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Leh Wi Lan
Improving Secondary Education in Sierra Leone

WORKING PAPER

Investigating the Activity Levels of School Quality Assurance Officers and Principals in Sierra Leone

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Author Iman Beoku-Betts
Leh Wi Lan

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Chris McBurnie

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Abbreviations and acronyms

ASC	Annual School Census
DD	District Director
DEO	District Education Office
DO	District Officer
FQSE	Free Quality School Education
GIS	Geographic Information System
JSS	Junior Secondary School
MBSSE	Ministry of Basic and Senior Secondary Education
SSS	Senior Secondary School
STEM	Science, technology, engineering, and maths
SQAO	School Quality Assurance Officer
TSC	Teaching Service Commission

Executive summary

EdTech Hub, the Sierra Leone Government and implementing partners of the Leh Wi Lan programme have collaborated to get a better understanding of what factors affect the variability in the activity levels of School Quality Assurance Officers (SQAOs) and the level of engagement with digital tools by school principals. Through this research focus, we also wanted to see if there were any examples of effective collaboration between SQAOs and principals that we could learn from. We conducted the research by reviewing the relevant Tangerine[1] data submitted by SQAOs and principals, as well as semi-structured in-person interviews in three geographically diverse districts — Kenema, Bo, and Kambia. The districts were chosen by categorising them by high, medium, and low activity levels based on the average number of form submissions by SQAOs per district from September 2021 to May 2022. After identifying the districts, we categorised SQAOs and principals by high, medium, and low activity levels to provide variation. Overall, we aimed to interview nine SQAOs and nine principals (three SQAOs and three principals in each district). This report aims to help provide the Sierra Leone Ministry of Basic and Senior Secondary Education (MBSSE) and other partners with insights into understanding the variation in activity levels between SQAOs and principals. It aims to increase SQAO activity levels, increase principal engagement with digital tools, support and promote quality visits to schools, and generate better collaboration between SQAOs, schools, and the MBSSE.

The key findings from the research are:

- SQAOs allocated to urban areas are conducting more visits than those assigned to schools in rural areas, and they are visiting a higher proportion of their allocated schools.
- The costs of maintaining the motorbikes used for school visits are incurred by the SQAOs and can be very high.

[1] Tangerine is an open source, offline data collection tool that can be used on both smartphones and tablets. Tangerine is the application used by SQAOs to collect data during school visits and by principals to collect data on lesson observations and school practices. See https://www.tangerinecentral.org/ retrieved 18 May 2023.

- The use of WhatsApp for communication with principals was common among SQAOs with lower activity levels. It may be a substitute for visiting schools regularly if the schools are in rural, hard-to-reach areas far from the district education office.
- SQAOs have harnessed informal and formal peer networks and professional learning communities to improve their work and get extra support where needed.
- SQAOs want ***"more empowerment from higher up"*** as they feel their reports are not always taken seriously; they do not see any changes coming from 'above' due to the reports they are sending.
- More thought needs to be given to making it easier for principals to use their tablets in more rural areas, where there is less access to electricity and mobile and internet networks.

The key recommendations from the research are:

- Continue providing fuel for SQAOs, but reassess the allocation, as SQAOs with schools that are more remote currently do not get more fuel than those with schools in the centre.
- District Officer (DO) support needs to continue until processes are put in place for a more sustainable approach. However, over time, there needs to be a transition from DO support as this is a project-funded position.
- A more nuanced approach to realistic target setting and clustering is needed to help hold all SQAOs to account more fairly, as there is high variation in the number and location of schools each SQAO is assigned in their cluster. Given the variety of contexts SQAOs face, having a uniform target for activity levels is inappropriate.
- More needs to be done to make all SQAO forms simpler and more user-friendly. Agreeing on a more streamlined report and the key indicators that will be reviewed will reduce the burden and complexity of the forms and increase the value added.
- Encourage more joint school visits between SQAOs and HQ so SQAOs can feel more supported by their peers and superiors.

- Choose a high-performing SQAO to lead and provide peer mentoring and coaching to other SQAOs in each district. This could encourage SQAOs to support each other more.
- Trial hybrid quality assurance methods such as remote visits using WhatsApp, especially for SQAOs with schools in hard-to-reach areas whose schools may not get visited as regularly as schools in urban centres.

1. Introduction and background

Since the launch of the Free Quality School Education (FQSE) Programme in 2018, the Sierra Leone Ministry of Basic and Senior Secondary Education (MBSSE) has prioritised the use of data for decision-making across several education reform programmes. Part of this vision has been to build systems to measure school quality through School Quality Assurance Officers (SQAOs) using data collection and feedback. This system includes using tools for teacher management, lesson observations, school improvement, and attendance monitoring.

Since September 2020, EdTech Hub has worked with the MBSSE to support its vision of data use at all levels of the education system. In particular, this support has included collaborating with the Sierra Leone Government and implementing partners of the Leh Wi Lan[2] programme to better understand factors affecting the activity levels and performance of SQAOs.

Leh Wi Lan has been working with the MBSSE to improve the quality of teaching and learning through close-to-school support at the secondary level. Through this partnership, Leh Wi Lan employed 220 School Support Officers to provide regular coaching and support to schools, showing the value of a group of officers specifically focused on quality assurance. Towards the end of 2020, the MBSSE recruited approximately 175 SQAOs to fulfil various roles, including continuing the functions of the initial School Support Officers. SQAOs provide a systemwide means for the MBSSE to support quality assurance at the school level. Since early 2021, Leh Wi Lan has worked with the MBSSE to support capacity development and effective functioning of the SQAOs. This includes facilitating more regular school visits, improving the knowledge and skills of school quality assurance, and providing digital tools for school-based data collection.

Through this programme, the SQAOs have been given a tablet to use the Tangerine mobile platform[3] to conduct school quality assurance visits and collect data on priority whole-school issues, lesson observations to gather data on classroom and pedagogy indicators, and verify attendance of

[2] See https://mbsse.gov.sl/leh-wi-lan/ retrieved 14 May 2023.
[3] Tangerine is an open source, offline data collection tool that can be used on both smartphones and tablets. Tangerine is the application used by SQAOs to collect data during school visits and by principals to collect data on lesson observations and school practices. See https://www.tangerinecentral.org/ retrieved 18 May 2023.

students and teachers. Leh Wi Lan has collaborated with SQAOs, MBSSE national and district-level staff, and secondary school principals to deliver this support. In addition, more recently, all secondary school principals were given digital tools to support in-school lesson observations and school performance management.

After two years of supporting SQAOs and more than a year of working with school principals, there is a need to review the progress that has been made and consider what is needed to further improve the effectiveness of the SQAO cadre and the role of digital tools. Across these first two years, it has become clear that SQAO activity levels and school principals' engagement with digital tools are highly variable between different locations.

The aim of this report is to provide the MBSSE and other partners with insights to understand the variation in and what is needed to maximise SQAO activity levels. It also aims to increase principal engagement with digital tools and support and promote quality visits to schools. The report also aims to generate better collaboration between SQAOs, schools, and the MBSSE.

The report presents findings from qualitative research conducted in three districts in Sierra Leone. We used semi-structured interviews with SQAOs and principals to understand their experiences of school visits and filling in forms using the Tangerine platform. Our analysis focused on understanding which factors may be hindering the progress of the SQAOs and which factors may be enhancing their progress.

The next section, Section 2, outlines the research methodology. Section 3 looks at the expectations of SQAOs, and how they are currently performing, and summarises our findings. Next, in Section 4, we discuss the factors affecting principals. The report concludes with recommendations in Section 5.

2. Methodology

EdTech Hub collaborated with the Sierra Leone Government and implementing partners of the Leh Wi Lan programme to improve the SQAO cadre by analysing their activity levels. The research also considered factors affecting school principals and their interaction with the digital tools provided by Leh Wi Lan.

We focused on two main areas:

- **Activity levels:** What factors affect the variability in the activity levels of SQAOs and the level of engagement with digital tools by principals?
- **Collaboration between SQAO and Principal:** Examples of effective collaboration that we can learn from.

The research involved reviewing the relevant Tangerine data submitted by SQAOs and principals and conducting semi-structured, in-person interviews in three geographically diverse districts. The districts were selected on the basis of the average number of forms submitted by the SQAO officers working in a particular district and their geographical location (with the aim of interviewing participants in different regions of the country[4]).

The districts were chosen by categorising them by high, medium, and low activity levels based on the average number of form submissions of SQAOs per district from September 2021 to May 2022. SQAOs are expected to submit 16 forms and visit 8 schools per month. When selecting the districts, we ensured that each selected district was in a different region of the country and easily accessible by road.

Table 1 below shows the definition for each activity level and the districts chosen for interviews.

[4] There are five regions in Sierra Leone: Northern, North-Western, Southern, Eastern, and Western Area). There are 16 districts within these 5 regions.

Table 1. *Activity level definitions for districts and the districts chosen for interviews*

Activity Level	Definition	District	Region
High	An average of more than 16 forms per month per SQAO	Kenema	East
Medium	An average of 8–16 forms per month per SQAO	Bo	South
Low	An average of fewer than 8 forms per month per SQAO	Kambia	Northwest

In each district, we aimed to interview three SQAOs and three secondary school principals. As with the districts, we categorised SQAOs and principals by high, medium, and low activity. Even in districts where the average number of forms submitted across all SQAOs was low, there were individuals with medium and high activity levels. Each SQAO is expected to visit eight schools per month, and principals are expected to complete four lesson observations per month, so we used these targets as a basis for defining activity levels. Table 2 below shows the activity definitions for the interviews.

Table 2. *Activity level definitions used to choose SQAOs and principals for interviews*

Activity Level	SQAO Definition	Principal Definition
High	More than 8 visits a month (above target)	More than 4 lesson observations a month (above target)
Medium	8 visits a month (on target)	4 lesson observations a month (on target)
Low	Fewer than 8 visits a month (below target)	Fewer than 4 observations per month (below target)

The data used to choose the SQAOs and principals was taken from their individual submissions from May 2022, as this was the most recent month of uninterrupted school visits before the research was planned.

Each SQAO interview lasted approximately 60 minutes and was broken down into four sections:

Section 1: Schools and school visits (location of assigned schools, assigned schools and school visits, transportation for school visits)

Section 2: Relationships with various stakeholders (principal and teachers at assigned schools, District Director (DD) and District Officer (DO), peers)

Section 3: Technical issues (completing forms on the tablet, level of comfort with using software and hardware, form submission issues)

Section 4: General questions (overview of questions from the other sections, questions on the different forms specifically, the usefulness of particular forms, what would make things easier for SQAOs when submitting forms and school visits).

Each principal interview lasted approximately 30 minutes and focused on tablet usage, trainings, technical issues, and relationships with district staff (their allocated SQAO and DD / DO in their district).

Although we aimed to interview nine SQAOs and nine principals, we could only interview eight SQAOs and eight principals, as one SQAO and one principal were unavailable in Kambia.

3. School Quality Assurance Officers and activity levels

This section looks at the varying activity levels of SQAOs and what factors might affect these activity levels. To give some background, we look at the expectations set for SQAOs and how they are currently performing in terms of their targets. Finally, we look at the findings from the data analysis and interviews.

3.1 Expectations for SQAOs

SQAOs have been using digital tools to simultaneously improve school performance and collect school-level data. Through the tablet-based app Tangerine, they have been providing regular, at-scale insights into several issues, including classroom practice and school management. Each SQAO is assigned a cluster of pre-primary, primary, junior secondary, and senior secondary schools in their allocated district. This allocation varies in number from district to district. Through discussions with MBBSE, SQAOs and the District Education Offices (DEOs), and given their other roles and responsibilities, all SQAOs were given a common target of visiting eight schools from their cluster and submitting a total of 16 forms per month related to these schools. There are three forms that SQAOs need to complete: the lesson observation form, the attendance validation form, and the school quality assurance form. Although they are expected to submit 16 forms each month, it has not been specified how many of each form they need to submit, as the focus has been more on completing eight visits rather than the form submissions.

Using their tablets, SQAOs can see how many school visits they have made and how many of each form they have completed. District officials can view this data for any SQAO on a real-time dashboard. Each month, the School Quality Assurance Directorate at the MBSSE compiles a monthly summary of individual and district performance against the given targets.

3.2 SQAO activity: where are they now?

In October and November 2022, 74% of SQAOs met their monthly target of eight school visits. This has increased from 27% when Leh Wi Lan began tracking this metric in October 2021. In Term 1 of the 2022/23 academic

year, SQAOs had made an average of 1,750 school quality assurance visits per month, against a target of roughly 1,400 (based on the target of eight visits per SQAO). While most SQAOs have been slightly over or under the given target of eight visits per month, a significant minority have been making 20 visits or more a month. Districts with high average visits per SQAO have included Koinadugu, Pujehun, Kenema, Western Urban, and Moyamba, but there have been individuals with high activity levels across almost all districts.

In September 2022, when the research was initiated, approximately 60% of SQAOs reached their target of submitting 16 forms or more per month. Although this is over half of the SQAOs, we wanted to understand why some SQAOs have a much higher output than others. When looking at Kenema, Bo, and Kambia as examples of high, medium, and low activity districts (respectively), we aimed to see if there were any differences or similarities in SQAO practices.

3.3 Findings: what factors affect activity levels?

This section looks at the main factors that impact SQAO activity levels according to the interviews conducted in the three districts. Alongside these interviews, we conducted some quantitative data analysis based on data collected from Leh Wi Lan on SQAO form submissions and school visits.

3.3.1 School allocation

SQAOs allocated to urban areas are conducting more visits than those allocated to schools in rural areas, and they are visiting a higher proportion of their allocated schools.

Each SQAO is assigned a cluster of schools in their allocated district. The number of allocated schools varies from district to district. Table 3 shows the number of schools allocated to each SQAO interviewed.

Table 3. *Number of schools allocated to each SQAO interviewed, and percentage of schools visited in May 2022*

Activity Level	District	Total number of schools in cluster	Urban?	% of schools visited in May 2022
High	Bo	60	Yes	55
Medium	Bo	60	Yes	13
Low	Bo	50	No	12
High	Kenema	139	Yes	23
Medium	Kenema	111	Yes	7
Low	Kenema	70	No	9
High	Kambia	94	No	10
Medium	Kambia	54*	No	15

*As given by the SQAO when interviewed. This number could not be confirmed due to the SQAO being transferred to a new district shortly after the research took place.

When comparing the districts, we can see that not only is there variation between the districts, but there is also variation within districts. For example, for our sample, the largest number of schools in a cluster in Kenema is 139, whereas, for Bo, this reduces to 60.

SQAO clusters were created as a way of allocating schools to SQAOs equitably; however because of the various school locations, some SQAOs are allocated to schools in hard-to-reach areas.[5] For those allocated to schools that are difficult to access, getting to these schools takes longer, requires more fuel and takes SQAOs through difficult terrain.

In both Bo and Kenema, the SQAOs with the highest activity levels (high and medium activity) were those with school allocations in more urban areas. In these cases, large numbers of the schools are within walking distance from the district education office. On the other hand, SQAOs with the lowest activity levels were those with schools furthest away from the district education office. In both districts, we can also see that SQAOs with clusters in more urban areas are visiting a higher proportion of their allocated schools per month. For example, in Bo, the high-activity SQAO visited 55% of their allocated schools compared to the low-activity SQAO, who visited 12% of their schools.

[5] See https://mbsse.gov.sl/wp-content/uploads/2021/02/MBSSE_Education-Data-Dictionary.pdf Retrieved 3 May 2023

The number of schools allocated to each SQAO was higher for the urban SQAOs in both districts; in Bo, the figure is 139 vs 70 and in Kenema, 60 vs 50. This implies that those with urban clusters could visit more schools than their counterparts with rural clusters because the schools are closer and easier to access. In Kenema, the SQAO categorised as low activity said that their nearest school was approximately two hours away by motorbike, and in numerous instances, school visits required an overnight visit.

Leh Wi Lan allocate 10L of fuel to SQAOs each week as part of the programme. Although every SQAO interviewed acknowledged that the fuel from Leh Wi Lan greatly helped their job, five out of eight SQAOs reported that the 10L of fuel was sometimes insufficient, and they had to buy fuel themselves. Notably, four of these five were SQAOs with medium or low activity levels, indicating that transport issues could negatively impact those with more dispersed clusters. As a result, without adequate transport, only schools in urban centres get adequate SQAO support.

3.3.2 Maintenance of motorbikes

The costs of maintaining the motorbikes used for school visits is incurred by the SQAOs and can be very high.

After hiring 180 SQAOs, the MBSSE provided each of them with a motorbike to assist them with their duties. All the SQAOs interviewed reported that they used the motorbike for school visits, and the bikes were particularly useful as they did not have to pay extra for public transport or hire a motorbike for school visits. The motorbike made them more mobile and made it easier to reach schools further away.

Despite the importance of the motorbikes for doing their job and visiting schools, many SQAOs cited several challenges. The SQAOs reported ongoing maintenance issues with their bikes, from frequent breakdowns, including flat tyres, to needing to purchase lubricant — all of which the SQAOs had to pay for themselves. Without extra maintenance, they would be unable to keep their motorbikes up and running, which becomes a barrier to fulfilling their targets. Although this issue was reported across all activity levels, the problem is particularly acute for SQAOs with more rural clusters, with schools only accessible over difficult terrain. One SQAO with schools in hard-to-reach areas noted that to reach his schools, he had to drive on hilly, rocky roads, which at times damaged the tyres. It should be noted that this SQAO was categorised as having low activity.

Many SQAOs also requested protective gear while using their motorbikes, as many were concerned about accidents. The recurrent costs from bike maintenance and ensuring SQAOs feel safe when doing their jobs need to be considered when trying to increase activity levels.

3.3.3 Relationships and support networks

SQAOs of all activity levels have built strong relationships with principals in their clusters. SQAOs have engaged in informal remote supervision via WhatsApp.

All SQAOs reported having a good working relationship with the principals in their cluster, with each seeing the importance of keeping the relationship with the principals cordial. Principals felt comfortable contacting their allocated SQAO about concerns, including teacher and technical issues. Some SQAOs reported that principals would contact them via WhatsApp when they had problems. Others decided to set up a WhatsApp group with the principals in their cluster to discuss the concerns in a community of learning style group. The use of WhatsApp for communication with principals was common among SQAOs with lower activity levels. This mode of communication may be a substitute for visiting schools regularly if the schools are in rural, hard-to-reach areas some distance from the district education office. Although their school visits may be fewer, these SQAOs are still keeping in touch with their allocated principals, albeit in a more hybrid manner.

SQAOs rely heavily on District Officer (DO) support, which may not be sustainable when the programme finishes.

Another vital aspect to consider is the relationship between the SQAOs and the District Officer (DO) hired by Leh Wi Lan and the District Director (DD) hired through the MBSSE. SQAOs reported that the DOs and DDs encourage them in their work, remind them of the rules and responsibilities of being an SQAO, and advise them on how to manage principals. They also run monthly meetings to bring the SQAOs in the district together to discuss successes and challenges. It was clear that the SQAOs felt supported by their district superiors; however, there was no clear distinction between the kind of support they received from the DO compared to the DD. One high-activity SQAO reported that they do not usually contact the DD if they have general issues and are more likely to go to the DO. For any technical issues, for example, with Tangerine, they

would contact the Senior Programme Officer at the Leh Wi Lan HQ, who manages data and system strengthening. SQAOs have harnessed the expertise of Leh Wi Lan to support their work, and they know whom to go to when they need help with different issues. The focus on looking to Leh Wi Lan staff when problems arise is good from a project perspective as it illustrates and is evidence of the staff's usefulness; however, it could become a sustainability issue when Leh Wi Lan eventually phases out. SQAO staff need to feel fully supported by MBSSE and Leh Wi Lan project staff.

There are both informal and formal peer networks and professional learning communities that SQAOs have harnessed to improve their work and get extra support where needed.

In each district, we could see examples of peer support and strong relationships among SQAOs. In Bo, one SQAO noted that ***"you cannot be a jack of all trades"*** and that they learn from other SQAOs in the district. In Kambia, one SQAO noted that they felt supported not only by other SQAOs in their district but also nationally. Here, the SQAO explained that when one district had a training, the SQAOs involved would communicate with the other SQAOs to explain what was covered in the training and what they learnt. In Kenema, the high-activity SQAO reported that, at times, they call all the SQAOs in the district together to talk about their experiences and share learnings. A second SQAO in Kenema also mentioned the high-activity SQAO specifically as something of a leader within the district who brings the SQAOs in Kenema together to provide mutual help and support. Harnessing these peer-to-peer relationships between SQAOs could increase activity within districts.

3.3.4 Training and support from Leh Wi Lan

The training and support provided by Leh Wi Lan have made it easier for the SQAOs to do their jobs.

When asked about the training received by Leh Wi Lan on how to do their jobs successfully, all SQAOs reported that the training had been helpful and informative. Each SQAO praised the work of Leh Wi Lan. Thanks to the training, the SQAOs felt comfortable using their tablets, completing the forms, and engaging with school heads. There were no reports of technical issues or inability to fill forms because SQAOs felt unprepared to do so, but there were reports of needing refresher training courses. Four of the eight

SQAOs interviewed requested additional training, including how to give feedback on the lesson observation forms using the automated feedback function. Notably, three out of these four SQAOs had lower activity levels.

As mentioned in Section 3.3.1, Leh Wi Lan allocate 10L of fuel to SQAOs each week. The project also provides SQAOs with mobile data to submit forms when they do not have WiFi. This support from Leh Wi Lan was reported as integral to the SQAOs being able to do their jobs, despite some feeling that the 10L of fuel was not enough and mobile data at times running out before their next allowance was due. Furthermore, SQAOs reported that the fuel provided by Leh Wi Lan also had to be used for MBSSE jobs and not just visiting schools, which made it more difficult for them to reach their targets. One SQAO said they would appreciate more support from MBSSE, in particular, regarding fuel. An adequate fuel and mobile data allowance is integral to enabling the SQAOs to do their jobs.

Many SQAOs praised the work being done by the DO, who Leh Wi Lan has hired. One SQAO said their DO was a diligent worker who was committed to Leh Wi Lan and kept on top of all the work, including monthly data subscriptions and reminding SQAOs about monthly meetings and learning circles. They felt their DO was very efficient and dedicated to the job. Moving forward, it will be important to harness these relationships and continue this support while looking further into how this can be made sustainable once the programme is phased out.

When asked about reaching their target number of school visits, three SQAOs across Kenema and Kambia mentioned Leh Wi Lan's focus on secondary schools. They reported that they first targeted secondary schools because Leh Wi Lan focuses on secondary schools, and they wanted to hit the Leh Wi Lan target. The programme's focus on secondary schools may have created confusion about whether primary schools count towards the target number of school visits and form submissions. The data for all SQAOs from May 2022 suggests there is some evidence that primary schools are being visited less frequently than might be expected, but not excessively so. Primary schools comprise 69% of all government-approved non-private schools, but only 58% of visits were to primary schools. Junior Secondary Schools (JSSs) make up only 17% of all schools yet accounted for 25% of visits. Visits to Senior Secondary Schools (SSSs) and pre-primary schools were more in line with their expected levels. There could also be other reasons why JSS visit rates were proportionally higher, for example,

possibly because they are located in more accessible areas than many primary schools.

Overall, SQAOs felt that Leh Wi Lan made it easier for them to do their job — especially with fuel allowance, mobile data allocations, dedicated DOs, and trainings.

3.3.5 Joint monitoring

SQAOs feel more empowered conducting joint monitoring with their peers and DDs/DOs. In particular, this is an example of SQAOs' reports being taken seriously. Joint monitoring helps SQAOs feel like their concerns are being actioned.

Joint monitoring was found to be an effective way to visit schools by SQAOs, especially when there were issues in schools or SQAOs felt like they needed extra support. When asked to do so, DDs monitor schools with SQAOs to provide assistance. Some SQAOs also undertook joint monitoring with other SQAOs in their district. When asked about peer support, one SQAO in Bo reported that the SQAOs in their district work together by planning joint school visits. The SQAO noted that they appreciated visiting schools with their peers, as a team approach made them feel more respected, confident, and empowered.

Seeing how effective joint monitoring was within their districts, some SQAOs requested joint monitoring with HQ — with both MBSSE and the TSC. This would allow for a better understanding of what is happening in the field and increase teamwork at all levels — from national to district to school level. It was noted that SQAOs needed ***"more empowerment from higher up"*** as they felt their reports are not always taken seriously; they do not see any changes initiated by the MBSSE HQ as a result of the reports they are sending.

3.3.6 Managing workload

The SQAO workload is hefty, and difficult to balance. There is an inaccurate perception that areas of work being supported by Leh Wi Lan are separate from the work being given to SQAOs by the ministry.

Currently, SQAOs are tasked with targets for school visits and form submissions as well as other jobs from the ministry, such as supporting the Annual School Census, working on performance-based financing data

collection, and training — including training taking place outside allocated districts. Some SQAOs felt that the workload was too heavy, with a perception that they had to balance MBSSE work and Leh Wi Lan work. Although the targets are part of the MBSSE work, which Leh Wi Lan supports, there is a perception that this work is separate from the MBSSE work given to the SQAOs. Others reported differences in the number of schools each SQAO had in their cluster and other job requests from the ministry. There appears to be a disconnect between what is perceived as MBSSE work and partner work, which is making it difficult for some SQAOs to meet their targets.

Adjustments are needed to reduce the pressure of the SQAOs' workload, and a solid reporting mechanism should be used to ensure SQAOs are not being overloaded with requests. Clarification is needed that although Leh Wi Lan is supporting the ministry, all the work is MBSSE work and not partner work.

3.3.7 Length and usefulness of forms

SQAOs use simpler data collection forms more often than complex ones, even if the former provide less value to the process.

SQAOs have been given three forms to complete on their tablets, using Tangerine: the lesson observation form, the attendance verification form, and the school quality assurance (SQA) report. These forms vary in length and, in turn, submission frequency.

SQAOs of all activity levels completed more attendance verification forms than SQA reports or lesson observations. The attendance verification form is the simplest and quickest form to complete, and it may be being used to inflate activity levels, despite adding the most negligible value to a school visit. For high and low activity levels, the SQA report was completed the fewest number of times. Most SQAOs reported that the SQA form takes the longest to complete and is therefore filled out less frequently than the other forms. When asked if there were any forms they completed less often, SQAOs with lower activity levels noted that ***"to cover the three forms it can take a long time and therefore impacts the number of schools that can be visited a day"*** and the ***"SQA form needs to be looked at again — the comment questions make the form long."***

An SQAO with high activity noted that the SQA form was ***"too elaborate and takes a long time."*** Revising the form length of the more complex

and important forms may be key to increasing the form submissions for the SQAOs.

Recently, Leh Wi Lan updated the lesson observation form to include an automated feedback feature. A number of SQAOs reported that they use the new function, with one SQAO noting that it allows them to guide the teachers and help them understand what they are doing well and what needs improvement. However, some SQAOs also stated that teachers sometimes do not understand the automated feedback and need further explanation. As a result, SQAOs requested more training on this function and how to use it to give teachers constructive feedback.

4. Principals and activity levels

This section looks at the activity levels of school principals. Through interviews with eight principals, we examine what factors might affect their activity levels. The section begins with some background into the principals' expectations regarding tablet usage. Then, we look at the findings from interviews.

4.1 Expectations for principals and tablet submissions

In 2021, junior and senior secondary school principals received tablets through Leh Wi Lan and the MBSSE. These tablets were to be used for data collection and to support principals with digitised school management. Since receiving the tablets, the principals have been invited to attend several training sessions. These sessions have mainly focused on the skills and processes that the tablet facilitates, with some training on how to use it.

Leh Wi Lan created two forms for principals to complete to assist them in improved school management: a lesson observation form and a monthly review form. The lesson observation form looks at classroom indicators such as attendance and the presence of teaching and learning materials and then focuses on the pedagogy witnessed in the classroom, including key indicators, strengths, and areas for improvement. The monthly performance review form focuses on key whole-school issues such as attendance, pupil progress, teacher professional development, and pupil safety. It helps schools look at performance trends and issues needing attention. Principals are expected to submit four lesson observations and one monthly review form each month.

4.2 Findings: what factors affect activity levels?

Based on the interviews conducted in the three districts, this section looks at the main factors that impact principals' activity levels according to the interviews. Here, we pinpoint four main factors influencing how often principals use their tablets to submit forms.

4.2.1 Infrastructure: Network, data, and electricity

Issues with infrastructure in different areas of the country are a barrier to tablet use for several principals. In particular, the electricity supply in rural areas is limited.

All principals of all activity levels interviewed reported at least one infrastructure issue that made submitting forms difficult. While some mentioned network issues due to the location of their schools, others noted that although Leh Wi Lan provided data for them, more was needed to make as many submissions as they would like. It is important to note that the data allowance from Leh Wi Lan is sufficient for submitting forms only. However, principles may be using the data for other purposes, such as personal use (e.g., for social media).

Some principals use Tangerine's offline functionality by completing their forms regularly, but only submitting them once a month. For example, in Kenema, the principal with low activity reported collecting all the information over a month, then synching and sending these forms in one go rather than each time a form was finished. Although intermittent network connectivity is a reason for infrequent submissions, as there is an offline function, principals should be able to fill out as many forms as they want and sync later. As an 'offline first' tool, network availability does not impact usage, but how often you can upload forms seems to be why some principals are not submitting as many forms as suggested.

Some principals noted that they had issues charging the tablet at their schools because they did not have electricity. Four out of eight respondents reported that their power supply was inadequate, and they had to charge the tablet outside school. One principal in Kambia noted that they had to take the tablet to the next village, which was approximately seven miles away, leave it there for a couple of days and then return to the village to pick it up once charged. Another principal in Kenema charges their tablet weekly in another town with solar power because there is no electricity at the school. In this case, the principal has to pay extra money for transportation and stays in the town for two to three hours to charge the tablet and use the network to submit forms.

Overall, infrastructure is a significant barrier affecting principals and their tablet usage. To alleviate some of these issues, more thought needs to be given to making it easier for principals to use their tablets in rural areas

with less access to electricity and the internet and mobile network. Solutions must include working with the MBSSE to decide what providing sustainable mobile data looks like and providing electricity solutions such as power banks.

4.2.2 Support systems for principals

The training provided by Leh Wi Lan has helped principals understand how to use the tablets and incorporate them into school improvement efforts. In particular, to improve teachers' performance, principals have been conducting classroom observations and giving the teachers feedback based on these observations.

All eight principals reported that they had attended at least one training conducted by Leh Wi Lan. Each principal said the trainings were helpful and interesting, and supported them with successfully using the tablet and submitting forms. The success of these trainings can be seen by some principals feeling confident enough to help and train other principals on using the tablet, for example, in Kenema. Although the trainings have been helpful, some principals would like a further incentive to attend, such as a reimbursement for their transportation costs. There was also evidence that some principals needed refresher training. In Kambia, one principal noted that, at first, they were finding the use of the tablet very difficult. After a refresher training, the principal said they better understood the tablet and why it had not worked for them previously. Increasing the frequency of trainings for the principals may encourage them to use the tablet more and see the usefulness of the tablet for their work.

When asked what they use their tablets for, five out of eight principals reported using them for classroom observations, including tracking teachers' performance. Both principals interviewed in Kambia said using the tablet to collect information on issues in their school to report back to the MBSSE and Leh Wi Lan. One principal in Kenema noted that ***"it helps and improves [the teacher's] ability — [I] can see the difference after giving feedback."*** Here, we see principals using the tablets to improve the processes and performances of the teachers in their schools.

Support from the DO and SQAO visits has encouraged principals to use their tablets more often. SQAO presence in the school has also helped principals feel more supported.

Principals generally found the support from the DEO (the DO or the DD) and their allocated SQAO adequate. In Kambia, one principal noted that if they had any issues with the tablet, they could call the DO directly, who would direct them on how to solve their problem. Principals with higher activity in Bo noted that the SQAO encourages them and their ***"presence creates a good atmosphere for monitoring and observing",*** and the SQAO ***"knows how to talk to you and how to convince you to understand the programme."*** A principal in Kenema commented that working with the SQAO felt like they were collaborating as partners.

SQAOs support principals in many ways. They are a source of knowledge and can advise principals where needed, supporting them with monitoring and identifying school-level issues. Despite not having regular visits, all principals said they felt comfortable contacting their SQAO when they had issues. When asked how else their SQAO could support them, a principal in Bo with high activity noted that they would like the SQAOs to be allocated more fuel to allow them to visit more often. This illustrates the importance of SQAO support to principals.

Training more than one staff member on using the tablet in school may increase activity levels, as the workload can then be shared.

At least three principals reported that they had support from another staff member on tablet use. In Kenema, principals with low and medium activity levels noted that their vice principal was trained to use the tablet. They felt comfortable leaving the tablet with the vice principal to perform different duties if they were not present in school. Evidence from the interviews shows that support from other staff members in using the tablet and completing forms has been helpful. Moving forward, including a second staff member to help with form filling when principals are away or their workload is too heavy may be a way to increase the number of forms submitted by principals.

4.2.3 Previous experience

Some principals need more support to overcome the digital literacy divide. Differentiated initial training may be necessary based on device comfort.

None of the principals interviewed had experience using a tablet before they were provided with the tablet by Leh Wi Lan. Of the eight principals, only three noted that they had experience using a mobile phone or a computer before receiving the tablet. Notably, two of these three principals were categorised as having high activity levels. In Kenema, one principal, who had previously been the vice principal, noted that although they did not have any experience using a tablet before Leh Wi Lan. Their predecessor had previously attended a Leh Wi Lan training and had communicated what they had learnt. This principal reported following the same approach with their current vice principal. Cascading knowledge from principal to vice principal would ensure a second staff member is trained in the tablet's use and form submission, and give vice principals more experience using the tablet before potentially becoming principal.

4.2.4 Form usability

Tools for principals need to reduce the number of things that add to the workload, such as complex and long forms. More value-add features, such as automated feedback, should be included to increase usage.

When asked if anything was stopping them from completing the lesson observation form, some principals reported that they felt some questions in the lesson observation form were repetitive. In both Bo and Kenema (with high and low activity levels, respectively), principals felt some questions were too similar. Other principals reported that the number of questions on the lesson observation form needed to be reduced because there were too many. A further reason given for completing fewer lesson observation forms than the target was that using the tablet was generally time-consuming, and the workload as a principal was already heavy. In Bo, one principal suggested reducing the lesson observation target to twice a month because principals have ***"a lot of other things to do."***

Principals mostly feel that the automated feedback function on the lesson observation forms is helpful. In Kenema, one principal reported that they use the automated feedback function with the observed teacher as well as in their weekly teaching learning circle (TLC). Here, they noted that the feedback was helpful, and they could see an improvement in their teachers after providing feedback. Despite this, some principals did report that although this function makes the work easier for them, it can sometimes be difficult providing feedback to the teachers. Some principals may need

more training on understanding and delivering the feedback given automatically by the tablet.

5. Recommendations

The final section of this report gives recommendations for the MBSSE and partners for moving forward based on the findings discussed above.

5.1 What is working and should continue?

Funding transport needs to be seen as an essential part of employing the SQAO cadre and delivering equitable support to schools.

Currently, Leh Wi Lan provide 10L of fuel for each SQAO weekly. All SQAOs recognise that this fuel allocation is essential to doing their job. However, SQAOs with more remote schools do not get more fuel than those in the centre. Funding transport is critical to the effectiveness of SQAOs, especially for those supporting schools in remote areas. The fuel allocation needs to continue, but it needs to be revised and differentiated by context to ensure adequate fuel and maintenance provision given the differences in the distances and terrain SQAOs have to travel and cover.

Continuous support for both SQAOs and principals is key to their understanding of the tablet, the forms, and the school improvement processes they seek to encourage and support.

All SQAOs interviewed noted the importance of the support from Leh Wi Lan, including trainings and capacity building. Training provision has helped SQAOs meet their aims and support principals to use the tablets more frequently. The training has taught principals with no experience in using tablets how to use the tablets provided. SQAOs and principals need to feel comfortable using the tablets and completing the forms to ensure increased activity levels. This can be achieved through trainings, but also making sure these trainings are regular, more targeted and based on competences / skills. Refresher training can help principals become more familiar with different tablet functions, encourage them to use the tablet more often, and remind them how the tablet can support their work further.

It is also important to note the positive aspects of different support layers for both SQAOs and principals. There was evidence of peer support between SQAOs, from SQAOs to principals, and from DOs to both SQAOs and principals. It will be important to enhance and encourage these layers

of support to increase activity for both SQAOs and principals, as seen in the findings above (Section 3.3.3 and Section 4.2.2).

DO support needs to continue until processes are put in place for a more sustainable approach.

Currently, both SQAOs and principals rely on the support from the DOs provided by Leh Wi Lan. Although the DD is also part of the DEO and manages the district for the MBSSE, SQAOs and principals reported going to DOs when they have issues. It will be necessary to find a way to ensure they still feel supported when DOs are eventually phased out at the end of the programme.

The use of targets for SQAOs can support improvements.

With the implementation of targets for the SQAOs, SQAOs are using the tablets and visiting schools more often (increase in one year from 27% to 74% of SQAOs reaching a target of eight visits per month). Targets, accountability, and data have made SQAOs increase their activity level, and the use of these should continue. Outputs can be improved through targets, but the targets need to be aligned with the frequency of visits that is actually possible. The frequency may not be the same for all SQAOs. For example, different targets for SQAOs with clusters in urban areas and those with clusters in rural areas are recommended.

5.2 What needs to be improved for the next programme?

The perception of what is deemed programme work and MBSSE work needs to be changed. All work undertaken by SQAOs should be perceived as MBSSE work.

SQAOs have a heavy workload that includes school visits, form submissions, and other MBSSE work, such as for the ASC. As a result, some SQAOs find it difficult to manage their workload, so they may be unable to reach their targets. Currently, there is a perception that the work supported by Leh Wi Lan is separate from the MBSSE work. A better understanding of the demands faced by SQAOs is needed to ensure they can manage the different tasks asked of them. SQAOs must see all the work they do as connected to school improvement and quality assurance for the MBSSE.

A more nuanced approach to realistic target setting and clustering is needed to help hold all SQAOs to account more fairly.

There is significant variation in the number and location of schools each SQAO is assigned in their cluster. As a result, some SQAOs have clusters further away in rural, hard-to-reach areas, while others have clusters within walking distance to the DEO. A uniform target for activity levels is not appropriate, given the variety in the contexts SQAOs face. Reconsidering where SQAOs are based, how schools are clustered, and how many schools there are in each cluster may also help reduce travel time and enable more visits to rural schools.

More effort is needed to make all SQAO forms simpler and more user-friendly.

The SQA report form is the least completed form by SQAOs, with many saying that it is too long and time-consuming, despite providing high value for school visits. Finding ways to make completing forms more straightforward and less time-consuming will help improve the quality and effectiveness of school visits and enable the focus to be on in-person interactions and support rather than ensuring the completeness of reports. Agreeing on a more streamlined report and the key indicators for review to improve process and practice should be part of this, and will reduce the burden and complexity of the forms and increase the value added.

A sustainable approach to ensuring adequate data and reliable power supply is essential. The reliance on time-bound programmes such as Leh Wi Lan is insufficient and unsustainable in the long term.

Mobile data allocation and a means to charge the tablets are needed to submit the target number of forms. While SQAOs and principals receive mobile data from Leh Wi Lan, both SQAOs and principals nevertheless report that the mobile data is insufficient to enable them to reach their targets. Several principals also report being unable to charge their tablets due to power supply issues or travelling to other towns to charge their tablets at their expense. Those not too far from the DEO can go to the office, charge their tablets and submit forms. However, this is more difficult for those who are further away. An adequate amount of data and a means to charge the tablets, such as power banks, will make it much easier to submit forms.

5.3 What else needs to be explored?

The best way to assign clusters of schools and assist SQAOs with routing.

With the high variation in cluster sizes and locations, a greater focus on assigning clusters based on SQAOs' residence is advisable. Alongside this, there should be more support in planning routes and how and when to go to schools, particularly for those with clusters far from the DEO and headquarter town, on difficult terrain and hard to reach. More advice on routes and planning when to visit particular schools could enable SQAOs to cover more schools and have easier journeys to these schools.

Joint school visits between SQAOs and between SQAOs and HQ.

Several SQAOs reported positive results when undertaking joint monitoring with their peers. Using the districts already undertaking joint monitoring as a pilot, it would be interesting to see if facilitating joint monitoring more regularly increases SQAO activity, particularly for those with low activity levels.

SQAOs also recognised that they sometimes felt their reports were not being taken seriously by HQ and that they would like to see more joint monitoring between SQAOs and HQ staff members. Here, SQAOs may feel more encouraged and empowered if they know that staff members from HQ have experienced the field with them and understand their reports and the contexts better.

Choosing a lead SQAO to provide peer mentoring and coaching to other SQAOs in each district.

The data suggests that some SQAOs are performing better than others regarding the number of school visits and form submissions completed. Although there are many reasons for this, SQAOs reported that they learn a lot from their peers. Spotlighting a high-performing SQAO in each district who can act as a 'lead' SQAO may help bring SQAOs together and give them someone else to go to when they have issues or need support with school visits. The lead SQAO could work alongside the DD and the DO to understand why SQAOs in their district are not reaching their targets and work more closely with their fellow SQAOs to support them. Further research should also be undertaken into pairing SQAOs; for example, pairing a high-activity SQAO with a lower-activity SQAO. The SQAOs could

support each other and even visit schools together when there are particular issues.

Trialling hybrid quality assurance methods such as remote visits.

Several SQAOs have schools in hard-to-reach areas. Due to their remoteness and the difficult terrain, these schools are not visited as regularly as schools in urban centres. We know that SQAOs stay in contact with principals through WhatsApp. This means of communication could be taken a step further by implementing remote visits to help provide rural schools that are not visited frequently enough with extra support. This way, SQAOs will still be accessible for principals, even if they cannot visit the schools in person as frequently as schools in the centre. Remote visits would also support finding a nuanced way to assign targets to SQAOs. Alongside remote visits, all SQAOs could be encouraged to create a WhatsApp group for all principals in their cluster, where they can pose questions and ask for assistance. With all clustered principals in one group, SQAOs could send encouraging messages about tablet use, completing forms, and reminders about who to contact if they need help with different issues. Prompting principals to use their tablets remotely and in person may also increase principals' submissions and create an atmosphere of accountability for them.

The most effective uses of SQAOs

To have a successful and sustainable group of SQAOs, we need to know more about the most effective use of SQAOs. These officers have a heavy workload that includes tasks such as supporting data collection for the ASC and performance-based financing, on top of targets for school visits and form submissions. As such, their supportive visits to schools will always be infrequent. Effectiveness needs to be maximised. The research covered by this report investigated how to increase and improve SQAO activity levels, but it did not look into the effectiveness and value of the school visits and form submissions, which is an important element that needs to be examined further.

6. Conclusion

The Government of Sierra Leone is prioritising the use of data for decision-making at all levels of the education system — from school to ministry level. SQAOs are vital in ensuring this is done effectively and efficiently through regular school visits and collecting school-based data.

This report aimed to provide the MBSSE and other partners with insights into the variation in SQAO activity levels. The report aims to help maximise their activity levels, increase principal engagement with digital tools, support and promote quality visits to schools, and generate better collaboration between SQAOs, schools and the MBSSE. The recommendations provided look at what is currently working well for the SQAOs and should continue, moving forward, as well as what needs to be improved to enhance the SQAO role.

As a new programme begins, these recommendations can be used to explore what is needed to further improve the effectiveness of the SQAOs and the role of the digital tools they have been provided with. Through further engagement with SQAOs, we can also aim to build on principal engagement with digital tools and data collection to improve school-level management.

References

This reference is available digitally in our evidence library at https://docs.edtechhub.org/lib/M3D6NGR4

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