Emergent Literacy and Maths Initiative (ELMI)

Overview of the innovation
The Rwandan Emergent Literacy and Maths Initiative (ELMI) aimed at more inclusive and effective learning for all pre-school children to better prepare them for entering primary school. The project had two separate components: a first component aimed to improve the quality of teaching of literacy and Mathematics skills in early childhood development (ECD) centres. This included supporting caregivers to create a stimulating, age-appropriate and engaging learning environment. The second component worked with parents of children not able to access formal ECD services and trained them on simple activities they can do at home to support their children’s learning. The project also advocated at the national level for the integration of the ELMI approach into the new pre-primary curriculum.

ELMI worked with 2,873 parents and 58 caregivers in 33 ECD Centres. The total budget for the intervention was GBP 618,437.

Grant Recipient
The project was managed by Save the Children, Rwanda.

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What makes it innovative?
ELMI has been successfully implemented in other contexts (for example, Mozambique and Bangladesh) but the approach to early years’ education was new to the Rwandan context. A parent outreach initiative in areas where there were no ECD centres was added to the delivery model in Rwanda with the aim of maximising the impact of the initiative for all children. This training of often illiterate parents to support the school readiness of their children through simple, practical learning activities in and around the house was a new way of working in Rwanda.

Relevance to education priorities:
Main Theme: Effective teaching and learning
Sub-theme: Inclusive education
This project was closely aligned to a number of government priorities including ’Rwanda reads’, and the promotion of ECD as a key aspect of the ESSP.

Project learning (activity/output to outcomes level)
• The ELMI activities changed the classroom environment in existing ECD centres to be more child-friendly and emphasised learning through play: children sat on the floor, there was the use of thematic corners, use of big books, use of local materials. Children actively participated and were encouraged to discover new things.
• ELMI boosted self-confidence. One of the committee members of a centre in which SC was working mentioned that “You can see the difference between a kid who is in an ECD Centre and a kid who isn’t - you can see it from the way they walk on the road. Kids who attend the ECD Centre have less fear and are less insecure.”
• Parents were more readily engaged by being trained to do simple activities with their children that can be conducted in and around the house, in the market, etc. For example: learning counting skills by counting objects when doing small purchases, learning sorting skills during food preparation and reading together or talking about pictures in a book. The activity cards provided helped parents easily remember the ‘lessons’ and what to do.
• The parenting component in particular shows interesting elements of parents’ empowerment; parents started to understand that they have something to offer to their children in terms of learning, even if they are illiterate themselves.
Project outcomes and reflection on monitoring and evaluation

The innovation was evaluated through a quasi-experimental comparison of designed treatments: considering changes in learning outcomes (measuring their school readiness) for children in ECD centres receiving ELM intervention (treatment 1) with those who were non-ECD children whose parents received ELM intervention (treatment 2) compared with those with children with no exposure to ECD (comparison 1) and those children in ECD centres but with no ELM intervention (comparison 2). Other quantitative measures, including observation of classroom and home environments, were also collected.

Significant improvements in learning outcomes for literacy and maths were found, for both treatment groups, with the best gains being for those whose parents were trained (treatment 2), though the absolute level of achievement was the same as the ECD centre children whose caregivers experienced ELMI (treatment 1). When children in all the groups enter Grade 1 of primary schools they make less progress, as compared to when they were at ECD centres, and are still working to gain foundational pre-school skills. [The parent treatment group makes the most progress].

The implication is that the ELMI parenting component (treatment 2), which is much less resource intensive, produces almost the same gains as the ELMI ECD centre approach [with continuing inputs from parents when children enter primary school] - and is a better option for scale up. A key finding here is that for both treatment groups the interventions are benefiting all families and children equally, regardless of socioeconomic status or gender (this is not the case for the control group; comparison 2).

Few other variables were related to the improvements but the strongest relationship seen was between school environment and child learning from midline was the number of textbooks found in a classroom, which is positively related to learning gains in literacy and numeracy.

The design, conduct and analysis of the study are to a high standard, using learning outcome measures (school readiness) drawing on an internationally used instrument validated and reliability checked for Rwanda results. These provide strong evidence of effectiveness of ELMI. More could have been done to illustrate the validity of the other instruments (e.g. classroom observation).
**Conditions for success**

Engagement with parents was a key condition for the project’s success. In the longer term, sustainability of improvements in quality teaching for formal ECD services depends upon integration of ELMI into the revised pre-primary curriculum. This project represents a positive case study of planning for such integration with advocacy work and engagement with key stakeholders at the national level featuring as a key component of the project.

The participation of decentralised level government staff, Sector Education Officers in particular, is a critical condition for success, especially for the work with parents. Their participation and support to the parenting work will need to be formalised during scale up.

The ECD centre component benefitted from the input of appropriately skilled VSO volunteers to provide the necessary technical inputs and support to the care-givers.

The project was well grounded in government policy. GoR policies and budget need to be conducive to the establishment and management of ECD centres and/or pre-primary classrooms across the country for the benefits of the ECD centre component to continue.

**Scale up and sustainability considerations**

Both the centre-based and the parenting components are replicable provided that in the short to medium term TA support from Save the Children (or others) remains and funding is made available.

As far as the centre-based component is concerned: the premise of scale up is that the innovation works in existing centres or pre-primary classrooms, which means funding is required for the running of these centres /classrooms and creating the conditions for ELMI to operate in the centres /classrooms.

For both the parenting and centre-based components, SC has concrete short term plans. Longer terms plans provide different options. For the parenting component the main option is strongly focused on integration within the Ministry of Gender and Family Promotion (MIGEPROF) programme, and SC discussions with MIGEPROF are in an advanced stage. Other options include: (i) working with REB to include parenting activities for school readiness, (ii) working at grassroots level with local leaders in order to sustain the intervention, (iii) establishing cooperatives and/or aiming for delivery through other NGOs.

For the centre-based component, there are scale-up options with regard to (i) incorporation of emergent literacy and maths skills development activities in the new pre-primary curriculum, (ii) adoption of ELM tools and techniques by other NGO programmes and practitioners and (iii) integration of ELM skills in pre-service teacher training.

The system focus is appropriate and moving towards the integration of the parenting component in the MIGEPROF programmes is a promising step. A number of questions may still need to be answered specifically around the extent to which this integration will indeed lead to nation-wide upscaling as well as the extent to which the ELMI approaches, methods, materials and techniques will be reflected in the MIGEPROF overall programme. Enhanced analysis is required to describe the trajectory and scope of this ‘mainstreaming’ option, as well as the risks associated with that. One of the potential risks could be the fact that a diluted version of ELMI will emerge when it
becomes a component of a wider programme. Moreover, there is a need for a better description of the process to achieve (i) system readiness to take over the management and coordination of ELMI work in the future and (ii) a transitioning of the SC role and the implications in terms of supporting institutional strengthening and capacity building.

For the ECD centre component, the focus on the curriculum and master trainer role seems very appropriate. However, there could have been more discussion about the fact that this was not the model that was tested (although integration with the ECD curriculum was one of the objectives of the pilot) and consideration of the risks and implications for the future. Influencing the curriculum has been part of ELMI’s work since the beginning, but implementing a curriculum and supporting teacher training at the highest level is a different proposition to working in the centres with the support of VSO volunteers, as practised in the pilot.

Another question exists about expanded role of DEOs and SEOs in delivery of the scale-up model. They have not been part of the pilot intervention to the same extent and there are questions about their capacity to deliver, both technically as well as the time required to take on such new roles.

**Cost Considerations**

Three scale up models are discussed in the economic analysis: (i) Scaling up centre based ELM within government supported pre-school classes (GBP 23 per child), (ii) Scaling-up/replicating ELM model in community ECD centres (GBP 53 per child) and (iii) Scale up of parenting model (GBP 13 per child). Costs have been calculated based on a 2 years period, but it seems that for both components the cost analysis of the next two years can be extrapolated to a more sustainable model as well.

The analysis is clear and the unit costs presented provide an opportunity to compare the parenting with the centre based components. Most importantly the unit costs are also linked to potential impact, which seems to make a strong argument to focus on the parenting component (if a choice needs to be made). The analysis could have been stronger by considering what the implications would be for the government if ELMI is implemented in a GoR context and how the scale-up costs would relate to current GoR budget expenditure. Would it just add to GoR expenditure, or would it replace other costs and maybe have a net benefit because other GoR interventions would become superfluous? Discussion is required of the additional investment necessary to augment/complement MIGEPROF’s overall programme.

Although not discussed in-depth, there still seems to be a need for continued project funding managed by SC. This may require further analysis and clarity.

**Immediate Next Steps**

- SC to further the discussions with MIGEPROF about integration of the parenting programme in the MIGEPROF programme. Budgetary issues must be identified and clarified, with budget to be made available through MIGEPROF, possibly complemented with external funding. An opportunity that arose more recently (after submission of the scale-up report) is that REB wanted a ‘pre-primary’ parenting curriculum to accompany the pre-primary teaching curriculum and SC is now talking with them about how this could be rolled out. Both options for integration within Government systems/structures will need to be further explored and possibly operationalised.
- External funding should be used mainly for SC technical support and capacity strengthening, with development partners to consider funding the scale up of the ELMI work, given its proven effectiveness and impact.
- SC to remain in dialogue with MINEDUC/REB as well as MIGEPROF to advocate for policy and budgetary support for the establishment and sustained running of ECD centres/pre-primary classrooms throughout the country.
- SC and the College of Education to discuss options of integrating the ELMI approaches and methods in the teacher training curriculum.
- SC to support the implementation of the new pre-primary curriculum.

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