Overview of the innovation
This project delivered a teacher self-study programme through the use of audio-visual materials made available on iPods and linked with teacher peer learning through teacher reflection groups. This ‘blended approach’ to teacher professional development aimed to improve the quality of teaching in primary 5 and 6 science and English classes. The video materials focused on developing skills for learner-centred methods by showing models of good classroom practice, improving knowledge of the subject content, using appropriate technology, and English language development. It was intended that, by the end of the project, science and English teachers would develop their knowledge and skills for teaching with subsequent impact on children’s learning outcomes.

The project trained 158 teachers, reaching 6,563 students in Bugesera and Nyaruguru Districts. Total project budget was GBP 661,778.

Grant Recipient:
The project was implemented by Plan International, Rwanda in collaboration with Education Development Centre (EDC/L3).

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What makes it innovative?
The project was innovative through its delivery of a ‘blended approach’ to in-service teacher professional development using a combination of audio-visual content via new technology for self-learning, and peer learning through teacher reflection circles.

Relevance to education priorities:
Main Theme: Effective teaching and learning
Sub-theme: Use of appropriate technologies
The project was closely aligned to the ESSP and the focus on improving quality of education - ‘the major challenges for this ESSP period will be ensuring quality and equity in education and training throughout the system...and ensuring that teachers and learners will become fully proficient in English’ (ESSP, 2010).

Project learning (activity/output to outcomes level)
• The importance of peer learning was increasingly recognised during implementation of the pilot and a much stronger focus on teacher reflection circles complemented the original self-learning through technology. This is a good example of adjusting a methodology based on learning from implementation
• Teachers were frequently using their mobile devices to watch the videos with good teaching practices, which they could apply in their own classroom. The teachers appreciated the ability to learn ‘anytime, anywhere’, giving them control of their own learning process.
• There was an unanticipated additional use of technology: teachers used the mobile devices for "peer videoing"; the videos were subsequently used as a valuable input for reflection on each other’s teaching practices
• Lead teachers were appointed to support the organization of peer reflection group sessions. The existing School-Based Mentors (SBMs) could have been more engaged during pilot implementation, although many of them did support lead teachers during pilot implementation.
• There is a case to be made for the use of cheaper mobile phones instead of iPods.
Project outcomes and reflection on monitoring and evaluation

The quasi-experimental approach (control and treatment groups of teachers investigated at baseline and end-line) was affected by other interventions contaminating the impact and causing problems in sampling, which complicated the analysis. Teachers were tested in English and science, self-assessed their English language proficiency, and were surveyed on their adoption of learner-centred classroom methods. Student learning outcomes were based on P6 national examination scores averaged at school (not class) level. Qualitative interviews were conducted with a variety of stakeholders to provide an explanation of quantitative results.

There was no evident difference between the control and treatment groups in teacher tests of English or science, though qualitative data indicated some increase in language confidence. Science teachers in the treatment group showed a shift in their self-reported use of learner-centred methods. Student learning outcomes in science indicated a small improvement for the treatment group but, because of the design and sampling problems, this could not be attributed to the intervention. The assumption in the ToC of the link between enrolment in the project and improved teaching skills is not borne out, and it seems that the role of peer discussion may be more important than the demonstration of techniques on video in enabling teachers to implement the new teaching methods.

However, as indicated the study suffered problems of design and sampling that made attribution and analysis of the results difficult and posed serious threats to the confidence in the results. However, the study was conducted with admirable transparency and good attention to the validity and reliability of any conclusions that were drawn.

In an additional case study conducted by Plan Rwanda about project effectiveness, interviewed teachers who attested to having benefited from the project in improving their English language proficiency and teaching methodologies. Almost every teacher said that they used more group work than before. Some commented that before the intervention they thought that interacting with the content would be time-consuming and difficult to manage but, by looking at the videos and by seeing how model teachers conduct their classes, they found effective ways of managing the class and involving all students.

Teachers’ quotes from Plan’s recently conducted case study: “Before I had many problems in teaching English and felt ashamed to speak – I had many difficulties in pronunciation. Now I have more confidence, and have improved from the teacher videos” [female science teacher] and “We use group work – we give learners time to explain what they have learnt and what they think” [female science teacher] and “We now use discussion to help learners develop their own critical thinking skills” [male English teacher].
Conditions for success
The main condition for success was teacher time and commitment to engaging in the self-learning and peer reflection groups. Teachers’ engagement in self-learning was sometimes affected by inconsistent internet connectivity and lack of confidence in using iPods. At the same time, at school level, the project saw teachers very committed to their teacher reflection circles - learning from each other and improving their practices from peer critiques and sharing.

The long-term success of the innovation depends upon leadership within MINEDUC to promote the importance of continuous professional development and the potential of a blended approach for this.

The support and motivating roles of REB, DEOs and SEOs are crucial and an important condition for success during possible scale up. The role of head teachers and SBMs to encourage and support change in teaching practices to take place is equally important.

Scale up and sustainability considerations
The model presented is, in fact, for exact replication of the proven pilot with the core elements well described and discussed in the PLAN document. The intervention will remain active only in the schools it worked in during the pilot already, while expanding to other grades. It is very good that the core elements of the model are kept the same (the elements of peer support, teacher reflection circles and technology-supported TPD) as they have proven to work (as also confirmed by international research). It is also good that there is space for REB leadership and opportunity for REB to gain experience and capacity using the already established studio facilities at REB to create new teacher professional development videos for the same subjects, but in new classes/grades.

However, there are some questions about the actual REB commitment to be part of scale up and play the role assigned to them by PLAN. Moreover, it would be good to analyse the need for continued involvement of PLAN in terms of coaching and guiding REB. Currently, the PLAN document does not say anything about that, although Plan is committed to this. There are also questions as to how to get the decentralised level actors involved and engaged, with their capacity being built over time. This needs better analysis and process planning. There will also be a need to consider head teacher support, which international evidence suggests is critical, as well as the role of SBMs. There may be an issue of existing teachers having to go through the same programme again next year and the impact this will have on their continued motivation, even if content is renewed.

A major concern is the lack of a long-term perspective or trajectory for scale-up presented in the Plan document, and therefore little chance of diffusion and wider adoption. The pilot is seemingly stuck as a ‘boutique’ project with no real future growth planned. It is not clear whether PLAN thinks this intervention can never operate at large scale, or whether it is a matter of external funding not being available, or because there is value in moving slowly.

A suggestion for an alternative approach, which would speed up the potential for wider systemic use and adoption, could be to radically change the TPD content while keeping the same elements of the support model. The TPD modules could present particular aspects of more general teaching methodology through video models of good (and bad) practice, using examples from the [new] curriculum content, to help teachers understand and practice improved pedagogy. This content could work across grades and then be made available to a wider range of new teachers. Alternatively, the tight links with the curriculum could be kept, and the next year(s) used to invest
in developing content for all grades in primary in order to more quickly reach a stage where REB has TPD content for all primary levels. Regardless of the choice, a focus on the longer term and sustainable, larger scale up is required.

Finally, a broader consideration of GoR systems would be useful, such as a discussion of the key ingredients of the TSLA intervention that REB would need to integrate in its own future TPD programme for meaningful professional development of teachers, even if TSLA itself was not scaled-up. It is worth thinking through how the TSLA intervention relates to other efforts in the TPD arena, such as the implementation of the new curriculum and the TDM policy, and how it could link to other initiatives by REB and by others [e.g. other IfE projects, JICA]. Further opportunities for wider use of technology in schools need to be explored. TSLA cannot operate in a vacuum!

Cost Considerations
The economic analysis is clearly meant to have as much Ministry/systems ownership as possible with budgets that are feasible for the Ministry to manage. The efforts of PLAN to make this a Ministry-owned initiative are commendable. However, there are remaining questions about institutionalisation, including Ministry ownership, and, more specifically, about commitment to investment in the technology and human resources. This needs to be part of the strategic discussions, as these are rather major assumptions. The question is also whether the Ministry staff included in the proposed budget will be sufficient for achieving and sustaining success.

Again, a significant observation is that the planning only covers a period of one year [at a very reasonable amount of total GBP 33,000 for this year], with no idea about ‘what happens next’ and what that means in terms of costs.

The key cost drivers have been discussed [technology, staff]. The unit costs could have been given more attention. At a minimum the ‘costs per student’ should also have been given, as well as a discussion of costs in relation to impact, using evidence from the project. This would include the important Value for Money argument for scale up of this approach.

Experience elsewhere has shown that a model combining autonomous learning through technology with peer learning, as TSLA does, is more cost-effective than taking teachers out of the classroom and bringing them to a centre for multi-day training. Using mobile devices is also widely considered much more cost-effective than other forms of technology [e.g. language labs].

Immediate Next Steps
• PLAN to continue conversations with REB and get a firm REB commitment that this is what REB wants as part of the implementation of REB TDM policy and its country-wide in-service teacher training programme in the future. The involvement of the TWG on TPD will also be critical. Lessons learned from REB’s current programme for training teachers on the new curriculum will also be helpful in informing the development of a long-term strategy for teacher CPD.
• If REB is committed, it will need to find money from within its budgets to support the development of further content to be made available to a wider group of teachers.
• As part of its advocacy, PLAN needs a strong advocacy paper that supports the blended approach to TPD, with a specific focus on the value for money aspects of enabling technologies for TPD.
• Link with the STEM initiative implemented by the British Council, which follows a similar support model that focuses on the use of English as a medium of instruction.
• MINEDUC/REB as the Hub for Innovation to explore and broker possible relationships with private sector and NGO providers of ICT goods and services. Links will need to be sought with USAID’s Global Development Alliance which is actively exploring opportunities to leverage the resources of the private sector to help meet common development objectives. See: http://www.usaid.gov/work-usaid/get-grant-or-contract/opportunities-funding/global-development-alliance-annual-program