Overview of the innovation
This project sought to improve the learning outcomes of learners in Primary 4 (P4), the first year after they have transitioned from learning in Kinyarwanda to English. Language supportive textbooks were developed and used in schools. P4 teachers and trainers at Teacher Training Colleges were trained in related language supportive pedagogical techniques.

The textbooks promoted the use of simple language and sentence structure while also allowing for language development through writing, reading and speaking activities. Kinyarwanda was used in glossaries and structured parts of the lesson. Science, Maths and Social studies authors from all publishers based in Rwanda were trained to develop prototype textbooks and teacher guides. Guidelines for publishers and textbook evaluators were also produced. Textbooks were provided to P4 learners in 8 schools across Burera, Kamonyi, Nyagatare and Ngororero districts and 48 teachers were trained in the use of these textbooks and language supportive pedagogy. There was a total reach of 638 students.

At the national level the project worked with MINEDUC/REB, publishers and the University of Rwanda College of Education (UR-COE) to embed key elements of language supportiveness into textbooks, pre-service teacher training and the wider policy and curriculum.

The total project budget was GBP 418,265.

Grant Recipient
The project was implemented by the University of Bristol in collaboration with the British Council, the University of Rwanda, College of Education and the Rwandan Publishers Association.

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What makes it innovative
The development of language supportive materials to support learning across the curriculum is a new way of working across the continent. This meant that there was also a need to develop an evidence base about textbook readability and their use by low language ability learners. Closer collaboration with publishers as partners rather than just contractors was a progressive development.

Relevance to education priorities:
Main theme Effective teaching and learning;
Sub themes: Skills development.
The project was aligned to the priorities in the 2010-15 ESSP to improve the quality of basic education and address the switch to English Medium Instruction.

Project Learning (output/activity to outcomes level)
During site visits conducted by the Fund Manager (FM) and various discussions held with the project team and other project stakeholders, it was observed that:
• Most classes observed were well-structured with all learners actively involved in reading, writing and/or speaking.
• Writers and editors from all publishers were enthusiastic in being trained in language supportive textbooks.
• The project team engaged with REB throughout the project to influence the change of
Attention will need to be given to the following:

- Continuing support is required to broaden teachers’ understanding of how to use textbooks effectively as a teaching and learning tool.
- Producing materials will need to be combined with teacher training and ongoing support/mentoring so that teachers improve their practices.
- There is still debate at the national level as to how much, if at all, Kinyarwanda should continue to be used in targeted ways to support English language development. The suggested use of both English and Kinyarwanda in the textbooks may not be fully acceptable to REB.

The ‘process of innovation’ evaluation points to four classroom issues:

- The effective use of the LaST materials.
- The engagement of teachers in the training.
- Teacher willingness to change their classroom practice.
- Regular observations and feedback to teachers.

Awareness and support of the school leadership is also discussed in relation to the school level.

**Project outcomes and reflection on monitoring and evaluation**

There has been increased awareness of the need for language supportive pedagogy at national level and language appropriate textbooks within the publishing community and MINEDUC/REB.

The project was evaluated at the school level by baseline and post-intervention student vocabulary and comprehension tests (but these two versions of tests were not comparable), classroom observations and interviews with teachers, head teachers and learners and with focus groups at the national level.

The majority of teachers made positive changes to their teaching practice and used the textbooks effectively with the learners. The main outcome was that learners performed overall 16% better than control schools for tests [project schools mean 63% (N=550) compared with 47% at comparator schools (N=525)]. based on the topics in the books, as well as in individual subjects (English language, mathematics, social studies and science). Classroom practice also resulted in a more consistent use of textbooks and other learning materials, more learner talk and more learner-centred activities. Thus showing the combination of better constructed textbooks and teacher pedagogy, can lead to better student outcomes. The detail of the role of each of these in improving outcomes is, however, not answered by the study.

The quality of the evidence is good in terms of the design and rigour of the methodology, although the design could be improved by directly comparable baseline and end-line tests, and larger sample sizes for classroom observation.
Conditions for success
The project demonstrated the need for engagement across a range of stakeholders (teachers, head teachers, TTC tutors, publishers and REB) and relied on changes in attitude and behaviours. Success was also dependent upon teacher capacity within the classroom and publisher capacity to produce the textbooks.

Although the project team engaged with the curriculum review process during project implementation on a continuous basis, a crucial factor for sustained success is related to the process of implementation of the new curriculum, language policy and textbook policy. Government support for language supportive textbooks and pedagogy is required for the main thrust of the project to have a future beyond the pilot intervention, though other elements could be sustained, e.g. the teacher support and feedback mechanisms.

Scale up and sustainability considerations
Already within the lifetime of the pilot intervention, the former DG REB requested the project team to scale up part of the innovation, by: (i) training writers and editors from all publishers; (ii) training REB evaluators, syllabus writers, and examiners; (iii) developing a readability tool specific to the Rwandan context; (iv) training a number of tutors from all TTCs, and; (v) conducting a study on the enablers and barriers to effective textbook use in Rwandan classrooms.

Future scale up and sustainability builds on the lessons of this early scale up and is based on three different models/scenarios. An economic analysis has been made for each of these 3 models.

The first model is a ‘light touch’ model aimed to complete existing early scale up process. The focus of this model is on sustaining the innovation by providing training for TTC tutors in language supportive principles, textbook specifications and textbook evaluation guidelines. This offers sustainable impact from the greater recognition of the challenges for learners learning in English and an element of language accessibility and development incorporated into key documentation. This model will be completed by August 2015, i.e. during the lifetime of the fund.

The second model is a ‘medium touch’ model aimed to complete existing scale up plans with support to further embed the innovation into existing curricula and guidelines. This is a higher-intensity version of model 1 which focuses on additional support for the implementation of language supportiveness to establish a more embedded and long-term shift in the way in which language is conceptualized. It will include:

- Additional support to publishers in the development of language supportive materials.
- Additional support to textbook evaluators in assessing language supportive materials.
- Additional support for TTCs to have language supportive pedagogy embedded in pre-service teacher training.

The third model is a ‘heavy touch’ model with the aim to complete existing scale up plans with support to further embed the innovation into existing curricula and guidelines and additional in-service teacher training. This model involves all the aspects of model 2 with an additional activity to support in-service teachers who would not be benefitting from pre-service training in language supportive pedagogical training. It has been designed using the existing framework of the School Based Mentor (SBM) training programme. Senior SBMs (SSBM) will be trained and then provide training to School Based Mentors (SBMs). SBMs will train and guide the primary teachers in language supportive pedagogy and textbooks.

All three models further build on the engagement and success of the initial scale up phase and can be implemented at relatively low cost. Involvement from Bristol University will be required for all models, with highest involvement in Model 3 (refer also to the last section on next steps). Model 3 involving SSBMs, a new group of stakeholders who will provide training to in-service teachers, will have greatest purchase on the system as it will reach out to both school level as well as the national level. It would have been useful if other implementation modalities were discussed for model 3, alongside the proposed cascade training through the SSBMs, as there are concerns of possible dilution of impact by adopting a cascade training approach.
A central aspect of the thinking about sustainability has been the project’s advocacy work with key decision makers including MINEDUC/REB, publishers, College of Education and TTCs from the outset. The foundation has been laid for sustaining the innovation and producing language supportive textbooks among various grades, although the current disagreement about the use of Kinyarwanda in the textbooks is of concern. Another cause of concern is the pace and nature of the process of implementation of the new curriculum, language policy and textbook policy. This may result in the Government ‘overlooking’ the importance of language supportiveness and inclusion thereof into policies and curricula.

As a consequence, continuous and strong commitment and decision-making from the government is required. At the national level the project will need to capture the willingness of MINEDUC/REB and publishers to engage in issues of language and show commitment to change textbooks and policy accordingly.

**Cost Considerations**

Model 1 can be implemented without any major additional costs. It builds upon the existing scaling up work, including the advocacy work with MINEDUC/REB and UR-CoE, and it is expected that additional expenses will be covered by MINEDUC and UR-CoE.

Model 2 will cost approximately GBP 60,000. It includes production of prototype chapters among more grades (P5–S4), which can be delivered for an additional amount of GBP 10,700. Costs can potentially be shared among the various publishers (approximately 10). In addition, GBP 5,610 has been reserved for training writers (P5–S4). The remaining cost of GBP 44,000 could be covered by REB/CoE and would include training of TTC’s, follow-up visits to TTCs and teaching practice visits.

Model 3 has been budgeted for GBP 494,560 and will include training of 60 SSBMs, 960 SBMs, and 30,720 teachers.

The economic analysis is sound and provides sufficient detail. Model 2 and 3 build on the evidence and cost of the early upscaling. However, the various models assume financial contributions from all parties, which cannot be provided as a ‘given’ and may require external funding. The option of establishing public private partnerships with publishers could be further explored, with a central role for the Ministry in connecting stakeholders.

Whether the scale up innovation eventually provides value for money largely depends on Rwandan ownership across MINEDUC/REB, publishers, and CoE/TTCs, to take the intervention forward.

**Immediate Next Steps**

The most important next step will be the continuation to advocate (using the project champions) the core components of language supportiveness within REB and publishers in order to impact on the development of new textbooks and teacher guides as part of the curriculum implementation process.

Other practical next steps include:

- Bristol University to conclude the work on early scale up, including dissemination of report on barriers to textbook project and textbook evaluators’ training in ‘early scale up’, and share this with REB and the technical working group on Curriculum, Materials and Assessment.
- Bristol University, the College of Education and REB Curriculum & Materials Department (CMD) to propose and plan for the language supportive pedagogy training to be written into the teacher training programmes at UR-CoE (model 2, 3).
- Bristol University and REB CMD to continue to work on the integration of language supportive issues in (i) textbook evaluation criteria and (ii) training provided as part of the implementation of the new curriculum (model 2, 3)
- REB with technical support from Bristol University to support in-service teachers in language supportive pedagogical training working within the existing national framework of (senior) school based mentors (model 3) – subject to funding.