Overview of the innovation
This project used daily SMS reporting at primary schools to generate and store data on teacher and learner attendance. It was anticipated that this data could be widely shared with MINEDUC/REB, District Education Officers (DEOs) and Sector Education Officers (SEO), head teachers, teachers, parents and other education stakeholders to enhance their collective accountability for attendance in the classroom and ultimately to lead to more regular attendance at school by both teachers and learners. Teachers at 28 primary schools of Nyarugenge district in Kigali were trained to use the reporting system and then asked to send daily reports.

The project finished early because of very low levels of reporting and higher than expected resource requirements for its delivery.

Ndi Hano worked with 56 head teachers, 642 teachers and 41,836 students.
Total project budget was GBP 225,103.

Grant Recipient:
Ndi Hano! was implemented by Education for Change (EfC), a company from the UK.

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What makes it innovative?
While a similar system had been used in Sierra Leone, South Sudan and Uganda, it was new to the Rwandan context. The project also aimed to use SMS technology in a way that utilised any available mobile phone or network.

Relevance to education priorities:
Main Theme: Accountability and empowerment;
Sub-theme: Effective teaching and learning, inclusive education
The project was in line with the 2010-15 ESSP and the focus on completion rates while reducing drop-out and repetition in basic education. The project had a strong focus on decentralisation as part of educational reform.

Project learning (activity/output to outcomes level)
• The project succeeded in setting up an infrastructure that worked well: an SMS system was operational using individual codes (all teachers and all pupils of the pilot schools were included in the system), data were sent by phone to a central server where it was stored, with real time attendance data accessible through the web.
• Initial reporting of data happened, but it became clear early on in the pilot that schools were severely under-reporting and that more funding was required to monitor the actual use of the system and to encourage higher reporting levels. This highlighted the importance of incentives to report and the importance of linking the SMS reporting system to existing teacher and student databases of a kind that are currently non-existent in Rwanda.
• Interestingly, in a number of other Districts individual DEOs have taken the initiative to use SMS as a way to report on teacher attendance. Although only relevant for the local level, and without a central database in place, this appears to highlight the potential demand for a monitoring system using SMS.
Project outcomes and reflection on monitoring and evaluation

The SMS attendance reporting was monitored through the project. In the first phase of February-March 2014, the system received messages from only one third (33%) of teachers at the schools. More than half of these (57%) only sent ten messages or fewer over the two month period. This suggests that there was little systematic reporting of attendance across all schools. Although teachers reported confidence after training in reporting, they struggled to use some elements of the system and found it time consuming. There was little motivation for teachers or head teachers to report, despite seeing the potential for the use of attendance data.

This project is a good example of a project that may not have been successful in terms of project outcomes, but that has come up with important learning that can be used to inform future interventions both in Rwanda and beyond (see ‘Project learning’ above, and ‘Conditions for success’ below).

Conditions for success

Functioning technology is a condition for success. The basic technology indeed worked in the pilot and no substantial additional technology challenges are anticipated during possible scale up as the system can be revived relatively easily.

The project has not been able to meet the key conditions for success that are related to the ‘soft side’ of the intervention and this contributed to the poor project outcomes. EfC identified the need for stronger contextualisation of the operational processes involved in the introduction of new technological systems.

It was noted that teachers encountered technological errors when reporting and found the process time consuming, both of which acted as a disincentive to regular SMS reporting. There was also no clear benefit for teachers which would have incentivised them to persevere. These offer clear lessons for the importance of the main actors buying into and seeing the direct benefit of an innovation if they are to perform their role appropriately.
As the drivers for reporting are not there at the moment, only substantial investments in monitoring and/or incentivisation would make it work under the current conditions. Such investments would not provide good value for money. At the same time, the value for money of this innovation would substantially improve if certain systemic pre-conditions are met, e.g. the establishment of comprehensive GOR teacher/student databases [see under scale up and sustainability below].

**Scale up and sustainability considerations**

This project discontinued because the resources required to get the level and quality of reporting required were not possible within the project budget nor from GoR budgets on a sustainable basis. This shows that replication is only possible with (i) substantially increased funding or (ii) systemic changes within GoR to manage the data generated.

If replication is already difficult, nationwide scale up is even more complicated for very similar reasons. From the analysis in the scale-up document, adding new geographical areas does not lead to significant savings, it will just lead to a proportional cost increase. This is different from other IfE projects, where scale up usually leadings to a reduction/trimming of the unit cost of the support package and economies of scale.

This does not mean that scale up and sustainability are impossible, or not desirable. Experience from other countries proves that SMS reporting can work cost-effectively and function well. However, it is only possible if three systemic triggers are fully met: (i) the presence of an adequately comprehensive student database, (ii) the presence of an adequately comprehensive teacher management database and (iii) full institutional ownership of the system with activities written into job descriptions of decentralised level staff.

One of the most critical elements is the (lack of) incentives to report and how to deal with these. Apart from a ‘systemic push’ through a requirement to report, decentralised level stakeholders also need to see the usefulness of collecting these data and be willing to use them.

**Cost Considerations**

The economic analysis in EfC documents is very clear and comes with a very useful range of unit costs that make it possible to calculate the costs of various scale-up scenarios.

It is estimated that rolling a system out to 2 further districts (as per the original phase 2 of the pilot project) would cost, at a minimum, a further £379,214 for one year. Rolling it out nationwide would cost £1,897,313 for the first year, and £892,522 per annum after the first year.

It confirms that the costs of upscaling are considerable, do not represent VfM within the current system and are difficult to be carried by the GoR in the current circumstances. If the ‘systemic triggers’ [see above] are put in place, the situation may fundamentally change.

**Immediate Next Steps**

- There are no immediate next steps, other than MINEDUC/REB considering the establishment of the comprehensive individual student and teacher databases mentioned above, linked with the creation of systemic incentives to report as part of a national programme. If these ‘triggers’ materialise, it may become relatively easy and cost-effective to develop a real time SMS-based teacher/student attendance monitoring component within the GoR system.

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