

The Safe Learning Model

Class 6, RC Primary School, Matotoka Community,
Tonkolili District, Sierra Leone. Photo Credit: Michael
Duff, June 2015



Significant Findings

- The Safe Learning Model has positive impacts on basic Literacy skills and wellbeing, especially for girls in intervention group one.
- There is a clear link between Literacy progress and Wellbeing, particularly for girls.
- As anticipated, EGRA scores improved for all groups over time as children progressed through the first three years of primary school.
- As expected, improvements over time were highest among lower order skills that are more readily learnt, than more complex higher order skills.
- Overall, improvements in Literacy outcomes were present for both boys and girls over time, with effects of the intervention being stronger for girls than boys, however on average, boys perform better than girls across subtasks.
- Literacy skills of children in Intervention schools, particularly girls, generally improved faster than children in Control schools.
- There was no observable difference in teaching practices of qualified and unqualified teachers, however Intervention teachers identified letter sounds as important and spent significant time teaching this, whereas Control teachers did not.
- Teachers, principals and caregivers have high aspirations for the education of girls and believe it is necessary, however also have lower expectations for their success in school with the majority believing boys are more brilliant than girls.



Context of the Research

Developed by Concern Worldwide, the 'Safe Learning Model' adopts a holistic approach to the education of children in extreme poverty, in order to realise sustainable improvements in children's literacy, wellbeing and gender equality (including gender-based violence) in schools and communities. The model combines a comprehensive educational programme with interventions that support teaching practices, as well as gender-based violence prevention and response.

“children’s educational progress will be enhanced when they live in communities that are underpinned by support for gender equality and children’s wellbeing.”

In order to evaluate the effectiveness of this integrated model, University College Dublin (UCD) School of Education conducted a three-year longitudinal study with approximately 3,000 children, their teachers and caregivers from 100 primary schools in Tonkolili, Sierra Leone. The randomised control trial utilised a mixed methods design that included; 376 semi-structured interviews and group discussions along with participatory approaches such as photo voice, 42 hours of classroom observational data, analysis of school records, annual Early Grade Reading Assessments (EGRA) and the Child and Adolescent Personal and Social Assessment of Wellbeing (CAPSAW). The study examined wellbeing, gender equality and literacy development of a cohort of pupils and their everyday experiences in school and at home and ultimately how this may be affected by the programme. This brief presents specific interpretation of the findings related to Literacy, Learning and Teaching from the study (2018-2021), providing detailed information on the impact of the intervention and how Literacy achievement, Wellbeing and Gender are connected. Additional thematic briefs including a more general overview as well as detailed information and interpretation of other key findings and the intervention and research design are available².

¹ This briefing is based on original research undertaken by Devine, D; Sugrue, C; Symonds, J; Sloan, S; Kearns, M; Bolotta, G; Samonova, E; Capistrano, D Smith, A and Gibbons, R; University College Dublin, School of Education.

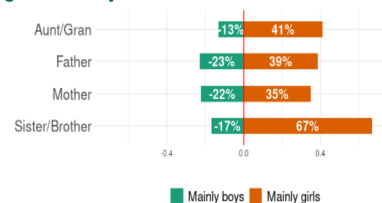
² More information on the Safe Learning Model and study is available at <https://www.concern.net/knowledge-hub/education-safe-learning-model-research> or contact: Amy Folan, Senior Education Advisor, Concern Worldwide amy.folan@concern.net

Key Findings

Value of Education and Informal Learning in the Home and Community

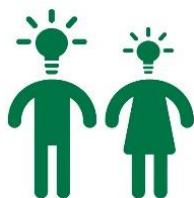
Case studies revealed that families' attitudes towards education revolved around interlinked concepts of education as an 'investment' and education as 'freedom from poverty', potentially having a long-term impact on family economic status. Going to school was consistently referred to as an important part of a 'good' childhood and was valued for the benefits that accrue to the family. However, with the opportunities for education, challenges also arose, especially in relation to expectations regarding children's work contributions within the villages and financial constraints often impacting household ability to pay for the costs of education, while children's work contributions in the family and farm remained central to family livelihoods. The research highlighted how support for girls' education is understood within a perception of greatest likely return for investment, with the belief that girls, more so than boys, will use their education to help the family in future years.

Who do you think will use their education to get a better job in the future?



While Education was valued, there were low levels of intergenerational formal education in families and the wider community. Nevertheless, case study families undertook a variety of informal learning activities at home that helped support children's educational attainment. These could be categorised into academic style activities (teaching counting, colours/shapes) and oral language activities (telling stories and singing). Almost all families taught, or modelled counting with the children and engaged in oral language activities at home as these were understood as essential 'life skills', however fewer families engaged in what was understood as 'learning for school' due to their perceived inability to 'teach'. Informal learning in the home was intergenerational and strongly influenced by gender, with different activities undertaken by different family members. Activities associated with the home or family economy were more often taught by parents, with mothers overwhelmingly modelling domestic chores and 'selling' and both mothers and fathers modelling farm work. Traditional oral literacy activities such as singing, and storytelling were commonly undertaken across generations and older siblings, particularly older brothers, predominately helped younger children in more formal education activities at home such as learning to read and count.

Gender Attitudes to Success in Education



Gender norms and perceptions of what it means to be a boy, or a girl are incorporated in the everyday life of children in Sierra Leone and underpin their experience of childhood, including work, play and classroom life. These perceptions of fundamental differences between men and women became clearly visible in attitudes and practices related to education and in expectations for girls' success. The study identified that teachers' attitudes were deeply gendered with some contradictions evident in their views on the learning of boys and girls. Across the study, teachers and principals highlighted their high aspirations for the education of girls and their belief in the necessity of education for girls. Observations in case study intervention schools highlighted teachers' emphasis on the active involvement of girls in lessons. However, interviews with teachers also confirmed their lower expectations for the success of girls in school and across both intervention and Control schools, most principals and teachers believed that boys were more brilliant than girls and that girls usually needed more help in class.

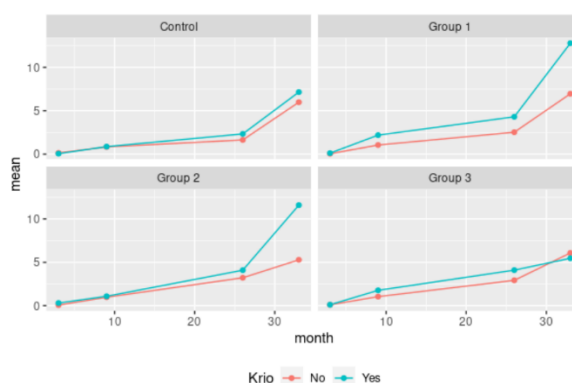
Similar gendered views were evident among case study families. In general, parents (and elders) aspired to educate girls and believed that girls more than boys will use their education to help their family out of poverty. The study also showed that most of the children's extended family believe that "mainly girls" are going to use their education to get a better job in the future. However, parents and elders also have lower expectations for girls' success connecting this to sexuality, pregnancy, and girls' "poor" moral character. Further the study showed a progression in these gender stereotypical views over time and its negative impact on girls themselves. It was found that children's views on gender differences deepened over time, with increasingly negative views of girls' capacities evident, especially among boys as they got older.



Language

Multilingualism was highly evident in the study population, with fluency in local languages central to children's evolving language skills. While English was taught in schools, children rarely spoke it out of school. At Baseline, 65% of the children spoke Temne at home. The second most spoken language was Krio (29%), followed by Kuranku (17%) and Limba (14%). Results indicated that children who spoke Krio, a language predominately derived from English, at home scored significantly higher in more complex skills such as invented word and oral reading compared to those who did not speak Krio at home, highlighting the importance of ensuring children are learning Literacy skills in a language as familiar and close to mother tongue as possible.

Average cwpm for Oral Reading by language spoken at home



Early Grade Reading Assessment: Changes Over Time and Intervention Effects

To measure children's literacy the Early Grade Reading Assessment (EGRA) was administered. The assessment consists of six sub tasks: letter identification, letter sounds, familiar words, invented words and oral reading and comprehension. Together with qualitative interviews in the four case study communities and systematic structured classroom observations in the case study schools, a comprehensive picture of literacy development and teaching practices in Tonkolili was provided.



Letter Names

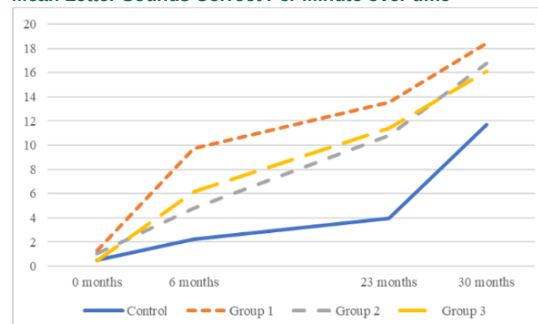
Trajectories of the mean number of letters correctly identified per minute were similar for all groups, with children scoring less than 10 letters per minute at baseline, and near linear improvements for all groups at the subsequent time points. At 30 months, children were capable of correctly naming an average of between 39 (control) and 45.1 (Literacy only) letters per minute. Boys receiving both just the Literacy package and the full Literacy, School and Community Level SRGBV prevention and response package had a statistically significant advantage over boys in control schools in the early stages of the programme and continued to increase their advantage after school closures. However, in the final wave of data collection, boys in control school had reduced this gap. A similar trend in the early stages of the programme could be identified with girls, however girls in the Literacy only group maintained a small statistically significant advantage over their peers in control schools at the end of the study.

Letter Sounds



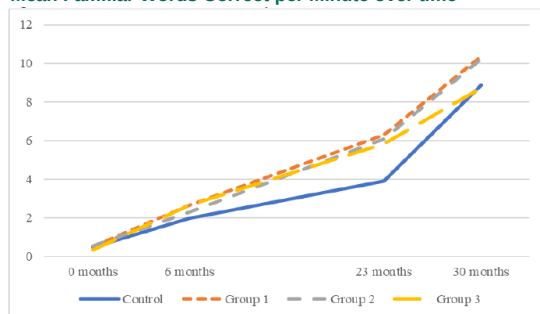
While there was a marked increase in the mean number of correct letter sounds per minute for all groups over time, unlike the Letter Name subtask, trajectories in Letter Sound identification differed between the intervention groups and the control group. The intervention groups made substantial early improvements, in the first six months with a statistically significant advantage compared to control schools, maintaining this advantage during school closures despite seeing a more gradual increase during this time. In the final year of the programme, intervention groups saw another marked increase once schools had been reopened for one year. In contrast, the improvement in the control group was slower at earlier time points, with children able to identify fewer letter sounds per minute after 2 years of school than those in intervention schools could identify after just 6 months of primary school. However, there was a marked improvement in the final year of the programme (grade 3), with children in the control group scoring on average 11.7 letter sounds correctly per minute, still significantly below the 16-19 correct letters per minute of intervention groups with girls receiving just the Literacy package having the most significant advantage. The data revealed that while both boys and girls in the control groups did begin to develop letter sound knowledge by the end of their third year of school, compared to children in the Safe Learning Model intervention schools where teachers identified knowledge of letter sounds as an important skill for children and subsequently spent a significant amount of time on teaching these foundational skills, children in Control schools had essentially missed out on developing this foundational skill in the first two years of their education, which will have detrimental knock on effects as they continue through their education and begin to develop more complex Literacy skills.

Mean Letter Sounds Correct Per Minute over time



Familiar Words

Mean Familiar Words Correct per Minute over time

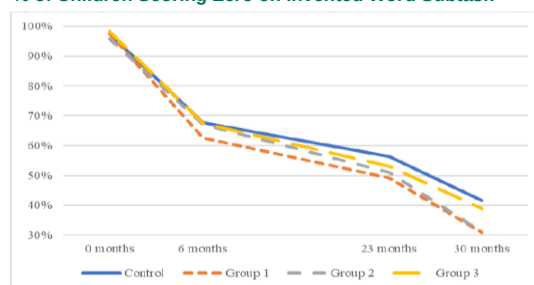


than girls in the Control group. By 30 months, reflecting the improvement of the Control group between 23 and 30 months, neither boys nor girls in the intervention groups held statistically significant intervention effects over their peers in Control group.

Invented Words

As Invented words sub-task results were significantly lower across all groups, results are presented as the percentage of children scoring zero, or unable to correctly identify at least one word. While the proportion of children scoring zero dropped over time in all groups, by 30 months between 31% and 41% of children still failed to correctly identify at least one invented word per minute. Intervention groups had a lower proportion of children scoring zero at all time points post baseline relative to the Control group, with the most significant gap between Groups 1 and 2 and the Control at 30 months. Boys and girls in Group 1 had a lower chance of being unable to correctly identify at least one invented word compared to those in the Control group. At 23 months, boys in all intervention groups had a statistically significant lower chance of scoring zero relative to boys in the Control group, while girls in Group 1 had statistically significant lower odds of zero scores relative to the Control group. By 30 months, girls in both Group 1 and Group 2 had a statistically significant lower chance of failing to identify an invented word relative to the Control group, with girls in both groups being less than half as likely to identify zero invented word as their peers in the Control group. However, by 30 months, this gap had closed and there was no statistically significant difference between boys in the intervention groups and boys in the Control group, which is expected considering the sharp increase in letter sound identification seen at 30 months for the Control group.

% of Children Scoring Zero on Invented Word Subtask



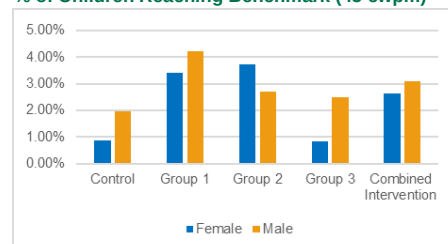
Oral Reading



By 30 months, approximately 25% to 30% of children across all groups were still unable to read a single word correctly in a minute. As such, oral reading results are presented as the percentage of children scoring zero correct words per minute. While there was an overall decline in the number of children who failed to read a single word in a minute over the three year period, this was slightly more evident in intervention groups. From 0 to 23 months, children in the intervention groups were less likely to score zero relative to the Control group, with under 46% of children in intervention Groups 2 and 3 scoring zero by 23 months, compared to approximately 52% of children in the Control group. Intervention effect odds ratios indicated that girls in intervention Group 1 were at least three times less likely to score zero relative to girls in the Control group. By 23 months, boys in each of the intervention groups were less likely to score zero than their peers in Control groups, although only girls in Group 3 had less chance of scoring zero relative to girls in the Control group at a statistically significant level. By 30 months, however, only girls in Group 2 had statistically significant lower chance of being unable to read a single word than Control groups.

At the end of 3 years of schooling, the associated minimum benchmark in connected text oral reading is 45 correct words per minute. Table 15 indicates that the proportion of children reaching this benchmark is very low across all groups (sex disaggregated), although a higher proportion of children in intervention groups are able to reach the threshold relative to the Control group, with the exception of girls in Group 3. The low proportion of children able to reach the minimum threshold might partly reflect the period of school closures over the course of the study.

% of Children Reaching Benchmark (45 cwpm)



Reading Comprehension

Children who were able to correctly read at least one word in the Oral Reading subtask, were evaluated on reading comprehension. Of those children, the percentage unable to correctly answer a comprehension question declined for all groups at a relatively similar trajectory, with 25-36% of children still unable to answer a question correctly at the end of grade 3. There were no statistically significant difference between Control and Intervention groups, noting that the sample size was considerably reduced due to the high proportion of children scoring zero in the oral reading task.

Teaching Practices



Qualitative interviews with teachers, head teachers and children along with systematic structured classroom observations provided further insights into the impacts of the intervention and highlighted key elements of teacher practices that contextualise and illuminate aspects of the EGRA findings. For example, observations of teacher lessons point to moderate levels of classroom organisation, emotional support for children and engagement by children with their learning. From a literacy perspective, evidence from the intervention case study schools indicates that teachers identify knowledge of letter sounds as an important skill for children, whereas teachers in the Control schools do not note its importance and this was reflected

by teachers in intervention groups spending a significant amount of time on teaching letter names and letter sounds.

I am trying very hard now for them to know how to pronounce the sounds of the alphabet, and also for them to know how to spell three or four letter words and to read three or four sentences on the blackboard.

(Female class 3 teacher, Nayikiwo, Group 1)

These systematic observations confirmed teachers across each case study school preferred didactic and teacher centred methods, focusing on repetition, recitation and copying of tasks from the blackboard with these patterns applying to all teachers irrespective of qualification. Most of the time the teachers' audience was the whole class or individual children, while working in groups or in pairs was rare, which reflects the lesson plan manuals developed by the Ministry of Education of Sierra Leone in response to large class sizes and limited teacher training. There were no observed differences in the teaching practices of qualified and unqualified teachers in the case study schools. Interestingly, teachers did not mention textbooks in their accounts of good teaching, however, most head teachers across the 100 schools indicated that their schools were affected by a shortage or lack of instructional materials (e.g., textbooks), head teachers in the Control group declared being more negatively affected compared to those in the intervention groups. Teachers interviewed in the case study schools confirmed the shortage of textbooks and even where textbooks did exist, they were frequently locked away, unavailable for use.

Relationship between literacy, wellbeing and gender

There was a significant positive correlation between EGRA scores and levels of 'feeling good'. Children who performed well in EGRA subtasks appeared to also report higher levels of feeling good about themselves. In other words, there was a clear relationship between children's literacy progress and their feelings of wellbeing. This was especially the case for girls.



The intervention in Group 1 had a positive and significant effect on the levels of 'feeling good' among girls. Apart from the direct effect of the intervention on 'feeling good', there was also an indirect effect that is explained by their EGRA performance. Consequently, girls in Group 1 had higher EGRA scores and their improvement in literacy also resulted in higher levels of 'feeling good'. These patterns can also be understood in the context of socio-cultural norms related to wellbeing and realising a 'good life'. Aspirations for girls reflected local understandings of wellbeing as freedom from poverty (a 'good' life) and girls' education as good for the family (a 'good' life). Doing well in literacy thus heightens the value of, and aspirations for girls, which may positively influence girls' wellbeing.

Conclusions and Recommendations

The research demonstrates that the Safe Learning Model has positive impacts on basic literacy skills and wellbeing, especially for girls in intervention Group 1. However, these positive changes occurred within a larger context of endemic poverty, gender stereotypes, structural problems of the educational system and the impact of school closures during the COVID-19 pandemic. These might have negatively impacted the level of success of the intervention.

Intergenerational caregiver engagement in learning, including the prioritisation of learning has a critical impact on the academic development of boys and girls as highlighted by the case study communities, with various family and community members paying interconnected roles in supporting young children's foundational learning. In turn, the study demonstrated the importance of ensuring children are learning Literacy skills in a language as familiar and close to mother tongue and predominate home language as possible, with children who spoke Krio, a language predominately derived from English, the language of school, at home scoring significantly higher in more complex skills such as invented word and oral reading compared to those who did not speak Krio at home.

With these factors considered, the analysis of EGRA scores shows the improvement over time for both Control and intervention groups, however intervention groups performed better in general than Control groups, depending on sub-task and gender. Of note is that despite boys continuing to generally outperform girls, the intervention has a stronger effect on girls rather than boys especially in the later time periods. The analysis of qualitative interviews and systematic classroom observation highlights there is no observable difference between the teaching practices of trained and untrained teachers, however there was a direct and positive impact of the literacy intervention on what teachers emphasise in their teaching, aligning this with core skills prioritized in the intervention.

The study highlights contradictory trends with respect to girls' education showing high aspirations for the education of girls, yet lower expectations of their success in education. The intervention has been shown to have a positive impact on girls' success, especially in Group 1, but also a positive impact on their wellbeing. This suggests that targeted supports for girls in their learning and success in schools may also support their levels of confidence and happiness.

Key Recommendations

- Prioritise continuous teacher professional development including review of pre- and in-service teacher training to include increased emphasis on Foundational Literacy, child centred methodologies and gender equality related to expectations of girls' learning.
- Build clearer links between children's local language/mother tongue and language teaching/learning including support to teachers in ensuring the skills and resources available to do so.
- Recognising the crucial role of community and caregivers in both formal and informal learning and language acquisition, prioritise systematic caregiver engagement in children's education.



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