use it.	Some (2): Observed behavior indicates that the caregiver is using this practice, but not consistently	Strong (3): Observed behavior indicates the caregiver is comfortable with this practice and uses it appropriately.
Area 3: Activities to support children’s development				
3.1. Caregiver engages children in activities to support gross motor skills development				
3.2. Caregiver engages children in activities to support fine motor skills development				

3.3. Caregiver engages children in activities to support language development				
3.4. Caregiver engages children in activities to support psychosocial development				
3.5. Caregiver uses toys/learning materials in interaction with children				

GUIDELINES FOR OBSERVATION

During the observation period, please look for both explicit and implicit behaviors that are similar in description or intent.

Area 1: Building relationships

1.1. Caregiver joins children at their level for play, conversation, or reading. “Joining children at their level” is when adult lowers herself down to the level of children by leaning down, kneeling or sitting on the floor or at the table where the children are sitting, or by putting a child on her lap.

None (0) – During the period of observation, caregiver never communicates with children at their eye level, by leaning down, kneeling or sitting on the floor or at the table with the children to talk to children. Caregiver tells children what game or activity they are about to do without offering choices and ignoring children’s verbal suggestion or body language to express what the children like to do or if they are bored doing the proposed activity.

Minimal (1) – During the period of observation, caregiver only a few times communicates with children at their eye level, by leaning down, kneeling or sitting on the floor or at the table with the children to talk to children. Caregiver mostly tells children what game or activity they are about to do without offering choices or asking for suggestions, and mostly being inattentive to children’s ideas or body language.

Some (2) – During the period of observation, caregiver sometimes communicates with children at their eye level, by leaning down, kneeling or sitting on the floor or at the table with the children to talk to children; may put children on the lap. Caregiver is mostly observed attempting to follow children’s lead with play or activity selection, although at times not including children into game selection process or being inattentive to children’s suggestions.

Strong (3) – During the period of observation, caregiver always communicates with children at their eye level, by leaning down, kneeling or sitting on the floor or at the table with the children to talk to children; may put children on the lap. Caregiver solicits children’s input into what activity or game to do together by offering choices or following what the child is already doing, and then follows children’s lead with the activity or the game. Caregiver is attentive to children’s body language and offers a change of activity if the children seem bored.

1.2. Caregiver listens to children and observes them attentively. Listening to children means the caregiver gives her undivided attention to the child who is speaking, and encourages child to speak by asking relevant questions and listening attentively, while maintaining eye contact and displaying attentive demeanor. Observing children means

giving attention to what the child is doing, for example sitting down next to the child when the child is building a block tower and watching the child do that, either silently or with short encouraging statements or questions.

None (0) – During the period of observation, caregiver does not listen to what children are saying; interrupts when children are speaking and does not look at what children are doing for extended period of time. During much of the observation time, caregiver is doing something other than paying attention to children, so that the caregiver and the children are not seen as being involved together.

Minimal (1) – During the period of observation, caregiver occasionally listens to what children are saying, but mostly is not involved in what children are doing. Caregiver does not look at children for an extended period of time but rather glances at them occasionally to make sure everything is in order.

Some (2) – During the period of observation, caregiver mostly listens to what children are saying, and is somewhat involved in what children are doing. Caregiver watches what children are doing but occasionally gets distracted.

Strong (3) – During the period of observation, caregiver always listens to what children are saying, and is completely involved in what children are doing. Caregiver watches what children are doing and offers occasional comments.

1.3. In conversations, caregiver allows children to speak, listens to what they say, and responds to what they say in a caring way. Examples of a respectful conversation may include conversations about play that the children engage in, about children's lives at home, about what their drawing might mean, when caregiver asks questions, validates child's responses, and invites child to ask questions and express him or herself freely.

None (0) – During the period of observation, caregiver is only seen talking at children and answering questions when children ask them, but not engaging in a positive conversation with a child, when a caregiver and the child take turns talking

Minimal (1) – During the period of observation, caregiver mostly talks at children; may answers questions when children ask them without getting to the child's level, but not attempting to engage in a positive conversation with a child, when a caregiver and the child take turns talking

Some (2) – During the period of observation, caregiver sometimes talks at children, but is also observed engaging in occasional positive conversation with a child at their eye level, when a caregiver and the child take turns talking

Strong (3) – During the period of observation, caregiver is never seen talking at children, but instead engages in a positive conversations with a child or groups of children at their eye level, when a caregiver and the child take turns talking.

- 1.4. Caregiver encourages children to express their thoughts by asking open-ended questions.** Open-ended questions are questions that encourage children to think and verbalize their thoughts, such as “Tell me what you liked about the book we just read”, or “What do you think we could do with those blocks?”

None (0) – During the period of observation, caregiver is never heard asking children open ended questions. Caregiver either does not ask children questions, or all questions are factual such as “Do you need to go to the bathroom?”

Minimal (1) – During the period of observation, caregiver is only heard asking children open ended questions once or twice. Caregiver mostly asks questions that are factual such as “Do you need to go to the bathroom?”

Some (2) – During the period of observation, caregiver occasionally asks children open ended questions.

Strong (3) – During the period of observation, caregiver is continuously engaged with children and initiates or supports conversations that children started. Caregiver is heard asking open-ended questions.

- 1.5. Caregiver repeats or restates what children said, or demonstrates interest in what the child said in other ways.** By repeating what the child has said, a caregiver confirms she heard the child, and validates what was said. Caregiver may also make appropriate sympathetic comments, such as “Oh, you are saying you made this tower by yourself, that’s great! I see you really enjoyed building it!”

None (0) – During the period of observation, caregiver does not appear interested in what children are saying or doing. When a child is talking to the caregiver, the caregiver does not show signs of interest or recognition of what the child is saying.

Minimal (1) – During the period of observation, caregiver only occasionally appears interested in what children are saying or doing. When a child is talking to the caregiver, the caregiver acknowledges the child but does not seem to be focused on the child and what the child is saying.

Some (2) – During the period of observation, caregiver appears mostly interested in what children are saying or doing. When a child is talking to the caregiver, the caregiver acknowledges the child verbally (for example, by repeating what the child has just said, or offering sympathetic and relevant comments) and non-verbally (for example, by leaning down and looking directly at child, smiling or looking together with the child at the object of child’s interest). The caregiver listens to what the child is saying, but does not always respond by showing interest and engagement.

Strong (3) – During the period of observation, caregiver shows great interest in what children are saying or doing. When a child is talking to the caregiver, the caregiver acknowledges the child verbally (for example, by repeating what the child has just said, or offering sympathetic and relevant comments) and non-verbally (for example, by leaning down and looking directly at child, smiling or looking together with the child at the

object of child’s interest). The caregiver listens to what the child is saying, and shows interest and engagement.

Area 2: Positive Discipline

2.1. Clear rules of behavior are in place and the caregiver reminds children about them.

Rules of behavior might be found displayed on a large poster, or caregivers might refer to them when they say “We” rather than “You”, and rules are frequently positively phrased (e.g., “Be nice”) rather than negatively phrased (e.g., “No running”). For example, if a child tries to grab a toy from another child, a reference to a rule would sound like “We don’t grab, we ask”, while an individual reaction to specific behavior would be “Don’t grab!” or “You should not grab”. While many of children’s behaviors may fall outside of the set rules of the ECD center, this observation rubric is looking for caregivers making explicit and repeated references to the rules. Common references may sound like “We walk indoors”; “We keep our hands and feet to ourselves”; “We don’t grab, we ask”. Sometimes rules may not include a pronoun and may be stated simply “Be respectful”.

None (0) – During the period of observation, caregiver never mentions to children rules of behavior but rather reacts to specific behaviors

Minimal (1) – During the period of observation, caregiver only mentions rules of behavior in passing but does not state them clearly, for example “You know you should not yell inside.”

Some (2) – During the period of observation, caregiver occasionally mentions rules of behavior when the relevant behavior is displayed, for example: “We keep our hands to ourselves” when a child tries to grab a toy the other child is holding.

Strong (3) – During the period of observation, caregiver refers to rules of behavior every time when the relevant behavior is displayed.

2.2. Caregiver reinforces positive behavior by praise and attention. Whenever a child displays positive behavior, caregiver summarizes positive behavior and praises the child by, for example: “I noticed how you shared the toy for your friend just now – well done! You are such a good friend”.

None (0) – During the period of observation, caregiver never praised any child, even though some children behaved very well.

Minimal (1) – During the period of observation, caregiver offered some attention or limited praise to well-behaving children.

Some (2) – During the period of observation, caregiver offered some attention or limited praise to well-behaving children, but not consistently.

Strong (3) – During the period of observation, caregiver consistently watched for examples of good behavior and made sure to reward good behavior with praise and attention.

2.3. Caregiver models positive conflict resolution practices, such as listening to points of view of all involved children and trying to find a peaceful and fair solution. “Positive conflict resolution practices” are displayed when the caregiver does not ignore the conflict between children, but reacts by listening calmly, acknowledging feelings of everyone involved, helping children put in words how they feel and understand how other children who are involved feel, and calmly offering compromise or a solution to a conflict. For example, if children are fighting, teacher intervenes, asks children to explain the problem, then shows them how to resolve the problem using words (not hitting), taking turns, or other problem solving behaviors.

None (0) – During the period of observation, caregiver responded to disagreements, conflict or negative behavior by negative behavior, such as yelling or hitting.

Minimal (1) – During the period of observation, caregiver responded to disagreements, conflict or negative behavior by ordering children to stop.

Some (2) – During the period of observation, caregiver responded to disagreements, conflict or negative behavior by stopping the behavior, but does not use it as an opportunity to teach children how to resolve conflicts positively.

Strong (3) and listening to them, helping them understand the point of view of other children, and helping children figure out a peaceful resolution of the conflict.

2.4. Caregiver acknowledges children’s feelings and opinions when children are having a conflict. “Acknowledging children’s feelings” means helping child verbalize how the child feels by first closely observing the child and then putting in words the emotions that the child appears to be experiencing, in connection to the situation that caused the feelings.

None (0) – During the period of observation, caregiver did not acknowledge children’s feelings and opinions when they had a conflict, disagreement, or exhibited negative behavior.

Minimal (1) – During the period of observation, caregiver responded to disagreements, conflict or negative behavior by naming the emotion and telling children what they should do (for example, “you are angry now; you must calm down”)

Some (2) – During the period of observation, caregiver responded to disagreements, conflict or negative behavior by saying they understood how the child felt and inviting the child to verbalize their emotions (for example, “You seem to be angry right now; are you angry because your friend took your toy? Say to your friend: ‘I am angry because you took my toy.’”)

Strong (3) – During the period of observation, caregiver responded to disagreements, conflict or negative behavior by inviting children to express their points of view verbally helping them put into words how they appear to be feeling, and linking their feelings to their actions or actions of other people. (For example, “You see that your friend is angry with you because you grabbed the toy he is playing with. Would you be upset if someone grabbed a toy you are playing with? What shall we do about? How about taking turns? While waiting for your turn to play with that toy, would you like to play a counting game with me?”)

2.5. Caregiver does NOT resort to negative practices such as hitting, yelling, or shaming, when children exhibit negative behavior. Negative behavior includes active disagreement, conflict, aggression, or extreme withdrawal from social interactions.

None (0) – During the period of observation, caregiver responded to disagreements, conflict or negative behavior by yelling, slapping children, shaming, or other negative way.

Minimal (1) – During the period of observation, caregiver responded to some disagreements, conflict or negative behavior in a negative way.

Some (2) – During the period of observation, caregiver responded to conflict in a neutral way, stopping most of the negative behavior by re-directing children’s activities and separating quarrelling children.

Strong (3) – During the period of observation, caregiver never responded to disagreements, conflict or negative behavior by yelling, slapping children, or other negative way.

Area 3: Activities to support children’s development

3.1. Caregiver engages children in activities to support gross motor skills development.

For example, a caregiver could organize activities for children that involve bouncing a ball, passing a ball or kicking a ball, climbing stairs, climbing up and down a chair, walking on tippy toes.

None (0) – During the period of observation, caregiver engaged children in activities for gross motor skills development

Minimal (1) – During the period of observation, caregiver engaged children in activities for gross motor skills development at the minimum level, or not appropriately for the age group

Some (2) – During the period of observation, caregiver engaged children in activities for gross motor skills development sporadically

Strong (3) – During the period of observation, caregiver engaged children in activities for gross motor skills development purposefully and consistently

3.2. Caregiver engages children in activities to support fine motor skills development.

Examples of fine motor skills development might include assembling a puzzle, drawing with a pen or crayon on a paper, drawing with a stick in a sand, stringing beads or buttons into a necklace, flipping pages of a book, and any other activity that involves precise finger movements.

None (0) – During the period of observation, caregiver engaged children in activities for fine motor skills development

Minimal (1) – During the period of observation, caregiver engaged children in activities for fine motor skills development at the minimum level, or not appropriately for the age group

Some (2) – During the period of observation, caregiver engaged children in activities for fine motor skills development sporadically

Strong (3) – During the period of observation, caregiver engaged children in activities for fine motor skills development purposefully and consistently

3.3. Caregiver engages children in activities to support language development. Examples activities to support language development including reading a book to/with children, showing pictures in a book or other sources (such as cards, magazines, or drawing on paper or sand) and naming what's on the picture, drawing alphabet, playing with puppets, pretend play, etc.

None (0) – During the period of observation, caregiver engaged children in activities for language development

Minimal (1) – During the period of observation, caregiver engaged children in activities for language development at the minimum level, or not appropriately for the age group

Some (2) – During the period of observation, caregiver engaged children in activities for language development sporadically

Strong (3) – During the period of observation, caregiver engaged children in activities language development purposefully and consistently

3.4. Caregiver engages children in activities to support psychosocial development.

Examples of activities to support psychosocial development may include pretend play (e.g., one child pretends to be a doctor and the other pretends to be patient), role play (e.g., two girls play with two dolls one of whom is a mother and the other is a daughter), cooperative play (e.g., a group of children are building a block or sand city together), games that allow children practicing taking turns, etc.

None (0) – During the period of observation, caregiver engaged children in activities for psychosocial development

Minimal (1) – During the period of observation, caregiver engaged children in activities for psychosocial development at the minimum level, or not appropriately for the age group

Some (2) – During the period of observation, caregiver engaged children in activities for psychosocial development sporadically

Strong (3) – During the period of observation, caregiver engaged children in activities psychosocial development purposefully and consistently

3.5. Caregiver uses toys/learning materials in interaction with children.

None (0) – During the period of observation, caregiver never used available toys/materials OR no toys/learning materials were present

Minimal (1) – During the period of observation, caregiver used materials at the minimum level, or not appropriately for the age group or content.

Some (2) – During the period of observation, caregiver used the toys/learning materials sporadically.

Strong (3) – During the period of observation, caregiver used the toys/learning materials purposefully and consistently.

Pre-School English Language Assessment¹²

General instructions/ Amabwiriza rusange

It is important to establish a playful and relaxed rapport with the children to be assessed, via some simple initial conversation about topics of interest to the child. Inform the child that this is not a test and that the information will not be shared with his or her teacher.





****The child should perceive the following assessment almost as a game to be enjoyed rather than as a severe situation. ****



Ni ngombwa kwiyegezeza abana bagiye gukoreshwa isuzumabumenyi, binyuze mu gutangirira ku ikiganiro kivuga kubintu abana bakunda (reba urugero munsu gato). Umwana akwiriye gufata iri isuzumabumenyi nk'aho ari ukwidagadura aho kurifata nk' ibintu bikomeye . bwira umwana ko ibizavamo batazabyereka umwarimu we.

If the student consent form is not yet completed, do it now. If the student consent has already been obtained, tell the student that you are going to do some activities in English now and then **ask him/her a few questions about their family. If the child says that he or she has not yet learned English, tell the child it is okay. You are trying to learn what he or she knows.**

Niba urupapuro rutanga uburenganzira rutaruzuzwa, rwuzuze. Niba urwo rupapuro rwujwe, bwira umunyeshuli ko mugiyeye gukora imyitozo mu cyongereza, noneho umubaze ibibazo bike bijyanye n' umuryango we. Niba umwana akubwiye ko ataratangira kwiga icyongereza bwira umwana ko nta kibazo ko ushaka kumenya ibyo yaba azi.

¹² This assessment is adapted from the Early Grades Bilingual Assessment developed by EDC L3 project under a cooperative agreement with USAID in 2012.

Task 1: Conversational skills		No materials			Not timed
Ubushobozi Mukuganira					<p> If child gets 3 successive errors</p> <p> If the child doesn't respond after 5 seconds</p>
<p> <i>Ngiye kukubaza ibibazo. Ugerageze gutega amatwi witonze noneho usubize ibibazo neza uko ushoboye. Usobanukiwe icyo ugomba gukora? Allow 15 seconds for each question.</i></p>					
<p>Speak at a normal place, but enunciate clearly. Allow 15 seconds for each question/response.</p>					
	Answer	Student response			
<i>What is your name? Witwa nde?</i>	My name is... or Name (X)	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No response	
<i>Where do you live? Utuye he?</i>	Name of village or I live at/in X	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No response	
<i>How old are you? Ufite imyaka ingahe?</i>	X or X years old or I am X years old	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No response	
<i>How many brothers and sisters do you have? Ufite abavandimwe b'abahungu n'abakobwa bangahe</i>	Number or X brothers and sisters or I have x brothers and sisters	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No response	
<i>What do you like to do? Ukunda gukora iki?</i>	Name of what they like to do or I like to X	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No response	
<i>What is your teacher's name? Mwarimu wawe yitwa nde</i>	His/her name is... or Name (X)	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No response	
<i>What day is it today? Unomunsi turi kuwa kangahe?</i>	Actual day of the week	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No response	
<p> Number attempted:</p>					

Task 2: Common Vocabulary Words	 Book Pencil Put pencil and book side by side, in front of child	 90 seconds
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Ubu rero ngiye kugusaba kunyereka ibice by' umubiri wawe, ibikoresho byo mu ishuri ndetse ndanakubwira aho uzajya ushyira ikaramu hanyuma ubikore.

I will ask you to point to parts of the body, items in the classroom, and to move a pen.



a. Tunga urutoki ku.....*Point to...*

Ukuboko kwawe <i>your arm</i>	Ikirenge cyawe <i>your foot</i>	Akananwa kawe <i>your chin</i>	Ivi ryawe <i>your knee</i>
Urutugu rwawe <i>your shoulder</i>	Inkokora yawe <i>your elbow</i>	Mu maso hawe <i>your face</i>	Umusatsi wawe <i>your hair</i>
Ikaramu y' igiti <i>A pencil</i>	Igitabo <i>a book</i>	Urukuta <i>a wall</i>	
Hasi <i>The floor</i>	Ikaramu <i>a pen</i>	Intebe <i>a chair</i>	



STOP. If the child gets 3 errors in a row.



If the child doesn't respond after 5 SECONDS



No or wrong answer



Wrong answer + self correction




Last item attempted



B. Shyira ikaramu.....*(Put the pen...)*

Ku gitabo <i>On the book</i>	Inyuma yawe <i>Behind you</i>	Hasi <i>On the floor</i>
Musi y'igitabo <i>Under the book</i>	Imbere yawe <i>In front of you</i>	Iruhande rw'igitabo <i>Beside the book</i>

 Time left (seconds):

 Number attempted:

 Number Incorrect:

Task 3A. Alphabet knowledge**No Materials**

🕒 60 seconds



ubu rero ndashaka ko undirimbira cyangwa ukambwira inyuguti z' icyongereza urugero A,B,C,.. wumvise neza icyo ugiye gukora ? niba umwana uvuze ati yego mutangire niba Ari oya musubiriremo neza hanyuma ukande ku isaha kugirango utangire ubare amasegonda akoresha .

Now I would like for you to sing or recite the alphabet. For example, A, B, C...DO you

Note incorrect answers below

A	B	C	D	E	F	G	H	I	J
K	L	M	N	O	P	R	S	T	U
V	W	Y	Z						



If the child gets 3 successive errors



If the child doesn't respond after 5 SECONDS



No or wrong answer



Wrong answer + self correction



Last item attempted

🕒 Time left (seconds):

🕒 Number attempted:



Ntubaze umwana ibi bibazo niba atakoze nibura 4 mu Section ya 2

Do not administer if child scored less than 4 on section 2.

🗣️ Noneho ubu ugiye gukora kuri buri nyuguti hanyuma umbwire uko yitwa reka dukore eshatu za mbere (jya ku urugero ukore ku inyuguti A hanyuma umubwire uti iyi ni "A". Hanyuma ukore ku inyuguti B umubwire uti iyi ni "B" hanyuma ukore ku nyuguti C, umubaze uti iyi ni iyihe? ni inyuguti C. wabyumvise neza icyo ugiye gukora niba umunyeshuri akubwiye ati yego mutangire, navuga ati oya ongera umusobanurire neza

Ndashaka ko utangirira hano. (kora ku nyuguti A iri ku murongo wa mbere) hanyuma ukomeze kuri uyu murongo. umubwire uti "tangira" (tangira ubarishe isaha)

Now I would like for you to point to letters and tell me what they are. Let's try three together. (Point to the letter A in the examples and say, this is the letter A. Then point to the letter B and say "This is the letter B". Then point to the letter C in the examples and ask "What letter is this?" (the letter C). Do you understand what you have to do? (if child says yes, proceed. If not again, report explanation.)

Ingero: **A** **B** **C** Start Timer now!

A	Z	I	N	W
P	M	S	C	J
V	O	G	D	L
F	T	H	R	U
K	E	Y	B	



If the child gets 3 successive errors

K

If child pronounces letter in



If the child doesn't respond after 5 SECONDS



No or wrong answer



Wrong answer + self correction



Last item attempted

🕒 Time left (seconds):


🗳️ Number attempted:

🗳️ Number incorrect:

Ereka umwana izina y' igitabo kitwa "imparage n' ingona" mureke arebe mu masegonda 15, hanyuma umubaze ibibazo bikurikira :
Show the child the little book called "Zebra and Crocodile". Let him/her look at it for 15 seconds, then ask the following questions:

	Correct answer	Child's answer		
1. <i>Tunga urutoki ku gifuniko cy'igitabo</i> Point to the cover of the book for me.	Umwana yerekane ku gifuniko cy'igitabo	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
2. (Open to page 2 and ask) <i>Koresha urutoki rwawe maze unyereke aho utangirira gusoma?</i> Where would you begin to read? Show me with your finger	Umwana ashyaire urutoki ku ijambo ribanza ku murongo wa mbere hejuru I bumoso .	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
3. <i>Ngaho nyereka icyerekezo uri bucemo usoma?</i> Show me in which direction you would read the text.	Umwana avane urutoki I bumoso arujyana I buryo bw' umwandiko.	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
4. (Direct the child's attention to page 2 and say) <i>Ngaho nyereka ijambo imparage</i> Show me the word zebra	Umwana ashyaire urutoki ku ijambo imparage	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
5. (On the same page) <i>Nyereka noneho ijambo ingona.</i> Show me the word crocodile.	Umwana ashyaire urutoki ku ijambo ingona	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
Time left (seconds):				
Number attempted:				
Number Incorrect:				

Check this box if the exercise was discontinued because the child made 3 successive errors

 *Ngiye kugusomera incuro ebyiri aka gatabo k'imparage n'ingona. Tega amatwi witonze kuko nindangiza kugusomera ndaza kukubaza ibibazo bijyanye n' iyi nkuru. (somera umwana inkuru y' imparage n' ingona umwerekana ibishushanyo birimo kugirango arushaho kumva neza umwandiko)
Ngiye kongera ngusomere iyi nkuru. Ngaho tega amatwi. ngiye kugira ibibazo nkubaza kuri uyu umwandiko imparage n' ingona .*

8a Comprehension questions

	Correct answer	Scoring of		
1. Ingona iba he muri iyi inkuru?	umwana asubize mu mugezi	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
2. Imparage iba he muri iyi inkuru?	umwana asubize mu kibaya gifite ubwatsi butoshye	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
3. Sobanura uko ingona ireba imparage .	<ul style="list-style-type: none"> • 2 irabyibushye kandi iteye ipfa • 1 niba asubije ko ibyibushye • 1 niba asubije ko iteye ipfa 	<input type="checkbox"/> Correct, 2 <input type="checkbox"/> Correct, 1	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
4. Ubwo imparage yasuraga ingona ku ruzi, ntaho yigeze ibona mucuti wayo ahubwo yayumvise itaka cyane. Kubera iki yatakiraga mucuti wayo?	Umwana asubize kugirango ayitabare ayirohore mu mazi	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
5. Imparage yakoz'iki yumvise ingona itaka?	Impara yiroshye mu ruzi ijya gukiza ingona.	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
6. Ingona yakoz'iki imparage yiroshye mu ruzi kuyitabara?	Yaravuze ngo urakaza neza mboga zizanye inyama nifuje kuva kera ndazibonye weee!..	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
7. Imparage yakoze iki ku musozo w'iyi nkuru?	Impagage yayikubise umugeri ku bizuru no ku byinyo maze ihita yiruka ivuga iti hehe no kongera kuba incuti n' ingona.	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer

8b. Vocabulary

8. Muri iyi nkuru imparage n'ingona zari inshuti magara. Inshuti magara bivuga iki?	ubushuti bukomeye mbese mumeze nk' abavandimwe	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
9. Muri iki gitabo, ikibaya ingona yabagamo cyari gifite ibyatsi bitoshye . gutoha bivugai ki?	Kuba bibyibushye kandi bisa neza	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
10. Muri iki gitabo, imparage yari ibyibushye kandi iteye ipfa? Gutera ipfa bivuga iki?	Iteye amerwe, mbese ukumva wayirya.	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer
11. Muri iki gitabo imparage yagiye ikubita agatoki ku kandi. Gukubita agatoki ku kandi bivugai iki?	Kurakara cyane ukicuza icyatumye muba incuti	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect	<input type="checkbox"/> No answer

 **Number Incorrect:**

Check this box if the exercise was discontinued because the child made 3 successive errors



See these symbols on the paper? Can you please copy them for me? Thank you.

Reba utu tumenyetso turi kurupapuro? Ese ushobora kutunshushanyiriza? Urakoze.

8a



8b



8c



Number correct:

CHILDREN'S NUMERACY ASSESSMENT¹³

Task 1: Counting- Recitation/ Kubara mu mutwe	No materials	60 seconds for each test																																																																																																														
We are going to play a counting game./Tugiyegukinaumukinowokubara																																																																																																																
1a. Counting by 1s		No materials																																																																																																														
<i>First, I am going to ask you to count as high as you can. Start with the number 1 and keep going until I tell you to stop, for example: 1...2...3...4...etc. Do you understand what you have to do? (If child says no, repeat instructions and example.) Go ahead and begin now.</i> <i>Ngiye kugusabakubara kugeza kumubaremuniubashakugeraho.Herakuri 1 kugezaahougarukiriza.Urugero: 1...2...3...4...</i> <i>Wumvisenezaicyougombagukora?(Umunyeshurinahakana, subiramoamabwirizan'urugero).Ngiye kwifashisha iyi saha ibara. Ngaho bara imibare myinshi uko ushoboye.Uriteguye? . . . Ngaho tangira</i> Start timer now! Write down numbers student says as he/she says them, starting at upper left hand cell in table and proceeding to right. If child counts to 100, stop.		<div style="margin-bottom: 10px;"> When child makes 3 successive errors or gives no number.</div> <div style="margin-bottom: 10px;"> If the child doesn't respond after 5 SECONDS</div> <div style="margin-bottom: 10px;"> No or wrong answer</div> <div style="margin-bottom: 10px;"> Wrong number + self correction</div> <div style="margin-bottom: 10px;"> Last number correct</div> <div style="margin-bottom: 10px;"> Last item attempted</div>																																																																																																														
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Language student used : Kinyarwanda : ____ English : ____ Mixed (Kin/Eng): Other:																																																																																																																
Check this box if exercise was discontinued because child could not count.		<input style="width: 50px; height: 30px;" type="checkbox"/>																																																																																																														

¹³ This assessment is adapted from the Early Grades Mathematics Assessment developed by EDC L3 project under a cooperative agreement with USAID in 2012.

Task 2: Adding Objects

20 Stones

Not timed



I have a collection of stones. I want to use my stones to add 3 stones and 1 stone. So I take 3 stones from the pile and put them in front of me./ Reba ikikirundocy'amabuye. Ngiyegukoreshaaya amabuye mu guteranyaamabuye 3n'ibuye 1.

Take 3 stones and place them in front of you./Fata amabuyeatatuuyashyireimbereyawe.

Then I take 1 more stone from the pile and add it to the 3 I already have...../Ndafatairindibuyerimwe mu kirundondishyire kuya amabuye 3 narimfite.....

Then I put all of them together and count how many I have in all./Nonehondayashyirahamweyosehanyumambareayomfite.

Put the 3 stones and the 1 stone together and count./Shyirahamweyamabuye 3 naryabuye 1 nonehoubare.

1...2...3...4 I have 4 stones in all. Do you understand what you have to do?/1....2....3....4 Mfiteamabuye 4 yosehamwe. If child says yes, proceed with question 1. If not, do another example.

Questions	Acceptable AnswerResponse			
1. Give child 3 stones / ha umwana amabuye 3 <i>How many stones do you need to add to your pile to have 5 stones?/Ukeneyekongera mu kirundocyawe amabuyeangahekugirangougireamabuye 5</i>	2 or 2 stones	Correct	Incorrect	No answer
2. Give child 8 stones / ha umwana amabuye 8 <i>How many stones do you need to add to your pile to have 10 stones?/Ukeneye kongera mu kirundo cyawe amabuyeangahekugirangougireamabuye 10</i>	2 or 2 stones	Correct	Incorrect	No answer
3. Give child 12 stones / ha umwana amabuye 12 <i>How many stones do you need to add to your pile to have 15 stones?/Ukeneyekongera mu kirundo cyawe amabuyeangahekugirangougireamabuye 15</i>	3 or 3 stones	Correct	Incorrect	No answer
4. Give child 13 stones / ha umwana amabuye 13 <i>How many stones do you need to add to your pile to have 20 stones?/Ukeneyekongera mu kirundo cyawe amabuyeangahekugirangougireamabuye 20</i>	7 or 7 stones	Correct	Incorrect	No answer
5. Give child 7 stones / ha umwana amabuye 7 <i>How many stones do you need to add to your pile to have 15stones?/Ukeneyekongera mu kirundo cyawe amabuyeangahekugirangougireamabuye 15</i>	8 or 8 stones	Correct	Incorrect	No answer



When child makes 3 successive errors or non-answers



If the child doesn't respond after 5 SECONDS

Number attempted

Language student used : Kinyarwanda : ____ English : ____ Mixed (Kin/Eng):Other: ____

Check this box if exercise was discontinued

Task 3. Number pairs

Fingers

Not timed

I am going to hold up some fingers and ask you to count. For example, if I hold up/ arrange my fingers like this...

arrange so two fingers are up and three down like this...../Ngiyekuzamuraintokizanjyehanyumauzibare. Urugeronibanzamuyeintokizanjyentya.....

and ask you how many fingers are up, you will say two...one, two/ Ndakubazantiintoki nazamuyenizingahe, uransubizautiniebyiri.... nirumwe, niebyiri , Point to the two fingers that are up and count them 1...2

If I ask you how many fingers are down, you will say 3/Ninkubaza ngointokizimanuyenizingahe, uravugautini 3 , Point to the fingers that are down and count them...1, 2, 3

2 fingers up and three fingers down. Do you understand what you have to do? Intokiebyirizizamuye, intoki 3 zimanuye. Wumvisenezaicyougombagukora? If child says yes, proceed with question 1. If not, do another example.

Questions	Acceptable answer	Response		
1. Hold 5 fingers up on one hand How many fingers are up?/Nazamuyeintokizingahe?	5 or 5 fingers	Correct	Incorrect	No answer
2. Hold up 3 fingers on one hand a. How many fingers are up/ Nazamuyeintokizingahe?	3 or 3 fingers	Correct	Incorrect	No answer
3. Hold up 10 fingers on two hands a. How many fingers are up? Nazamuyeintokizingahe?	10 or 10 fingers	Correct	Incorrect	No answer
4. Hold up 8 fingers on two hands a. How many fingers are up? Nazamuyeintokizingahe?	8 or 8 fingers	Correct	Incorrect	No answer
5. Hold up 6 fingers on two hands a. How many fingers are up? / Nazamuyeintokizingahe?	6 or 6 fingers	Correct	Incorrect	No answer



When child makes 3 successive errors or no answers



If the child doesn't respond after 5 SECONDS

Number attempted

Language student used : Kinyarwanda : ____ English : ____ Mixed (Kin/Eng):Other: ____

Check this box if exercise was discontinued

Task 4: Number Identification

Sheet A

60 seconds



Reba iyimibareikurikira .Ndashakakoukorakuriburimubarehanyumaukambwirauko bawusoma. Ngiyekwifashishaiyisahaibarahanyumautegerezendakubwiraigiheuributangiriren’igihe urangiriza. / - [point to first number] Hera aha. Uriteguye?
- Uyu mubare bawusoma gute? Ngaho Tangira.

4	3	6	8	7	___/5
2	1	9	5	10	___/5
11	28	58	87	92	___/5
28	68	80	19	33	___/5
Grand total					___/20



If the child gets 3 successive errors



If the child doesn't respond after 5 SECONDS



No or wrong answer



Wrong answer + self correction



Last item attempted

Time left (seconds):

Number attempted:

Check this box if the exercise was discontinued because made 3 successive errors.

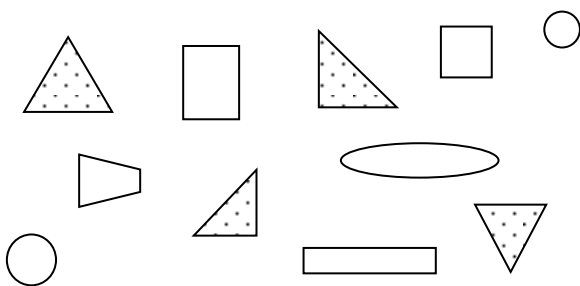
Task 5a: Shape Recognition

Sheet B

(Not Timed)



Now I'm going to show you some shapes. I want you to place the counters on all of the triangles you find on this sheet. You don't have to use all of the counters. Okay, let's begin. Let me know when you are finished.



Correct: ___/4

If learner pauses for 3 seconds, say 'Are you finished?'

(Stop)

- If learner says yes, finished.
- If learner places counter on incorrect shape
- When learner successfully marks all of the correct shapes

(Move on)

If learner says no, not finished and does not respond for 3 more seconds, move on to the next shape

Time left (seconds):

Number attempted:

Check this box if the exercise was discontinued because made 3 successive errors.

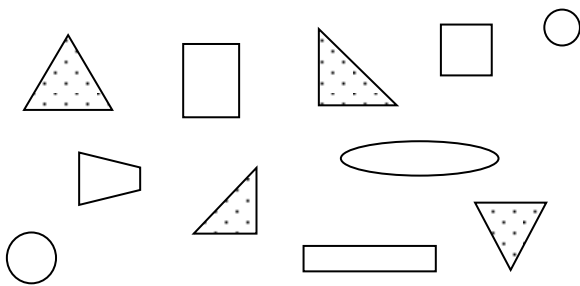
Task 5b: Shape Recognition

Sheet B

(Not Timed)

Counters: Place the counters to the side of the learner. Place Sheet G1 in front of the learner.

Now I want you to place the counters on all of the circles you find on this sheet. You don't have to use all of the counters. Okay, let's begin. Let me know when you are finished.



Correct: ___/2

If learner pauses for 3 seconds,
 say 'Are you finished?'

(Stop)

- If learner says yes, finished.
- If learner places counter on incorrect shape
- When learner successfully marks all of the correct shapes

(Move on)

If learner says no, not finished and does not respond for 3 more seconds, move on to the next shape

Time left (seconds):

Number attempted:

Check this box if the exercise was discontinued because made 3 successive errors.

Task 5c: Shape Recognition

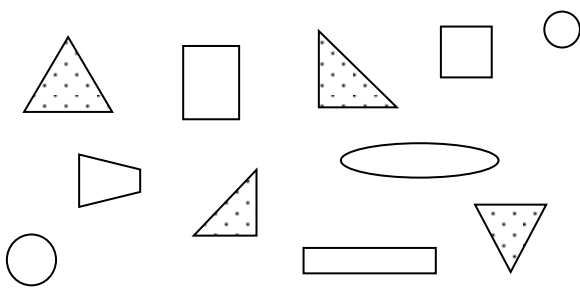
Sheet B

⌚ ✕ (Not Timed)

❖ Counters: Place the counters to the side of the learner. Place Sheet G1 in front of the learner.



Now I want you to place the counters on all of the rectangles you find on this sheet. You don't have to use all of the counters. Okay, let's begin. Let me know when you are finished.



Correct: ___/3

If learner pauses for 3 seconds,
 say 'Are you finished?'

(Stop)

- If learner says yes, finished.
- If learner places counter on incorrect shape
- When learner successfully marks all of the correct shapes

➡ (Move on)

If learner says no, not finished and does not respond for 3 more seconds, move on to the next shape

Time left (seconds):

Number attempted:

Check this box if the exercise was discontinued because made 3 successive errors.