Building Resilience in Leading, Teaching and Learning Together

Needs Assessment Report

March 2021
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<th>Abbreviation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CBC</td>
<td>Competence Based Curriculum</td>
</tr>
<tr>
<td>CoP</td>
<td>Community of Practice</td>
</tr>
<tr>
<td>CPD</td>
<td>Continuous Professional Development</td>
</tr>
<tr>
<td>DDE</td>
<td>District Director of Education</td>
</tr>
<tr>
<td>DEO</td>
<td>District Education Officer</td>
</tr>
<tr>
<td>DHT</td>
<td>Deputy Head Teacher</td>
</tr>
<tr>
<td>ESSP</td>
<td>Education Sector Strategic Plan</td>
</tr>
<tr>
<td>FGD</td>
<td>Focus Group Discussion</td>
</tr>
<tr>
<td>G.S</td>
<td>Groupe Scolaire</td>
</tr>
<tr>
<td>HT</td>
<td>Head Teacher</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>LIT</td>
<td>Leaders In Teaching</td>
</tr>
<tr>
<td>LTLT</td>
<td>Leading, Teaching and Learning Together</td>
</tr>
<tr>
<td>MCF</td>
<td>Mastercard Foundation</td>
</tr>
<tr>
<td>MINEDUC</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>NT</td>
<td>New Teacher</td>
</tr>
<tr>
<td>PLCs</td>
<td>Professional Learning Communities</td>
</tr>
<tr>
<td>REB</td>
<td>Rwanda Education Board</td>
</tr>
<tr>
<td>SBM</td>
<td>School Based Mentor</td>
</tr>
<tr>
<td>SE</td>
<td>Secondary Education</td>
</tr>
<tr>
<td>SEI</td>
<td>Sector Education Inspector</td>
</tr>
<tr>
<td>SIP</td>
<td>School Improvement Plan</td>
</tr>
<tr>
<td>SL</td>
<td>School Leader</td>
</tr>
<tr>
<td>SSL</td>
<td>School Subject Leader</td>
</tr>
<tr>
<td>STEM</td>
<td>Science, Technology, Engineering and Mathematics</td>
</tr>
<tr>
<td>TTC</td>
<td>Teacher Training College</td>
</tr>
<tr>
<td>UR-CE</td>
<td>University of Rwanda-College of Education</td>
</tr>
</tbody>
</table>
Summary

This report presents the findings of a Needs assessment study that was carried out to inform the planning and implementation of the Building Resilience in Leading Teaching and Learning Together program, a Covid-19 response program developed to mitigate the effects of the Covid-19 pandemic and future crises on teaching and learning in Rwanda and, to lay the groundwork for further scaling of the current Leading, Teaching and Learning Together (LTLT) program to the remaining 16 districts.

This study was carried out between August and October 2020 in five new implementation districts (Bugesera, Gakenke, Nyarugenge, Nyamagabe and Rutsiro), and had the following objectives:

1) To assess the Continuous Personal Development (CDP) needs of different educational actors.
2) To assess the needs of school leaders with regards to School Improvement Planning
3) To assess to what extent conditions for effective blended learning and use of ICT devices are in place at schools.
4) To assess the readiness of schools to reopen and the resilience of schools to deal with Covid-19 and future public health crises.
5) To assess how gender and inclusion can be integrated in CPD, ICT and school resilience.

To assess these objectives, a mixed methods approach was applied using Key Informant Interviews (KIIs), telephone interviews, Focus Group Discussions (FGDs), field observations, and Knowledge, Attitude and Practices (KAP) surveys to assess digital literacy. In total, 34 school leaders (headteachers and deputy headteachers), 20 School-Based Mentors (SBMs) and 20 Subject Leaders in STEM (STEM SSLs) from secondary schools in five districts took part in telephone interviews and FGDs. On top of that, 4 Sector Education Inspectors (SEIs) and 3 District Directors of Education (DDEs) took part in Key Informant Interviews and 149 school leaders took part in a pre- and post KAP survey to assess digital literacy. Lastly, 1045 schools from 15 existing implementation districts were visited by UR-CE trainers to assess School Improvement Plans (SIPs).

Findings show that roles and responsibilities of the different education actors are clear, except for STEM SSLs who find it difficult to distinguish their SSL tasks from usual teaching tasks. Training on leadership and management is a key priority for school leaders, SEIs and DDEs alike. We found evidence that in the new implementation districts, Professional Learning Communities (PLCs) are institutionalized at sector level but that these PLCs may not yet be accessible for all school leaders. In turn, we found that there is some experience with Communities of Practice (CoPs), however we also found that CoPs are only implemented in primary schools to improve English proficiency. Training all school leaders, SEIs, SBMs and STEM SSLs in implementing structured and accessible CoPs and PLCs that focus on improving teaching and leadership will be a priority in the upscaling of the LTLT program.

Findings also show that only about half of the 1045 schools that were visited during the SIP assessment had drafted a SIP. From the field visits it became clear that school leaders struggle with developing their SIPs and that they are hampered by negative perceptions about the relevance of the SIP, the lack of resources and capacity to develop SIPs together with stakeholders and the difficulty with collecting and using data for the SIP. Digitizing the SIP would address some of these challenges but will need to be thought through carefully and, sufficient training and guidance will need to be provided to school leaders.

The ICT infrastructure and digital literacy assessment showed that overall, school environments are conducive for increasing the use of ICT in teaching, with a great majority of school leaders portraying positive attitudes about using ICT and promoting the use of ICT among their teaching staff. This also includes positive attitudes about encouraging online/remote CPD for teaching staff and about own participation in online/remote CPD. Nevertheless, actual implementation still proves challenging and to this end, having a focal point at the school that has good ICT skills, ensuring that there is a timetable for
use of SMART classroom and providing basic ICT training to all teachers will improve the (correct) use of
ICT in teaching and learning.

In terms of resilience, we see that the Covid-19 pandemic has come with many challenges for schools and
education actors, many of which could not be foreseen. Main challenges that were identified were: difficulty
in managing the school and the classroom under strict Covid-19 measures, the concerns of teachers about
their own safety, the difficulty with tracking students that dropped-out and ensuring that those that are
back in school can catch up, teacher drop-out and teacher demotivation, new teacher recruitment and
induction, and the lack of communication with parents, students and teaching staff during school closure.
At the same time, the pandemic has also led to innovative ideas and collaborations such as working with
student graduates in the implementation of preventive measures and catch-up programs. For schools to
become more resilient in times of crisis, priority should be given to training school leaders, SEIs and DDEs
on crisis communication and ensuring all schools have a crisis and communication plan available. This
to ensure that communication lines with teachers, parents and students remain open during closure of
schools. In addition, planning for remote teaching, strengthening ties with community chiefs, parents and
health centres, and creating opportunities for entrepreneurship, guidance and counselling for teachers,
particularly those from private schools are also key priorities.

Lastly, we observe that gender stereotypes can hamper female teachers from getting selected as school
leaders, SBMs and SSLs, while male teachers may be more likely to be selected because of existing gender
stereotypes. Once female teachers do get selected as SBMs or SSLs, gender stereotypes may again hamper
them from implementing CPD activities for fellow colleagues. Although only one special needs school
took part in this study, we found that little is done to accommodate these schools in terms of high-quality
teaching and learning, and universal standards and examinations make it difficult for students with special
needs to break the vicious cycle that many of them are in. Overall, the gender gap should be addressed
better at onset, by ensuring more females are selected for specific roles. In addition, more awareness about
these gender gaps and stereotypes can be created by presenting regular updates on gender statistics
to relevant stakeholders and ensuring that the specific gender stereotypes identified in this study are
integrated into the CPD modalities (trainings, PLCs and CoPs).
Introduction

In immediate response to the first case of Covid-19 in Rwanda, all education institutions were shut down on March 16th, 2020, disrupting the education of about 2.5 million primary and about 600,000 secondary school learners. To attenuate the impact of the school closures on pupils’ education, the Rwanda Basic Education Board (REB) launched a radio learning program and YouTube channel for primary schools and doubled the capacity of the existing e-learning platform, which provides online access to digital content and e-assessment for learners.

In the ongoing Leading Teaching and Learning Together (LTLT) program, VVOB in collaboration with REB and the University of Rwanda College of Education (UR-CE) offers continuing professional development (CPD) modalities to District Directors of Education, Sector Education Inspectors (SEI), Headteachers (HT), Deputy Headteachers (DHT), School-based Mentors (SBM), and STEM School Subject Leaders (SSL) in 14 of Rwanda's districts. This includes training programs led by the UR-CE and Professional Learning Communities (PLCs) for school leaders at sector and Communities of Practice (CoPs) for teachers at school level.

In response to Covid-19 and the subsequent nation-wide lock down and closures of school, VVOB accelerated the shift to fully online and blended delivery of both CPD modalities, including pre-recorded presentations and quizzes, that are accessible both on smartphones and laptops or PCs. Whereas the online learning modalities have attracted most learners, some teachers and school leaders remain left out as they lack access to the required ICT infrastructure. Most teachers and school leaders have, moreover, not been equipped to deliver remote learning, and ensure learner involvement and reach.

Building Resilience in Leading Teaching and Learning Together is a Covid-19 response program implemented by VVOB and partners and funded by the Mastercard Foundation. The program is an add on to the existing LTLT program and aims to ensure that schools in Rwanda and subsequent education actors are more resilient when it comes to responding to crises, like the Covid-19 pandemic. In particular, the program aims to:

- Further digitize CPD modalities and the LTLT data ecosystem
- Upgrade access to ICT hardware among key school actors
- Upgrade the ICT skills of education actors
- Integrate resilience topics into existing CPD modalities.

This with the secondary goal in mind to lay the groundwork for further scaling of the current LTLT program to the remaining 16 districts.

In preparation of the implementation of the Building Resilience in LTLT program, VVOB carried out a Needs Assessment from August to October 2020 when schools had not yet reopened in five new implementation districts, namely Bugesera, Gakenke, Nyamagabe, Nyarugenge and Rutsiro districts. We further targeted 15 existing implementation districts where school leaders received support in developing their School Improvement Plans (SIPs). In specific, this Needs Assessment addressed the following objectives:

1) To assess the Continuous Personal Development (CDP) needs of different educational actors.
2) To assess the needs of school leaders with regards to School Improvement Planning
3) To assess to what extent conditions for effective blended learning and use of ICT devices are in place at schools.
4) To assess the readiness of schools to reopen and the resilience of schools to deal with Covid-19 and future public health crisis.
5) To assess how gender and inclusion can be integrated in CPD, ICT and school resilience.
Methods

This needs assessment applied a mixed method approach to investigate the above-mentioned objectives. Qualitative techniques such as Key Informant Interviews (KII), Focus Group Discussions (FGD) and telephone interviews were used to assess the training needs, readiness to reopen and resilience of schools in five new implementation districts. To assess the needs of school leaders with regards to School Improvement planning (SIP), UR-CE trainers made field visits to schools in 15 districts and a workshop was organized with trainers to receive feedback on the challenges and experience school leaders (SLs) (i.e.: Head Teachers and Deputy Head teachers) faced while developing their SIPs. Lastly, a quantitative survey was conducted to assess the digital literacy skills, knowledge, and attitudes of SLs from 4 new districts that currently take part in cohort three of the CPD program for school leaders. Table 1 provides an overview of the types of assessments, study instruments, and sampling of this Needs Assessment Study.

Table 1: Overview of assessments, instruments, and sampling

<table>
<thead>
<tr>
<th>Assessment type</th>
<th>Instruments</th>
<th>Data collection</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience assessment</td>
<td>In-depth interviews with headteachers</td>
<td>Telephone interviews</td>
<td>All headteachers, deputy head teachers, School-Based Mentors and Subject Leaders in STEM from 20 secondary schools in 5 districts + 5 SEIs and 5 DDEs (see Figure 1: Qualitative study sampling process below)</td>
</tr>
<tr>
<td>ICT and CPD Needs assessment</td>
<td>FGD &amp; KII with education actors</td>
<td>In-person data collection at one purposively selected school per district</td>
<td>All schools in 15 districts of the current LTLT program</td>
</tr>
<tr>
<td>Assessment of needs in the development of SIP</td>
<td>Group discussion and forms</td>
<td>Workshop with UR-CE trainers to evaluate SIP field visit and templates</td>
<td>All schools in 15 districts of the current LTLT program</td>
</tr>
<tr>
<td>Digital literacy assessment</td>
<td>Knowledge, Attitude and Practices survey</td>
<td>Online data collection using KoBo Toolbox</td>
<td>All headteachers and deputy headteachers from secondary schools in 4 selected districts (cohort 3 ESL non-LIT): Bugesera, Gakenke, Nyamagabe &amp; Rutsiro</td>
</tr>
</tbody>
</table>

For the resilience and ICT/CPD needs assessment, we applied sampling criteria to purposively select districts, sectors and schools from the total sample. The criteria were as follows:

1. Representation of the different provinces including the city of Kigali,
2. Balanced representation of urban and rural districts.
3. Balanced representation of different status of schools financing type (private, government-aided, and public) in a sector
4. School access to ICT devices

As also indicated in Figure 1: Qualitative study sampling process, applying criteria one and two led to the selection of five districts: Bugesera, Gakenke, Nyamagabe, Nyarugenge and Rutsiro. For each district, one sector was selected by looking for a balanced representation of school status: private, government-aided, and public. We selected Gashora in Bugesera, Muhondo in Gakenke, Cyanika in Nyamagabe, Nyamirambo in Nyarugenge and Musasa in Rutsiro. From these five sectors four schools were selected based on their access to ICT devices: two secondary schools where school leaders have access to at least one laptop and two secondary schools with no access to laptops or other ICT devices.
Study instruments

To explore our objectives, we developed three main instruments; a CPD and ICT needs interview/FGD guide, a Resilience interview guide, and a digital literacy survey tool. Given that the last objective of the needs assessment was cross cutting; gender and equity was integrated in all interview and FGD guides. During the data collection, researchers also made sure that both sexes were represented; where possible. During the analysis of collected data, researchers included a sex-disaggregated analysis.

CPD and ICT needs assessment

To assess CPD and ICT needs of education actors, FGDs were conducted with HTs, DHTs, SBMs and SSLs and Key Informant Interviews (KII)s were conducted with a DDE and an SEI per district. All the interview guides were developed in English and translated by a professional translator in Kinyarwanda. FGDs with HT and DHT were conducted in Kinyarwanda while the FGDs with SBM and SSL were conducted in English. This because the researcher did not speak Kinyarwanda and the latter group had more conversational proficiency in English. The interviews and focus group discussions guides built on the Needs Assessment of the LTLT in secondary education program (VVOB, 2018) and focused on:

- Role and responsibilities of education actors related to secondary school;
- Good practices and challenges related to gender in secondary education;
- Challenges and best practices with new teachers;
- Use of ICT and confidence in following online training;
- In addition to that, SBM, SSLs, DDE and SEIs were asked questions on how they see the reopening of schools and the challenges they see in remote learning.
Resilience assessment

To assess the readiness of schools to reopen, in-depth telephone interviews with school leaders were conducted. An interview guide was developed in English and translated by a professional translator in Kinyarwanda. The interviews focused on how HTs felt about the reopening of schools; their worries and concerns; the different actions and investments implemented at school level to comply with new sanitary and safety guidelines, how they are preparing for the opening of your school, and which topics concerning future public health crisis would be interesting to include in courses for school actors. The UNESCO guidelines for the reopening of schools was used as a theoretical background for the resilience assessment tool (UNESCO, 2020). UNESCO has prepared a set of guiding questions that can help pinpoint the actions that school leaders should take to protect and support teaching staff during the reopening of schools. The guidelines are built around 7 key dimensions depicted in the diagram below:

Figure 2. Framework for the return to school: 7 key dimensions

Digital literacy assessment

To assess the digital literacy skills and knowledge a digital literacy assessment survey was developed in English and translated in Kinyarwanda. The digital literacy survey investigated the following aspects: 1) ICT leadership and infrastructure which was adapted from the SELFIE questionnaire (European Union, 2015); 2) ICT attitudes built on from the digital literacy instrument developed by (Kuek & Hakkennes, 2020) and 3) ICT skills and knowledge on ICT hardware, applications, and safety precautions, also used in the Needs Assessment for the LTLT program in secondary education (VVOB, 2018).

Assessment of needs in developing a SIP

To assess the needs of school leaders with regards to SIP, the assessment was based on the feedback received from UR-CE trainers. School leaders were supported by UR-CE trainers who were trained in a Training of Trainers (TOT) on how to provide technical support to school leaders in the development of SIPs. In fact, VVOB as one of the key stakeholders in providing CPD training in effective school leadership as well as PLCs agreed to provide support in its districts of intervention (16 districts). To learn from the field visits of the UR-CE trainers to school leaders, VVOB organized a debrief session after the field visit by trainers. The main objective of this workshop was to receive feedback from trainers on the development of SIP and to assess the possibility to adapt the template for online delivery. In addition to that, VVOB received detailed reports from UR-CE trainers about their field visit. These reports provided information about whether the HTs had a SIP drafted and the quality of the draft. If the HT did not draft the school SIP, they also provided the challenges HTs faced in drafting the SIP.
Characteristics of respondents

A total of 10 headteachers took part in the telephone interviews about resilience and reopening of schools. Initially we had planned to interview 20 headteachers, however from the data already collected researchers felt that saturation was reached after these 10 telephone interviews. Table 2 provides a detailed overview on the characteristics of HTs interviewed. As can be seen, a majority of participants are male, about half the schools are government aided and half are public. A majority of the headteachers work at a day school.

Table 2: Overview of participants in the resilience assessment

<table>
<thead>
<tr>
<th>School status</th>
<th>School type</th>
<th>Gender HT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>Government Aided</td>
<td>Female</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Public</td>
<td>Day School</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

For the CPD/ICT assessment using FGDs and KIIs, we conducted 2 FGDs at a centrally located school, one with HTs and DHTs and the other one with SBMs and SSLs. This included a total of 34 school leaders (6 were unable to participate) and 40 SBMs and SSLs (20 each). Among the 34 SLs, 81% of HTs and 73% of DHTs were males. HTs and DHTs were on average 43 and 42 years old, respectively. Of the 40 SBMs and SSLs, 65% of the SBMs and 75% of STEM SSLs were males.

Seven DDEs and SEIs were interviewed from their offices. Unfortunately, one SEI and two DDEs were not available for an interview. However, researchers felt that based on the data that was collected from previous interviews which had reached saturation, it was unnecessary to replace these 3 participants. Of the 7 DDEs and SEIs, all respondents were males. Table 3 includes an overview of participants that were interviewed during the CPD/ICT assessment.

Table 3: Overview of participants in the ICT & CPD assessment

<table>
<thead>
<tr>
<th>Education actor</th>
<th>Type of interview</th>
<th>Number of respondents</th>
<th>% males</th>
<th>Average age of respondents</th>
<th>Average number of Years of Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDE</td>
<td>KII</td>
<td>3</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>SEI</td>
<td>KII</td>
<td>4</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>SBM</td>
<td>FGD</td>
<td>20</td>
<td>65%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>SSL-STEM</td>
<td>FGD</td>
<td>20</td>
<td>75%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HT</td>
<td>FGD</td>
<td>16</td>
<td>81%</td>
<td>43</td>
<td>10</td>
</tr>
<tr>
<td>DHT</td>
<td>FGD</td>
<td>18</td>
<td>73%</td>
<td>42</td>
<td>9</td>
</tr>
<tr>
<td>Total all 5 districts</td>
<td>FGD</td>
<td>83</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To assess the digital literacy of SLs in the four new districts, we considered all SLs that participated in the digital literacy online learning course organized before the start of the training program on Effective School Leadership. For the pre-test survey, 207 SLs out of 224 SLs filled in the survey and at post-test 178 SLs filled in the survey. The comparison between the pre-and post-test was done with 149 observations at individual level. Table 4 provides an overview of the SLs that responded to the survey. As can be seen, a great majority of SLs that completed the survey are males. However, there is some variation across districts, with the lowest proportion of males found in Bugesera and the highest proportion in Rutsiro.
Table 4: Overview of respondents in the digital literacy survey

<table>
<thead>
<tr>
<th>District</th>
<th>Respondents</th>
<th>Position</th>
<th>% males</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Test</td>
<td>Post-Test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Survey</td>
<td>Survey</td>
<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>HT</td>
<td>DHT</td>
<td></td>
</tr>
<tr>
<td>comparison</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bugesera</td>
<td>47</td>
<td>33</td>
<td>28</td>
</tr>
<tr>
<td>Gakenke</td>
<td>49</td>
<td>52</td>
<td>41</td>
</tr>
<tr>
<td>Nyamagabe</td>
<td>47</td>
<td>40</td>
<td>33</td>
</tr>
<tr>
<td>Rutsiro</td>
<td>64</td>
<td>53</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td>207</td>
<td>178</td>
<td>149</td>
</tr>
</tbody>
</table>

Data analysis

Recordings of FGDs and interviews were transcribed ad verbatim by the researchers. Transcriptions were imported into the qualitative analysis software DEDOOSE where all interviews were coded thematically using the themes described in the data collection tools as well as newly emerging themes. To assess the importance of different findings, frequency and extensiveness of codes and themes were assessed in DEDOOSE. However, given the few schools that were included, all themes, whether major or minor, were considered for this report.

The data from the digital literacy survey was exported from Kobo Toolbox into a spreadsheet file and analyzed using Stata. Categorical attitude statements were dichotomized into binomial variables (score 1-3= disagree and score 4 and 5 =agree) to a better understanding of whether one has a positive or a negative attitude towards a certain statement and remove some of the ceiling effects that were observed. Other variables (i.e., skills and confidence levels) were treated as continuous variables. For continuous variables, a paired T-test was applied to compare the observations before and after the training for the same respondent, while for binomial variables the McNemar test was applied to compare the observations before and after the training for the same respondent (i.e.: paired data) before and after the treatment and the Chi-square test ($\chi^2$ test) was applied to compare observations between one group at pre-test (i.e., infrastructure status).

Ethical considerations

All respondents were informed about the purpose of the Needs Assessment Study and their rights and were invited to ask any questions. Respondents provided verbal (phone interviews) or signed informed consent (in-person FGDs and interviews) prior to participation.

Study limitations

To interpret the results of this Needs Assessment Study it is important to consider its limitations. First, although this study employed mixed methods, a vast majority of the findings are based on qualitative methods. As such, findings should be interpreted carefully and generalization to the wider population should be avoided. Second, since one of the researchers did not master Kinyarwanda, respondents may have experienced language barriers during the FGDs and interviews that were conducted in English. We partly mitigated the effects of language barriers by organizing groups of respondents according to their level of English (i.e., SBMs are generally more proficient in English than headteachers), however, it is likely that language still limited some respondents in taking part in the discussions. Lastly, self-reported skills and attitudes are often influenced by a tendency to provide socially desirable answers which may result in ceiling effects. In other studies (VVOB, 2019; Cabus et. al, 2019), we have found this to be common in the Rwandan context. It is probable that this also influenced the digital literacy survey findings as we found relatively high mean scores for a majority of the scales and questions.
Findings

Assessment of Continuous Professional Development Needs of educational stakeholders

Headteachers and deputy headteachers

What are their main roles?

As representatives of the school, HTs’ main role is to coordinate and monitor all activities in school. In public and government aided schools, they are also in charge of short- and long-term planning which they do together with the school committee. Another recurrent role mentioned by HTs was that they are in charge of collaboration and partnerships where they take the lead in reaching out to parents, local leaders, government, and any other partner in the interest of the school.

“The HT will follow-up on the financial resources available and how to increase them if necessary. On the school infrastructure, the HT will make sure that there is enough infrastructure to allow for a good learning and teaching environment. For the materials available at school, the HT will follow-up on the good tenure of the registrar and make sure that the value of the infrastructure is correct.” HT, Nyamagabe District.

The Deputy head teacher or Director of studies is in general responsible to monitor and coordinate learning and teaching activities. In this line, they work closely with SSLs and the HT. In case there is no disciplinary master (i.e.: Director in charge of discipline (DOD), the DHT will also take care of the discipline and hygiene of students and any other responsibility of the DOD.

It was highlighted that the HT and DHT need to have the same understanding of how they want to manage the school for school activities to be implemented smoothly. More importantly because the coordination of learning and teaching activities is not a one-person job. The HT will therefore support the DHT on this. Moreover, whenever the HT is not around, the DHT will take over other responsibilities of the HT.

“We collaborate and in fact there is what we call complementarity between the HT and DHT. We share problems, we negotiate, what needs to be done.” DHT, Bugesera District.

Which activities do they undertake?

The activities of HTs mostly relate to coordination. This coordination is mostly done through providing support, guidance and helping school members. Together with the DHT, HTs will support in monitoring and coordinating activities around teaching and learning as mentioned above. With the administrative staff, HTs will support and follow-up on the state and use of school resources. In the sense that the HT together with the school accountant will have to report on the school budget and use of school resources to the DDE monthly. Given that public and government aided schools receive a budget from the government; the HT will report on the situation and needs of the school in terms of human, financial, and material resources to the DDE. Moreover, HTs involve all school members in the preparation of the planning documents such as the School Improvement Plan (SIP) on a yearly basis. Outside the school, HTs organise meetings with parents, local leaders, faith-based organisations, development partners, etc. to advocate for the interest of the school around improving the quality of education.

“As a HT, I am in charge of planning Parent Teacher Association (PTA) meetings together with the parent committee president. In fact, the HT is the secretary of the PTA committee, I am therefore in charge of planning PTA meetings and pointing out the topic the committee will discuss on.” HT, Rutshiro District.

Activities organized by the DHT focus on learning and teaching, on the student side; DHTs design the learning timetable for students from all levels and will make sure that teaching materials are available for student use. In addition to that, the DHT will coordinate and monitor the performance of all students. As such the DHT will also make sure the assessments, formative and summative are well implemented and that grades are available on time. On the teacher side, DHT will make also design the teaching timetable for teachers. The DHT also monitors the quality of teaching though classroom visits. The DHT also facilitates access to training for teachers, this is done by making sure that there is a room on the timetable for teachers to attend any training, either externally or at school.
“It is within my responsibilities to not only make sure that teaching materials are available but also facilitate students and teachers to implement innovative ideas. For instance, there is a student who has done a project on producing chalks from cows’ dung. And another one who has done a projector using boxes.”

DHT, Nyarugenge District.

Needs of headteachers and deputy headteachers.

In the discussions, the most frequent challenges mentioned by SLs was to mobilize parents. According to SLs, most parents tend to think that their sole responsibility is to put a meal on the table so engaging them in their children’s education is not easy. SLs also mentioned the lack of budget to purchase adequate teaching and learning materials and infrastructure such as labs and library.

In terms of training needs, mostly HTs mentioned that they will benefit a lot from a training on leadership specifically on how to manage a school as an organisation with a focus on infrastructure management and financial and human resources. Still in line with leadership, few HTs expressed the need for a training on project design especially for external fundraising.

“When I started working as a head teacher, our school accountant came in and ask me to sign a payment order, I was so confused, and it took me a lot of time to even understand this simple financial term.”

HT, Nyamagabe District

Based on SLs experience and challenges with remote learning, SLs expressed the need of a training on using ICT in education. On one side to improve and monitor teaching and learning using ICT technologies but also to guide parents in remote learning among their children. SLs would like to know more about the analysis of performance data to help them monitor and come up with a standardized methodology on how they can assess performance more effectively. Another topic mentioned by SLs, was that they need more knowledge on academic counselling. In particular on how to provide personalised guidance to students when they are choosing a combination or later on choosing what they will do after secondary level. They would also like more support on advising teachers on how they can improve their capacity based on their interests.
Table 5. Roles and needs of school leaders

<table>
<thead>
<tr>
<th>Roles</th>
<th>Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Coordinate and monitor e.g. organize meetings for staff</td>
<td>• Learn about effective strategies for mobilizing parents</td>
</tr>
<tr>
<td>• Plan e.g. develop a teaching and learning timetable</td>
<td>• Leadership training</td>
</tr>
<tr>
<td>• Collaborate and partner e.g. organize meetings with parents</td>
<td>• Project design training</td>
</tr>
<tr>
<td>• Discipline and hygiene promotion among students</td>
<td>• Promoting the use of ICT in education</td>
</tr>
<tr>
<td></td>
<td>• Analyzing performance data</td>
</tr>
<tr>
<td></td>
<td>• Career counseling for students and teachers</td>
</tr>
</tbody>
</table>

School-based Mentors

What are their main roles?

Even before training, school-based mentors play a crucial role in different areas of ‘leading teaching’. The most frequently mentioned role is to support their fellow teachers in **English proficiency**. Another frequently occurring role is providing support in teaching practices. SBMs mention a few specific ways in which they support teachers with their teaching practices. This includes helping teachers to prepare their lesson and didactic material, introducing new teaching methods, and helping teachers address cross-cutting topics in their lessons. A less commonly mentioned role, but still of importance, is the coordinating role that school-based mentors have when it comes to organizing CPD, supporting teachers in learning from one another and safeguarding the overall quality of teaching.

“One of my roles is to take the leading role in my school in putting colleagues together and exchanging our ways of teaching if someone has a strong point.” SBM, Gakenke District

Which activities do they undertake?

When asked about the specific activities they organize for their fellow teachers, quite a few SBMs mention **Communities of Practice (CoPs)**. It should be noted, that SBMs that conduct these CoPs, only conduct them for primary school teachers and these CoPs focus specifically on improving English proficiency. These SBMs have been trained by the program Building Learning Foundations (BLF). SBMs in secondary only schools have not heard of CoPs. However, these SBMs do organize meetings for their colleagues in which a topic of interest is discussed which may be similar to a CoP but is not structured the same way. In a few schools, SBMs also organize lesson observations and/or model lessons, however this was not found to be done across all the districts. Organizing mentoring and coaching sessions is only mentioned by one SBM while two SBMs mention that their headteachers support them in organizing exchange visits to other schools. When it comes to the frequency of organizing such activities, the consensus is that there is room on the school timetable for at least a weekly CPD activity. SBMs do seem to find it difficult to organize a lesson observation on a frequent basis.
"We do not do lesson observation too often. Maybe once per year. The teacher prepares the lesson, and we ask other teachers to observe how the lesson is delivered. Other teachers provide their comments on strong points." SBM, Gakenke district

In general, SBMs have little time to provide support to a new teacher and a majority indicates that they are trained together with other teachers. If the SBM does provide support to a new teacher, it is mostly in English proficiency, the Competency Based Curriculum (CBC) or in the integration of ICT into their lessons.

School Subject Leaders in STEM

What are their main roles?

Just like SBMs, SSLs in STEM are also in charge of ‘leading teaching’ however, the main difference lies in the focus on their subject area, which is either in Biology, Chemistry, Maths or Physics. Many of the interviewed SSLs found it difficult to clearly define their roles and responsibilities. Many of them could not clearly distinguish their tasks as SSLs from their tasks as STEM teachers. After some further probing, a few of them came to some clearer definitions. One of these being the **coordination** of subject activities. This includes among others, preparing science lessons, preparing and reviewing exams and ensuring that there are enough STEM teaching materials. Some SSLs also indicate that they have a role to play in **monitoring the quality of subject content and teaching**. In addition, they promote STEM among students and promote best practices among their fellow teachers.

“I guide my fellow teachers in my subjects. When we prepare exams, we sit together and share info. I sit together with S1 and solve all the problems related to my subject. We combine our actions and learn from practice.” SSL Nyarugenge district

Which activities do they undertake?

Activities organized by SSLs are largely similar to activities organized by SBMs, however there are a few differences. The activities are organized for the subject only. This means that a **meeting** is organized at department level and that a **model lesson** or a lesson observation focuses on content that is relevant for the subject, such as a **science experiment**. Communities of Practice are not yet undertaken by the SSLs that were interviewed.

Contrary to SBMs, SSLs do already provide support to new teachers. The support provided includes introducing the new teacher to the department and to the materials, preparing and marking exams together, preparing lessons (this may be done together with the SBM) and practicing a Science experiment.

“If a new teacher comes to my school, I show all the materials. I come to teach math and show the topics on the timetable. New teachers also show me their difficulties.” SSL, Rutsiro district

Needs of SBMs and SSLs

SBMs and SSLs were asked about their challenges and their training needs. Though challenges cannot be translated directly into needs, it can still provide useful insights into what further support can be provided to SBMs and SSLs. A main challenge that is mentioned by both SBMs and SSLs is a **lack of time** to implement CPD activities. Hereafter, SBMs and SSLs mention a **lack of budget** to buy materials for improving teaching and learning. Also mentioned, but less frequently, is the **lack of time of their fellow teachers** and the **lack of will** of teachers to take part in CPD activities. For SBMs in specific, **teachers’ level of English** makes it hard for the SBM to have any added value. Though mentioned by only one SBM but still of importance, is the little value that is placed on the role of the SBM and the little support that SBMs get from school management, both in terms of instrumental (e.g., budget) and emotional (e.g., motivation) support.

“The SBM or mentorship program is not valued the way it should be. Many people don’t even know what for instance the Sector-Based Trainers are doing.” SBM Rutsiro district

When it comes to training needs, a few needs stand out. SBMs and SSLs clearly need more training on **offering remote teaching** to their students and **upgrading their own ICT skills**, this includes the use of PowerPoint, using the internet to download teaching content, using ICT in the classroom and the use of different ICT tools (computers, phones etc.) for delivering a class. Those SBMs that have not conducted a CoP would like to be trained on how to do this. Overall, SBMs would also like to become more proficient in
English, either through training or more exposure to the English language. SBMs would also like to know more about the different teaching methods that they can promote among their colleagues.

“I need more support in my role as SBM. This could focus on English or effective teaching materials. I also still face challenges in classroom management and giving constructive feedback to students.” SBM Rutsiro district

A few SSLs mention that they would like more support in developing good Science experiments and in project-based learning approaches.

“I would like a training in project-based learning approach, training teacher on how learners can practice while learning for example doing chemical experimentations.” SSL, Bugesera district

Table 6. Roles and needs of SBMs and STEM SSLs

<table>
<thead>
<tr>
<th>Roles SBM</th>
<th>Roles STEM SSL</th>
<th>Needs of SBMs and SSLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Supporting fellow teachers in English proficiency and teaching practices e.g. Community of Practice or lesson observation</td>
<td>• Coordinating all subject activities e.g. preparing and reviewing exams</td>
<td>• Providing and promoting effective remote teaching</td>
</tr>
<tr>
<td>• Coordination of all CPD e.g. developing a timetable for CPD</td>
<td>• Monitoring the quality of subject content and teaching e.g. model science experiment</td>
<td>• Upgrading ICT skills</td>
</tr>
<tr>
<td>• Coordinating all subject activities e.g. Community of Practice or lesson observation</td>
<td>• Promoting STEM among students</td>
<td>• Improving English language skills</td>
</tr>
<tr>
<td>• Promoting best practices</td>
<td>• Promoting best practices</td>
<td>• Learning more about effective teaching models and practices</td>
</tr>
</tbody>
</table>

District Education Officers

What are their main roles?

Among District Directors of Education (DDEs), a clear role that stands out and which is mentioned by all interviewed respondents is that of coordination and planning of educational activities. This may include the planning and coordination of training activities organized by REB for headteachers and deputy headteachers and ensuring that information that is disseminated by REB trickles down to the schools. Another frequently mentioned role is monitoring and reporting. DDEs mention that they monitor whether schools meet the standards set forth by REB and then report the data back to REB. Standards that they look at may be use of the SMART classroom, the use of teaching materials, the attendance rate of students and student performance. Supervision of Sector Education Inspectors (SEIs), headteachers and teachers and teacher recruitment are other roles that are mentioned quite frequently. When it comes to supervision, it is mostly assessing the performance of headteachers and teachers through school and classroom visits. Recruitment of new teachers is usually done by REB, but DDE’s indicate to support and assist REB and make shortlists together with headteachers. Less frequently mentioned roles, but still of importance are establishing partnerships with external stakeholders and working with parents and the community in district campaigns.

“Every month SEIs report to me about the school inspections. I give feedback on these reports and suggest some actions to take. I support them, go to their offices, do advocacy for them at district level, and I follow up on their actions.” DDE, Nyamagabe

Which activities do they undertake?

The most frequently mentioned activities that DDEs organize for schools are meetings and school visits. Meetings are organized at district level and mostly include SEIs, all headteachers and/or deputy headteachers and parent representatives. Meetings are undertaken to discuss best practices and challenges like school drop-out or attendance but also to agree on a shared scheme of work. DDEs also indicate to undertake school and sector visits. Sometimes DDEs do the visits together with SEIs, which they refer to as a “collective visit”. Usually, the DDE gets to visit one school per year.

“We organize meetings at district level to discuss the situation at school-level. We discuss with the headteachers. Some headteachers are doing a good job and may share their best practices. For others this is a chance to learn and improve. We also hold meetings to present student attendance. In that case we also invite sector leaders and secretaries. We use these meetings to discuss measures on how to improve attendance and reduce drop-out. There are some representatives of parents at these meetings as well.” DDE, Gakenke district
Sector education inspectors

**What are their main roles?**

The main responsibility mentioned by SEIs is *inspection of schools* in the sector. This is done to make sure that learning and teaching activities are going well and assess the challenges that schools face and look into how schools are managed. The SEI then *reports on the implementation of the teaching methodology*, attendance rate and performance of students to the DDE. Another role mentioned was that the SEI support schools in the *design of the SIP*, which makes it easier to monitor the planned activities during school inspection. Among the 9 priorities of the SIP, 8 are monitored at sector level. The design and drafting of SIP exercises can sometimes be organized through Professional Learning Communities (PLCs) with all HTs from the sector. Moreover, SEI will *coordinate and collaborate* with school leaders, local leaders, parents, and other stakeholders in education activities in the sector to ensure that they are all working together to improve the quality of education in the sector.

“We make sure to use the available partnerships in the sector, with the private sector, for instance, in one area there was a bridge which was broken, we had to ask businesspeople to help out so that the students can go to school with no problem.” SEI, Gakenke District

**Which activities do they undertake?**

SEIs are mostly busy organising *school visits*. Most SEIs visit every school in the sector at least once per month. Most of the time they visit the school alone or go together with other HTs, the latter was said to be a good way to share good practices and challenges but also to trigger improvement from schools and teachers that are not performing well. In line with school visits, the SEI would *report on the situation and challenges* of schools to the DDE. In terms of coordination, the most mentioned activity was to collaborate with parents and local leaders (i.e.: At cell and village level) to *monitor school attendance*. Every time a student has more than 3 unjustified absence the SLs will report it to the village leader who will then contact the student’s parent. SEI are also in charge of *organizing PLC meetings* with HTs from the sector once per month and if they have time, they will also *attend CoP sessions* at school level when invited. During PLC meetings; depending on the agenda; HTs share their challenges and good practices, review the progress, and evaluate the planned results from the SIP, etc. SEI are also in charge of *organising meetings with all the education stakeholders* in the sector every year both to sustain the partnership but also to present the status of education in the sector.

"Last year we had 219 teachers in the sector and to be able to inspect all of them, give them feedback and make sure that they improved it is quite challenging for one person to do it and many times. In addition to that, it is not usually ideal to have one person coming to assess you every time. It was in this line that we organize once every month we do the inspections together with HTs in one week; we would have a common checklist of things that we will look into.” SEI, Nyamagabe District.

**Needs of DDEs and SEIs**

In terms of the training needs of DDEs, all but one DDE mentions that a training on leadership would be useful. In particular such training could focus on how to supervise/manage SEIs, school leaders and teachers and how to support them with school improvement planning. About half of the DDEs also mentioned that they struggle with data analysis and reporting and that some extra skills on how to do this efficiently would help them a lot in their work. Although they use ICT a lot in their daily work, many do not feel sufficiently confident in the use of it and all interviewed DDEs indicate that they would like to upgrade their ICT skills some more, particularly for more efficient monitoring, reporting, and budgeting.

“There is a need to be trained on how to analyse the data submitted by SEI and to share the result directly online.” DDE, Bugesera district

SEIs were also mostly interested in a training on *leadership*, which is necessary for their monitoring of schools along with improving their skills in *data analysis and reporting* ideally using a digital system. Furthermore, SEIs also said that a training on *mentoring and coaching* will be helpful, they felt that it is a subject which is under looked but that is important when it comes to providing adequate and personalized advice. SEIs, like DDEs, use ICT a lot in their daily work. Nevertheless, the level of proficiency differs from SEI to another and they would like to increase their skills in monitoring and analysis programs/tools.
"I received an induction when I started working as an SEI, however that I will need a refresher session on monitoring and evaluation system than he can use to ease up my work.” SEI, Bugesera District

Table 7. Roles and needs of DDEs and SEIs

<table>
<thead>
<tr>
<th>Roles DDEs</th>
<th>Roles SEIs</th>
<th>Needs of DDEs and SEIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• coordination and planning of educational activities</td>
<td>• Inspection schools</td>
<td>• Training on leadership and management</td>
</tr>
<tr>
<td>• Monitoring and reporting to REB</td>
<td>• Developing reports for DDE</td>
<td>• School Improvement Planning</td>
</tr>
<tr>
<td>• Supervision SEIs, headteachers and teachers</td>
<td>• Designing the School Improvement Plan</td>
<td>• Data analysis and reporting</td>
</tr>
<tr>
<td>• Recruitment of teachers</td>
<td>• Coordinating and collaborating e.g. organization of PLCs for school leaders</td>
<td>• Mentoring and Coaching</td>
</tr>
<tr>
<td>• Partnerships</td>
<td></td>
<td>• Upgrading ICT skills, in particular for monitoring, analysis and reporting</td>
</tr>
</tbody>
</table>

Assessment of School Improvement Planning needs

Development of SIP

During the supportive visit to SLs, UR-CE trainers found out that most SLs did not draft their SIP and they expected trainers not only to provide technical support but also to teach them how to fill in the document. In some other schools, school leaders mentioned that they were not given enough time to prepare the SIP since they were busy with other activities at the time of the field work such as supervising the construction of new classrooms. Nevertheless, when it comes to the development of a SIP, in general SLs were responsive to the exercise. More specifically, school leaders that were trained by different development partners such as Building Learning Foundations (BLF), Soma Umenye and VVOB, found it easier to understand what was required to develop a SIP. For other school leaders the concept of SIP seemed to be new and they were eager to learn more about the SIP.

Figure 3: Numbers of schools with a SIP (Frequency)

In particular, looking into the 14 visited districts; out of the more than 1,000 schools in these districts half of these schools had a draft of SIP (520) at the moment of the visit. As Figure 2 shows, more efforts need to be done in Gatsibo and Kamonyi districts. When looking at the percentage of female HTs with a SIP draft in schools led by female head teachers; see Figure 3, the percentage of females that had drafted a SIP is higher in the majority of the districts. When looking at the figures combined for all districts, this percentage is remains slightly higher for females (i.e.: 47% female HTs have a SIP vs. 42% males).
Challenges in drafting a SIP

For the schools that did not manage to draft their SIPs, trainers mentioned different challenges. The main challenge was that the HTs did not understand the SIP components and template very well (i.e.: This was the main reason HTs in Gatsibo district did not develop a draft of SIP). In some other cases, the SIP team members could not easily meet because of Covid-19. In addition to that, some HTs had data but needed more explanation on how to use the data to complete the SIP. In the section here below, we are going to discuss three main challenges linked to the development of a SIP: 1) negative perceptions towards the relevance of a SIP; 2) Lack of capacity and resources to develop a (joint) SIP, and 3) Collecting and using data for developing a SIP.

Negative perceptions towards the relevance of the SIP

In the SIP guide a SIP is defined as: “a process through which schools set goals for improvement and make decisions about how and when these goals will be achieved.” At the beginning of the fieldwork a big number of school leaders did not perceive the SIP to be relevant for their schools. SLs perceived it as an administrative document, in the sense that it is a required document rather than a working document. According to them, they can continue to lead and manage schools without having a SIP. However, after further explanation by trainers and understanding the rationale behind the SIP, the majority understood that a SIP is a very relevant and useful document for the everyday management of their schools.

Lack of capacity and resources to develop a (joint) SIP

As mentioned above, school leaders that had a previous encounter with SIP in their school leadership training were fast in grasping the general requirements of the SIP template. Nevertheless, in some cases; mostly primary schools; school leaders lacked managerial and planning knowledge and skills necessary to develop a SIP. Some school leaders could not understand that setting priorities is related to gaps identified through data collection.

Furthermore, the development of a SIP is required to be done in a team. It is assumed that the involvement of the SIP team members in SIP planning processes results in greater support for achievement of school goals. The SIP team includes all members of the school community (Parents, teachers, local leaders, etc.). However, in some schools, mainly primary schools, there were no elected SIP teams. In some remote areas, finding SIP team members with the required understanding of all aspects of a SIP is quite challenging. In addition, some schools do not have enough money to pay the per diem of SIP team members when they come to school for discussion.
Collecting and using data for developing a SIP

Although most school leaders did prepare their SIP in advance, most of them did not use the new REB template. Throughout the main challenge identified with regards to the process and template was collecting and using data. The data needed to develop a sound and comprehensive SIP is scattered among different school community members. And in some schools, school leaders do not keep record of the needed information and when it is available it is not well analysed. Data needs to be updated based on the current situation. In fact, when it comes to school self-assessment, assessments of student performance and school performance data needs to be included. Overall, student learning assessment data was available to some extent. However, what schools did not have was school performance data. School performance data relates to data collected on factors that have a direct influence or effect on student learning results such as teacher attendance, teaching methods, student –textbook ratio, student attendance and possession of pen and paper by students during class. Without data on factors that affect student learning, the planning teams are left with guessing the reasons behind poor student performance. Therefore, school leaders need to monitor teaching and learning processes and document the data collected.

In addition, trainers identified that HTs struggled with the SWOT analysis, the school vision and school mission, and Goals and objectives. Annex 1 compiles the different sections/parts that were not clear in the template. The table lists the limitations and provides explanations regarding the limitation and in some case provides suggestion or how trainers addressed the limitation.

Lastly, for HTs that are not proficient in English, some concepts of the template were difficult to understand and language was one of the barriers that hindered them to develop a SIP.

Assessment of ICT conditions at schools

ICT infrastructure

Considering ICT conditions at schools, all the 5 schools visited during the needs assessment fieldwork had a smart classroom with access to internet. However, it was highlighted during the discussions that schools of excellence and boarding schools are better equipped in ICT. In schools with a smart classroom, computers are accessible to students and to teachers to use during lessons or during break time and one or two teachers are in charge of monitoring the use of equipment. Nevertheless, SBMs and SSLs indicated that even if there is a smart classroom, it may not always be accessible.

Factors affecting ICT use by teachers

In FGDs, SBMs and SSLs were asked about the extent to which they use ICT in their classes. We found that this very much depends on four factors:

1) Is there a smart classroom in the school? If not, the use of ICT is limited to teachers using their smartphone (if they have one) to play a song or text.

2) Is the smart classroom accessible? This very much depends on the school size and whether or not a timetable has been set up. One SBMs expressed always using the smart classroom and fully digitizing his lessons but this SBM was also the ICT teacher.

3) Is there a steady internet connection? Having internet or not very much determines the types of activities a teacher can do. If there is internet, the teachers can use the internet to search for video clips, do interactive games, or ask students to do an online search. If there is no internet, teachers are limited to showing offline material.

4) What are the teachers’ ICT skills? SBMs and SSLs indicated that using the smart classroom also depends on the teachers’ skills and attitudes. Some may be afraid or may not know what kind of ICT tools be out there. It was acknowledged that this factor can be overcome through training.

In the digital literacy survey, we asked SLs how strongly they agree or disagree with their schools having adequate, reliable, and secure ICT infrastructure (such as equipment, software, information resources, internet connection, technical support, or physical space), that can enable and facilitate innovative teaching, learning and assessment practices. They had to rate different questions on the following scale: 1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree and their answers were dichotomized into those disagreeing (1-3 score) and those agreeing (4 and 5 score).
As we can also see in Figure 5, most SLs tend to agree (at least 60% SLs agreeing on average) that there are digital devices to use for teaching, that digital materials are stored and can be shared among teachers and, that the digital infrastructure supports teaching and learning. However, access to internet proves to be more challenging, especially in Nyamagabe district where only 43% agrees that there is access to internet for teaching and learning with digital technologies. Also challenging, according to SLs, is the availability of digital devices for students and the physical spaces to support teaching and learning with digital technologies. Only 51% of SLs agrees with these two statements, and in Nyamagabe district this is only 43%. The availability of technical support and access to a data protection system proves the most challenging; with respectively 40% and 36% agreeing with these statements. Although we find some differences between districts, with SLs from Gakenke and Rutsiro district being consistently more positive about their ICT infrastructure and SLs from Nyamagabe district being consistently more negative, we only find a significant difference for access to a data protection system (p<0.01).

**ICT Leadership**

In the digital literacy survey, SLs were asked to rate to which extent they agree with statements related to the role of leadership in the school-wide integration of digital technologies and their effective use for the school’s core work: teaching and learning. Figure 6 presents the percentage of SLs that agree or strongly agree different statements (i.e.: dichotomization of 1-5 scale into % disagreeing (1-3) and % agreeing (4 & 5)). In general, SLs tend to be supportive about the use of ICT in teaching and learning. However, they tend more to discuss and plan about teaching and learning using digital technologies than really implementing this by reviewing the progress in their schools (61.8% agrees/strongly agrees) and by creating opportunities for teachers to participate in CPD for improving the use of digital technologies (65.9% agrees/strongly agrees).
Assessment of ICT attitudes, knowledge and skills of school leaders

Attitudes about using ICT among all stakeholders

During the FGDs, HTs, DHTs, SEIs and DDEs mentioned that they have access to a computer and/or tablet. They mostly use their computers for reporting and planning activities. While they will use a tablet or smartphone for communication purposes (i.e.: WhatsApp, Email). However, some respondents felt that they do not have enough knowledge in using other communication platforms such as Teams, Skype, etc. Overall, all respondents felt very positive about following remote/online CPD programs, and they acknowledged how important such programs can be for improving their ICT skills. A few respondents (DDE's in particular) were concerned about the time available for undertaking such programs and stressed the importance of receiving approval from superiors to follow the programs during working hours. Other respondents (SBMs and SSLs) worried about their lack of access to a laptop.

Attitudes of SLs before and after training

In the digital literacy survey, we asked SLs to assess how strongly they agree or disagree with statements about the usefulness of ICT in their jobs before and after the training on digital literacy and online learning. As also depicted in Figure 7, most SLs already had positive attitudes about using ICT in their jobs prior to taking part in the course on Digital Literacy. Slightly fewer SLs agreed with the statement about having a person at their school that can help with ICT (67% agrees) and having the resources to use ICT (65% agrees). Since attitudes were already very positive prior to training, we do not see a lot of significant changes after training. The only change that is significant, is for having the knowledge to use ICT in their jobs (79% agrees before training while 91% agrees after training, P<0.005).

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Figure 7: Differences between pre-and post-scores of attitudes towards using ICT (% agreeing or strongly agreeing with the statement) N=149

**ICT knowledge and skills**

In the digital literacy survey, SLs were asked to rate their knowledge on using different applications, the rating was scaled as follows: 1-Not at all confident, 2-Slightly confident, 3-Somewhat confident, 4- Moderately confident, 5-Completely confident. At the beginning of the training, they on average felt less confident about their Microsoft excel and Moodle skills; however, with a big spread in answers (i.e.: SD. Deviation of 1.4 and 1.2 respectively). Looking more specifically at the kinds of skills; trainees rated their skills from: 1. I have no ability at this; 2. I have an idea how I can do this; 3. I could probably do this with trial and error; 4. I am comfortably proficient at this; 5. I am a master practitioner at this; SLs feel less confident working in Moodle and evaluating the usefulness, copyright, and quality of web-based resources. When we consider the scores after the training, overall, the confidence of SLs improved significantly for all skills, for both males and females (p<0.01) (see Figure 8). The steepest learning curve for both males and females is for posting messages in the Moodle forum. Considering gender difference in ICT skills, we see that the learning curve for female SLs is slightly steeper. Before the training, male SLs scored their skills higher than their female counterpart in most of ICT skills, but the difference was only significant for the ability to do research on internet, creating and giving a basic presentation using MS PowerPoint and evaluating the usefulness, copyright and quality of web-based resources, where male SLs scored significantly higher (p<0.05). At the end of the training, these differences between males and females were no longer significant, indicating that the training on digital literacy can contribute to closing the gender gap.
Assessment of school resilience

The Needs Assessment on school resilience focused on the status and challenges SLs face when it comes to school reopening as well as the needs of the different school actors when dealing with future crises. As indicated in the paragraph on analysis above, the seven dimensions on school reopening set forth by UNESCO, were used to assess the status and needs of the different actors. As such, the findings are also organized according to these seven dimensions: social dialogue and communication, financial resources and investments, safety and health, teacher wellbeing, teacher preparation and learning, teacher deployment and rights and monitoring and evaluation. In addition, a separate paragraph refers to the resilience training needs of the different actors.

Social dialogue and communication

Overall, the different actors that were interviewed, mentioned that there was little communication about the reopening of schools and the steps towards that process. As a result, many headteachers, SBMs, SSLs, DDEs and SEIs felt lost and confused at the time of the Needs Assessment. When probing, a few activities came up or were planned to take place to ensure that schools would be prepared to reopen. Activities mentioned include preparatory meetings between headteachers, teachers and parents, community campaigns with local leaders to ensure that students would come back to school and drafting policies and plans on school-reopening and Covid-19 measures.

“Together with the SEI we inspect how far the schools are. We also start to sensitize the schools so that they can open soon but have not been able to provide full instructions yet on how to reopen. But we are ready to reopen and shall comply with the instructions.” DDE, Nyamagabe district
Financial resources and investments

From the interviews with headteachers, DDEs and SEIs, it was clear that investments were made to ensure that Covid-19 measures could be implemented. Four investments stood out: Classroom construction, building handwashing stations or purchasing portable handwashing stations1, recruitment of new teachers and mobilization of volunteers to ensure measures set forth by the government can be implemented. A majority of schools indicated that through donor funding (e.g., World Bank) the government was investing in bigger projects such as classroom construction and the recruitment of new teachers. Other smaller investments, such as purchasing handwashing stations, were being financed through school capitation grants which were often not found to be sufficient.

“We are waiting for at least 38 new teachers that the district will provide at the beginning of the next school year so if they come very soon, we have to prepare a training for them so that they are involved in our system.” Headteacher, Nyarugenge district

Mobilization of volunteers to support in the implementation of Covid-19 measures was either organized by the school itself (i.e., by mobilization of parents) or together with the government (i.e., mobilization of student graduates).

“In terms of staff, there is now a team of around a hundred students (S6 that graduated last year) that will help the schools out in our sector until April 2021. They will come to our school every day, do follow up on Covid 19 measurements and help teachers motivate students to learn again” Headteacher, Gakenke district

It is of interest to note that no investments were made in remote learning resources for teachers or students, except for one private boarding school that receives external funding and was able to buy tablets for their students.

Safety and health

Overall, the interviewed SSLs, SBMs and headteachers were very concerned about the safety and health of their students but also about their own safety and health once schools reopen. They were mostly worried that it would be difficult for students to follow the health measures (i.e., not wearing masks and not keeping sufficient distance), especially given the size of the student populations. As described under ‘financial resources and investments’ above, investments were made by the government to ensure more social distancing, but this did not always take the concerns away.

“The pandemic is still there and when for younger students you know they are children who are the friendliest. Asking them that they will come to school and spend the whole day with no direct contact with his/her colleague it is difficult and challenging…. Another challenge on the side of student is that most of the time you will find that there is not enough learning material for all the students which require that one material to be share by two or more students.” Headteacher, Rutsiro District.

In some schools, some additional actions were taken to ensure more safety and health. This included a stronger collaboration with health centres (or a newly established collaboration), integration of health and preventive messages in the lessons and collaborations with volunteers and local leaders.

Teacher wellbeing

The interviewed headteachers realized that having everyone back in school would also require more support mechanisms for teachers, who may face more difficulties managing the classroom, or are concerned about their own safety, health, and job security. Nevertheless, a majority of the interviewed headteachers had not yet created any specific support mechanisms for teachers.

1To respect sanitary measures, the school needs to have at least one portable handwashing station for two classrooms. Most schools mentioned that they will invest in a portable handwashing stations because they are much cheaper.
Many of them did have some ideas about what kind of activities would be most crucial and identified the following three themes: **promoting more teamwork**, providing **counselling and guidance** for teachers, and ensuring **better communication** during lock downs and new school closures. The SBM was often mentioned as one of the key players that could take up a role in safeguarding teacher wellbeing. Among the SBMs and SSLs a need arose to be trained on **entrepreneurship** so that they could start their own business and be economically resilient in case of a new lockdown or closure of schools. This is especially relevant for teachers from private schools who lost their jobs during the school closure.

“I will need to think of ways to motivate my teachers. One thing is to promote more teamwork. We have two SBMs at my school that can support this.” Headteacher, Gakenke district

### Teacher preparation and learning

There were quite some concerns from SBMs, SSLs and headteachers about how they would be teaching post lock-down. Firstly, there were concerns about **managing the classroom**. Since students have been out of school for a long period, many SBMs and SSLs were concerned about students not being able to concentrate and that they would disrupt the class.

There were also worries about **students not coming back to school** or **students lagging behind** and teachers having to repeat the unit. At most schools there were some ideas about how students could catch up such as weekend schools and after school clubs with student volunteers. However, these plans were not yet materialized into concrete actions.

“It’s important that these kids come back to school. But we need to remember that 6 months is a long time. If they have to stay in a class for 2 hours, they will be so bored. We need to make the classes more fun and motivating.” SBM, Gakenke district

Headteachers were worried about the overwhelming number of new teachers arriving at the school and who would be taking care of them. Lastly, a few SBMs worried about the application of the **CBC** in times of social distancing. They were for instance unsure whether group work would still be allowed.

“At least 38 new teachers will join, and they asked how they could be involved without training. We also discussed about the dates for the trainings. The first problem is that many will not be qualified in teaching. So we need to organize this training to help them and prepare the lessons and discuss the CBC.” Headteacher, Nyarugenge district

At the time of the needs assessment most schools had started to ask teachers to come to school to start **preparing for school reopening**. Headteachers indicated that teachers started doing some research, reviewing their teaching materials, and getting used to the new timetable. Some headteachers also indicated that they would take advantage of teachers being at school to organize some trainings (i.e.: In small groups).

“Teachers help in monitoring the progress of the constructions, the school environment, following up on the school cleaning, they would also attend some training mostly on ICT, reading and English, they follow up also on the school infrastructure so that the infrastructure is not damaged and that it is being used. For example, monitoring computers checking them and see if they are well functioning on a daily basis and that books are damaged.” Headteacher, Gakenke District.

### Teacher deployment and rights

Under teacher deployment and rights, three major themes arose: the **right to a salary** during school closures, the **workload** of teachers’ post-lockdown and **teacher drop-out**. The long-term closure of schools brought a lot of insecurities for teachers, including job insecurity. While teachers at public schools kept their salaries, they did express a fear to still lose their jobs and their income. Another concern was around the extra workload that teachers will have once schools reopen. Given that classrooms had to be split in half to allow sufficient space between children, SBMs and SSLs worried that they and their fellow teachers would have to work double shifts. Closely linked to job insecurity and workload was the observation from different SBMs and SSLs that teachers were leaving the teaching profession, also affecting their own motivation.
“We are worried about workload, classes divided by two means number of hours will increase. There will be double shifts.” SBM, Nyarugenge district

“Teachers need different type of support. Private schools stopped giving contracts, some moved away from the school. The teacher’s life needs to be included in decision-making” SSL Nyarugenge district

**Monitoring and Evaluation**

In the Rwandan education system, monitoring and evaluation mostly falls under the mandate of the SEI, the District Education Officer (DEO), the DDE and the headteacher/deputy headteacher. The interviews showed that the DDE and SEI are also responsible for **inspecting the schools on Covid-19 measures** and investments. At the time of the interviews, all DDEs and SEIs indicated to be very busy with classroom constructions and inspections of the school environment. Headteachers and Deputy Headteachers foresaw the importance of M&E in keeping track of **attendance rates, drop-out and student performance**, especially if there would be new lockdowns and school closures. In one school this already happened during the lockdowns from March-July:

“What we have done consistently is to have a database with categories for different students. For example, a child that been affected by lockdown in Kirehe and other border towns where we expect an additional lockdown. We kept weekly tabs on them.” Headteacher, Bugesera district

**How can actors and schools become more resilient?**

Basing on the different interviews conducted with different stakeholders about school closure, school reopening and resilience, we identify several key areas where actors could profit from more training and support.

All actors would benefit from **upgrading their ICT skills** so that they can use ICT devices for remote teaching but also to be able to integrate ICT more in their classroom. One SBM indicated that using ICT more may make it less tiring to teach with a facemask on. In addition, it was clear from the interviews that not all actors understood what Covid-19 is and how the preventive measures could be applied. Some actors therefore mentioned a clear need for a more **in-depth training on Covid-19**. Especially headteachers and DDEs expressed an interest to know more about this.

School leaders also expressed a need for a specific training on **leadership in times of crisis** including tips and tricks on how to **keep the communications lines open** with their staff during school closures. In this regard, one headteacher indicated that it would be helpful if every school has a crisis response plan.

“I was already trained (half-day) by the district hospital on how to do school inspection during this COVID time. However, a deeper training is needed specifically on how to make sure that students are following social distancing measures.” DDE, Bugesera district

“We need a training on management of staff and infrastructure during a period of crisis. So that, if we were to close school again in the future how are going to make sure that the school infrastructure is well maintained, what we will do with our staff and also how are we going to make sure that we have enough budget to face the crisis. How to adapt the new crisis situation, how to communicate with parents, teachers, and students, etc.” Headteacher, Bugesera district.

School leaders also realized that many of their teachers would be facing psycho-social issues when being back in school and they expressed a need for learning more about **counselling and guidance** to be able to support their teachers better. In one case, a headteacher indicated that it would even be good to hire someone that could take on this role, including the monitoring of health measures. SBMs and SSLs also required more in-depth training on **remote teaching**, including some ideas on how this can be conducted in low-resource settings as most students do not have access to smartphones.
Gender and inclusion in CPD, ICT and school resilience

During the Needs Assessment, special attention was paid to incorporating gender and inclusion into the discussions and interviews. A special needs school for deaf children also took part in the Needs Assessment and we ensured that both men and women took part in the FGDs. In terms of gender, a few themes came up when asking about the roles and responsibilities of the different actors. For SBMs, who work very closely with all teachers, gender stereotypes play a role. For instance, a few male SBMs mentioned that working with female teachers is not always easy as they tend to talk a lot and not focus or “joke about unrelated things” (SSL Nyamagabe district). Another recurring theme was that when having a coaching conversation with someone of the opposite sex, other teachers get suspicious because “they think that you are doing something else or have other intentions” (SBM, Nyarugenge district). Lastly, one female SBM indicated to feel very uncomfortable speaking with male teachers as they would approach her with sexual questions instead of teaching related questions.

In general, SBMs and SSLs tend to use different approaches for male and female teachers. One male SBM for instance indicated that when conducting a session with a group of teachers, he prefers to group them by sex so that there is “less emotional hindrance” (SBM, Nyarugenge district). A female SBM indicated that you need to motivate female teachers differently:

“I think women are shyer, they need extra help, they need to be motivated to speak. When you speak and you make a mistake, you will be corrected. When we are in a CoP, I try to ask the females questions rather than the males.” SBM, Nyamagabe district

There were also more obvious systemic gender barriers which the interviewed respondents said played a role. Pregnant teachers were for instance mentioned. SBMs and SSLs felt these teachers needed to be protected more in the workplace so that they could take more breaks from teaching. And after maternity leave headteachers mentioned that they would need additional infrastructure in school (i.e.: nursing rooms) to make sure that teachers can come back to work while still nursing their babies. In addition, a few respondents mentioned the lack of gender balance in the teaching roles, which also relates to the gender stereotypes that are in place about men and women.

“Therefore that I have met as SBM, is that there is no gender balance in our teaching staff. For instance, look at this group, there are only two female teachers. Often people say, this role is for males. You are the strong one, you have to train and take the lead.” SBM, Gakenke district

Although only one special needs school was part of the Needs Assessment, some interesting findings and challenges were identified. Teaching deaf children is challenging for teachers in general and especially so for new teachers. The SBM and SSL from this school indicated that a lot of time went into teaching these new teachers sign language, at the cost of other CPD activities. It was also expressed that it is very difficult for students at these schools to take the REB exams as they have not been adapted and as a result, it is also difficult for these schools to meet that standards set forth by REB on student performance. The SBM provided the example of the radio and TV programs. Though a sign language interpreter was present during the remote TV classes, a majority of deaf students does not have access to a TV and listening to the radio is not an option for them. This has made them lag behind even more. The SBM indicated that more advocacy is needed to ensure that the needs of special needs schools are considered in policies and programs.
Discussion, conclusions and recommendations

This needs assessment study was conducted to inform the planning and implementation of the Building Resilience in Leading Teaching and Learning Together program, a Covid-19 response program developed to mitigate the effects of the Covid-19 pandemic and future crises on teaching and learning in Rwanda and, to lay the groundwork for further scaling of the current LTLT program to the remaining 16 districts. During this study, different qualitative and quantitative assessment tools were used to assess the needs of education stakeholders in five new implementation districts. Assessments focused on CPD needs, development of School Improvement Plans, assessing the conditions for effective blended learning and the use of ICT in teaching and learning, the readiness and resilience of schools to reopen and respond to future crises and the role that gender and inclusion plays in these different needs.

Continuous Professional Development needs

Since the Needs Assessment that was carried out in 2018, prior to the implementation of Leading Teaching and Learning Together in Secondary Education program, also explored the roles and needs of different stakeholders, it is of interest to compare results across these two studies and identify any differences. In general, we observe small differences in roles and responsibilities. One identified difference relates to Professional Learning Communities (PLCs). While PLCs were not mentioned in the 2018 Needs Assessment, we found evidence in the current Needs Assessment that PLCs have been formed at sector level, showing that PLCs have become more institutionalized across the country. However, it is unclear whether these PLCs are accessible for all SLs, as some evidence was found that only school leaders from public schools were taking part in PLCs. In general, more work remains to be done to ensure that all SEIs establish PLCs in their sectors, that all SLs can take part in these PLCs and that these PLCs are monitored to ensure overall effectiveness.

For SLs, a difference may lie in the clarity of roles and responsibilities. While the 2018 Needs Assessment concluded that the only overlapping role among all the interviewed HTs was the provision of teaching and learning materials, the current Needs Assessment showed more consistency in the answers provided by SLs, with coordination and monitoring of school staff, development of teaching and learning timetables, collaboration with parents and discipline and hygiene promotion, standing out as core responsibilities. In part this could be because of a clearer definition of expected standards set forth by REB (VVOB, 2019). It is also clear from this overview, that leadership and management of the school are not directly seen as core responsibilities by SLs and that this continues to be a priority for future CPD. Training on leadership and management was also identified as a priority for DDEs and SEIs.

For SBMs we find little differences in mentioned roles between 2018 and 2020, except for organizing CoPs which were not mentioned in the 2018 study. Building Learning Foundations has played an important role in supporting primary schools in establishing CoPs, for improving English proficiency. The current Needs Assessment also showed that SBMs at the secondary level and STEM SSLs are not yet involved in these CoPs and have often not heard of them. Training on CoPs for all SBMs and all STEM SSLs will be an important priority in the upscaling of the LTLT program to all 16 districts.

Since the 2018 Needs Assessment did not include any consultations with STEM SSLs, no conclusions can be drawn on differences. From the current assessment, we conclude that SSLs and SBMs have some overlapping roles which need to be addressed in the CPD programs and more generally at the level of schools by school leaders. This is especially important since in this Needs Assessment, few SSLs clearly understood their roles and responsibilities.

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2 Building Learning Foundations a program of the MINEDUC and REB, funded by DFID as part of its Learning for all Program in Rwanda.
Recommendations for upscaling of Continuous Professional Development programs

- Bear in mind that because of training by Building Learning Foundations, education actors are more likely to have experience with PLCs and CoPs. It is important that the CPD programs acknowledge this and that the focus of training lies on building structure into PLCs and CoPs, applying CoPs for improving teaching and leadership and enhancing the accessibility of these networks.

- School leaders may be more aware of their roles and responsibilities than 3 years ago. In part, this may be due to the more clearly established roles and standards set forth by REB.

- Training in leadership, management, data collection and reporting remains a priority for school leaders but also for SEIs and DDEs.

- In general, few interviewed STEM SSLs could easily distinguish their activities from regular teaching activities. CPD for STEM SSLs can provide more clarity on roles and the differences between the tasks of SBMs and SSLs. School leaders can also help to ensure more clearly distinguished roles and responsibilities.

- Overall, upgrading of ICT skills for improved (remote) teaching (SBMs, SSLs and SLs), and more better monitoring and reporting (SLs, SEIs and DDEs) is a key priority going forward.

School Improvement Planning

The field visit that was conducted by UR-CE trainers to support SLs with the development of their SIPs and the debriefing session that followed, elucidated a lot of challenges with regards of the development of a SIP. Firstly, it was clear that not all SLs knew what a SIP was and that only about half of the SLs had drafted a SIP. SLs need more guidance on how to develop their SIP, to understand the relevance of a SIP and to collect and use data for developing their SIP. In part, this could be addressed during the PLCs and during the CPD program for SLs. To support SLs in developing an accurate and data-driven SIP, digitization of the SIP template would be preferred.

Recommendations for digitizing the School Improvement plan

Trainers agreed that digitizing the SIP would be a good idea due to its many advantages but identified the following recommendations for digitization:

- The structure of preliminary pages and historical background need to be revisited and separated from the template.
- The SIP template should be in Kinyarwanda and in English.
- The digitization of the SIP needs to simplify the template to facilitate school leaders; mostly for primary school leaders; in understanding what is required.
- REB should consider developing a platform dedicated to SIP instead of designing it as a survey/form to fill in. So that all information and guideline related to SIPs be found on one platform.
- Ensure that the form can be filled in offline as well as some school leaders will face limited access to a network and that it will be challenging for them to fill in the whole template.
- Train the SLs beforehand so that they understand how to fill in the digital form.

ICT infrastructure and digital literacy

In terms of ICT infrastructure, the digital literacy survey showed that SLs generally perceive the ICT conditions for teaching and learning as conducive. However, access to the internet, devices for all students and a physical space for digital teaching and learning remains challenging for many schools. In addition, one main aspect that seems to score relatively low across multiple questions, is the presence of a staff member with sufficient knowledge of ICT that can help colleagues with the use of ICT. SBMs and SSLs further point out that having a SMART classroom does not always lead to more or better integration of ICT in teaching. In line with the digital literacy survey, we see that this very much depends on the accessibility of the SMART classroom, on a steady internet connection and on the skills and attitudes of teaching staff. To that end, improving/upgrading ICT skills of SLs and teaching staff is one of the main priorities going forward. We see that a training in digital literacy, as currently provided by VVOB, is a first step in improving such skills. We for instance found a steep improvement in self-reported skills of SLs after taking part in
such training. Attitudes already prove to be very positive before training, resulting in little to no change in attitudes. Although the digital literacy training provided by VVOB is primarily meant for building skills for online learning in Moodle, we see that the effects of the training go beyond such skills, also impacting general ICT skills like developing Word documents and PowerPoint presentations. We also see that the learning curve is steepest for female school leaders, and that the differences in skills between males and females reported before the training, were no longer there after training. This shows that a training in digital literacy can contribute to closing a gender gap in digital literacy among school leaders.

**Recommendations for improving ICT infrastructure and digital literacy**

- Identification of an ICT focal person at schools that can help and support other teaching staff in using ICT.
- When there is a SMART classroom, establish a timetable so that different teachers get a turn at using the SMART classroom.
- A general ICT training can lead to a steep learning curve as baseline levels of ICT skills among education staff are generally low. Such training can also contribute to closing a gender gap in ICT skills.

**School resilience**

The assessment of school resilience showed that the Covid-19 pandemic has come with a lot of challenges, many of which could not have been foreseen. Main challenges that were identified in the Needs Assessment were: difficulty in managing the school and the classroom under strict Covid-19 measures, the concerns of teachers about their own safety, the difficulty with tracing down students that dropped-out and ensuring that those that are back in school can catch up, teacher drop-out and teacher demotivation, new teacher recruitment and induction, and the lack of communication with parents, students and teaching staff during the lockdown. We also see that the Covid-19 pandemic has led to new innovative ideas and new collaborations which can support schools in becoming more resilient. This includes closer collaborations with parents and community chiefs in back-to-school efforts, working with parents and graduates as volunteers and establishing collaborations with health centres. The resilience assessment also elucidated the important role of smartphones, laptops and internet connectivity in education and communication in times of crisis. Where only a handful of schools could easily switch to online learning and communication with teaching staff through smartphones, the great majority of schools did not have any means to continue communicating with students and parents during school closure. To ensure schools become more resilient, it will be essential to set up communication lines between teachers and headteachers and between teachers and learners. Ideally this would be through smartphones, however, given that few students have access to smartphones, alternative means of communication and remote teaching will need to be explored.

**Recommendations for improving school resilience**

- Train SLs, SEIs and DDEs on crisis communication and ensure a feasible communication plan is developed for keeping communication lines with teachers, parents and students open during school closures.
- Upgrade the ICT skills of all education stakeholders and carefully plan for remote teaching to prepare for a new lockdowns/school closure. Parents can be involved in the planning process so that the decisions on remote teaching are tailored to the specific context of children and their parents.
- Develop entrepreneurship opportunities for teachers so that they do not directly lose all their income when (private) schools close.
- Further strengthen existing ties with community chiefs, parents and health centers.
- Support SLs, SEIs and DDEs in setting up data management systems to follow-up on drop-out and student attendance.
- Create opportunities for guidance and counselling for teachers. Either appoint and train existing staff to do this or work with external parties.
Gender and inclusion

In this study we touched upon gender and inclusion in the assessment of needs. Because gender and inclusion were included as cross-cutting issues in different assessment tools, this study merely brings to the surface some of the issues that are faced by different stakeholders. For a better understanding of gender and inclusion, a more in-depth study with a different type of research design is recommended.

We see that gender stereotypes play a role in selection of staff for specific roles and that perceptions of what men and women should do or should be may hamper stakeholders to successfully implement different activities. On the one hand, perceptions of females ‘being chatty and not serious’ hampers female teachers from being selected as SLs, SSLs or SBMs. On the other hand, perceptions of men being strong, makes it easier for men to be selected for a certain role. Although only one special needs school took part in this study, we found that little is done to accommodate these schools in terms of high-quality teaching and learning, and universal standards and examinations make it difficult for students with special needs to break the vicious cycle that many of them are in.

Overall, it is important to draw more attention to any gender gaps at onset, by ensuring that males and females have equal opportunities to be selected for specific roles. To this end, more awareness can be created among different stakeholders about gender gaps in roles and functions by providing regular updates on statistics (i.e. how many school leaders are female). VVOB is also committed to reducing the gender gap, by providing additional training to female teachers in Educational Mentorship and Coaching in its fourth cohort. Although gender has already been integrated as a cross-cutting topic in the CPD modalities, more attention could be paid to the stereotypes identified in this study and ensuring that both women and men are aware of these stereotypes. To better address the unique needs of special needs schools, professional development programs and standards for students and schools should be tailored more to these unique needs. Simply treating special needs schools as any other school does not do justice to their student population and teaching staff.
References


Annex 1: Specific limitations of the current SIP template

<table>
<thead>
<tr>
<th>Limitation</th>
<th>Why</th>
<th>Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of pre-primary/nursery level in the template where applicable</td>
<td>As an important level in educational system that may be formalized at any time. Nursery section is mentioned at beginning and later dropped.</td>
<td></td>
</tr>
<tr>
<td>Lack of a section on Other school activities</td>
<td>These other school activities are activities not related to the learning achievement. Because the school has more functions such as community outreach. So as to help SLs have one document that corresponds to the school budget.</td>
<td></td>
</tr>
<tr>
<td>Misconception of the concepts of vision and mission</td>
<td>The concepts of vision and mission were not provided with a common definition.</td>
<td></td>
</tr>
<tr>
<td>Finding marks for 2019-2020</td>
<td>It was not possible to capture these marks since students went back home without doing exams.</td>
<td>School leaders were advised to use data (marks) of the previous school year.</td>
</tr>
<tr>
<td>Review the list of subjects Section on students with disabilities</td>
<td>For example, literature is missing from the list.</td>
<td></td>
</tr>
<tr>
<td>Section on students with disabilities</td>
<td>The template does not capture information on students with disabilities.</td>
<td>Add the section, disaggregated by gender.</td>
</tr>
<tr>
<td>There should not be duplication of terms.</td>
<td>E.g., in the leading teaching section there is teacher absence rate and teacher attendance rate which capture the same thing.</td>
<td></td>
</tr>
<tr>
<td>Reconciliation of fiscal year &amp; academic year</td>
<td>Four quarters for a fiscal year while for an academic year it is three quarters</td>
<td></td>
</tr>
<tr>
<td>Reference mark</td>
<td>School leaders do not understand how and why the performance level was set at 60%.</td>
<td></td>
</tr>
<tr>
<td>Bursar secretary function</td>
<td>The template does not consider bursar who is at the same time a secretary.</td>
<td></td>
</tr>
<tr>
<td>Some items on physical infrastructure are not clear</td>
<td>The template capture information on the number of physical infrastructure and it is not clear how to capture for example the number of water and electricity.</td>
<td>For water: Clarify if the school use WASAC, rainwater or tanks and count the number of taps. For electricity: Clarify if the school use Solar, Biogas, REG, Generator as the main source of electricity.</td>
</tr>
<tr>
<td>Some tables are not complete (i.e.: Table of national examination, table of school results)</td>
<td>The column of average per subject in the table of results is missing.</td>
<td></td>
</tr>
</tbody>
</table>