EQUIP-Tanzania Impact Evaluation

Midline Technical Report, Volume I:
Results and Discussion

FINAL REPORT

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Executive summary

Introduction

This report presents the findings from the midline (ML) round of the Education Quality Improvement Programme in Tanzania (EQUIP-T) impact evaluation (IE).

EQUIP-T is a four-year, Government of Tanzania (GoT) programme funded by the UK Department for International Development (DFID). It targets seven of the most educationally disadvantaged regions in Tanzania in order to increase the quality of primary education and improve pupil learning outcomes, in particular for girls. It is a large programme and expected to reach about 2.3 million pupils.

Evidence from the IE will be used for two main purposes. First, to support accountability for the use of programme and other public resources to funders (ultimately tax-payers); and second, to promote lesson learning on what works, and why, to improve pupil learning in disadvantaged, rural areas of Tanzania.

The ML IE aims to assess the impact, effectiveness, relevance and cost of EQUIP-T so far, approximately 20 months into implementation, and to consider early (and more limited) evidence on efficiency and sustainability. While the focus is on drawing out implications for programme adjustment and consolidation, its findings are also likely to be of interest to a broader audience of education policy-makers, managers and other stakeholders in Tanzania concerned with improving education quality in some of the most disadvantaged areas of the country.

This ML IE report is organised into two volumes: **Volume I Results and Discussion**, presents the main findings and discusses the key implications for the programme to consider. It also covers the IE methodology in brief (Chapter 1), so that readers are able to interpret the results. **Volume II Methods and Supplementary Evidence,** contains technical methods sections, as well as detailed qualitative findings and supplementary quantitative analysis to support the conclusions reached in Volume I. Readers interested in the more in-depth evidence base for the ML findings should consult Volume II.

Methodology

The mixed methods design of the IE is based on three rounds of quantitative and qualitative data collection, supplemented by secondary data, including financial data from the programme. The ML analysis uses data from the baseline (BL) round in 2014 (prior to programme implementation) and the ML round in 2016 (April/May). An endline round of data collection will follow in 2018.

The IE covers four out of five EQUIP-T components (see below) and the first five regions where programme implementation started in August 2014 (Dodoma, Kigoma, Shinyanga, Simiyu and Tabora):
- Component 1: Enhanced professional capacity and performance of teachers;
- Component 2: Enhanced school leadership and management (SLM);
- Component 3: Strengthened systems that support the district planning and management of education; and
- Component 4: Strengthened community participation and demand for accountability.

The IE BL report (OPM 2015a) assesses and expands the basic EQUIP-T theory of change (TOC) to help guide lines of enquiry for the IE. The analysis shows the main causal pathways between

interventions and expected changes, and highlights the key assumptions underpinning each pathway in the TOC. This expanded TOC (referred to as the 'programme TOC') was used to develop the ML evaluation matrix containing the ML evaluation questions which test key causal pathways and TOC assumptions. The ML evaluation matrix (Annex B) is the agreed framework for the ML analysis, and this is used to structure the findings presented in this report.

The IE uses a **mixed methods approach**, whereby quantitative and qualitative methods are integrated to ensure robustness, depth and improved validity in the research findings. This approach rests both on the integration of methodologies for better measurement, the sequencing of information collection for better analysis and the (iterative) merging of findings for better action. Quantitative and qualitative researchers worked together at the ML design, data collection and analytical stages of this ML IE study to ensure that the study is able to take full advantage of the strengths of each method. The IE design has three key components:

1. **Quantitative estimation of impact:** The assignment of the programme treatment areas was non-random and so the IE uses a quasi-experimental approach to estimate programme impact, with multi-stage sampling. The sample is a panel of 200 schools: 100 programme treatment schools, and 100 control schools to act as a counterfactual. Propensity score matching (PSM) was used to select the control schools, and a combined PSM and difference-in-difference (DID) method is used to robustly estimate the impact of the EQUIP-T programme as a whole on various outcome- and impact-level indicators, including pupil learning achievement.

2. '**Rigorous factual analysis' to explain programme impact**[1]: This approach combines evidence from the quantitative survey and the qualitative research in programme treatment areas, in order to understand key channels of programme influence, or reasons for ineffectiveness, using the research questions that are structured around the programme's TOC (as set out in the ML evaluation matrix). As agreed in the IE TOR, this is not a full theory-based evaluation, as it is not able to cover all parts and levels of the TOC in depth but rather focuses on key aspects of the TOC that stakeholders agreed to be the most important to assess.

3. The **costing study** is intended to better understand the costs of the programme and what this would mean for the affordability of continuing or scaling up the programme (or parts of the programme) after EQUIP-T funds come to an end. The study is based largely on spending data recorded by the programme, and the relevant monitoring data to understand what activities the spending contributed to. At endline this will be put into the context of the Government budget for education, to get a better understanding of how feasible it would be for Government to absorb the costs of (elements) of the EQUIP-T model.

Since the BL research in 2014, there have been several national policy changes that affect primary education across the country. Recognising the changing education context is very important for the IE as national trends rather than EQUIP-T could be driving some of the observed changes. The following policy changes have been taken into account in the IE analysis: i) a new curriculum for Standards 1 and 2 pupils that focuses on reading, writing and arithmetic competencies (3Rs); ii) the introduction of fee free education from Standards 1 to Form 4; and iii) school capitation grants being paid directly to school bank accounts rather than via local government authorities (LGAs). The new Government, which took office in late 2015, also set a very high-profile national agenda for encouraging public servants (including education professionals) to work hard, and to carry out their duties professionally, to improve public services.

The ML quantitative survey took place in April/May 2016, the same time of year as the BL survey in 2014. The ML survey team visited the same 200 Government primary schools that were visited at BL. The ML round uses a set of survey instruments that retain most of the BL questions, but with some additions to take into account changes in programme context and design, and focus of

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[1] The term 'rigorous factual analysis' comes from White (2009).

programme implementation. The respondents are Standard 3 pupils and their parents, teachers, and head teachers (HTs). Interviewers also observed lessons and carried out attendance head counts. Response rates to the ML survey were high across the instruments.

The ML qualitative research team visited the same nine schools and communities across three programme treatment districts/regions that were purposively sampled for the BL. The ML fieldwork took place at the same time as the quantitative survey. The team conducted key informant interviews (KIIs) with HTs, community leaders, Ward Education Coordinators (WEC), District Education Officers (DEOs), Regional Education Officers (REOs), and regional and national EQUIP-T staff. They held focus group discussions (FGDs) with teachers, school committees (SC), fathers, mothers and Standard 3 pupils. The qualitative instruments were developed using the ML evaluation matrix as a guide, but all of the KIIs and FGDs use structured and unstructured methodologies.

Four types of evidence are integrated in this report and each require careful interpretation: i) the **impact estimates** quantify the causal effect of EQUIP-T as a whole on key outcome and impact indicators.[2] These results are presented in shaded boxes to distinguish them from descriptive quantitative indicators; ii) the **descriptive quantitative indicators** shed light on trends between BL and ML **in programme treatment schools**. These estimates have been weighted to be representative of government primary schools in 17 programme treatment districts across five regions. These districts have similar characteristics to the 12 other districts in the early EQUIP-T programme, but overall the EQUIP-T districts are significantly more socially and economically disadvantaged than the remaining districts in Tanzania. This means that the descriptive estimates should not be generalised to national level; iii) the **qualitative research findings** use the terms 'case study schools' or 'respondents' for thematic findings that are triangulated across different types of respondents. Consensus in findings (or wider themes) have been carefully assessed in the thematic analysis, where the position of respondents (potential incentives and/or social desirability bias) has been considered when analysing the strength of evidence. (iv) the **unit costs** calculated in the costing study are average costs based on all categories of spending, and should not be viewed as the marginal cost of covering one more beneficiary unit in the programme.

Impact of EQUIP-T on pupil learning

There has been a positive national trend in early grade learning achievement in Kiswahili and maths in Tanzania since 2014. The national gains in learning attainment are likely to be related to the narrower focus of the new Standard 1 and 2 curriculum; the change in pedagogy prescribed by the new curriculum; and the greater number of timetabled instructional hours for Kiswahili and mathematics. The new Government's slogan '*hapa kazi tu*' that encourages people to work hard also appears to be a positive factor.

There is strong evidence that EQUIP-T has had a positive impact on Kiswahili literacy skills for poorer performing pupils. EQUIP-T has significantly reduced the proportion of Standard 3 pupils in the bottom performance band for Kiswahili. Pupils in programme schools have improved their early grade Kiswahili skills markedly, and part of the gain is due to EQUIP-T, over and above the positive national trend. The IE evidence suggests that the likely channels through which EQUIP-T has contributed to learning gains in Kiswahili is by making teaching practices more

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[2] This is a caveat to this. The government's Literacy and Numeracy Support Programme (LANES) carried out some (limited) training initiatives in the IE control schools aimed at improving early grade pupil learning. This means that the EQUIP-T impact estimates measure the causal effect of EQUIP-T interventions over and above the potential effect of the LANES training initiatives.

inclusive through its Kiswahili teacher in-service training (INSET) programme, and by reducing teachers' absence from the classroom, resulting in more instructional hours for pupils.

Standard 3 pupils in programme schools have also improved their early grade maths skills. However there is no significant impact of EQUIP-T on maths performance, and this would not be expected at this stage given that the EQUIP-T's teacher INSET modules for maths had only just started to be rolled out at the time of the IE ML survey.

The gains in early grade Kiswahili skills for pupils over two years as a result of EQUIP-T are impressive, but it is important not to lose sight of the extent to which pupils are still behind curriculum expectations. About half of Standard 3 pupils are achieving at Standard 1 level or below in Kiswahili, and are thus at least one year behind in literacy skills acquisition. Pupils are even further behind expected levels in maths, with close to two-thirds of pupils at least one year behind in numeracy skills. These pupils will need further support to catch-up or they risk falling further behind as they move up the Standards. Pupils who do not speak Kiswahili at home are particularly disadvantaged in learning and would benefit from more targeted support.

Effectiveness of EQUIP-T

Component 1: Enhancing teacher capacity and performance, and conditions for pupil learning

Summary of activities implemented by ML under Component 1
• Kiswahili literacy INSET targeted at all teachers of Standards 1 and 2, some Standard 3 teachers, INSET coordinators, HTs and WECs.   • INSET on 3Rs curriculum and syllabus targeted at all teachers of Standards 1 and 2, delivered by EQUIP-T using its own primarily school-based model under the nationwide 3Rs INSET/curriculum orientation.   • Provision of teaching and learning materials for the lower Standards of primary education.   • Pilot of three-month School Readiness Programme (SRP) to prepare children for entry to Standard 1, covering 25% of the programme districts.

EQUIP-T has provided Kiswahili INSET to early grade teachers largely as planned, and there are spill-overs with many teachers of Standards 4-7 also receiving INSET. While the majority of teachers say they attended all of the school-based sessions, close to one-third of teachers missed some sessions which means that they do not benefit fully from the intended INSET.

Nearly all teachers of Standards 1 and 2 found the EQUIP-T INSET useful. Teachers consider learning new teaching methods one of the main benefits of the EQUIP-T INSET. They now feel they understand the new 3Rs curriculum better and feel more confident teaching it after attending the INSET. The knowledge of how to prepare and use teaching aids has also increased since BL and teachers attribute this to the EQUIP-T INSET.

Teachers report some difficulties with the EQUIP-T INSET, mainly insufficient payment to attend INSET related to teachers not considering training part or their regular job, and that no food is provided during school-based sessions. A group of teachers say the pace of training to too fast to grasp the material properly. A systemic issue is high teacher turnover, which reduces the potential benefits of received INSET and undermines the effectiveness of the school-based INSET. The main reasons for teacher turnover are transfers, going for further studies and retirement.

The majority of schools report receiving teaching and reading materials from EQUIP-T. In discussions, teachers focus on manila paper and marker pens as being particularly useful, giving little mention of reading books for pupils. Although the majority of schools received reading books, these were often unavailable in classrooms, and pupils did not use reading books in the vast majority of observed Kiswahili lessons. A related systemic issue that teachers refer to is not having received textbooks updated for the 3Rs curriculum, which impedes effective teaching of the new curriculum.

Teachers' interactions with pupils in the classroom have become significantly more gender-balanced and the inclusion of pupils seated in different parts of the classroom has improved significantly. Gender-responsive and inclusive pedagogy is a focus on EQUIP-T INSET, and respondents say that EQUIP-T has helped teachers to involve girls more in lessons. Nevertheless pupils seated at the back of the classroom still receive relatively less attention, and a fairly large group of pupils still have no desk but sit on the floor, with negative effects on their learning experience. Although teachers report that they have learnt new forms of classroom management from EQUIP-T, the use of corporal punishment remains a concern for pupils, parents and communities.

Nearly all teachers report that they can identify pupils with special learning needs, and that they most commonly identify pupils who do not speak Kiswahili at home as needing support. Teachers explain that they learnt during EQUIP-T INSET that some pupils are 'slower' learners but this does not mean they are less intelligent or unable to learn.

Only a small group of teachers in the observed lessons demonstrated a range of effective teaching practices in the classroom, and this has not changed significantly since BL. There has also been a significant reduction in the use of pupil assessments to monitor academic progress since BL. Despite identifying pupils whose first language is not Kiswahili as being the largest group with learning difficulties, only a small group of teachers switch language during their lessons to help accommodate these pupils. The majority of pupils say that their teacher can't speak their home language.

In many schools large class sizes are the norm and the average Standard 1 class size increased by nearly 40% between BL and ML in the EQUIP-T districts after the new Government policy on free primary education, as well as a change to the age of entry to primary school allowing for a one-off double intake, came into effect. Some HTs and teachers feel that the EQUIP-T INSET does not fully consider the reality of the environment in which teaching takes place. A major constraint to reducing class sizes is the acute shortage of classrooms.

The official instructional hours for Kiswahili and maths have increased since BL due to the introduction of the new 3Rs curriculum. Linked to this, actual instructional hours for Standards 1 and 2 pupils are significantly higher at ML than at BL. A major factor contributing to the loss of instructional time is teachers being absent from classrooms when they are scheduled to teach. The main reason reported by teachers and HTs for teachers being absent from the classroom is a heavy workload, with class time spent on marking pupil assignments.

EQUIP-T has had a positive impact on reducing overall classroom absenteeism, which is a major boost in regard to instructional hours. A range of stakeholders say that EQUIP-T INSET has had a positive effect on early grade teachers' motivation, as they feel more confident, and that this has contributed to a reduction in absenteeism. There also appears to be an increase in the monitoring of teachers by education managers, including WECs, and respondents largely link this to the national emphasis on hard work coming from the new Government.

The EQUIP-T SRP, although in its early stages, appears to be appreciated and supported by the community. In general, children who have attended the 12-week SRP are felt to be better prepared to enter Standard 1 than those who have not, but less prepared than children who have attended a formal two-year preschool education.

Recommendations for the programme to consider in improving the effectiveness of this component are in Chapter 8 Section 8.2.1.

Component 2: Strengthening SLM

Summary of activities implemented by ML under Component 2
• Development of national school quality standards and national school leadership competency frameworks
• INSET for HTs, assistant head teachers (AHTs) and WECs on SLM: i) SLM module 1: education quality standards, including HT competency, roles and responsibilities and School Leadership Handbook. ii) SLM module 2: School information systems (SIS), including teacher professional development, school committees and extra-curricular activities, notice board use and record-keeping. iii) SLM module 3: School development planning, including the use of the SIS and consultations with school and community stakeholders.
• EQUIP-T is also providing some of the Kiswahili literacy and 3Rs curriculum and syllabus INSET that teachers of Standards 1 and 2 received, to HTs.

EQUIP-T has provided early grade teaching INSET to the majority of HTs, but there remains a group of HTs that have not attended this training. Similarly, most HTs attended EQUIP-T SLM INSET as intended, but coverage is far from universal and a large minority did not attend. HTs who did attend report that payment to attend is insufficient which may contribute to non-attendance. HTs also report difficulties in absorbing the content of the training in the time allocated.

A major systemic issue is the extremely high HT turnover, which is likely another reason behind the gaps in coverage of the SLM INSET. It is not known at this stage whether this high turnover is typical, or temporary and related to a change in education policy or implementation between BL and ML. There is some evidence of HTs from 'high performing' schools being transferred to 'low performing' schools to raise performance in these. Respondents in the case study schools as well as WECs are concerned that the SLM skills acquired during the EQUIP-T SLM training will be lost due to the high HT turnover.

The availability of whole school development plans (WSDPs) has increased significantly since BL, which is a positive sign that the EQUIP-T SLM INSET on school development planning is already having some effect. In several schools, teachers and community members highlight the importance of WSDPs in making the running of schools transparent and building trust between HTs and teachers, as well as between schools and the wider community. WECs are facilitating peer-to-peer HT meetings and most HTs report having attended such a meeting. Although the comprehensiveness of WSDPs has improved between BL and ML, it remains limited. Many plans still contain one or no core elements out of a budget, teaching and learning objectives, and BL data and targets. There is also a risk that implementation of WSDPs will continue to be adversely affected by low and irregular capitation grant payments, although case study schools say that payments since December 2015 have been more timely.

The majority of HTs and teachers report that actions are taken if teachers perform poorly, and HTs feel that their ability to sanction teachers has increased. There is no conclusive evidence of a positive impact of EQUIP-T on HT's use of performance appraisals to support teachers, but HTs are holding more regular staff meetings than at BL.

Both at BL and ML, the vast majority of teachers report that their HT checks their lesson plans, but the provision of written feedback on plans has declined significantly since BL. Lesson observations by HTs also decreased significantly between BL and ML, and written feedback for teachers after lesson observations remains rare. A potential explanation for this is that HTs' administrative workloads have increased and that HTs now spend more time attending ward-level meetings and reporting to districts.

A systemic issue is that HT absenteeism from school is relatively high and unchanged since BL. This reduces the scope for HTs to use the skills acquired during INSET and reduces the potential benefits of training. The main reported reasons for absenteeism by far are official education work and other official work.

Recommendations for the programme to consider in improving the effectiveness of this component are in Chapter 8 Section 8.3.2.

Component 3: Strengthening systems for district planning and management

Summary of activities implemented by ML under Component 3
• Provision of motorbikes and grants to WECs.
• WECs received the SLM training with HTs under Component 2.
• Introduction of decentralised funding mechanism: LGAs receiving 2015/16 EQUIP-T budgets.
• Training for district (and regional) officers relating to the decentralised funding: budget planning, fund requests, implementation reporting, and management of WEC and PTP grants.
• Training for district (and regional) officers on strategic planning and annual planning.

WECs in the programme districts have attended EQUIP-T SLM INSET and feel they have also benefited from the early grade teaching INSET, though turnover means that some WECs missed out on training. The majority of WECs have received motorbikes from EQUIP-T and the WEC grant, but payments have been delayed, and they are receiving a flat rate rather than a needs-based amount.

WECs are on average visiting schools nearly twice as often at ML, and the motorbikes and WEC grants provided through EQUIP-T have contributed to this. In this regard, EQUIP-T is felt to have helped improve school supervision and with WECs reported as being more organised and confident and having better relationships with schools. WECs feel the EQUIP-T training has improved their knowledge of how to carry out their roles so that now they know what to assess whereas before they had not had any structured guidance. The change in Government is perceived as having contributed to WECs' increase in commitment as WECs see there is more monitoring and supervision coming from central government and in turn the districts. However, some WECs still only make very short visits to schools and do not conduct lesson observations, and are perceived by teachers to just do 'box-ticking'.

The reliability of data coming from schools is perceived to have improved. The provision of motorbikes is thought to have made WECs more prompt at collecting and verifying data and reporting to the district. But there are accounts that HTs and WECs are being over-burdened with demands for information. Moreover, schools and WECs are not convinced that the information they report is used by the districts.

According to district and regional education officers, WECs' performance is assessed based on the performance of the schools for which they are responsible. One way districts monitor the WECs is in a monthly meeting, where WECs bring reports for all to discuss and then address challenges.

WECs appear to feel more accountable to the district than at BL due to the resources from EQUIP-T. EQUIP-T has eased resource challenges for WECs so there are fewer excuses for poor performance. Meanwhile the district is perceived to hold WECs more accountable than in the past and there is a sense that punitive action is being taken more frequently and that this is affecting WECs' performance. The reason for this increased monitoring and accountability seems to be the new Government and its focus on hard work.

DEOs feel they have benefited from a range of training activities under EQUIP-T, not only the district planning and management sessions; however the turnover of district staff means that benefits from the training are reduced . DEOs know most of the planning process as taught by EQUIP-T but struggle to use it due to systemic issues: priorities are often imposed from above; basic administrative needs must be met first; and limited budgets make it hard to prioritise effectively, raising a question of how effective EQUIP-T can be in this context.

Districts view the EQUIP-T grant planning and budgeting as a top-down process that does not reinforce the bottom-up principles they have been trained in. Some DEOs are frustrated that they are not given autonomy over their planning or a chance to put the learnt prioritisation process into practice. Districts have also faced some challenges in implementing their EQUIP-T budgets as the centralised planning assumptions do not always reflect the reality of local costs.

Despite these challenges, decentralising funds to the district level has increased local government ownership of the programme.

Recommendations for the programme to consider in improving the effectiveness of this component are in Chapter 8 Section 8.3.4.

Component 4: Enhancing community participation and demand for accountability

Summary of activities implemented by ML under Component 4
- SCs (including HTs) received two days of training from WECs on SC roles, responsibilities, processes and ways of supporting school improvement.   - Parent–teacher partnerships (PTPs) were formed in schools, overseen by SCs. PTPs worked with SCs to make plans for the use of part of the PTP grant, based on broad guidelines.   - Civil society organisation (CSO) facilitators worked with community facilitators (CFs) to support communities to develop education needs assessments.   - Noticeboards and support materials were distributed to schools.

SCs are more active and engaged, both within schools and between schools and communities, than in previous years. SCs' role as approvers of school budgets also seems to have strengthened. Respondents put this greater engagement down to the more active role of new HTs in the case study schools, but the provision of PTP grants and the EQUIP-T SLM training on school development planning also plays a role. While the majority of SCs received EQUIP-T training, a sizable minority did not, and there is demand for further practice-oriented training.

Almost all schools have formed PTPs, but the activity of PTPs seems limited, for a number of reasons: lack of training and therefore lack of understanding of responsibilities; confusion about the difference between PTPs and SCs; and low motivation due to lack of incentives given that opportunity costs for parents are typically high. There is also a sense that PTPs were waiting for the grant to arrive in order to start their activities.

Awareness of the community-led school needs assessment in the case study schools is very weak, suggesting that if these have taken place they are not well known and have had little involvement

of community members or the school. About one-third of HTs in the school survey were aware that this exercise had taken place and said that some action had been taken as a result to improve education (most commonly infrastructure improvement). There is little evidence that community assessments have fed into school plans or priorities in a formal way.

Communications between parents/communities and schools is perceived to have improved in the last two years. The more open dialogue around the preparation of WSDPs, following the EQUIP-T SLM training, seems to have contributed to this change in communication, but the new HTs in case study schools are credited as the main factor. EQUIP-T supplied noticeboards to schools, and HTs are displaying information much more visibly than at BL, but it is questionable if most parents use noticeboards as a source of information. A sizeable minority of schools keep their noticeboards in school offices.

The involvement of communities in education is perceived to have improved, mainly because of improved relationships between parents and teachers. Parents are monitoring their children's learning more than in the past, and pupil attendance has improved. However, pupil absence is still a serious problem. Both teachers and parents point to a lack of community awareness of the importance of education as a challenge for pupil attendance and teaching, but they agree that this awareness is improving, and that this is linked to EQUIP-T's focus on community involvement in teacher INSET and SLM training. More generally, though, school and community relationships still appear to be fractious, with teachers dissatisfied that parents do not value education more highly, and parents dissatisfied that teachers look down on them.

While parents say they are more empowered to hold school management and teachers to account on some issues compared with BL, there are also issues they feel ignored on, and they are also scared to challenge teachers for fear of repercussions in regard to their children's learning. Parents attribute change mainly to more effective village and school meetings held in the past two years, but parents still do not feel involved enough, particularly in school budget debates although this has improved following the most recent WSDP process. In some case study sites, parents and other respondents feel that communities do not have enough knowledge or understanding to hold the school to account for the quality of education provided.

Recommendations for the programme to consider in improving the effectiveness of this component are in Chapter 8 Section 8.3.5.

Relevance of EQUIP-T

The in-depth assessment of programme relevance at BL found that the overall design of EQUIP-T is relevant to the needs and priorities of the target groups, namely pupils, parents, teachers, HTs and ward- district- and regional-education managers in disadvantaged regions in Tanzania. With respect to programme design changes since BL and new findings, the ML evidence (summarised below) affirms the continuing relevance of the programme overall, but finds that there is scope to strengthen relevance within components.

Improving pupil learning achievement: The ML IE results have shown improvements in pupil learning, but the current levels of achievement are still far behind those expected for Standard 3 pupils according to the curriculum. EQUIP-T's aim to improve pupil learning is thus still very relevant. Learning gaps between groups of pupils are still evident but evolving. Girls' performance has improved relative to boys, putting girls ahead in Kiswahili and closing the gap between them and boys in maths. While this partly reflects a national trend, there is some evidence that EQUIP-T has contributed to this trend through the improvement in the gender balance of teachers'

interactions with pupils. Thus the inclusive teaching practices included in the EQUIP-T INSET appear to be very relevant.

As with BL, children from homes speaking a language other than Kiswahili are far behind their Kiswahili-speaking peers in both Kiswahili and maths; the gap remains similar to that at BL. This indicates the importance of basic language acquisition for children, and hence the SRP may be considered very relevant. However, it also points to a need for more capacity building for teachers to support non-Kiswahili speakers to catch up in the early grades.

Improving teacher capacity and performance is still highly relevant as it is the most direct link to improving pupil learning. However, though teachers believe they pick up teaching skills through training, systemic issues such as over-crowded classrooms and mixing of different Standards in the same classroom make it difficult for teachers to use the methods learnt in the training. There may be scope for strengthening the relevance of the contents of the INSET programme to better equip teachers to deal with these circumstances. Boosting teachers' morale and motivation is still a highly relevant issue, and the current programme strategy could be more explicit regarding how it expects this to happen.

Strengthening SLM: All the case study schools identify the importance of a HT with strong leadership and management skills for the effective running of schools. Respondents also consider the role of the HT to be essential for other components of EQUIP-T to work, citing the central role of the HT in managing relations between teachers, the school and the wider community. Thus, continuing to strengthen SLM via INSET appears to be very relevant to the intended beneficiaries, and mitigating the risks of losing this new capacity through HT turnover will be important.

Strengthening district planning and management: This component has seen some changes since the original design. For example, an earlier focus on improving the timeliness and amounts of capitation grant transfers from districts to schools is no longer relevant, as capitation is now sent directly from the Treasury to schools. Meanwhile, there has been a much more rapid shift to decentralised fund management in EQUIP-T than was originally expected. On the one hand, this appears relevant in regard to giving districts an opportunity to put the theory they have learnt into practice. On the other hand, the centralised planning structure for EQUIP-T budgets prevents districts from using the skills and carrying out their own prioritisation to identify needs relevant to them. Districts may struggle to cope with the rapid and large volume of funds. The programme will need to continue to support districts and be flexible regarding the realities of implementation.

Enhancing community engagement and accountability: At ML, school respondents still feel that there is much room for improvement in community involvement in education. Respondents feel that EQUIP-T should focus on community awareness initiatives to help improve pupil attendance and learning. In this sense, planned future activities to increase communities' understanding of their entitlement and what quality education looks like appear relevant in regard to improving parents' ability to hold schools to account.

Efficiency

The overall budget for EQUIP-T is £50 million, of which approximately £36 million goes to programme spending and £14 million to technical assistance (TA). Up to June 2016, the EQUIP-T MA had spent £10.8 million on programme support activities – around 30% of the budget – and the districts had spent roughly another £4.5 million since the decentralised mechanism was introduced in late 2015.

Almost half of MA programme spending went on Component 1, on teachers and the SRP. Up to June 2016, the EQUIP-T MA spent around £925 per school on activities to improve the performance of teachers – including INSET and teaching materials. This equates to around £1.70 per child enrolled in these primary schools. Delivery of SRP cost just under £20 per child enrolled in the first cohort.

Efforts to strengthen SLM have cost the MA £180 per school, and £90 per trainee (HTs, AHTs and WECs), including the development of performance frameworks and management systems as well as INSET. The EQUIP-T MA has spent roughly £40,000 per district on Component 3 (district planning and management). Under Component 4 on communities, around £160 has been spent per school to improve community participation and accountability.

Since LGAs began decentralised implementation almost 60% of their spending has been on Component 1. On average, LGAs had spent around £1.10 on INSET training per pupil enrolled in primary schools. Per school, this is £600 – and thus a substantial addition to the £925 already spent by the MA. The modality of INSET training provided by the districts has implications for cost. Residential training courses cost more per day of training per beneficiary than cluster-based courses. Decisions about future modalities should consider the cost differentials as well as feedback from participants and facilitators on how effective the two models are.

Sustainability of EQUIP-T

Sustainability relates to the likelihood that the benefits of an activity will continue after EQUIP-T has finished. Given the centrality of capacity building in the EQUIP-T design, one major risk to sustainability comes from the high turnover of targeted beneficiaries, including teachers, HTs, WECs and DEOs. High turnover is likely to mean that benefits are dispersed, in the best case to other non-programme districts, or lost almost entirely through retirement or other reasons for staff leaving the education system. It is not clear how the current EQUIP-T training models intend to absorb new appointees into the INSET programme.

There are also a number of activities across the components which are intended to be sustainable because of the low funds required. However, this equally raises questions about whether they really will be sustainable. For example, PTPs have been slow to take-off – apparently due to waiting for the PTP grant – implying that grants might need to continue in order for any activity to take place. Other activities will clearly require EQUIP-T funds to be replaced by government funds if they are to continue. For example, WEC grants have certainly been critical in allowing WECs to supervise schools more closely. While there are positive signs that the capitation grant to schools is becoming more regular now that it is routed directly to schools, the funding that districts receive from government is inadequate and unpredictable.

The evidence also suggests that external factors have contributed to some of the positive changes observed, and these may not be sustainable. In particular, the effect of the new Government and its drive for hard work is thought to have improved commitment throughout the system, with poor performance being sanctioned. It is too soon to say if this is a fundamental shift in attitudes or a temporary response that has aided EQUIP-T's aims. If the effects wear off, some of the benefits that EQUIP-T has enabled may become less pronounced.

Conclusion

A key finding to take away from the ML IE is that the programme has had a substantial impact on improving Kiswahili learning outcomes: children who were lagging behind have been helped to

catch up with their peers. As the programme continues to roll out INSET for teachers in early grade maths, it is expected that pupil learning in maths will start to see similar benefits. The levels of learning are still low, and it is hoped that continuing the efforts seen in the first two years of implementation will mean further improvements in learning outcomes by endline.

Throughout the components, most of the intended inputs of EQUIP-T appear to have been provided as expected, and there are signs of changes in outputs and outcomes – though not always with complete consistency. Some of the areas with less observable change, such as SLM and communities, are also ones identified as very relevant for intended beneficiaries – only serving to highlight the importance of these components going forward.

Although a number of challenges have been identified by the ML IE, many relate to systemic factors, and the programme must continue to find ways to work best within these parameters, and to actively engage with key stakeholders at national, regional and district level on these issues. Other challenges relate more to implementation, and the programme and education stakeholders may choose to review activities within the components and make changes to improve the likely impact.

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List of abbreviations

ADEM	Agency for the Development of Education Management
ATT	Average treatment effect on the treated
BL	Baseline
BRN-Ed	Big Results Now in Education
CAPI	Computer-assisted personal interviewing
CF	Community facilitator
COSTECH	Tanzania Commission for Science and Technology
CSO	Civil society organisation
CTAs	Community Teaching Assistants
DEO	District Education Officer
DFID	Department for International Development (UK)
EGMA	Early Grade Maths Assessment
EGRA	Early Grade Reading Assessment
EMIS	Education management information system
EQUIP-T	Education Quality Improvement Programme in Tanzania
ESDP	Education Sector Development Programme
ETP	Education and Training Policy
FGD	Focus group discussion
GoT	Government of Tanzania
IE	Impact evaluation
IGA	Income-generating activity
INSET	In-service training
KII	Key informant interview
LANES	Literacy and Numeracy Education Support Programme
LGA	Local Government Authority
MA	Managing Agent
MDAs	Ministries, departments and agencies
ML	Midline

MoEST	Ministry of Education, Science and Technology
MoEVT	Ministry of Education and Vocational Training
NECTA	National Examinations Council of Tanzania
NSLCF	National School Leadership Competencies Framework
OPM	Oxford Policy Management
PFM	Public financial management
PO-RALG	President's Office Regional Administration and Local Government
PMO-RALG	Prime Minister's Office Regional Administration and Local Government
PEDP	Primary Education Development Programme
PSA	Programme support activity
PSLE	Primary School Leaving Examination
PSM	Propensity score matching
PSM–DID	Propensity score matching–differences in differences
PTP	Parent–Teacher Partnership
REO	Regional Education Officer
RG	Reference Group
RTI	Research Triangle International
RTL	Regional team leader
SC	School committee
SEDP	Secondary Education Development Programme
SEQAS	Specialist Evaluation and Quality Assurance Services
SIS	School Information System
SLM	School leadership and management
SRP	School Readiness Programme
TA	Technical assistance
TCF	Teacher Competency Framework
TDNA	Teacher Development Needs Assessment
TIE	Tanzania Institute of Education
TOC	Theory of change

TOR	Terms of reference
TTC	Teacher training college
TZS	Tanzanian shilling
UCL	University College London
UNESCO	UN Educational, Scientific and Cultural Organization
UNICEF	UN Children's Fund
USDM	University of Dar es Salaam
VTF	Village task force
WEC	Ward Education Coordinator
WSDP	Whole-School Development Plan

PART A: Objectives, background and methods

1 Introduction

1.1 Purpose of this report

This report presents the findings from the midline (ML) round of the impact evaluation (IE) of the Education Quality Improvement Programme in Tanzania (EQUIP-T). This is an independent evaluation which is overseen by a Reference Group (RG) that is chaired by the Commissioner for Education.[3] It is being carried out by Oxford Policy Management (OPM).

EQUIP-T is a four-year, Government of Tanzania (GoT) programme funded by the UK Department for International Development (DFID). It targets seven of the most educationally disadvantaged regions in Tanzania in order to increase the quality of primary education and improve pupil learning outcomes, in particular for girls. It is a large programme – costing approximately £50 million and expected to reach about 2.3 million pupils (EQUIP-T Managing Agent (MA), 2015, p.1).

Evidence from the IE will be used for two main purposes. First, to support accountability for the use of programme and other public resources to funders (ultimately tax-payers); and second, to promote lesson learning on what works, and why, to improve pupil learning in disadvantaged, rural areas of Tanzania.

The IE ML research aims to assess the impact, effectiveness, relevance and cost of EQUIP-T so far, approximately 20 months into implementation, and to consider early (and more limited) evidence on efficiency and sustainability. While the focus is on drawing out implications for programme adjustment and consolidation, its findings are also likely to be of interest to a broader audience of education policy-makers, managers and other stakeholders in Tanzania concerned with improving education quality in some of the most disadvantaged areas of the country.

The mixed methods design of the IE is based on three rounds of quantitative and qualitative data collection, supplemented by secondary data, including financial data from the programme. The ML analysis uses data from the baseline (BL) round in 2014 (prior to programme implementation) and the ML round in 2016 (April/May). An endline round of data collection will follow in 2018.

The scope of the ML IE research was agreed with DFID and the IE RG in March 2016, and is set out in the ML IE planning report (OPM, 2016a). This is operationalised in the ML evaluation matrix in Annex B, which guides the structure of the findings presented in this report. Cutting across the agreed thematic research areas are the five standard evaluation criteria for development programming: impact, effectiveness, relevance, efficiency and sustainability.[4] [5] It was anticipated that the weight of evidence at ML stage would be comparatively stronger against the impact, effectiveness and relevance criteria than the others (OPM, 2016a pp20-21). The agreed terms of reference (TORs) for the full IE are given in 0 together with the original TOR. This ML IE report follows two other short reports produced earlier in the year using preliminary ML findings (OPM, 2016b, OPM, 2016c). Revisions to preliminary estimates and findings were needed in some cases and the results presented in this ML IE report supersede the preliminary findings.

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[3] The RG's membership comprises government officials from different ministries, departments and agencies (MDAs) with responsibility for education, academics in the field of education, and members from education research organisations, the EQUIP-T MA, other large education development programmes and DFID.

[4] See http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

[5] The agreed TOR (and the original TOR) for this IE study require the intervention to be evaluated against all the OECD DAC criteria except for efficiency. In relation to resource use, the agreed TOR require the evaluation to provide evidence on fiscal affordability and cost-effectiveness. This analysis is planned for endline stage, but preliminary (and partial) cost analysis using ML data provide some insights into efficiency so these are discussed in this report.

This ML IE report is organised into two volumes:

- Volume I (Results and Discussion) presents the main findings and discusses the key implications for the programme to consider. It also covers the IE methodology in brief, so that readers are able to interpret the results.
- Volume II (Methods and Supplementary Evidence) contains more detailed qualitative findings and supplementary quantitative analysis to support the conclusions reached in Volume I. Readers interested in the more in-depth evidence base for the ML findings should consult Volume II. This volume also contains detailed methods sections, including the impact estimation modelling, as well as information on the qualitative and quantitative fieldwork implementation.

1.2 EQUIP-T design and implementation progress and IE scope

EQUIP-T was designed by first identifying the constraints on pupils' capability to learn to their full potential in disadvantaged parts of Tanzania (see Annex C.1). The programme's overarching theory of change (TOC) is that by reducing or removing these constraints, the quality of education and pupils' learning will improve. EQUIP-T's interventions are grouped into five components, each related to a set of constraints. 'Gender and social inclusion' is a cross-cutting theme, and related initiatives are programmed into all components. The expected programme outputs are:

- Component 1: Enhanced professional capacity and performance of teachers;
- Component 2: Enhanced school leadership and management (SLM);
- Component 3: Strengthened systems that support the district planning and management of education[6];
- Component 4: Strengthened community participation and demand for accountability; and
- Component 5: Strengthened learning and dissemination of results.

The five components are closely related to each other, and taken together they are intended to contribute to better quality education (outcome) and to improved pupil learning outcomes – for girls particularly (impact). EQUIP-T describes itself as a sub-national governance and demonstration programme, which explicitly aims to deliver an approach to school improvement that is ready for national scale-up and thus expects to ultimately have an impact on pupil learning outcomes across Tanzania.

The IE BL report (OPM 2015a, Chapter 8) assesses and expands the basic EQUIP-T TOC to help guide lines of enquiry for the IE. A visual representation of the expanded TOC is provided in Annex C.2. The arrows in the diagram show the key causal pathways between the interventions (dark blue hexagons) and the expected changes (white or orange hexagons). The analysis highlights the key assumptions underpinning each pathway in the TOC. For example, the causal pathway between providing in-service training (INSET) for teachers and teachers performing better in the classroom assumes that teachers are ready to learn and that they attend the full INSET programme. This expanded TOC (referred to as the 'programme TOC') was used to develop the ML evaluation matrix containing the ML research questions which test key causal pathways and TOC assumptions (see Annex B). While the core of the TOC has not changed since BL, there

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[6] This component also supports regional management of education to some extent, but the focus is on district management of education. In the latest EQUIP-T annual report (EQUIP-T MA, 2015) this component is called 'district planning and management'.

have been some modifications to the planned interventions and hence to the related TOC. Annex C.2 explains the modifications to the TOC since BL.

The IE covers the first four components and key aspects of the programme TOC (see Section 1.3 below for details on IE methods). EQUIP-T started field implementation in August 2014 in five regions: Dodoma, Kigoma, Shinyanga, Simiyu, and Tabora. Implementation in two other regions, Lindi and Mara, started later, as anticipated in the original design. **The IE covers the first five regions**. Details of the activities and the implementation status of each component at the end of 2015 (a few months prior to the ML fieldwork) are set out in OPM 2016a (pp. 11–16). Tables summarising implementation by component are given in Annex C.3. In brief, the main interventions that have been delivered so far under each component are as follows:

- *Improving the capacity and performance of teachers:* delivery of INSET on Kiswahili literacy (including gender-responsive pedagogy) and on the new Standards 1 and 2 curriculum (see Section 1.4 for details) for early grade teachers; provision of teaching and learning materials for early grade pupils and teachers; and the partial roll-out of a three-month School Readiness Programme (SRP) aimed at areas where pre-school enrolment is low and most children do not speak Kiswahili at home.
- *Enhancing SLM*: development of national school quality standards and national school leadership competency frameworks; and delivery of INSET for head teachers (HTs), assistant head teachers (AHTs) and Ward Education Coordinators (WECs) on SLM.
- *Strengthened district planning and management*: introduction of a decentralised funding mechanism for EQUIP-T funds accompanied by training for districts to carry out programme planning, financial management (including managing grants) and reporting; training on strategic and annual planning for districts and regions; provision of motorbikes and grants for WECs.
- *Strengthened community participation and demand for accountability:* supply of noticeboards to schools; initiation of community-led school needs assessments; training of school committees (SCs); and support for schools to set up Parent–Teacher Partnership bodies (PTPs).

1.3 IE methods

1.3.1 Overview of IE methods

The IE uses a **mixed methods approach**, whereby quantitative and qualitative methods are integrated to ensure robustness, depth and improved validity in the research findings. This approach rests both on the integration of methodologies for better measurement, the sequencing of information collection for better analysis and the (iterative) merging of findings for better action (see Volume II, Part E). More details on how mixed methods were applied at each stage of the ML IE are given in Section 1.3.5 below.

The IE analysis relies on three rounds of research: a BL in 2014, a ML in 2016 (the subject of this report), and an endline in 2018. It uses two key methods (explained below) to assess programme impact and effectiveness (full details are given in Volume II, Part E).

1) Quantitative estimation of impact: The design is based on a quasi-experimental approach, with multi-stage sampling. The IE sample is a panel of 200 schools: 100 programme treatment schools, and 100 control schools to act as a counterfactual. The map of Tanzania in Figure 1 below indicates the treatment districts, the subset of treatment districts that are part of the IE, and the control districts. Within the sampled schools, instruments are administered to HTs, teachers,

pupils and parents. Interviewers also conduct observations. Section 1.3.3 below gives details of the ML instruments and samples, and Section 1.5 summarises the impact identification strategy.

The IE quantifies the impact of the EQUIP-T programme as a whole on various outcome- and impact-level indicators (including pupil learning achievement), but it is important to highlight that it is not able to quantify the impact of the different EQUIP-T components separately. A second approach, described next, attempts to shed light on this by assessing the effectiveness of the different components in contributing to any programme-level impact.

Figure 1:   EQUIP-T programme districts and the IE sample
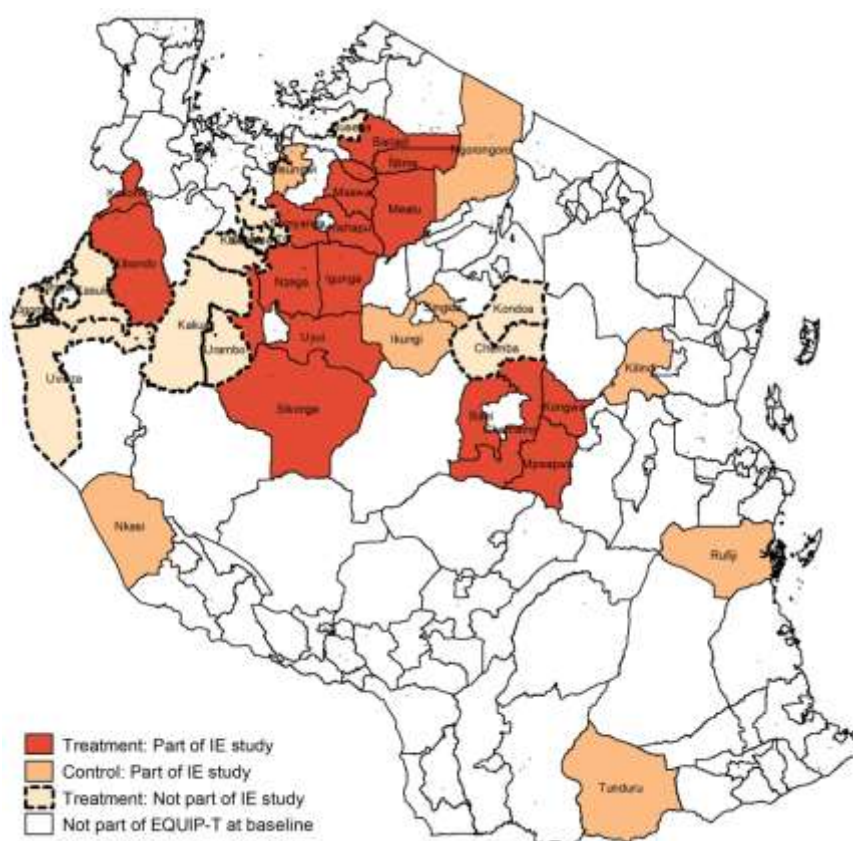
Source: OPM

2) '**Rigorous factual analysis' to explain programme impact**[7]: This approach combines evidence from the quantitative survey and the qualitative research in programme treatment areas, together with other secondary sources, in order to understand key channels of programme influence, or reasons for ineffectiveness, using research questions structured around the programme's TOC (see earlier Section 1.2 for an explanation of the TOC, which is given in Annex C.2).

There are two key limitations to the scope of this explanatory part of the analysis:

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[7] The term 'rigorous factual analysis' comes from White (2009).

- The IE does not constitute a full theory-based evaluation (to the extent set out in White, 2009).[8] It focuses on causal pathways and assumptions that are considered by key stakeholders to be the most important, but it does not cover all parts of the TOC exhaustively. This limits the extent to which programme theory can be used to generalise the results to other similar contexts.[9]

- The IE does not include a process evaluation, so its focus is not on determining whether programme inputs have been received or activities have been implemented exactly as intended, but rather on how effective the programme has been in meeting its objectives. Some evidence is collected on inputs and activities, enabling basic judgements to be made about the implementation of each component, but the focus of the data collection is on the higher levels of the expanded TOC.[10]

The **costing study** is intended to better understand the costs of the programme and what this would mean for the affordability of continuing or scaling up the programme (or parts of the programme) after EQUIP-T funds come to an end. The study is based largely on spending data recorded by the programme, and the relevant monitoring data to understand what activities the spending contributed to. At endline this will be put into the context of the Government budget for education, to get a better understanding of how feasible it would be for Government to absorb the costs of (elements) of the EQUIP-T model.

1.3.2   ML research priorities and scope

The research priorities for the ML IE are captured in a comprehensive ML evaluation matrix (see Annex B). This sets out evaluation questions linked to the programme TOC, and identifies sources of evidence to answer each question—either the quantitative survey or qualitative research, or both. It asks questions related to the expected results at each stage along the results chain (from the receipt of inputs to delivery of outputs, and contributions to outcomes and impact) under each of EQUIP-T's intervention areas (components). The aim is to establish: (i) whether changes have happened as expected; (ii) why they happened or did not happen (i.e. whether key assumptions in the TOC hold or not); (iii) whether there are any important unanticipated changes (positive or negative); and (iv) what links there are between the components in driving changes.

Hence, the ML evaluation matrix sets the framework for the ML research but, as noted in the ML planning report (OPM, 2016a, p. 40), the research was not expected to deliver comprehensive evidence on all the questions in the matrix. One important reason for this is that the nature of the qualitative research is partly exploratory, and by nature unpredictable, which means that the findings may provide more or less evidence than expected on different evaluation questions.

Part B of this report presents the main ML IE findings. It includes four chapters, corresponding to EQUIP-T's first four components,that are structured around the research questions in the ML evaluation matrix. The overall results and implications for the programme are summed up in Part C.

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[8] This was acknowledged in the agreed TORs (see Annex A.4).

[9] However, it is intended that the evidence-based interrogation of key parts of the TOC will permit a certain amount of informed conjecture on what would happen if different components of EQUIP-T were scaled up in similar contexts.

[10] For example, teachers were asked if they attended EQUIP-T INSET training, and were also asked what the main content of the training was – but this did not get into the detail of identifying exactly which modules they attended.

1.3.3   ML quantitative survey instruments and sample

The ML quantitative survey took place in April/May 2016, the same time of year as the BL survey in 2014. The ML survey team visited the same 200 Government primary schools that were visited at BL. This includes 100 treatment schools that were randomly selected from 17 treatment districts, and 100 control schools that were matched to the treatment schools using a propensity score matching (PSM) technique. Full details of the original sampling strategy are given in Volume II of this report (Chapter 3).

The ML round uses a set of survey instruments that retain most of the BL questions, but with some additions to take into account changes in programme context and design, and focus of programme implementation (see OPM 2016a, pp. 23–27). As at BL, there are 11 ML instruments. Table 1 summarises the respondent and sampling approach (if any) for each of these instruments. More details on the contents of the instruments and ML additions are given in Annex E.1. Three of the instruments – lesson observation and teacher development needs assessments (TDNAs) in Kiswahili and maths, were only administered in treatment schools, as planned (see OPM 2016a, p. 25).

Table 1:   ML IE quantitative survey respondents, sampling and instruments

Respondent	School-level sample	Instrument
Standard 3 pupils	Sample (15 pupils present on the day)	Adapted Early Grade Reading Assessment (EGRA) Adapted Early Grade Maths Assessment (EGMA) Pupil background
Parents of tested Standard 3 pupils	Sample (15 parents)	Poverty score card
Standards 1 to 3 Kiswahili and maths teachers[1]	No sampling	Interview
Standards 1 to 3 Kiswahili teachers	Sample (up to three) – treatment schools only	TDNA Kiswahili
Standards 1 to 3 maths teachers Standards 4 to 7 maths teachers	Sample (up to three from each group) – treatment schools only	TDNA maths
HT	No sample	Interview, school records
Enumerator observation	No sample – Treatment schools only	Lesson observation
Enumerator observation	No sample	Head count (of teacher and pupil attendance)

Source: OPM ML survey. Note: (1) At BL, a sample of teachers were interviewed (all teachers who took the TDNA).

Response rates are high in the ML survey. Table 2 shows that actual sample sizes at ML are close to target sample sizes. For tested Standard 3 pupils and their parents, response rates are almost 100%. The response rate drops to 93% for Standards 1 to 3 teacher interviews, including 8% of teachers who were absent or unavailable on the day and were later interviewed by phone. TDNA response rates are slightly lower, at around 85% – one of the reasons being that it was sometimes difficult for teachers who teach both maths and Kiswahili to spare time to take both TDNAs. The target for lesson observations was 200, but under the new Standards 1 and 2 curriculum (see Section 1.4 for details), maths (arithmetic) and Kiswahili (either reading or writing) lessons often run sequentially without a break, and this enabled 94 maths lessons to be observed and 137 Kiswahili lessons – more than the target.

Table 2:   ML quantitative survey sample sizes

Sampling unit	Treatment sample			Control sample		
	Target sample	Actual sample	Actual/ Target (%)	Target sample	Actual sample	Actual/ Target (%)
Regions	5	5	100	7	7	100
Districts	17	17	100	8	8	100
Schools	100	100	100	100	100	100
Std. 3 pupils (tested both in Kiswahili and maths)[1]	1,484	1,483	99.9	1,488	1,488	100
Scorecards[1]	1,484	1,477	99.5	1,488	1,486	99.9
Stds. 1–3 Kiswahili/maths teacher interviews[2]	434	405	93.3	422	412	97.6
Stds. 1–3 Kiswahili TDNAs	283	243	85.9	n.a.	n.a.	n.a.
Stds. 1–3 Maths TDNAs	285	239	83.9	n.a.	n.a.	n.a.
Stds. 4–7 Maths TDNAs	270	231	85.6	n.a.	n.a.	n.a.
Std. 2 lesson observation maths[3]	100	94	94.0	n.a.	n.a.	n.a.
Std. 2 lesson observation Kiswahili[3]	100	137	137	n.a.	n.a.	n.a.

Source: IE ML survey. Notes: (1) In four treatment schools and four control schools, there were fewer than 15 eligible pupils, so the targets are fewer than 1,500. (2) The samples includes 21 HTs/acting HTs (treatment) and 14 (control) who teach Stds. 1–3. Out of the 39 teachers in treatment and control schools who did not sit for the interview, one refused, while 38 were unavailable (absent on the day and could not be reached over the phone later). Some 11% of teachers in treatment schools and 6% in control schools were interviewed over the phone. (3) 94 maths (arithmetic) lessons and 137 Kiswahili lessons (either reading or writing) were observed. Some of these subjects were taught consecutively (without a break) in one class period. 172 separate class periods were observed.

1.3.4   ML qualitative instruments and sample

The same nine schools and communities across three treatment districts/regions that were purposively sampled as sites for the qualitative research for the BL were visited again. The original sampling approach was theoretically informed and designed to generate responses from a selected number of individuals and groups that are broadly representative (though not statistically) of groups relevant to EQUIP-T, and which allow some identification of heterogeneous impact (Volume II, Chapter 4, describes the sampling strategy). The ML fieldwork took place in April/May 2016, at the same time as the quantitative survey. This was a change from the timing of the BL qualitative research, which took place between late June and early August.[11]

As with the BL, the qualitative part of the IE makes use of two research instruments – key informant interviews (KIIs) and focus group discussions (FGDs). All of the KIIs and FGDs utilise structured and unstructured methodologies. Structured methods allow for the efficient testing of pre-specified hypotheses, and unstructured methodologies allow for unanticipated or context specifics to be captured and for new hypothesis to be developed. The sampling of respondents

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[11] As explained in the IE ML Planning Report (OPM, 2016a, p. 22), at BL the timing was designed mainly to ensure sufficient time for the early results from the quantitative survey to feed into the qualitative design. At ML, the qualitative research was easier to frame in advance, given the rich BL findings, and the concurrent timing helped to strengthen the integrated analysis process.

and type of instruments that were used is almost the same as the BL, and is set out in Table 3 below.

Table 3:   ML IE qualitative research participants, sampling and instruments

Participant	Sampling	Type of instrument	Change from baseline?
HT	No sampling[1]	KII	Same
Community leader	The village committee chair-person[2]	KII	Same
Teachers	All maths and Kiswahili teachers teaching Standards 1–3[3]	FGD	Same [4]
SC	All members of the SC[5]	FGD	Same
Parents – fathers and mothers separately	10 fathers and 10 mothers (not from the same family) selected at random from a list of parents of children in Standard 1–3, and those involved with PTPs.[6]	FGD x 2	Change: At BL fathers and mothers were interviewed together, and the HT selected the parents based on guidelines.
Children	3 boys and 3 girls selected at random from Standard 3.	FGD	Same
WEC	No sampling – relevant WEC for the school	KII	Same
District Education Officer (DEO)	No sampling – relevant DEO for the school	KII	Same
Regional Education Officer (REO)	No sampling – relevant REO for the school/district	KII	Same
Regional Team Leader (RTL) (EQUIP-T MA)	No sampling – relevant RTL for the school/district	KII	Same
National EQUIP-T MA staff member	Component technical leads and National Coordinator	KII	Same

Source: OPM team. Note: (1) In the HT's absence, AHT was interviewed. (2) Or another member of the committee if they were not available. (3) If there were more than eight such teachers, eight of them were selected randomly to participate. (4) Although last time teachers from higher grades were invited if there were not enough teachers in Standards 1–3. (5) Aiming for attendance of four to 10 people. (6) The randomisation was expected to produce a group with some heterogeneity in regard to socioeconomic status and religion, but if researchers felt this was not the case, purposive sampling was allowed, with assistance from the HT.

The qualitative research team was able to carry out all of the KIIs and FGDs intended.[12] The size of the focus groups ranged from as few as three teachers up to as many as 10 participants in the mothers/fathers FGDs. This was due to strong turn-out of parents, while some of the schools only had small numbers of Standards 1 to 3 teachers.

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[12] The only exception was the fact that the Technical Lead for Component 3 at EQUIP-T MA HQ was not available.

Table 4: **Actual qualitative sample at ML**

Sampling unit	Regions total	Districts total	Schools total	FGDs with teachers	FGDs with SC members	FGDs with mothers of Std. 3 pupils	FGDs with fathers of Std. 3 pupils	FGDs with Std. 3 pupils	KIIs with HTs	KIIs with community leaders	KIIs with WECs	KIIs with DEOs	KIIs with REOs	KIIs with EQUIP-T MA regional staff	KII with EQUIP-T MA national staff
Total	3	3	9	9	9	9	9	9	9	9	9	3	3	3	9

Source: IE ML survey.

1.3.5   Use of mixed methods at ML

Members of the quantitative and qualitative research teams worked together at the ML design, data collection and analytical stages of this ML IE study to ensure that the study is able to take full advantage of its mixed methods design. The ML evaluation matrix, which serves as a framework for the ML research, was jointly developed in January/February 2016, following a review of the BL findings and interviews with key education sector stakeholders, including EQUIP-T programme staff (see OPM, 2016a for more details of this process), to establish the research priorities. The tools for both methods were then developed concurrently, with the two teams working closely together to ensure complementarity.

As at the BL, the research areas emphasised in the two sets of ML tools differ because of their different methodological strengths. The ML qualitative research focuses particularly on district planning and management, community participation and accountability, teacher motivation and the relationship between teachers, HTs and WECs. Qualitative methods are particularly well suited to capturing perceptions of changing roles, responsibilities, relationships and accountabilities. By contrast, the quantitative survey is uniquely placed to robustly estimate the impact of the programme on pupil learning and other outcomes. It concentrates on areas of the expanded TOC related to pupil learning, teacher capacity and performance, and SLM, while still covering some quantifiable aspects of community engagement with schools, and ward- and district-level management of schools.

The concurrent timing of the ML quantitative survey and qualitative research (April/May 2016), whereby qualitative research teams visited schools shortly after the quantitative survey team did so, had a number of advantages for strengthening the research process. The qualitative team were able to contact the school in advance of visits using updated information from the quantitative team, in order to arrange for the participants to be available at the school. Observations on research priorities from the early stages of the quantitative fieldwork were also shared with the lead qualitative researchers, which enabled them to modify parts of the planned research. For example, a decision was taken to include non-participatory lesson observation in each of the research sites, to enrich the quantitative evidence.

An early sharing of draft quantitative and qualitative findings during a team workshop held in early August 2016 permitted a rich discussion and pointed to areas for further investigation in both data sets. This type of information sharing and enrichment continued into the report writing phase. Each chapter in Part B of this report, which contains the findings, was co-authored by a member from each of the quantitative and qualitative teams. This 'buddy' system works by members of each

team sharing and commenting on iterative drafts – sometimes sparking further data analysis to further validate or confute links in the TOC supported by one set of data.

1.3.6 Costing analysis at ML

For the ML costing study, spending by the EQUIP-T MA was analysed, along with monitoring data relating to the five components. In addition, spending reports from Local Government Authorities (LGAs) were used to analyse spending trends since the EQUIP-T fiscal decentralisation model came into place in late 2015. This also allowed a deeper look at the costs of different models of delivering teacher INSET.[13]

1.4 Changes in education sector context and implications for the IE

1.4.1 Education policy changes since BL

Since the BL research in 2014 there have been at least four national policy changes that affect primary education across the country (see below and Annex D.1 for more details). Recognising the changing education context since the BL is very important for the IE as national trends rather than EQUIP-T could be driving some of the observed changes.

- The introduction of a new curriculum for Standards 1 and 2 pupils that focuses on reading, writing and arithmetic competencies (3Rs), rather than a larger set of subjects, and that promotes a new phonics-based approach to teaching children to read. Schools began implementing this during the 2015 school year.
- Free education (no fees or compulsory additional contributions) for parents and guardians of children from Standards 1 to Form 4, from the start of the 2016 school year.
- School capitation grants paid directly to school bank accounts rather than via LGAs, from December 2015.
- The transfer of the management of primary education from the Prime Minister's Office to the President's Office.[14]

The new Government, which took office in late 2015, introduced the last three policy changes, and also set a very high-profile national agenda for encouraging public servants (including education professionals) to work hard, and to carry out their duties professionally, to improve public services.

1.4.2 Major primary education programme interventions since BL, including the Literacy and Numeracy Support Programme (LANES)

A set of prominent donor-funded programmes, including EQUIP-T, have been working in Tanzania in the last two years to improve the quality of primary education, under the umbrella of the Education Sector Development Programme (ESDP) II. Although interventions differ across these programmes, they share at least one common objective: that of improving early grade pupil learning.

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[13] Spending data at the MA was not found to be categorised in sufficiently consistent detail to be able to estimate unit costs of specific phases of activity. This limitation was discussed in the ML IE Planning Report (OPM 2016a, p. 32).

[14] New instruments of governance were issued by the President's Office in April 2016. The President's Office is now managing a 10-year basic education cycle (which includes primary education).

From the perspective of the IE, it is important to understand the main activities which have taken place in those programmes where there is a possibility of effects on pupil learning in the EQUIP-T treatment districts or the control districts, which could contaminate the EQUIP-T impact measurement. The IE BL report (OPM, 2015a) recognised that there was a contamination risk from LANES, because it planned to operate in areas which included the IE control districts. The ML planning report (OPM, 2016a) followed up on LANES activities that had taken place since BL and it confirmed that LANES does include the IE control districts (Annex D.3 summarises LANES activities since BL). There are two main LANES activities which affect the control schools: (i) two Standard 1 and 2 teachers from each school were invited to a 10-day centralised INSET orientation on the new 3Rs curriculum; and (ii) HTs were invited to a three-day regional INSET on SLM. The ML IE survey collected data on LANES implementation in the control districts, and Box 1 below explains how the impact identification strategy used in this study is still able to robustly estimate the treatment effect of EQUIP-T.

Box 1: Dealing with the contamination risk from the LANES programme in impact estimation

The rigorous identification of programme impact relies on a comparison between a set of treatment and control schools (a credible counterfactual). One of the conditions for a credible counterfactual is that there is no contamination of outcome measures, i.e. that no other interventions interfere with the outcomes of interest in control areas. If this condition is not met, the true treatment effect is confounded and cannot be identified.

As explained above, since the EQUIP-T BL research, the LANES programme has implemented INSET for early grade teachers and HTs in areas which include the IE control districts, with the aim of improving early grade learning outcomes.

The impact identification strategy used in this ML IE study can still robustly estimate the treatment effect of EQUIP-T, for three reasons. First, given the centralised modality of one-off INSET delivery and the limited number of participants from each school, it is reasonable to assume that the extent of contamination of outcome measures is likely to be fairly low (OPM, 2016a). Second, the IE ML has dealt with the remaining risk by collecting survey data on LANES INSET in the control schools. These data confirm that coverage of the LANES INSET across the control schools is very high and is uniform across schools. Finally, this means that the impact estimates presented in this report can be interpreted as being the impact of EQUIP-T as compared to a counterfactual situation without EQUIP-T but with LANES INSET-equivalent training. The main implication for the EQUIP-T impact estimation is therefore the need for careful interpretation of the impact estimates (see Section 1.6.1 for details).

Another programme, Big Results Now in Education (BRN-Ed), started before EQUIP-T, and the IE BL sampling excluded the 60 districts affected by school-level BRN-Ed activities. As noted in the ML IE planning report (OPM 2016a, p. 10), recent BRN-Ed activities directed at early grade pupils, their teachers and HTs have been implemented via LANES in a partnership, and so they pose no additional contamination risk to the EQUIP-T IE.

1.5   More details on quantitative assessment of impact

The quantitative impact identification methodology used in this study follows a quasi-experimental design that combines two approaches: PSM and difference in differences (DID) analysis. This combines the strengths of both of these methods in order to robustly estimate the difference in key impact indicators across treatment and control schools that can be attributed with statistical confidence to EQUIP-T (full details are given in Volume II, Chapter 6). Readers less concerned with these technical details can skip to Section 1.6 below, which explains how to interpret the results in this report.

DID

DID is an approach that exploits the fact that data from the same treatment and control schools were collected at two points in time, at BL and at ML. The idea behind this approach is quite straightforward: it compares data from treatment and control schools both at BL and ML. This happens separately first. Then, in a second step, these BL and ML comparisons are compared to each other. If, for example, the difference at BL between treatment and control schools was smaller than at ML, this would indicate that the treatment has had an effect on treatment observations. Figure 2 below exemplifies this logic. In the present case, and as explained further below, the comparisons at BL and ML in the first step are not simple comparisons of descriptive statistics, but PSM estimations. Estimates from these are then, in a second step, compared to each other across time. The key impact estimates presented in this report are the results of this double difference comparison of simple PSM estimates.

Figure 2:   DID method

Notes: Hypothetical data.
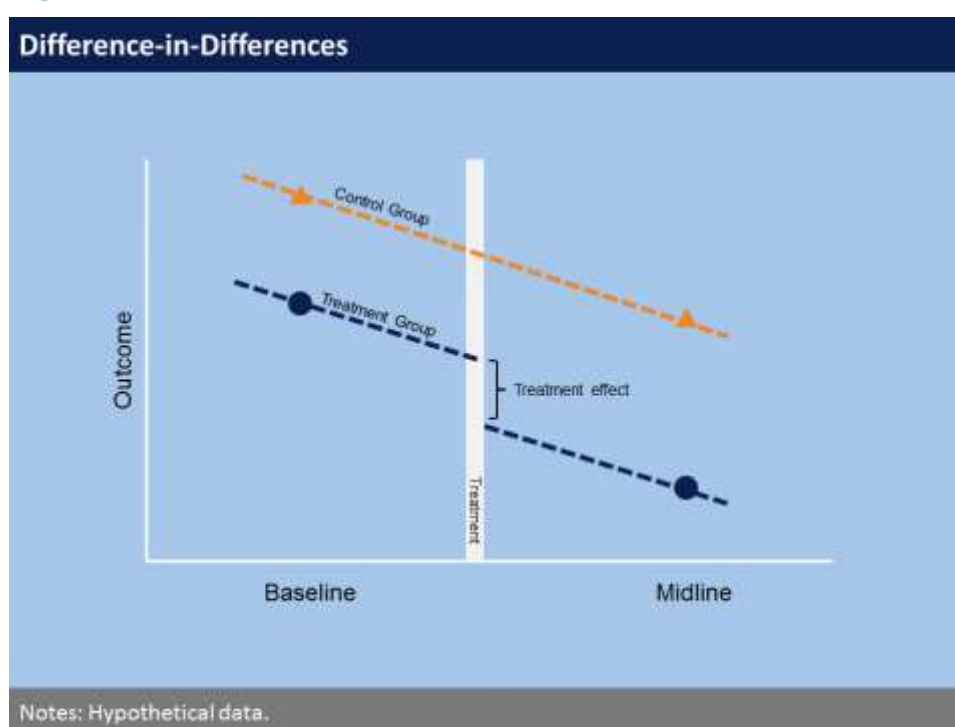
The key assumption that needs to hold for DID to identify programme effects is that, as can be seen in Figure 2 above, without the treatment (i.e. the EQUIP-T intervention) the difference between control and treatment groups in the second time-period (i.e. ML) would have been the same as in the first time-period (i.e. BL). This is sometimes referred to as the parallel trend assumption. In the present case, this translates into an assumption that, without EQUIP-T, results derived from PSM should have been equivalent between BL and ML.

PSM

The key problem that PSM attempts to solve is selection bias. In the present case, this problem appears because pupils and teachers from schools that did receive EQUIP-T support could be systematically different from individuals in schools that did not receive such support and that form part of our control group – because the assignment to treatment status was not implemented randomly. Such systematic differences could plausibly be related to outcome measures that this evaluation is interested in. This in turn implies that observed dissimilarities in outcome measures across individuals from treatment and control schools could be due to underlying systematic

differences, and not due to the programme itself. Simple comparisons of indicators across such groups would be invalid and biased as regards inferring programme impact, because these groups cannot be assumed to be alike. This is the problem of selection bias.

PSM tackles this problem by using data from the control group to construct appropriate comparisons for pupils or teachers in the treatment group. This happens by matching and comparing outcomes for units in the treatment group with control units that are as similar as possible to each other along a set of relevant observable characteristics, i.e. only comparing like with like. The validity of any PSM approach depends on how well it achieves this comparability. See Chapter 6 in Volume II for a detailed technical description of how comparability was achieved and assessed in the present case, both at BL and ML.

However, even after implementing a matching procedure, some differences across treatment and control groups can remain. This was the case for some pupil- and teacher-level indicators in the present evaluation – where imbalance remained across some characteristics of pupils and teachers after implementing PSM. As mentioned above, this study is able to address these remaining imbalances by combining PSM with a DID analysis. Please see Chapter 6 in Volume II for a detailed discussion of caveats related to this strategy, and how they are addressed here.

1.6 How to read this report

1.6.1 How to interpret impact estimates

As discussed in Section 1.4, INSET for early grade teachers and SLM training for HTs has been implemented not only in EQUIP-T schools, but also in control schools via the LANES programme. This means that the impact identified by the analysis is the effect that EQUIP-T as a package (including EQUIP-T INSET for early grade teachers on the new 3Rs curriculum, which was delivered using a different modality to LANES) has had on outcome indicators compared to a counterfactual situation where, in the same schools, the alternative training from control schools would have been implemented. In other words, the analysis measures the compounded impact of all EQUIP-T-related interventions over and above the potential effect of the other LANES training initiatives. This allows us to identify the marginal impact attributed to EQUIP-T, and thus its added value.

In the present volume, impact estimates are presented in shaded boxes, to distinguish them from descriptive estimates of trends in programme schools. Each impact box contains a graph and explanation: see Figure 3 in Chapter 2 for an example. Each graph shows point estimates for treatment effects (average treatment effect on the treated (ATT)) on outcome indicators and 95% confidence intervals for these effects. This means that the probability that the true treatment estimate will fall within this area is 95%.

Outcome indicators used in this evaluation are mainly proportions. This means that estimates of treatment effects are given in percentage point changes for these proportions. For example, if the estimated ATT on the proportion of pupils in the bottom performance band for Kiswahili in treatment schools is -0.03, this means that EQUIP-T has reduced this proportion by three percentage points, compared to a counterfactual of no EQUIP-T package and some alternative INSET training. Equivalently, this can be expressed as a decrease of three percentage points in the probability of pupils from treatment schools falling into this bottom performance band. When confidence intervals of such estimates do not overlap with zero, then this is an indication that this treatment effect is truly different from zero. This zero value is indicated using a red line in the graphs. Text under each graph explains the level of robustness and confidence in these findings –

including information from balancing exercises and robustness checks. The results are presented in detail in Chapter 6 of Volume II.

1.6.2   How to interpret descriptive trends in programme schools

Most of the quantitative evidence presented in the findings chapters which follow takes the form of descriptive trends in **key indicators in programme schools** between BL and ML. The tables typically have the following headings:

Indicator	BL estimate	ML estimate	Difference	BL N	ML N

For each indicator, the BL and ML estimates are shown in columns two and three respectively, and the final two columns give BL and ML sample sizes (N). The column marked 'difference' contains estimates of the change in the value of the indicators from BL to ML. If this change is statistically significant based on simple t-tests, this is marked with asterisks (*significant at the 10% level **significant at the 5% level ***significant at the 1% level). The more asterisks that are shown, the more likely it is that the observed change is due to a real change over time, rather than due to chance as regards who was interviewed or tested. Where results are not given an asterisk this does not mean that there is no change over time, but rather that the difference cannot be asserted with such a high degree of confidence (90% certainty or more).

Statistical representativeness and survey weights

The estimates represent pupils, teachers and schools in programme treatment areas only. More specifically, the sample is representative of Government primary schools in 17 programme treatment districts drawn from the five regions where the EQUIP-T programme started implementation in August 2014 (see Figure 1). These districts are fairly similar, in terms of key contextual factors, to the 12 other districts in the early EQUIP-T programme, but overall the EQUIP-T districts are significantly more socially and economically disadvantaged than the remaining districts in Tanzania (see OPM 2014a, p. 8). This means that the descriptive quantitative estimates in this report represent disadvantaged districts and should not be generalised to the national level.

Having said this, the agreed TORs for this IE study (Annex A.4) explain that: 'a large majority of rural districts in Tanzania share similar characteristics to those in the EQUIP-T treatment sample and therefore although the IE impact results will not be statistically generalisable outside the IE sample, it is reasonable to expect that the findings will have some applicability in other districts as well, if sufficiently similar to the treatment districts'.

All estimates are adjusted using survey weights, to account for the sampling strategy. Some of the teacher estimates are based on school-level populations (all teachers, or all Standards 1 to 3 teachers), while some are based on samples drawn at the school (notably the TDNA results). The survey weights have been adjusted to account for this. Lessons were sampled by convenience.

Some tables and figures compare estimates for different sub-populations (for example, boys and girls) at the same point in time, but it is important to note that no causal inference can be made from these simple disaggregations.

1.6.3   Interpretation of qualitative findings from programme schools

The qualitative research was carried out in nine schools in the programme districts. These results therefore only relate to the situation in EQUIP-T districts, and the situation in control districts is not assessed. In addition, the case study schools are not intended to be statistically representative, but rather to reflect different perceptions and experiences of schools benefiting from the programme. The scope of the qualitative research covered all four components of the programme, and was therefore large. To manage this, the team focused more on outputs and outcomes than inputs and activities, given that this is not a process evaluation. However, this does mean that it was not possible to explore all issues in as much depth as may be needed to validate and explain the evidence comprehensively.

For the qualitative research findings, the term 'case study schools' or 'respondents' is used for thematic findings that are triangulated across different types of respondents. Consensus in findings (or wider themes) have been carefully assessed in the thematic analysis, where the position of respondents (potential incentives and/or social desirability bias) has been considered when analysing the strength of evidence. As such, these groupings of terms into 'case study schools' or 'respondents' have not been done lightly, and when used reflect wider themes considered to be strongly relevant across respondents. This is to improve readability of the report. When different types of respondents' views disagree, or only one type of respondent hold a particular view, this is specified. Possible reasons for differing viewpoints is also considered in the analysis, as well as reasons why various respondents may not be knowledgeable on certain issues or choose not to answer questions. Themes discussed see large consensus, and as such are often discussed through a wider thematic lens instead of always highlighting individual views. For a detailed discussion around qualitative design and analysis please see Chapter 4, Volume II.

For the sake of confidentiality, the nine schools have been anonymised according to their three districts (labelled A, B and C), and the WECs are also labelled according to these districts. The WECs have not been associated with specific schools, to reduce the chances of them being identified and because the WEC interviews did not focus only on the specifics of the schools being visited. District and regional interviewees have been given a different set of labels, again to minimise any possibility of them being identified based on contextual characteristics.

1.6.4   Interpretation of the cost analysis

The cost analysis relates only to spending by the programme's MA and LGAs on programme support activities. It does not include the cost of technical assistance (TA), nor does it assess, at this stage, the potential management cost associated with continuing the programme. As the spending cannot be separated into fixed, one-off costs and variable costs, due to limitations in the classification of spending, the unit costs calculated should not be viewed as the marginal cost of covering one more beneficiary unit in the programme.

1.6.5   Key terminology

The following terms are used repeatedly and have particular definitions in this report:

Table 5:   **Key terminology used in this report**

Term	Meaning in this report
Impact	A causal effect.
Kiswahili skills	This is used synonymously with 'literacy'. For example, when findings refer to pupils' Kiswahili skills, it means literacy skills (reading and writing) in the Kiswahili language. The new 3Rs curriculum is competency based.
LGAs	This is used synonymously with 'districts'.
Maths skills	This is used synonymously with 'numeracy'. For example, when findings refer to pupils' maths skills, it means numeracy skills (arithmetic), as part of maths.
Programme schools	This is used synonymously with 'treatment' schools.
Programme TOC	Expanded programme TOC.
PTPs	Parent–Teacher Partnerships. These are school-level bodies, established as part of EQUIP-T to support schools, comprising parents and teachers. They do not have formal governance authority.
Significant	Statistically significant.
Source: OPM.	

1.7 Structure of Volume I

This is Volume I of the EQUIP-T IE ML report, which is accompanied by *Volume II: Methods and Supporting Evidence*. The remainder of this volume is structured as follows:

Part B contains the ML findings. There are six chapters: the first (Chapter 2) covers pupil learning and includes estimates of the impact of the programme on learning achievement in Kiswahili and maths. The next four chapters correspond to the four EQUIP-T components covered by the IE: teacher performance and conditions for learning (Chapter 3); SLM (Chapter 4); district planning and management (Chapter 5); and community participation and accountability (Chapter 6). Each of these component chapters is structured in the same way, to enable the IE to assess whether the programme TOC holds in practice, and is thus likely to deliver the expected impact:

- a summary of programme implementation so far and expectations of change according to the TOC;
- a findings section structured using the TOC, with subheadings moving from the provision of inputs to changes in outputs and changes in outcomes.[15] Within these subheadings, evidence is presented on whether, and to what extent, TOC assumptions hold in the programme areas. The TOC assumptions reflect the optimal conditions needed to support changes – for example, low teacher turnover or appropriate class sizes; and
- a short summary of evidence section.

The ML evaluation matrix in Annex B contains descriptions of the causal links and assumptions in each of the component areas of the TOC.

The fifth chapter (Chapter 7) analyses the cost of the EQUIP-T programme so far.

Part C (Chapter 8) summarises the findings from Part B on programme impact, effectiveness, efficiency, relevance and sustainability, and draws out implications for programme consolidation and adjustment.

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[15] For example, provision of teacher INSET (input) to changes in teacher capacity (output) to changes in teacher classroom performance (outcome).

PART B: Findings

PART B: Findings
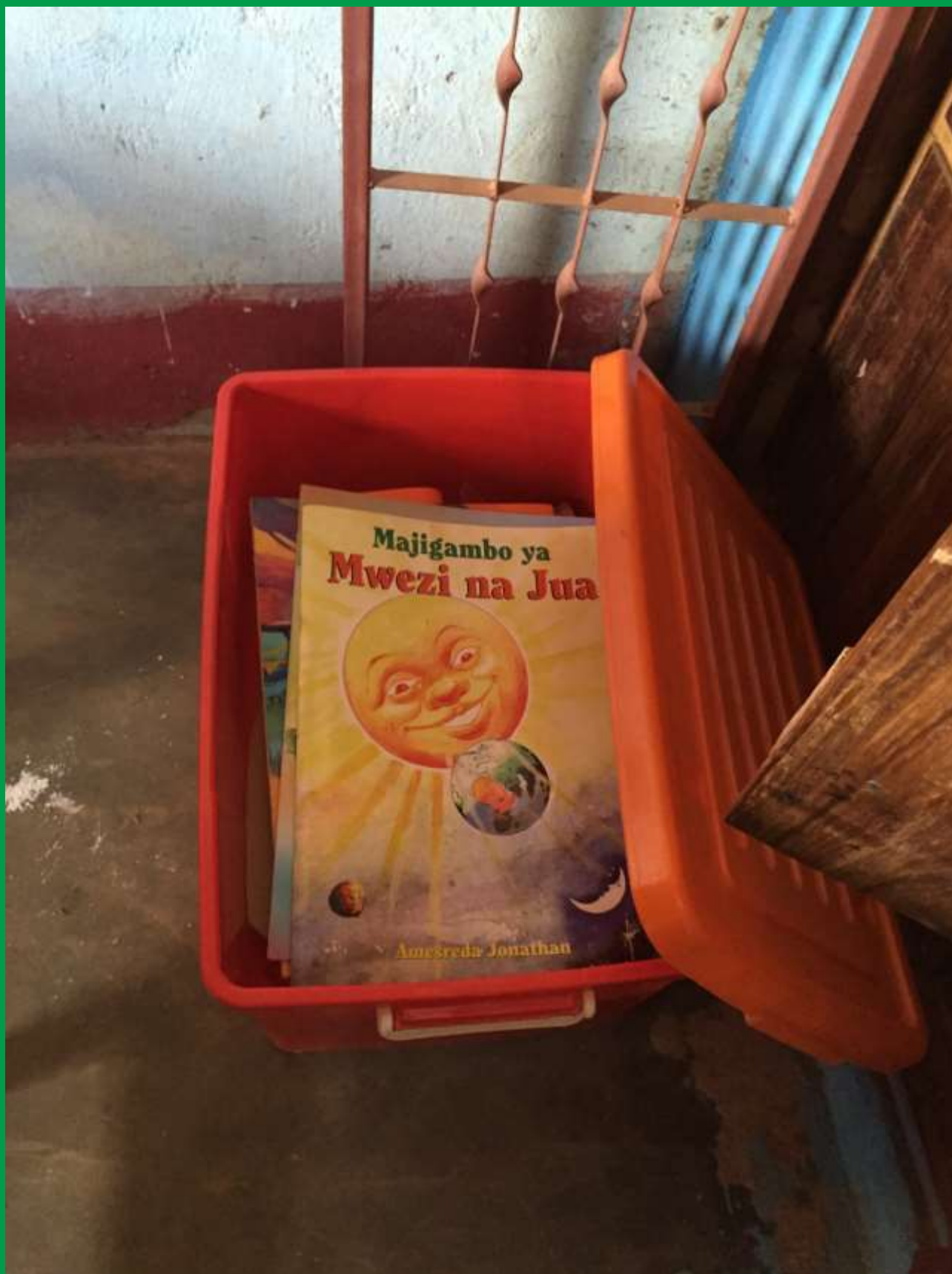
2   Pupil learning and background characteristics

2.1   Overall programme goals and expectations of change in pupil learning

The overall goal of EQUIP-T is to improve learning outcomes for primary school children – especially for girls. The full underlying programme logic is set out the TOC (see Annex C.2) but in essence it envisages that results from its four components will be mutually reinforcing and will together bring about a substantial improvement in learning outcomes. It is clear from the structure of the TOC that the teacher component, which includes improving classroom performance and school readiness, is the most direct link to improving pupil learning. The other components provide supporting interventions to help deliver the changes at classroom level. This suggests that if EQUIP-T is impacting on pupil learning at ML, then it is important to consider the results from the teachers' component in particular (set out in detail in Chapter 3) in considering the reasons for impact. More details regarding the programme's goal and expectations of change are given in Box 2 below.

Box 2: Programme goal and expectations of change
Overall programme goal and objectives: to improve education quality (outcome) and learning outcomes – especially for girls (impact). EQUIP-T is a sub-national, governance and demonstration programme, which aims to deliver an approach to school improvement that is ready for national scale-up, and which will ultimately have an impact on pupil learning outcomes across Tanzania.
Summary of impact-level TOC: results from the four intervention areas (teacher capacity and performance, SLM, district planning and management, and community participation) will be mutually reinforcing, and will result in a significant impact on pupil learning. Results will be sustainable because they will be built on top of a strong embedded governance model (from community monitoring to school leadership to ward coordination to district planning and management).
Expectations of change and programme logic
The programme started many of its interventions at the lower primary school level, including, for example, the teacher INSET programme aimed at teachers of Standards 1 to 3. For this reason, the programme expects to see measurable improvements in pupil learning in early Standards, as well as the narrowing of gender gaps in achievement, within the programme timeframe. The scale of the expected change from the original Intervention Summary for EQUIP-T (DFID 2013, p. 38) is ambitious. This Summary proposes an intention to more than double the proportion of early Standard pupils with basic literacy skills over the programme period. The programme's logframe (EQUIP-T MA (2015), Annexes) sets less ambitious but more specific targets: by 2016, 18% and 8% of Standard 3 pupils will be achieving at Standard 2 literacy and numeracy levels respectively. The targets for the same indicators for 2018 are 21% for literacy and 10% for numeracy. The logframe targets for 2016 aim to eliminate the gender gap in both the literacy and numeracy indicators.
In the medium to longer term, the programme expects to drive up achievement over the whole primary school cycle. The core programme logic is that the early interventions will equip pupils with stronger foundational skills – these pupils will then move up the system and will be in a better position to benefit from later interventions targeted at upper-primary level.
Sources: OPM 2016a, OPM 2015a

The main objective of this chapter is to present evidence regarding any EQUIP-T impact on early grade pupil learning at this mid-point stage in the programme's implementation, and to summarise the pathways in the TOC which appear to be driving any impact. It is also important, from the perspective of future programme emphasis and adjustment, to understand the overall picture of early grade pupil learning levels – and in particular the gaps in learning achievement for pupils with different background characteristics.

This chapter is structured into five further sections. The impact of EQUIP-T on early grade pupil learning in Kiswahili and maths by ML is the focus of the first section. This section starts by describing overall trends in pupil learning in programme schools since BL, and then explains whether part of this change can be robustly attributed to the EQUIP-T programme or not. Note that all impact estimates in this report (which are based on a comparison of EQUIP-T programme schools against a counterfactual set of control schools) are presented in shaded boxes, in the interests of clarity. This is followed by a brief summary of the most likely reasons for any observed impact based on the detailed synthesis of evidence in the subsequent EQUIP-T component chapters (Chapters 3 to 6). The component chapters draw on quantitative and qualitative evidence in assessing whether changes have occurred as expected in the EQUIP-T TOC.

Sections 2.3 to 2.5 in this chapter discuss changes in learning gaps by gender, home language and household poverty in the programme schools since BL. The discussion of these descriptive trends is complemented by summary evidence from the component chapters which point to likely reasons for some of the changes observed. The final section summarises the key points.

2.2   Impact of EQUIP-T on early grade learning in Kiswahili and maths by ML

The purpose of testing Standard 3 pupils is to measure changes in learning achievement over time, as a means of assessing the overall impact of EQUIP-T, and to guide potential programme adjustment. The IE estimates pupil performance on a scale that is directly linked to early grade curriculum competencies. This provides insight into whether pupils are performing at, above, or below the curriculum level expected, and gives detailed information on the skills different groups of pupils currently have (see Volume II, Annex G for more details). Scale-based performance scores give more accurate measurements of the learning gaps between different groups of pupils, and of changes over time, than traditional approaches based on raw test scores (for example 'percentage of questions correct') (Wright and Stone, 1979).[16] For these reasons, scale scores are used to estimate programme impact in this study, but this chapter also discusses selected raw score indicators because similar indicators are used to monitor other large-scale programmes in Tanzania. An analysis of trends in raw score pupil learning indicators is given in Volume II, Chapter 7.

The IE uses the same adapted-EGRA and adapted-EGMA instruments at BL and ML, to test Standard 3 pupils on Standards 1- and 2-level skills. Although the Standards 1 and 2 curriculum changed between the BL and ML, the instruments are competency based and are still valid (see Volume II, Annex G for further explanation).

2.2.1   Are more Standard 3 pupils achieving at the expected curriculum level in Kiswahili and maths at ML compared with BL?

Consistent with the BL measurement of pupil learning, pupils were estimated to be achieving at the level of one of five curriculum-linked performance bands: **Band 0: below Standard 1 level; Band 1E: emerging Standard 2 level; Band 1A: achieving Standard 1 level; Band 2E: emerging Standard 2 level; and Band 2A achieving Standard 2 level**. Pupils who are 'achieving at band level' are more likely than not to be able to demonstrate the skills linked to that performance band.

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[16] In this study, scale-based scores are estimated using Rasch analysis, which is based on a probabilistic model of item response, to produce interval-scale scores which capture more exactly differences in performance by weighting items by difficulty. Volume II Annex G contains more details in this regard.

A list of competencies linked to each band is given in Volume II (Annex G) and these have changed little since BL.[17] The BL estimates presented in this chapter have been revised slightly, for technical reasons that are explained in Volume II (Annex G).[18]

Results

Pupils' literacy skills in Kiswahili have increased significantly since BL in programme schools, and there is a particularly marked gain for the poorest performing students. Comparing the bottom two bars in Figure 3, the proportion of pupils in the lowest Kiswahili performance band fell significantly – by 16 percentage points, from 39% at BL to 23% at ML. There is also a large and significant change at the top of the distribution, where the share of pupils who are achieving at Standard 2 level (top band) almost doubled since BL, from 12% to 22%, exceeding EQUIP-T's logframe target for 2016 of 18%. For the middle three bands (band 1E, 1A and 2E), the changes are much smaller and are insignificant, except for a weakly significant increase in the share of pupils in band 2E, by 4 percentage points, to 28% by ML.

Figure 3: **Distribution of pupils by Kiswahili and maths curriculum-linked performance bands in treatment areas BL to ML (%)**
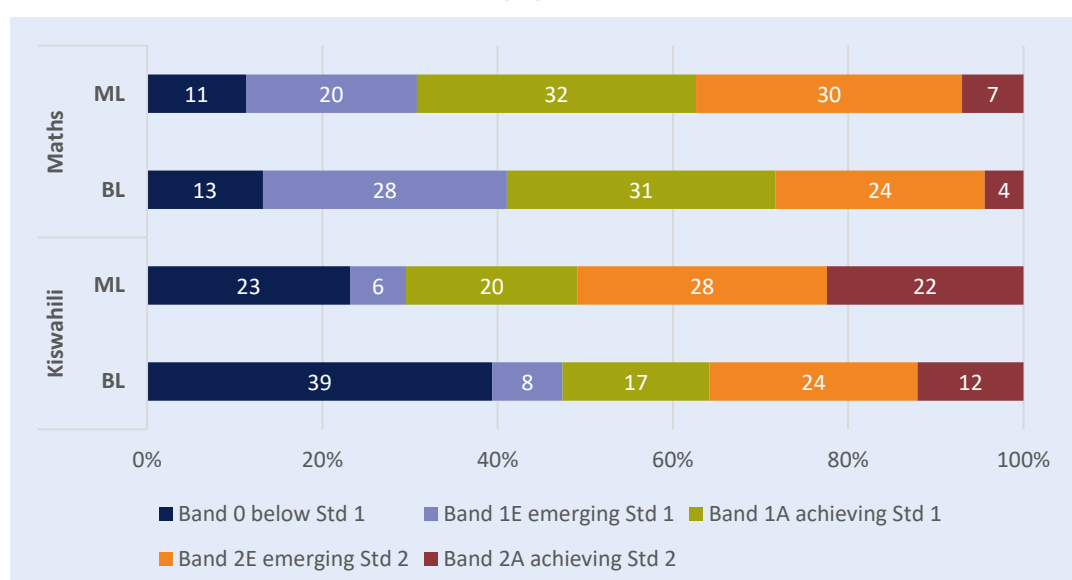
Sources: IE BL and ML surveys (pupil tests). Note: (1) Weighted estimates. (2) Volume II Annex F contains i) estimates of the BL to ML differences which include asterisks to indicate statistical significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$; and ii) mean pupil ability scores.

While the gains in early grade Kiswahili skills for pupils over two years is remarkable, it is important not to lose sight of the extent to which pupils are still behind curriculum expectations. About half of Standard 3 pupils are achieving at Standard 1 level or below, and are thus at least one year behind in skills acquisition, and therefore need further support to catch up.

Achieving sufficient reading fluency for reading comprehension is one of the key differences between Standard 2 and Standard 1 curriculum standards. Indeed, the Government has set a target for Standard 2 pupils to read at a speed of 50 words per minute (in line with international research on the minimum rate needed for comprehension, Abadzi 2006). Pupils in programme

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[17] The band boundaries scores are the same as at the BL, for reasons which are explained in Volume II, Annex G.

[18] The original BL estimates excluded missing data due to non-response from the analysis (when pupils were asked questions by the enumerator, they were marked as correct, incorrect or non-response). On further investigation of this issue it was found that this leads to some inaccuracy in the estimation of pupil ability at the lower end of the distribution. Non-response data were assumed to be equivalent to an incorrect answer in the revised estimates.

schools read a simple story passage at a rate of 21 words per minute on average at BL. This increased to 30 words per minute at ML, which is an impressive gain but is still far short of the target.

Pupils' numeracy maths skills have also improved since BL, but the change is not as marked as for Kiswahili. Comparing the distribution of pupils over time in Figure 3 (top two bands), there is a clear shift towards the top performance bands, away from the bottom bands, with the middle band similar in size to the BL share. Specifically, there was a strongly significant increase in the share of pupils achieving at band 2E level (emerging Standard 2), from 24% at BL to 30% at ML, and the proportion of pupils falling into the top band 2A (achieving at Standard 2 level) almost doubled from 4% to 7% (similar to EQUIP-T's logframe target for 2016 of 8%), although this gain is only weakly significant. There was no significant change in the share of pupils falling into the bottom band (13% at BL and 11% at ML), but there was significant movement in the band above this, where the proportion of pupils with emerging Standard 1 skills dropped by eight percentage points to 20% at ML.

Even with the considerable maths skills improvement since BL, with close to 60% of pupils achieving at Standard 1 level or below, it is clear that the majority of pupils need further support to catch up with curriculum expectations in maths.

Education managers in EQUIP-T areas – WECs, DEOs and REOs – all perceive learning outcomes to be improving in their schools. They frequently gave 'the number of children knowing the 3Rs' (generally referring only to reading and writing) as evidence of improvements in teaching. While this positive performance may reflect some response bias, interviewees appear to be able to quantify the change: '*the number of pupils not knowing how to read and write goes down each month*' (WEC X, district C). In addition, REOs also talked about reductions in the number of children not knowing how to read and write, and they think EQUIP-T teacher INSET might have contributed to that.

2.2.2   What is the impact of EQUIP-T on early grade pupil learning?

After nearly two years of EQUIP-T programme interventions, the impact modelling finds strong evidence that the programme has had a positive impact on pupil learning in Kiswahili, but it finds no definitive evidence of an impact on pupils' achievement in maths at this stage. The programme has particularly helped the poorest performing pupils in Kiswahili to improve their skills. The impact results are given in Box 3 and the methods supporting this analysis are explained in detail in Volume II, Chapter 6.

Box 3: Impact of EQUIP-T on early grade pupil learning

The figure below shows the average treatment effect on the proportion of Standard 3 pupils in the top and bottom performance bands for Kiswahili and maths in programme schools. It compares the change in performance in programme schools to the change in control schools, between BL and ML.
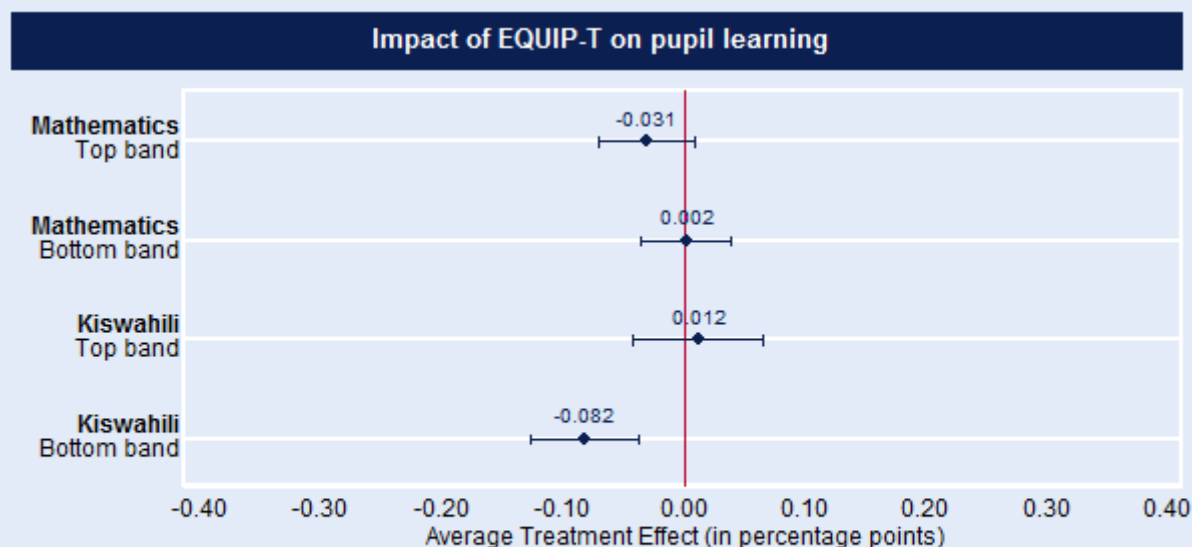
Source: IE baseline and midline surveys.
Note: Point estimates correspond to PSM with Difference-in-Difference estimates over baseline and midline survey data, 95% confidence intervals plotted.

Positive impact on pupils' performance in Kiswahili

There is strong evidence that EQUIP-T has reduced the proportion of pupils in the bottom performance band for Kiswahili in programme schools. These results remain strong and highly significant across an array of estimation models and robustness checks. Pupils in EQUIP-T schools are found to be about eight percentage points less likely to be in the bottom performance band compared to the counterfactual situation of no treatment. Given the results presented in the descriptive analysis in the previous subsection (Figure 3), which indicates that 23% are in the Kiswahili bottom band, we can infer that the proportion would have been over 30% in the absence of the EQUIP-T intervention (i.e. the counterfactual situation).

This result is highly significant in statistical terms and highlights a clear positive additional effect of the EQUIP-T interventions on pupils' Kiswahili literacy outcomes. It is important to bear in mind that the treatment effect measured by the impact estimation refers to the additional effect of EQUIP-T over and above any other existing training intervention taking place in the comparison schools. The analysis is unable to detect similar changes in the top performance band for Kiswahili. This suggests that while the programme is pushing pupils upwards and out of the bottom performance band, improvements at the higher end of the literacy outcomes are more difficult to achieve and cannot be detected quantitatively at this stage.

No clear impact on pupils' performance in maths

In terms of early grade maths skills, the comparison of schools targeted by EQUIP-T and schools not receiving the EQUIP-T interventions does not reveal any significant differences between the two groups across time. The estimation models do not detect any robustly significant change in the proportion of students in either the top performance band or the bottom performance band in treatment schools that is attributable with statistical confidence to EQUIP-T. Put another way, although the descriptive analysis presented in the previous section shows some improvement in the top band for maths, this is not over and above changes in control schools. Note that in the figure above, confidence intervals for both indicators related to maths overlap with zero. Although some of the estimation models show potential negative trends in the proportion of pupils achieving the top band for maths, these findings do not withstand robustness checks. It is not possible therefore to provide a definite assessment of impact on this indicator. On the proportion of pupils in the bottom performance band, a similarly extensive analysis confirms the lack of evidence of an impact on this indicator.

2.2.3 Why has learning achievement improved, and what is the evidence regarding key reasons for EQUIP-T's impact on pupil learning at ML stage?

Early grade learning achievement in Kiswahili and maths has improved in both treatment and control schools since 2014. Consistent with this, a nationally representative study (3Rs-EGRA and 3Rs-EGMA), which uses similar instruments to the IE tests, also found significant learning gains in Kiswahili skills, and in some (but not all) maths skills across the country over the same period (see Box 4).

Box 4: Results from the 3Rs-EGRA and 3Rs-EGMA surveys 2013 and 2016

Kiswahili results

- Mean scores for all the Kiswahili sub-tests (reading speed, reading comprehension and writing) increased between 2013 and 2016.

Maths results

- Mean scores for some of the maths sub-tests (including word problems) increased between 2013 and 2016. There was little change in mean scores for the other sub-tests (lower-level addition, subtraction, and number comparison).

Study details

The EGRA and EGMA instruments were administered to 7,765 Standard 3 pupils who were randomly selected from a sample of 650 schools. The 2016 survey fieldwork took place in February 2016. The EGRA and EGMA contained the same type of sub-tests as the nationally representative study conducted in 2013 (which had a much smaller sample), but the content was updated and tailored to the new 3Rs curriculum. This means that the results of the two survey waves are not *strictly* comparable (psychometrically across all subtests) but a rigorous design process did take place where items were retained as far as possible and mainly minor adjustments were made to improve the validity of results.[1]

Sources: RTI (2014) and RTI (2016). (1) For example for the 2016 EGMA test, the reading passage was the same as in the 2013 round (with an additional passage which all children read as well), the syllables items were partly reordered, the listening comprehension passage was dropped, and the writing subtest included some additional items to avoid ceiling effects, and to include some punctuation requirements from the 3Rs curriculum.

This national trend seems likely to be related to the introduction of a new curriculum for Standards 1 and 2, which was rolled out nationwide in 2015. The new curriculum focuses on the 3Rs, rather than the eight subjects in the previous curriculum. The 3Rs curriculum prescribes considerably more instructional hours per week for Kiswahili in particular, since Kiswahili is now timetabled as two subjects, but it also prescribes more instructional hours per week for maths. The new curriculum syllabi and teachers' guides promote a phonics approach to teaching children to read, whereby they learn to sound out letters and syllables to form words – which is new to most primary teachers in Tanzania. The IE study finds that schools have adopted the new curriculum and are timetabling considerably more instructional hours for early grade pupils (see Chapter 3). Moreover, as was expressed in FGDs, teachers feel focusing on three subjects at a time allows them to develop deeper subject knowledge within specialised subjects, instead of dividing their focus across several subjects. Similarly, parents and teachers feel that pupils understand better since they focus on fewer subjects.

The other national factor which came up repeatedly in the IE ML research in programme schools was *hapa kazi tu* (interpreted as 'just work') – the slogan introduced by the new Government, which encourages people to work hard at their job. Though the qualitative research does not explore this in depth, this was seen as a wider change in expectations around people's work ethic, and was perceived as significantly influencing how teachers approach their work – and in particular attendance. An increase in school inspections is thought to be linked to this national change, and is believed to contribute to the effect on teachers' behaviour. This is discussed in Chapter 3 on Component 1, and elsewhere where it relates to other components.

Beyond the improvement in learning achievement that is in common with other schools nationwide, EQUIP-T has had an additional impact on improving the achievement of the lowest performing pupils in Kiswahili. In the EQUIP-T TOC improved learning is most closely linked with improved teacher performance, with the key assumptions that pupils are school-ready and attend regularly.

The ML research in programme schools finds that some important aspects of teachers' classroom performance have improved significantly since BL, notably the use of inclusive pedagogical practices. This is consistent with the reported impact on the poorest performing pupils. The fact that impact is detected in pupils' Kiswahili skills rather than maths skills is not surprising given the emphasis of the programme implementation so far. Component 1 (teacher capacity and performance) is the largest component, and the one that is most advanced in terms of implementation so far. It accounts for around half of programme spending so far. It has established a school-based INSET programme to strengthen early grade teachers' skills that has delivered multiple early grade Kiswahili training modules to teachers, as well as training that is directly related to the new 3Rs curriculum. The ML research finds that the level of participation in EQUIP-T INSET is high among early grade teachers, and that teachers report learning new teaching methods and gaining knowledge to prepare and use teaching aids as key benefits of the training. Evidence also suggests that instructional hours for pupils are higher because EQUIP-T has had a positive impact on reducing teachers' absenteeism from the classroom (see Chapter 3).

There is insufficient evidence at this point to judge whether there have been any changes in pupils' school readiness linked to EQUIP-T's SRP programme (see Chapter 3), but there has been a significant decline in early grade pupil absenteeism rates, which means that pupils are able to benefit from more instructional hours. Research in the case study schools shows that respondents perceive the new HTs (i.e. those who have replaced previous HTs since BL) as the main reason for declining pupil absenteeism, with these HTs employing strategies to improve pupil attendance. There is some indication that SCs are actively engaging with communities to reduce pupil absenteeism more now than in previous years. EQUIP-T is not directly associated with this change, but rather the new HTs and the SC are engaging more with the community through the process of developing Whole-School Development Plans (WSDPs). As such, EQUIP-T activities under Component 2, which includes SLM training on school planning, as well as the provision of EQUIP-T PTP grants, appear to play a role in these changes.

Teachers feel pupils understand more quickly now than in the past, and they attribute this to factors in the classroom rather than home: pointing to the teaching techniques and kits they gain from EQUIP-T INSET, as well as the streamlined curriculum mentioned above. Pupils themselves say they understand what they learn in school, and pupils feel comfortable asking questions in class if they do not understand something. Several respondents referred to a change in attitude among children, saying that they 'just want to study' and not do other chores: '*they are doing well…this is because when a child comes from school and [one] asks her/him [to do work], he/she refuses and will tell you that "I'm studying". So the only work he/she is doing is writing.*' (Mother, School 3, District A).

Overall, respondents see the change in HT as key to triggering changes in pupil performance. HTs are credited with having introduced class repetition and remedial classes for pupils who are 'slow learners,' incentivising students who perform well by giving them gifts (such as books or pencils), as well as giving gifts to teachers who work hard. Pupils and parents particularly highlight the threat of repeating a class if a pupil fails their end of year exams as motivating pupils, so they work hard to join the next class with their friends.

2.3   Trends in early grade learning gaps by gender

2.3.1   Attendance profile of early grade pupils by gender

There is gender parity in regard to the attendance of the Standard 3 pupils on the day of the ML survey (50% were girls), and this is unchanged since BL. Attendance rates are also balanced between early grade girls and boys. On the day of the ML survey, a head count found that 26% of boys in Standards 1 to 3 were absent, compared with 24% of girls. BL observations found a similarly small gender gap in pupil absence rates, although overall rates were higher (35% for boys and 32% for girls).

2.3.2   Have the gender gaps in early grade pupil learning changed since BL?

Gender gaps in pupil learning achievement differ between Kiswahili and maths, and there has been significant change in the direction of the gaps since BL for both subjects. Girls have opened up a performance gap in their favour in Kiswahili, while they have narrowed the maths skills gap that advantaged boys at BL.

Girls' performance in Kiswahili at ML is significantly higher than for boys on average, while at BL there was parity in the average results (see Volume II, Annex F). The Kiswahili results in Table 6 reveal that at BL there were no significant differences by gender in the share of pupils in the top or bottom performance bands, but by ML gender gaps have opened up at both ends of the distribution. At ML, girls are significantly less likely than boys to be in the bottom performance band, and more likely than boys to be in the top performance band.

Table 6:   Proportion of pupils in bottom and top performance bands for Kiswahili and maths at BL and ML by gender (%)

Performance bands	BL			ML		
	Boys	**Girls**	**Difference**	**Boys**	**Girls**	**Difference**
Kiswahili						
Band 0 below Std. 1 (%)	38.9	39.8	0.9	25.9	20.5	-5.4*
Band 2A achieving Std. 2 (%)	10.9	13.2	2.3	18.0	26.7	8.7***
N (pupils)	*(717)*	*(770)*		*(723*	*(740)*	
Maths						
Band 0 below Std. 1 (%)	10.0	16.1	6.1***	11.8	10.7	-1.1
Band 2A achieving Std. 2 (%)	6.3	2.7	-3.7***	8.5	5.5	-3.0
N (pupils)	*(721)*	*(774)*		*(734)*	*(749)*	
Sources: IE BL and ML surveys (pupil tests and pupil background). Note: (1) Weighted estimates. (2) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1.						

Boys had stronger maths skills than girls at BL on average (see Volume II, Annex F). Table 6 shows that girls were significantly more likely to be in the bottom performance band than boys at BL, and less likely to be in the top performance band than boys. By ML, the gender gaps at the top and bottom of the distribution are no longer significant, and a higher proportion of girls have moved out of the bottom performance band than boys. Despite this movement between BL and ML, boys still have significantly higher average maths scores than girls, albeit by a narrower margin than the BL gap. This appears to be driven largely by the significantly higher proportion of girls than boys with maths skills at emerging Standard 1 level (band 1E).

2.3.3   Why have gender gaps in pupil learning changed since BL?

The first point to note is that the national 3Rs-EGRA surveys (see Box 4 above) found a similar trend in Kiswahili results by gender as this IE study. The 3Rs-EGRA surveys reported that girls scored higher than boys on all Kiswahili sub-tests in 2016, while in 2013 performance was similar. This suggests that the gender-related trends observed in the IE pupil Kiswahili results may be at least partly related to a common national factor. The results from the national 3Rs-EGMA surveys showed that boys performed better than girls in maths in 2016, but there was no gender gap in 2013, when boys and girls had similar scores. So for maths skills, the national gender gap trends differ from the IE results.

Setting national factors aside, there is some evidence that EQUIP-T has contributed to the comparatively larger gains in the performance of girls compared with boys since BL. One likely pathway is via the significant improvement found in the gender balance of teachers' interactions with pupils during lessons since BL. The change in gender-sensitive practices observed in lessons is consistent with teachers' perceptions of their own behaviour changes over the period. Respondents perceived EQUIP-T to have helped teachers to involve girls more during lessons, which has also helped girls to become more confident about participating in class. Gender-responsive pedagogy is part of the EQUIP-T INSET programme.

Interestingly, in the majority of case study schools respondents have that perception that girls face more challenges than boys when it comes to learning. Girls are said to have less time to study due to responsibilities at home, and therefore only get the chance to study while they are in school. As one HT puts it:

> *'To my opinion girls lack a chance to learn more when they are at home. They only learn at school. But when they get back home they have no time to learn and that is why their performance is not good as compared to the boys…'* (HT, School 2, District B).

Still, most school respondents recognise that girls often perform better in class than boys do. It appears that though respondents feel that girls face more challenges in learning, gender is not necessarily seen as affecting performance. The same reasons are given as at BL: girls display more positive behaviours, like not associating with negative peer groups and sitting at the front of the classroom.

However, teachers mention that girls are at times less motivated than boys are. In all case study schools, early marriage is common, and though this does not appear to directly affect girls' attendance, it has a potential negative effect on parents' attitudes towards the need for girls' education, and girls' own attitudes towards why they should study. Teachers and parents say that parents tell girls not to do well in school in order that they will not be able to continue to secondary school. As one HT explained: '*parents have already asked them to perform poorly in order to get married…so have given negative attitude about the school so they are not concentrating in the classroom'* (HT, School 1, District C). Though early marriage directly affects girls in higher Standards, there is a risk that this may affect girls' motivation to learn even in the lower Standards.

There are gender considerations with regards to responsibilities outside of school for both boys and girls. While girls appear to spend more time on household chores such as cooking and childcare, boys seem to be actively involved in income-generating activities (IGAs) like farming.[19]

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[19] Standard 3 children in FGDs reported being involved in these activities, and children as young as five years were seen looking after cattle.

In pastoralist communities in particular, it seems that boys may have less time than girls to spend on school work, as boys need to be away with the cattle, and are thus likely to miss school days.

2.4 Trends in early grade learning gaps by home language

2.4.1 Home language profile of early grade pupils

The official language of instruction in primary schools is Kiswahili. However, the majority of Standard 3 pupils in programme districts (77% at BL and 76% at ML) come from homes where Kiswahili is not the main language spoken. Nationally, the prevalence of non-Kiswahili-speaking households is about 33% (Uwezo, 2011) which illustrates how linguistically distinctive the districts covered by EQUIP-T are.

2.4.2 Have the home language gaps in early grade pupil learning changed since BL?

The stark patterns of disadvantage found at BL are also found at ML: pupils who do not speak Kiswahili at home are struggling far more to learn basic Kiswahili and maths skills than their peers from Kiswahili-speaking homes. The difference in average scores by home language for both Kiswahili and maths continues to be large and strongly significant at ML (see Volume II, Annex F).

The gaps in performance by home language are particularly clear when looking at the share of pupils in the top and bottom performance bands for each subject over time (Table 7). Pupils from non-Kiswahili-speaking backgrounds are significantly more likely to be in the bottom performance band (below Standard 1 skills) for Kiswahili and maths, both at BL and ML, and the gaps are large. The opposite pattern is evident for the top performing pupils. The difference in the share of pupils falling into the top performance band (at Standard 2 level) by home language has grown from 9 to 15 percentage points for Kiswahili, although the proportional increase is greater for the local language speakers. The absolute gaps in performance in both the top and bottom bands for maths have remained fairly constant from BL to ML.

Table 7:   Proportion of pupils in bottom and top performance bands for Kiswahili and maths at BL and ML by home language (%)

Performance bands	BL			ML		
	Kiswahili	Local	Difference	Kiswahili	Local	Difference
Kiswahili						
Band 0 below Std. 1 (%)	25.8	43.5	17.7***	11.8	26.6	14.8**
Band 2A achieving Std. 2 (%)	19.1	9.9	-9.2**	33.9	18.9	-15.0***
N (pupils)	*(329)*	*(1158)*		*(317)*	*(1141)*	
Maths						
Band 0 below Std. 1 (%)	5.5	15.6	10.1***	3.6	13.7	10.1***
Band 2A achieving Std. 2 (%)	7.5	3.5	-4.0	11.7	5.6	-6.1***
N (pupils)	*(330)*	*(1165)*		*(320)*	*(1158)*	

Sources: IE BL and ML surveys (pupil tests and pupil background). Note: (1) Weighted estimates. (2) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1. Note that the Kiswahili home language category includes a very small percentage of foreign language speakers.

2.4.3   Why have home language gaps in pupil learning persisted since BL?

EQUIP-T's main strategy for narrowing home language gaps in attainment is via the recently introduced, and not yet widespread, SRP. Given that the evidence on learning achievement above relates to Standard 3 pupils, any effects from SRP will not feed into the data until the endline survey.[20] Of course, EQUIP-T INSET related to inclusive teaching practices is also intended to help to support pupils who do not speak Kiswahili as a first language. Respondents in the case study schools say that teachers make use of remedial classes to engage with pupils who face challenges in understanding in class. Additionally, as a way of ensuring inclusive instruction teachers make use of peer-to-peer learning, in which pupils work together so that 'slow learners' can learn from 'fast learners' (as referred to by respondents). However, this is not in reference to pupils who are not learning in their mother tongue per se, but to all students who have difficulties learning. Teachers explain that they group pupils together to learn from each other, and they explain that they have learnt to focus on including 'slow learners' as a result of EQUIP-T INSET.

Teachers rarely switch languages during lessons to support pupils who do not speak Kiswahili at home (see Box 8 in Chapter 3 for more details). Language-switching was only observed in a very small minority of lessons at BL and at ML, which means that the vast majority of pupils whose home language is not Kiswahili only hear Kiswahili during lessons. One reason for this is that the majority of pupils report that their teacher does not speak their home language. In the case studies, language was only brought up as an issue when explicitly probed, but then it was acknowledged in most schools, and by WECs and DEOs, as being a big challenge – with children speaking another language often described as being behind.

However, education managers also stressed that Kiswahili is the official language of instruction, and several schools, particularly where a vernacular language is common, have introduced special punishments for pupils caught speaking languages other than Kiswahili when at school (see Chapter 3 and Volume II, Chapter 8). As such, pupils are physically punished (caned) if they speak their mother tongue at school, but there appears to be little support for pupils to actively learn Kiswahili, apart from during normal lessons.

2.5   Trends in early grade learning gaps by household poverty status

2.5.1   Socioeconomic background of early grade pupils

About one-third of Standard 3 pupils (33% at BL and 36% at ML) belong to a household that is predicted to fall below the national poverty line.[21] This means a large proportion of pupils come from low socioeconomic backgrounds, as would be expected given the deliberate selection of remote and economically disadvantaged districts into the programme.

2.5.2   Have the learning gaps between pupils from different socioeconomic backgrounds changed since BL?

Pupils who come from poorer households have significantly lower Kiswahili scores on average than their peers from richer backgrounds, both at BL and ML. The gap between the share of pupils

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[20] Other studies with a different design to this IE could potentially evaluate the effects of SRP on school readiness including Kiswahili language acquisition earlier.

[21] Parents of sampled pupils answered a set of questions about their household characteristics (poverty score card). Their responses were used to create an estimate of where pupils' households are predicted to fall in relation to the national poverty line. See Volume II, Annex E for a more detailed explanation.

from poorer and richer homes falling into the bottom and top Kiswahili performance bands has changed little over time and remains at about 6 to 8 percentage points (Table 8). Pupils from poorer backgrounds are much more likely to be in the bottom Kiswahili performance band, and less likely to be in the top Kiswahili performance band, than pupils from comparatively richer backgrounds.

By contrast, there are no significant differences at BL or ML in the share of pupils falling into the highest and lowest maths bands based on poverty status (Table 8). However, pupils from poorer backgrounds are far more likely to fall into the second lowest band 1E (emerging Standard 1 skills) than their richer counterparts – a situation that remains unchanged since BL. This largely explains why average maths scores (see Volume II, Annex F for mean scores) are significantly higher for pupils from richer households than their poorer peers, both at BL and ML.

Table 8:   Proportion of pupils in bottom and top performance bands for Kiswahili and maths at BL and ML by poverty status (%)

Performance bands	BL			ML		
	Poorer	**Richer**	**Difference**	**Poorer**	**Richer**	**Difference**
Kiswahili						
Band 0 below Std. 1 (%)	43.5	36.0	-7.5**	27.2	20.7	-6.5
Band 2A achieving Std. 2 (%)	8.3	14.4	6.1***	17.8	25.1	7.3***
N (pupils)	477	957		531	925	
Maths						
Band 0 below Std. 1 (%)	14.0	12.4	-1.6	13.6	9.9	-3.7
Band 2A achieving Std. 2 (%)	4.0	4.7	0.7	5.2	8.1	2.9
N (pupils)	480	961		536	940	

Sources: IE BL and ML surveys (pupil tests and pupil background). Note: (1) Weighted estimates. (2) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1.

2.5.3   Why have learning gaps by poverty status persisted since BL?

Although rates for pupil absence from school have fallen since BL, they are still high – with about one-quarter of early grade pupils absent on the day of the survey. At BL, many of the explanations given for this by multiple stakeholders across the case study communities had their roots in the poverty constraints faced by households: pupils being hungry was highlighted as a particularly important barrier to attendance faced by children from poorer families. Missing school repeatedly means that children are susceptible to falling behind in their learning. At ML, only 33% of Standard 3 pupils report that they had eaten some food before school, which makes it more difficult for them to concentrate at school and to learn properly, in the absence of school feeding.

Teachers have the perception that distance to school affects pupil performance, and to the extent that living more remotely is correlated with being poorer this may also help to explain the persistent poverty gaps in learning. Respondents say that pupils who live far away from school may only attend a few times a week, leading to them falling behind in classes. They also more often miss the first periods as it takes them a long time to walk to school, and they cannot leave home while it is dark. Moreover, these pupils are not able to go home for lunch, which means they at times stay all day in the school. Children also identify pupils living far away from school as facing challenges in learning, perceiving hunger to be a main issue. In cases where pupils do go home for lunch, they are likely to not come back for the afternoon classes, or if they do they arrive late. Pupils take on average 37 minutes to get to school, but this masks a wide variation, with the 10% of pupils with the longest journeys taking more than 90 minutes.

The learning gaps by poverty status are larger for Kiswahili than for maths. This may be partly because poverty and home language are correlated, meaning that poorer households are more likely to speak a language other than Kiswahili at home, and so part of the Kiswahili learning gap may be linked to home language.[22] The home literacy environment can be a strong predictor of the reading skills of primary school pupils (Dowd, A *et al.* 2013) and poorer families will find it much more difficult to provide books and other materials to support children's reading acquisition. Only 37% of Standard 3 pupils have books or newspapers at home, which indicates that a sizeable share of pupils live in an environment with a scarcity of written materials.

2.6   Summary of IE evidence on pupil learning

- There is a positive impact from EQUIP-T on pupil learning in Kiswahili for pupils at the bottom of the distribution. At the same time, there has been a positive national trend in early grade learning achievement in Kiswahili and maths. Pupils in programme schools have improved their early grade Kiswahili and maths skills markedly, and part of the gain in Kiswahili is due to EQUIP-T.

- The national gains in learning attainment are likely to be related to the narrower focus of the new Standards 1 and 2 curriculum, the change in pedagogy prescribed by the curriculum, and the greater volume of instructional hours for Kiswahili and maths. The role of the new Government's 'just work' slogan is also a likely positive factor.

- Evidence discussed in detail in subsequent chapters (especially Chapter 3 on teachers) suggests that the most likely reasons why EQUIP-T has contributed to learning gains in Kiswahili is that teaching practices have become more inclusive – at least partly because of the Kiswahili teacher INSET programme, which is the largest and most advanced sub-component of EQUIP-T to be implemented so far. In addition EQUIP-T has had a positive impact in reducing teachers' absence from the classroom, resulting in more instructional hours for pupils.

- Girls have opened up a performance gap in their favour in Kiswahili, while they have narrowed the maths skills gap that advantaged boys at BL. The comparatively stronger learning gains by girls than boys over the period is likely to be at least partly related to more inclusive teaching strategies and the greater involvement of girls in classroom interactions, following EQUIP-T INSET, which covered gender-inclusive pedagogy.

- Pupils who do not speak Kiswahili at home are struggling far more to learn basic Kiswahili and maths skills than their peers from Kiswahili-speaking homes and the stark patterns of disadvantage found at BL are also found at ML. Many teachers do not speak the first language of their pupils, which makes tackling this problem particularly difficult. It is too early to judge whether EQUIP-T's SRP is effective in improving the school readiness of pupils who do not speak Kiswahili at home.

- Pupils who come from poorer households continue to perform worse in Kiswahili in particular, although there is also a persistent but smaller learning gap in maths attainment. Explanations for why children from poorer backgrounds seem to struggle more with learning include absence from school and being hungry during school, although this area was not the focus of research at ML and so evidence is limited.

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[22] Pupils' home language and poverty status are correlated. At BL simple regression analysis found that both variables are independently correlated with pupil learning outcomes in Kiswahili and maths. The same analysis at ML found that when both variables are considered together, home language is still significantly correlated with pupil learning, but poverty status is only weakly significant or insignificant depending on the indicator.

3 EQUIP-T Component 1: Teacher capacity, performance and conditions for pupil learning

Before the start of programme implementation, EQUIP-T identified weak teacher pedagogy as an important factor constraining pupil learning, as well as a lack of gender and inclusion awareness among teachers (Cambridge Education 2014). EQUIP-T seeks to address these three issues partly through the use of a primarily school-based teacher INSET model (see Box 6). The IE examines teacher pedagogy through lesson observations and interviews with teachers, and also measures teacher subject knowledge,[23] which is – together with pedagogy – a main factor influencing pupil learning, and which was part of the initial programme design. Qualitative focus groups and interviews are used to explore perceptions of changes in pedagogy, subject knowledge, teacher confidence, and the challenges faced by teachers.

EQUIP-T is also aiming to improve teachers' morale and motivation, which were identified as a key constraint on teacher performance in the initial programme design (Cambridge Education 2014). As at the end of 2015, no explicit interventions in this area had been included in the programme, although a concept note had been developed. The most recent EQUIP-T annual report noted that the programme's revised strategy is to improve teachers' morale and motivation implicitly as part of the evolving teacher professional development strategy (EQUIP-T 2015). The IE measures teachers' absenteeism, punctuality, self-reported job satisfaction and HT and community appreciation of their role as teachers to provide an indication of underlying levels of teacher motivation. The qualitative research further explores teacher motivation, looking at perceptions around changes, as well as factors that influence it.

This chapter begins with a brief overview of implementation progress for the teacher component at the time of the IE ML survey, and sets out expectations of change stated in the programme TOC and referred to by EQUIP-T staff who were interviewed in January 2016. The findings section that follows is structured so as to examine, and when possible help explain, changes in teacher capacity and performance, and children's school readiness, between BL and ML, guided by the TOC.[24] The final section provides a summary of the IE evidence related to this component.

3.1 Programme implementation and expectations of change at ML

The main aim of EQUIP-T Component 1 is to improve teacher capacity and performance, and to improve children's school readiness. Box 5 provides an overview of implementation up until the ML of activities under Component 1, expectations of change according to the expanded TOC and expected changes by the programme at the time of the ML.

Box 5: Programme aim, implementation and expectations of change

EQUIP-T Component 1: Improving the capacity and performance of teachers
Component aim:
- Improve teachers' professional capacity and performance, and increase pupils' school readiness.

Component implementation by ML according to the programme:[25]
- Kiswahili literacy INSET targeted at all teachers of Standards 1 and 2, some Standard 3 teachers, INSET coordinators, HTs and WECs.[26]

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[23] Teacher subject knowledge is assessed using a TDNA that takes the form of teachers marking mock pupil tests in Kiswahili and maths.

[24] See the 'Teacher capacity and performance' section of the IE Evaluation Matrix in Annex B.

[25] For more information on programme implementation by the time of the IE ML survey see Annex C.3.

[26] For details of the EQUIP-T INSET see Box 6.

- INSET on 3Rs curriculum and syllabus targeted at all teachers of Standards 1 and 2, delivered by EQUIP-T using its own primarily school-based model under the nationwide 3Rs INSET/curriculum orientation.
- Provision of teaching and learning materials for the lower Standards of primary education.
- Pilot of SRP to prepare children for entry to Standard 1, covering 25% of the programme districts.

Expectations of change according to the TOC:[27]

- INSET and teaching and learning materials delivered.
- Improved teacher capacity and increased availability of teaching and learning materials in classrooms.
- Increased use of effective and inclusive teaching practices in classrooms; teaching and learning materials used effectively; and appropriate number of instructional hours.
- Communities establish SRPs and pupils are school-ready after attending the SRP.

The programme's expectations of change by ML:

- Teachers more confident in their teaching.
- More inclusive classroom teaching practices.
- More active involvement of pupils in lessons.
- Increased use of home-made teaching aids and teaching and learning materials in classrooms.

Source: OPM (2016a), EQUIP-T (2015).

3.2 Findings

This section presents evidence from the IE BL and ML to assess whether and to what extent changes in teacher capacity and performance have occurred as expected, and if key TOC assumptions hold.

3.2.1 Provision of teacher INSET (EQUIP-T input)

Four sets of teacher INSET were provided by EQUIP-T in 2015. The objective, delivery models and roll-out of these are described in Box 6.

Box 6: Description of the EQUIP-T teacher INSET in 2015

Objective:

To improve the performance of teachers, with a focus in 2015 on strengthening early grade teaching of Kiswahili literacy (reading and writing) and developing effective and gender-responsive pedagogy.

Delivery model: A continuous professional development cycle that starts with district-level training targeted at INSET coordinators (each school appoints a senior teacher for this role), and sometimes includes HTs and WECs (and less frequently, teachers), delivered by a district INSET team of teacher training college tutors. Following this, INSET coordinators facilitate bi-monthly school-based INSET sessions using group self-study and peer learning methods linked to classroom practice. Schools decide on the participants in school-based training but all teachers of Standards 1 and 2 are included at a minimum. Each study session takes about three hours and covers one module. Following this, teachers attend a ward cluster meeting each month to reflect on their classroom practice, and to get peer support and mentoring. There were some variations on this model in 2015 as the programme was learning what works best.

Four specific sets of INSET were provided for early grade teachers in 2015:

- *Early grade Kiswahili literacy modules 1–4*: These cover general pedagogy, an introduction to gender-responsive pedagogy, and classroom management techniques. One day of ward-level training was delivered to teachers of Standards 1–3, followed by school-based training.
- *Early grade Kiswahili literacy modules 5–8*: These technical modules cover parts of the Kiswahili syllabus (reading and writing). They were delivered to early grade teachers as part of school-

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[27] From EQUIP-T IE evaluation matrix, Component 1: Teacher capacity and performance, in Annex B.

based training, followed by one day of district-level training for teachers of Standards 1 and 2, as a refresher.

- *Early grade Kiswahili literacy modules 9–13*: These continue the series of technical modules covering parts of the Kiswahili syllabus (reading and writing). Three days of district-level training were delivered to teachers of Standards 1 and 2, followed by school-based training.
- *3Rs curriculum training* This covers the new Standards 1 and 2 national curriculum, including how to prepare schemes of work and lesson plans. Three days of district-level training was delivered to teachers of Standards 1 and 2. In the rest of the country, 3Rs curriculum orientation training has been delivered by the LANES programme using a different model of one-off residential training.

Staged roll-out:

As at the end of 2015, the early grade Kiswahili modules were in the process of being rolled out, and modules 1–4 and the 3Rs curriculum training had reached teachers from all programme schools according to the programme's annual monitoring report. Modules 5–8 were rolled out by January 2016, and modules 9–13 had been implemented in some programme districts by the time of the IE ML survey in April/May 2016.

Sources: EQUIP-T MA (2015), EQUIP-T INSET early grade Kiswahili school-based training modules, interviews with EQUIP-T staff.

At ML, the vast majority – 95% – of teachers of Standards 1 and 2 report that they attended EQUIP-T INSET in 2014 or 2015. This is a massive change since BL, when only 12% of early grade teachers reported attending any type of INSET in the previous two years. According to the focus groups, schools select the INSET coordinator based on whom the HT and other teachers believe is able to deliver the content of training to others, and frequently this is the current academic teacher. By April/May 2016, close to all schools (98%) had appointed an INSET coordinator.

There are sizeable spill-overs in coverage, with large proportions of teachers of Standards 4–7 attending EQUIP-T INSET away from school (29%) as well as in-school (74%), **despite not being targeted by the programme**. This partly reflects the attendance of INSET coordinators from the upper Standards at INSET away from school, and the fact that school-based INSET was run for teachers of all Standards in some schools because the general pedagogical modules were viewed as broadly applicable.

Nearly all teachers of Standards 1 and 2 (95%) find the EQUIP-T INSET, including the 3Rs training, useful. These teachers report gaining the following from the training: teaching skills (78%); inclusive teaching skills (55%); curriculum knowledge (54%); subject knowledge (33%); lesson planning skills (28%); confidence in own teaching (28%); classroom management skills (20%) and a support network (4%).[28] In FGDs, teachers say that teaching methods and knowledge on how to prepare and use teaching aids are the main takeaways from the training.

Respondents in the case study schools (including teachers, HTs, SCs and community leaders) feel that EQUIP-T INSET does not fully consider the reality of the environment in which teaching and learning takes place. Though teachers believe they pick up skills around teaching, the lack of classrooms and other resources pose significant challenges in regard to them being able to implement new skills effectively. Issues such as over-crowded classrooms and

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[28] 16% report acquiring 'other' unspecified skills.

mixing of different Standards in the same classroom make it difficult to use the methods learnt in the training (see Section 3.2.5).

TOC assumption: Teachers attend all the INSET provided

Of the 95% of teachers of Standards 1 and 2 who participated in EQUIP-T INSET, 11% attended only one of the two modes of INSET (away from school or school-based). This leaves gaps in coverage of the full programme for these teachers, as the materials and sessions are designed to complement each other in order to support teachers to develop their skills. In addition, 34% of teachers who attended school-based EQUIP-T INSET attended some but not all of the sessions held at their school, meaning they did not benefit from the full INSET programme.

Teachers also report some difficulties with the training. The main difficulties are insufficient payment (17%); limited training time (15%); too much content (12%); and difficult materials (9%).[29] This is corroborated by teachers and HTs in the case study schools.

Teachers say that they do not consider attending training to be a regular part of their jobs, and that they expect to be paid for their time and effort. Allowances for training are seen as a major benefit of the EQUIP-T training. However, only teachers who attend training away from the school are compensated by EQUIP-T. This is consistent with teachers (who attended training away from school) and HTs reporting that they find it difficult to organise school-based training because of motivational challenges. The lack of a stipend for attending school-based training is perceived to demotivate teachers and to be unfair. It is worth noting that there is no national framework for school-based INSET training or for professional development more generally, so teachers' expectations of their normal duties or of career progression or other professional benefits associated with undertaking training, are not conditioned by national expectations.

Teachers have reservations about the pace of the training, as not all teachers are able to grasp the taught material within a short period of time. This creates another challenge for the school-based INSET, as the appointed INSET coordinators tasked with training other teachers at school level are often unable to share this knowledge effectively. As a result, respondents state that the knowledge gained from training varies significantly between those teachers who receive INSET from District INSET Teams and those who receive INSET in the school.

Teachers also explain that the lack of food during the school-based INSET means that they stay hungry while devoting extra hours after school to the training, leading to many of them feeling demotivated. Schools also report that the lack of food makes it difficult to ask teachers to remain in school for longer after the school day ends to attend training, as this means they are often tired and hungry during the training.

3.2.2   Provision of teaching and learning materials (EQUIP-T input)

The majority of schools report receiving teaching and reading materials in 2014 and 2015. EQUIP-T is meant to provide programme schools with supplementary readers, big books and teacher read-aloud books, as well as teaching aid toolkits.[30] Some 77% of schools report that they received supplementary readers for pupils and 89% of schools report receiving 'big books', large-

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[29] 20% report 'other' unspecified difficulties

[30] Supplementary readers means a set of reading books for children which have been organised into reading levels, so that children work gradually up the levels as their skills improve. Big books and read-aloud books have the same purpose—the teacher uses them to read to the class, but big books are much larger. Toolkits contain basic materials (glue, paper, scissors etc.) to enable teacher to make their own teaching resources such as flashcards

sized books for teachers to read to classes or for pupils to share in groups for peer-to-peer learning.

While all case study schools say they have received materials from EQUIP-T, they focus on manila paper and marker pens in the toolkits, giving little mention of readers. The manila paper and marker pens are considered as materials that have helped and simplified their teaching.

Meanwhile, teachers refer to not having received textbooks that have been updated for the new curriculum, which hinders effective teaching of the new curriculum (Box 7).

3.2.3   Changes in teacher capacity (EQUIP-T output)

Curriculum knowledge

Teachers in the case study schools feel they now understand the curriculum better due to the EQUIP-T training, whereas at BL teachers were largely unaware of the content of the curriculum. Teachers feel more confident about focusing on the 3Rs, and say that even though there are challenges in learning a new curriculum, training helps them to understand how to teach these subjects well, and what to teach to each Standard, rather than trying to teach many subjects poorly – as was the case with the previous curriculum. Respondents feel that increased use of lesson plans has improved the quality of teaching, as it helps teachers prepare the topic and needed resources, and to feel more confident in class. The perceived better understanding of how to teach the curriculum is confirmed by the teacher interviews, with 74% teachers reporting that they feel 'very confident' and 24% that they feel 'fairly confident' about teaching the new Standards 1 and 2 curriculum.

Subject knowledge

Teachers' Kiswahili subject knowledge has not improved significantly since BL. This is not unexpected as EQUIP-T decided not to focus on improving subject knowledge, following BL assessments which suggested that weak subject knowledge is not a widespread critical constraint, especially in relation to improving early grade teaching and learning. At ML, teachers of Standards 1–3 on average answer 60% of Kiswahili questions correctly, compared to 58% at BL.[31] Subject knowledge of topics from the lower Standards of primary is stronger: teachers on average answer 69% of questions on topics from the lower Standards correctly, while the average score for topics from the upper Standards is 52% at ML.

There have been no significant changes in teachers' maths subject knowledge between BL and ML. The average score for maths is 62% at ML, and was 59% at BL. Again, teachers' subject knowledge is stronger for the lower Standards than for the upper Standards, and this is the case both at BL and ML. At ML, the average score is 87% for Standards 1–3 topics, 63% for Standards 4–5 and 59% for Standards 6–7 (this average score is the only one to have increased significantly since BL).

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[31] The TDNA covers selected topics from the full primary curriculum, i.e. Standards 1–7 materials.

Table 9:   Teacher Kiswahili and maths subject knowledge, BL (2014) and ML (2016)

Indicator	BL estimate	ML estimate	Difference	BL N	ML N[3]
Kiswahili					
Teachers of Standards 1–3					
Questions correct (%)	58.2	60.4	2.2	247	239
Stds. 1–4 qns correct (%)	66.4	68.9	2.5	247	240
Stds. 5–7 qns correct (%)	50.4	52.2	1.8	247	239
Maths					
Teachers of Standards 1–7					
Questions correct (%)	59.0	61.9	2.9	506	470
Stds. 1–3 qns correct (%)	88.1	86.7	-1.4	506	470
Stds. 4–5 qns correct (%)	62.3	62.9	0.6	506	470
Stds. 6–7 qns correct (%)	54.5	58.6	4.1*	506	470

Sources: IE baseline and midline surveys (TDNA Kiswahili and maths).
Note: (1) Weighted estimates. (2) Asterisks indicate statistical significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$. (3) The sample for Stds. 1-4 questions contains one extra teacher than the overall test sample because part of this teachers TDNA paper is missing.

By contrast, teachers and HTs in the case study schools perceive that subject knowledge related to the Standard 1 and 2 curriculum has increased. Through the emphasis on 3Rs (Box 7) teachers are able to focus on three subjects in depth, and schools consider this to be the main reason why teacher capacity has improved.

Pedagogical skills

Teachers consider learning new teaching methods and gaining the knowledge needed to prepare and use teaching aids such as flash cards to be the main takeaways from the EQUIP-T INSET. Many respondents in the case study schools explain that EQUIP-T has shown teachers how to make and use teaching aids, and they are now more relevant to teaching literacy and numeracy. Use of teaching aids is also considered a key demonstration of quality teaching, and a signal that teachers have improved their practices between BL and ML, according to teachers and education managers.

In terms of teaching methods, teachers and parents in the case study schools feel that more child-centred and varied methods are used by teachers than in the past, such as using group, pair or individual work. In addition, teachers, HTs and managers feel that teachers' knowledge of using a phonic approach based on letter sounds and breaking words into syllables has increased, and hence has improved their ability to teach reading and writing.

Evidence relating to teachers' use of inclusive and effective teaching practices in the classroom (EQUIP-T outcomes) is discussed in Section 3.2.4 and Section 3.2.5.

Box 7: Introduction of the new 3Rs curriculum in Tanzania

In the past two years there has been a **substantial change in the early grade primary school curriculum**— in regard to what is being taught, the pedagogical approach and the official number of instructional hours. The **rationale for change was that the previous 2005 curriculum was overloaded**, leading to a situation where teachers were over-emphasising subject content to the detriment of basic skills development, considered an essential foundation for future learning (Ministry of Education and Vocational Training) MoEVT 2016, p. 1).

The change started to take effect in 2015, with the **Standards 1 and 2 curriculum being reduced from eight subjects to focus on reading, writing and arithmetic (the 3Rs).**[32] The new curriculum, syllabi and teachers' guides all **promote a phonics approach to teaching children to read**, which is new to most primary teachers in Tanzania. In addition, the **official number of instructional hours for Kiswahili and arithmetic was raised** from three to eight hours per week for Kiswahili reading and writing, and from 3.5 to four hours per week for arithmetic.

3.2.4 Changes in the use of inclusive teaching practices in the classroom (EQUIP-T outcome)[33]

The evidence regarding teachers' classroom practices is based on 231 Standard 2 Kiswahili and maths lesson observations, during which enumerators carried out two types of observation: first, a mapping of teacher–pupil interactions by gender and by classroom space (discussed in this section); and second, recording the demonstration by teachers of a set of selected teaching behaviours (discussed in Section 3.2.5).

There has been a significant improvement in the gender balance of teachers' interactions with pupils in the classroom since BL. On average, 65% of teachers' interactions with pupils, such as asking or answering questions or giving feedback, were gender-balanced:[34] that is, teachers engaged proportionally with boys and girls in the classroom (Table 10). This is a significant increase of 11 percentage points compared to the BL, but there is room for further improvement.

The change in gender-sensitivity observed in lessons is consistent with teachers' perceptions of their own behaviour changes over the period. Respondents had the perception that EQUIP-T had improved gender balance by helping teachers to involve girls during lessons. For instance, teachers would previously allow any pupil who raised their hand to answer questions in class, but boys were more likely than girls to volunteer a response. Now teachers ask questions to a balance of boys and girls, which has also helped girls become more confident about participating in class. At the same time, however, case study school observations unequivocally showed that girls were more likely to spend time on chores, often for their teachers, during lesson time.[35]

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[32] 12 out of 15 hours per week are allocated to the 3Rs, leaving three hours for the remaining subjects: health and environmental education; games, sports and fine and performing arts; and religious studies.

[33] The IE provides estimates of teacher classroom practices. These are based on Standard 2 Kiswahili and maths lesson observations, during which enumerators carried out two types of observation: (i) mapping of teacher–pupil interactions by gender and by classroom space; and (ii) recording the demonstration by teachers of a set of selected teaching behaviours.

[34] A description of how the gender balance indicator is constructed is provided in Volume II Annex E.

[35] In the majority of case study schools the research team saw girls doing chores in teachers' houses (including girls from Standard 3).

Table 10: **Gender balance in teachers' interactions with pupils in the classroom, BL and ML**

Indicator	BL estimate	ML estimate	Difference	BL N	ML N
Teacher interaction with pupils is					
Gender-balanced (%)	53.8	64.7	10.9*	193	225
More with boys (%)	30.3	23.9	-6.4	193	225
More with girls (%)	16.0	11.4	-4.6	193	225

Source: IE BL and ML surveys (lesson observation).
Note: (1) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Spatial inclusion of pupils seated in different parts of the classroom has also improved significantly since BL, with teachers engaging with at least one pupil from each of six seating areas in the classroom in 79% of the observed lessons (Table 11).[36] This is a notable increase of 21 percentage points since BL. This positive change is driven by teachers engaging more with pupils seated in the middle two areas of the classroom. Engagement with pupils seated in the two front areas has decreased significantly, from 42% at BL to 38%, whereas engagement with pupils in the two middle areas has increased significantly, from 30% at BL to 34% at ML. By contrast, teachers' engagement with pupils seated in the two back areas of the classroom remains lower, 28% at BL and 27% at ML, and there has been no significant change, indicating that these pupils still receive relatively less attention from teachers.

Table 11: **Spatial inclusiveness of teachers' interactions with pupils in the classroom, BL and ML**

Indicator	BL estimate	ML estimate	Difference	BL N	ML N
Teacher engaged with:					
At least one pupil from all six areas of the classroom (% all observations)	58.5	79.4	20.9***	199	231
Distribution of teacher–pupil interactions					
Front two areas of the classroom (% interactions)	41.5	38.3	-3.2*	193	225
Middle two areas of the classroom (% interactions)	30.4	34.1	3.7**	193	225
Back two areas of the classroom (% interactions)	28.2	27.6	-0.6	193	225

Source: IE BL and ML surveys (lesson observation).
Note: (1) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Although more desks have become available since BL, many pupils still have no desk and sit on the floor, making teaching and learning more challenging. In the observed Standard 2 lessons, 77% of pupils had a useable desk, which is a significant improvement from 72% at BL.[37] Still, this means that more than 20% of the pupils did not have a desk to work at, with adverse effects on their learning experience. Moreover, the average pupil absenteeism rate for Standards 1–3 at ML is 25%, so if absent pupils were present, the observed desk space shortage would be even more acute. Respondents in the case study schools explained that when classrooms are over-crowded, teachers cannot move around the room easily, and they tend to give less attention

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[36] A definition of the spatial inclusion indicator can be found in Volume II Annex E —to be completed.

[37] The term 'useable desk' in the IE research means a space at a desk where a pupil can sit and write without being cramped. Often desks are designed for more than one pupil.

to pupils who are sitting on the floor. This may be of further concern as a gender issue because in some of the case study schools girls were more likely to sit on the floor than boys.

At ML, the use of corporal punishment by teachers remains a source of conflict between teachers and local communities. Despite teachers and HTs saying that EQUIP-T taught them alternative methods of class control, and that, consequently, instances of corporal punishment have decreased, informal observations as well as interviews with parents, children, and some school officials confirmed that corporal punishment remains a critical component of controlling classrooms. Pupils say this is what they most dislike about school.

3.2.5   Changes in the use of effective teaching practices in the classroom (EQUIP-T outcome)

The IE measures 14 teaching practices[38] that are considered to characterise effective classroom practices[39] based on observing three aspects of the exchange between teachers and pupils in the classroom: initiation (e.g. teacher question), response (e.g. pupil answer), and follow-up move (e.g. feedback from the teacher).[40]

Between the IE BL and ML, a new 3Rs curriculum was introduced in Tanzania (see Box 7), reducing the comparability of the BL and ML lesson observation results. At ML, lessons are organised differently than at BL. There are now three main subjects (Kiswahili reading and writing and arithmetic), and typically two or three of these subjects are taught consecutively, with no break, and the lessons flow into each other, with less defined introductions and endings. This caveat needs to be kept in mind when viewing the results regarding the introductory, middle and concluding stages of lessons presented in this section.

Introductory and concluding stages of lesson

For the introductory and concluding stages of lessons, enumerators observed whether teachers displayed a given teaching behaviour fully, partly or not at all. For clarity's sake only the fully observed category is discussed below.

The change in the use of effective teaching practices during the introductory and concluding lesson stages since BL has been mixed. During the introductory lesson stages, 23% of teachers clearly stated learning objectives at BL but only 10% did so at ML, a significant decline (see Volume II, Annex F2). There was no significant change in the proportion of teachers stating new skills to be acquired: 7% at BL and 10% at ML. However, there was a significant increase in the proportion of teachers checking prior pupil knowledge: from 22% at BL compared to 46% at ML. During the concluding stages there was no significant change in the proportion of teachers checking if pupils had acquired the new knowledge and skills set out in the lesson introduction: 22% of teachers at BL compared to 23% at ML. However, there was a significant decline in the proportion of teachers drawing the whole class together to summarise what topics had been covered and directing pupils to the next stage of the topic: from 21% at BL to 13% at ML.

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[38] The teaching practices descriptors are given in Annex 0 and definitions of the teaching practices indicators are provided in Volume II Annex E.

[39] See OPM 2015a.

[40] The IE lesson observation instrument was adapted from tools used to evaluate a school-based in-service teacher training programme in Tanzania (Hardman and Dachi 2012).

Middle stages of lesson

For the middle stages of lessons, enumerators observed whether teachers displayed a given teaching behaviour more than occasionally (i.e. this is a core practice used by the teacher during the lesson) and this was categorised as 'frequently'. The other two categories were infrequently or not observed at all. For clarity of presentation only the frequently observed category is discussed below but Figure 4 shows all three categories.

There has been little increase in the use of effective teaching practices during the middle stage of lessons since BL. Only the use of one teaching practice increased significantly since BL: teachers providing feedback on pupils' work, which was 26% at BL and 47% at ML (Figure 4).[41] In contrast, the proportion of teachers that frequently probed pupil answers, 12% at BL and 7% at ML, significantly decreased. There were no significant changes between BL and ML in the remaining five teaching practices. The proportions of teachers that asked pupils open-ended questions was 11% at BL and ML; that used paired or group work was 6.5% at BL and 6% at ML; that related well with and praised pupils was 51% at BL and 48% at ML; that used pupil demonstrations in front of the class was 36% at BL and 43% at ML; and that encouraged pupil questions was 4% at BL and 0.1% at ML. Thus, the use of effective teaching practices during the middle stages of lessons remains rare, with a few exceptions: giving feedback on pupils' work, pupil demonstration in front of the class and teachers relating well to their pupils.

Summary indicators of teaching practices in the classroom

Only a small group of teachers in the observed lessons demonstrated a *range* of effective teaching practices in the classroom, and this has not changed significantly since BL. Although it would not be expected that all these practices would be used during a single lesson, demonstration of a large number of them would be expected.[42] Only 9% of teachers frequently demonstrated seven or more of the 14 measured effective teaching practices, while 58% demonstrated three or more at BL – compared to 9.5% and 60%, respectively, at ML.[43] [44]

The lack of improvement between BL and ML in the use of effective teaching practices may to some degree reflect the change in lesson organisation due to the introduction of the new 3Rs curriculum (see Box 7). Another possible reason is that the EQUIP-T teacher INSET may not focus on these practices. This will be explored as part of the endline research. A further potential explanation is that large class sizes may prevent the use of certain teaching practices (discussed below). Regardless, taken together these findings strongly imply that the vast majority of teachers in the observed lessons failed to display a core set of effective teaching practices, leaving considerable scope to introduce more effective practices in classrooms.

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[41] Three of the teaching practices (switching between Kiswahili and a vernacular language; using different instructional materials; and making effective use of the chalkbard) recorded during the middle stage of lessons are not shown in Figure 4. Language switching and use of instructional materials are discussed elsewhere in this chapter.

[42] These are core practices that are considered to characterise effective teacher and classroom practices (Siraj *et al*. 2014; Westbrook, 2013).

[43] For the behaviours measured in the introductory and concluding stages of the lessons the 'fully observed' category is taken as equivalent to the 'frequently observed' category in the middle stage of lessons.

[44] 15 different teaching practices were recorded during the lesson observations, but the range of effective practices is based on a total of 14 practices (excluding language switching).

Figure 4: Observed teaching behaviours during middle stages of lesson, BL and ML

Source: IE baseline and midline surveys (lesson observation). Note: (1) Unit of measurement is %.
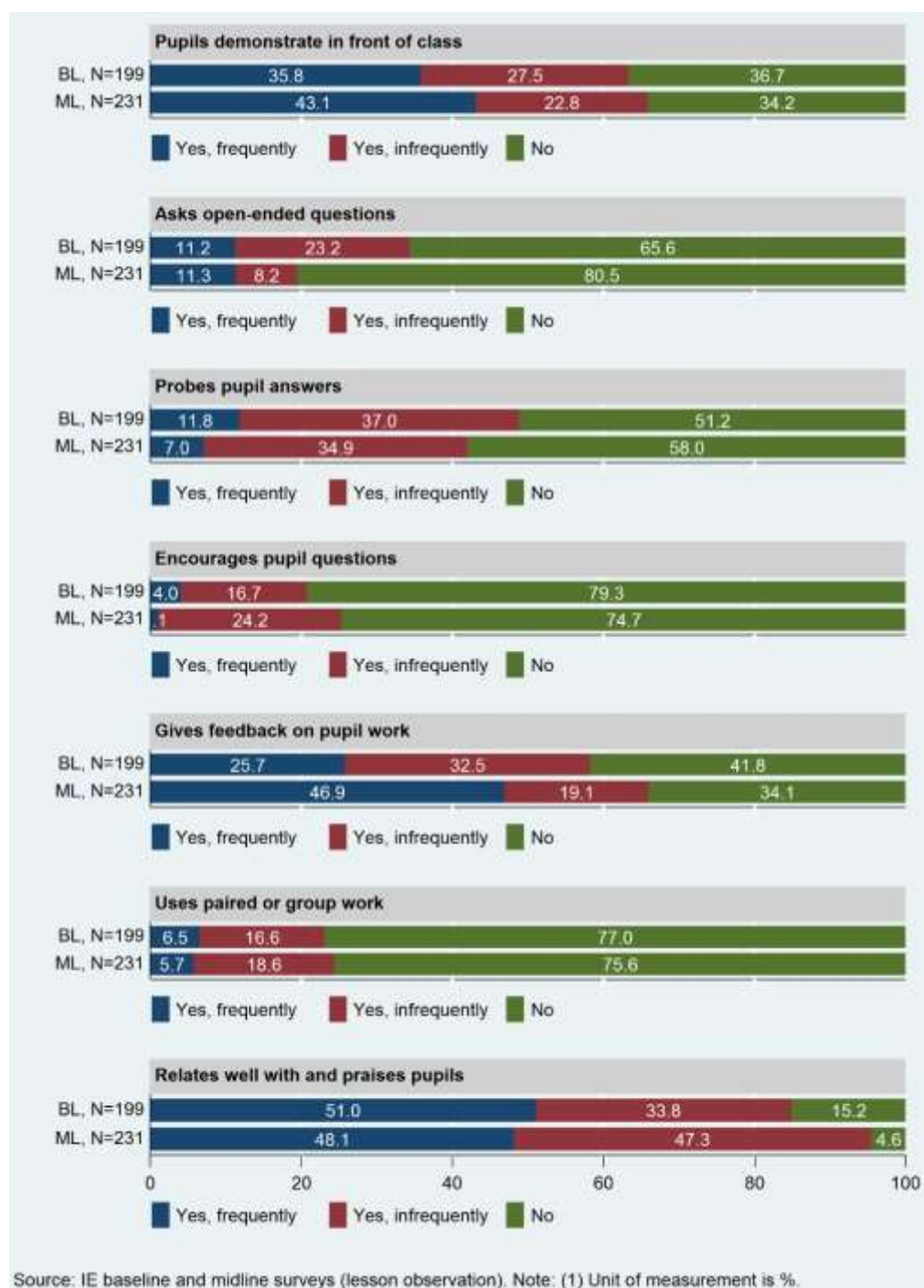
By contrast, in the case study schools, a wide range of respondents, from pupils and parents to HTs, consistently perceive that the quality of teaching has improved, especially because of the new curriculum, which focuses on the 3Rs. They attribute improved teaching ability to the EQUIP-T INSET, which has helped improve understanding of the new curriculum and lesson planning. Teachers also state that EQUIP-T INSET has provided them with better pedagogical knowledge and greater ability to use more varied and participatory methods to explain the subject matter to their pupils. These findings, however, are confounded by participants viewing the new curriculum as key to the improvement in teaching, and associating this with EQUIP-T INSET. This makes it difficult to isolate the effect of EQUIP-T.

The use of teaching aids during lessons has become more common since BL. More than half of teachers (53%) used teaching aids of some type during the lesson observations, compared to 44% at BL. This is consistent with findings from the case study schools that teachers make teaching aids and use them to decorate the classrooms. [45]

3.2.6 Changes in availability (EQUIP-T output) and use of teaching and learning materials in classrooms (EQUIP-T outcome)

Although the majority of schools received supplementary readers and big books in 2015 these were often unavailable in classrooms. Some 71% of schools report that they received supplementary readers for pupils in Standard 2, but in 88% of observed Standard 2 lessons these books were not available in the classroom (either openly or in storage). It is unsurprising, therefore, that pupils did not use supplementary readers in the vast majority (93%) of observed Kiswahili lessons. Similarly, while 82% of schools report receiving 'big books' for Standard 2 pupils, these were used in only 7% of observed Kiswahili lessons. These findings are consistent with those from other sub-Saharan African countries: for example, the finding that textbooks are available at schools but are not used as frequently as intended in the classroom (UN Educational, Scientific and Cultural Organization (UNESCO) 2015).

Figure 5: **Availability and use of Kiswahili supplementary readers during lessons, ML (2016)**
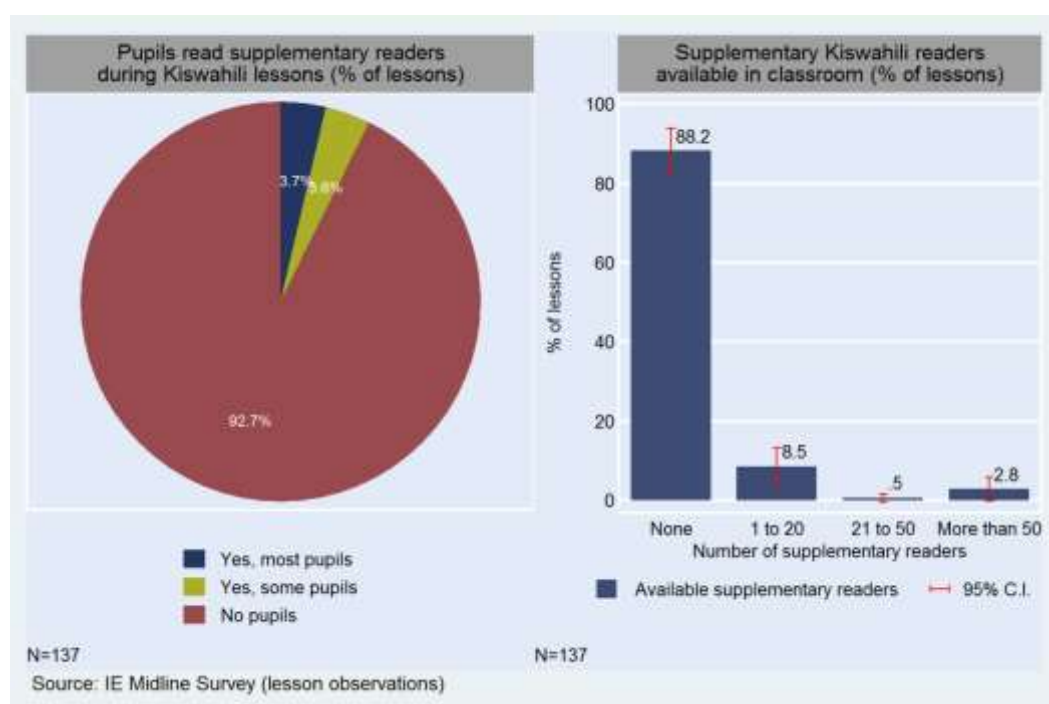
In many schools, supplementary readers and big books are not available in the classroom. Without these and other teaching and learning resources (notably textbooks related to the new national curriculum, which were not yet available in schools at the time of the survey) being readily

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[45] The extent to which these teaching aids are used any differently from how teachers already use the black board is unclear.

available in classrooms, teachers are unlikely to develop their skills in using these types of materials effectively, or to use them in their teaching.

3.2.7 Changes in other teacher performance practices (EQUIP-T outcome)

Identification of pupils with special learning needs

Virtually all teachers (99.5%) report that they notice particular groups of pupils with learning difficulties when teaching Standards 1–3. The groups with learning difficulties most commonly identified by teachers are: pupils not speaking Kiswahili at home (43% of teachers); poor pupils (32%); pupils whose parents are not interested in education (25%); girls (21%); boys (18%); pupils with disabilities and health problems (14%); and pupils who did not attend pre-school (11%).[46] Nearly all teachers (99%) report they are able to help these groups of pupils, and they report using different strategies to do so. The most common strategy is to give extra tuition (57%), followed by grouping pupils together (30%); talking to the pupil's parents (24%); ensuring pupils are engaged in lessons (18%); switching between Kiswahili and the vernacular language (13%); repeating topics until pupils understand (10%); using regular assessment to monitor progress (10%); and adapting learning materials or teaching (4%). In FGDs, teachers explained that they group pupils together to learn from each other to help 'slower learners', and that they learnt this from EQUIP-T INSET. Rather than considering pupils as 'less intelligent' and unable to learn, EQUIP-T has highlighted that pupils may just be slower learners, or they may be affected by problems in their homes, and teachers explained that this has made them understand the importance of actively engaging with these pupils.

Box 8: Language of instruction and at home

'Language is of considerable importance for the quality of teaching and learning…and can be a factor of disadvantage for children marginalized by instruction in a language they do not understand.' (UNESCO 2015, p. 209).

The use of different languages by teachers inside and outside the classroom is of particular interest because **more than three-quarters of pupils do not speak Kiswahili at home**, and this group of pupils has fallen substantively behind their peers in learning foundational skills, including Kiswahili (see Chapter 2).

At ML, all teachers report speaking Kiswahili when teaching, and all Standard 3 pupils report that their teacher speaks Kiswahili during lessons, which is unsurprising as it is the official language of instruction. Moreover, 92% of teachers report that they speak Kiswahili (rather than other local languages) with their pupils outside the classroom.

Some 26% of teachers report that they switch between Kiswahili and a vernacular (other local) language while teaching, compared to 16% of Standard 3 pupils reporting that their teacher switches language during lessons. However, during the lesson observations only 4% of teachers (similarly 4% at BL) switched between Kiswahili and a vernacular language. Observer effects may be contributing to the discrepancy between teachers' self-reported and observed practices, or it could be that teachers use this strategy infrequently.[47] Regardless, **the vast majority of teachers do not switch language when teaching.**

Together, these findings suggest that many children are experiencing communication difficulties at school, both inside and outside the classroom, with adverse implications for their learning.

Source: IE ML survey (2016).

Despite identifying pupils who do not speak Kiswahili at home as the main group with learning difficulties, only 26% of teachers report that they switch language during their

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[46] The categories are not mutually exclusive so a teacher may report more than one category.

[47] Observer effects refer to observation itself influencing the behaviour being observed.

lessons (see Box 8). This may be due to teachers not speaking the same language as their pupils: 21% of Standard 3 pupils report that their teacher speaks the same language they do and only 10% of teachers report that they speak a language other than Kiswahili at home. A small number of education managers, when asked about this issue, emphasised that Kiswahili is the official language of instruction. In fact, some schools have introduced physical punishments for children caught speaking a language other than Kiswahili, and they identify these children by making them wear a form of necklace until the next pupil to do so is caught (whereupon the necklace is transferred).

Use of pupil assessment

Between BL and ML there was a significant decline in the proportion of teachers using regular pupil assessment. At BL, the proportion of teachers reporting that they had assessed pupil academic progress during the previous five days was 70%, and at ML this significantly decreased to 57.5%. Among teachers who report using, and could show examples of, pupil assessment, assigning and marking homework is rare (6% at BL and 10% at ML), which is a concern as this is an important determinant of pupil learning in some contexts.

Box 9: Recent policy changes to increase access to pre-school and primary education

In December 2015 the Government announced a new policy of fee-free education. MoEST released a circular that stated that parents and guardians would not have to pay fees or any other compulsory contributions for the education of their children from Standards 1 to Form 4 (Government Circular No. 5, 2015). **Compulsory basic education, including pre-school, is part of the most recent Education and Training Policy, released in February 2015.**

There are early reports that the **fee abolition has had an immediate effect on demand for primary education, with pressure on Standard 1 enrolment in particular**. This is supported by the enrolment trends in the EQUIP-T districts (see Figure 6). Standard 1 enrolment grew significantly, by close to 40%, from a starting point of 84 pupils at BL to 116 pupils at ML. Another contributing factor is likely to be the change in the entry age to primary school from 7 to 6 years under the new basic education structure. This allowed for one-off double intake of children into Standard 1. During the same period pre-school enrolment nearly doubled, from 56 pupils at BL to 91 pupils at ML (see Figure 6).

Figure 6: Trends in enrolment by standard BL (2014) to ML (2016)
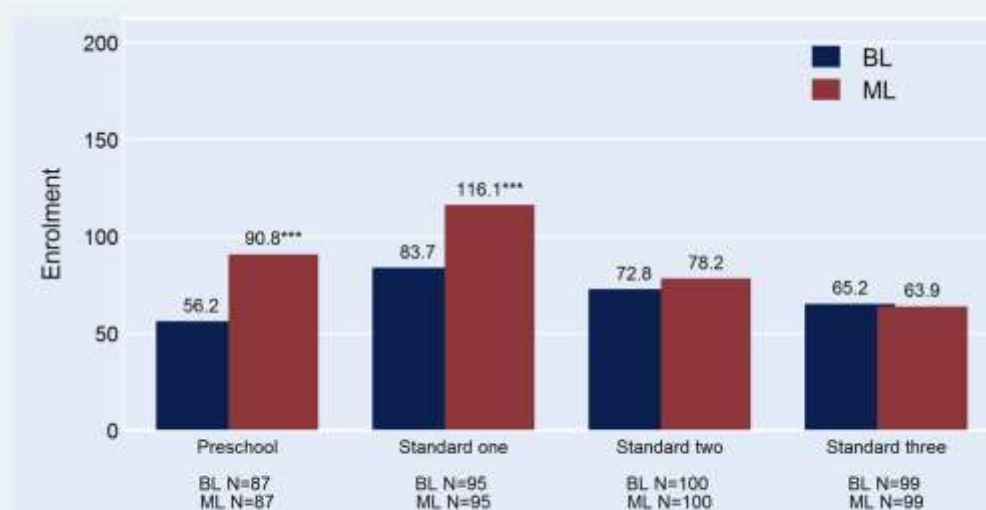
Asterisks indicate statistical significance levels: *** p≤0.01, ** p≤0.05, * p≤0.1

Source: IE BL and ML surveys

3.2.8   TOC assumptions (EQUIP-T output to outcome)

TOC assumption: Class sizes are appropriate

In many schools, class sizes are very large, making it extremely difficult for teachers to use effective teaching practices, including those learnt during INSET. The average class size for pupils in Standard 1 is 98 at ML; half of Standard 1 classes are larger than 90 pupils; and 10% of classes have 150 or more pupils (Figure 7, right-hand panel). Under such conditions it is very difficult to teach effectively, and to engage all pupils actively in lessons.

Class sizes get smaller in the higher Standards but the average class size for pupils in Standard 2 is still high at 72, and 10% of classes have more than 120 pupils. Comparing BL and ML class sizes (Figure 7), there is a clear upward trend in the lower Standards, and notably so for pre-school classes. These trends are driven by the growth in pre-school and Standard 1 enrolment, which is consistent with recent policy changes to promote access, as well as a change to the age of entry to primary school (see Box 9).

Class size affects which teaching practices are feasible, with large classes providing fewer opportunities to use interactive methods and requiring whole-class teaching methods. In large classes, defined here as those with more than 40 pupils,[48] teachers are somewhat less likely to ask pupils open-ended questions, to probe pupil answers and to use paired or group work, indicating that large class sizes may be reducing the use of certain effective teaching practices.

Figure 7:   Class sizes by Standard, BL (2014) and ML (2016)
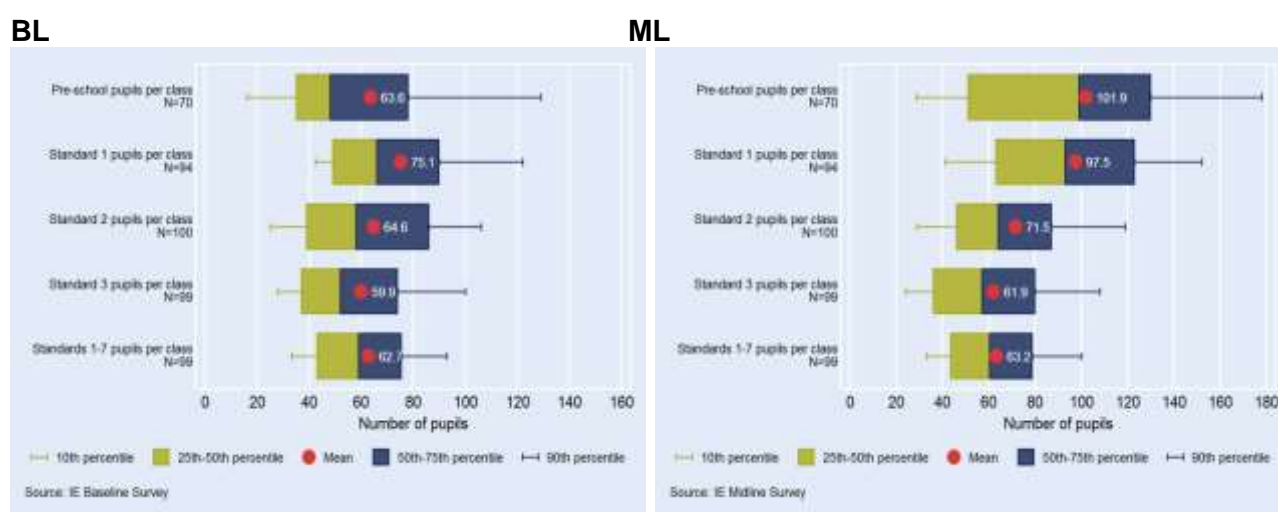
Note: Weighted estimates.

A shortage of classrooms is a major constraint in trying to reduce class sizes, and was already an issue at BL. On average, across all Standards there are 74 pupils for every classroom in use (compared with 63 pupils for every class). This is markedly higher than the recommended national benchmark of 45 pupils per classroom (MoEVT 2009a). Schools cope with this shortage in two main ways: having two shifts of classes using the same classroom at different times, and putting multiple classes in the same classroom.

At BL, 48% of the schools had a second shift of pupils (i.e. some classes who come in the second part of the day) and by ML this had increased significantly to 67% of schools. Double shifting classes tends to squeeze available instructional hours, and this may partly explain

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[48] 40 pupils per teacher is the benchmark for primary classes set by the government (MoEVT 2009a).

why schools are scheduling fewer hours of instruction for pupils in Standards 1 and 2 than the curriculum guidelines (see Section 3.2.9).

Some schools resort to teaching multiple classes in the same classroom at the same time. For example, in one of the case study schools, Standards 2 and 5 shared a classroom, facing different walls, and the teachers took turns to instruct their pupils. In another case study school, pre-school and Standard 1 classes were taught in the same classroom. This is perceived by schools to be adversely affecting the quality of instructional time.

A shortage of teachers also contributes to large class sizes. The average pupil to teacher ratio (PTR) at ML is 51:1 (see Volume II, Section 7.3.2) compared with 54:1 at BL. While the current PTR is lower than the average class size (63 pupils) which suggests that there may be some scope to improve teacher utilisation to reduce class sizes, it is considerably higher than the policy norm of 40 pupils per teacher (MoEVT, 2009a). This means that many more teachers are needed in primary schools if class sizes are to reach close to 40 pupils per class.[49]

TOC assumption: Teacher turnover is low

Teacher turnover in schools in the EQUIP-T districts is high, reducing the potential benefits of received INSET. Nearly one-third of all teachers (32%) who were at the school at BL were no longer there at ML (Figure 8). The most common reasons for this were transfer to another school (57%), further studies (22%), and retirement (13%). In KIIs and FGDs, teachers, HTs, community members and parents recognise the limitation that high turnover places on how effective the EQUIP-T training can be.

Figure 8:   Teacher turnover between BL (2014) and ML (2016)

Source: IE Midline Survey
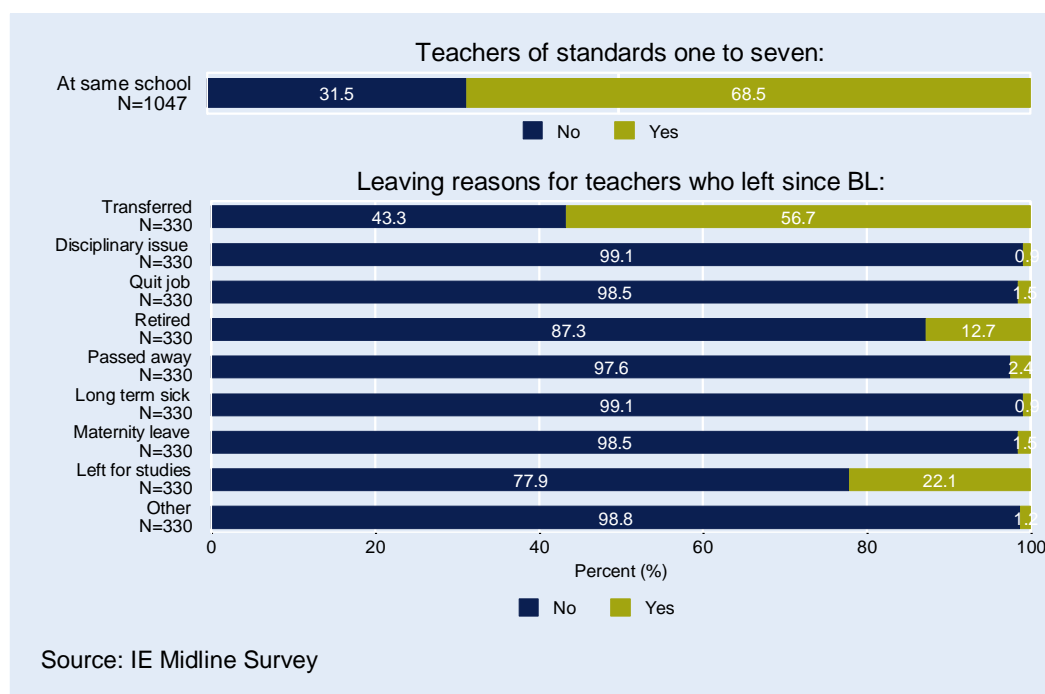
Note: Unweighted estimates.

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[49] The ability to improve teacher utilisation depends on many factors including the distribution of teachers with different skills/specialisations within and across schools.

One reason for the high transfer rate of teachers is their desire to move to what they perceive to be schools with better conditions. Many of the schools in the EQUIP-T programme are located in some of the most economically disadvantaged and rural areas in the country, and teachers in rural schools consistently voice their desire to be transferred to urban areas, where they expect to be more respected, better compensated and better positioned to pursue other IGAs. Each of the three DEOs interviewed voiced frustration that they experience more teachers requesting transfers out of the district than they receive back in, and that this placement is managed by central Government (PO-RALG).

Looking at the sub-group of teachers of Standards 1 and 2 who joined their schools since BL, the vast majority (87%) were transferred from a school in the same district or region. If they were teaching early grades in their previous school, they were likely to have participated in EQUIP-T INSET, and in principle would be able to apply their training in their new school. However, having such a high level of turnover between schools on a regular basis, even within the same district or region, is disruptive as regards the effective delivery of the INSET. This is particularly true for the school-based element, which aims to establish a sustainable peer learning and support group for teachers within each school to apply and reflect on new classroom practices. Having high levels of entry and exit to this group risks undermining the trust and respect that is built over time.

Teachers who are close to retirement have limited opportunity to pass on any benefits of their INSET to their pupils. Some 12% of teachers of Standards 1 and 2 will reach the retirement age of 60 years within the next two years. While not all of this group will necessarily retire, there is a clear risk that the INSET received by these teachers will only be used for the benefit of pupils for a short period of time. Teachers in case study schools feel that teachers from all Standards should be included in training, because Standards 1 and 2 teachers are older and will soon retire or pass away, with minimal knowledge transfers. Teacher turnover has led some schools to request EQUIP-T INSET to be provided to all teachers, instead of only to teachers of the lower Standards, to ensure that the benefits from INSET are retained at the school even if some teachers leave.

Although the overall retirement rate for teachers at around 4% over two years is not unexpectedly high, it masks differences in the age and experience profile of teachers of different Standards. Teachers of the first two Standards are 40 years old and have 17 years of experience on average, while the teachers responsible for upper grades are typically younger and less experienced (34 years old, with 10 years' experience on average).[50] This is consistent with the views of education managers that teachers with more years of experience are usually selected to teach the lower Standards. This appears to be linked to younger teachers having preferred not to teach early grades as they felt they lacked the necessary skills, since – according to DEOs – teacher training programmes had stopped including lower Standards in the last two decades. (The 3Rs training and EQUIP-T has thus introduced opportunities for early grade teachers and so made these Standards more attractive.)

Teachers leaving for further studies is another major reason for teacher turnover. The relevance of further studies to teachers' professional skills and knowledge, as well as whether they typically return to teaching in primary schools, will affect the extent to which pupils are able to benefit from the INSET that these teachers receive.

TOC assumption: Pupils attend school regularly

Pupil absenteeism remains high, although it has declined significantly from 34% at BL to 25% at ML. This rate is similar whether using a pupil head count on the day of the survey or school

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[50] Data on age and years of teaching experience are not available for teachers of Standards 4–7.

records. The absenteeism rate is similar for boys (26%) and girls (24%) at ML, and it has declined significantly for both groups since BL. The high rate of pupil absenteeism will undermine any potential programme impact on pupil learning compared to if all pupils are present as intended.

Respondents in schools perceive new HTs to be the main reason for declining pupil absenteeism, with these HTs taking the time to speak to communities, to incentivise pupils through gifts if they perform well and to charge parents fines if pupils do not come to school. Additionally, schools work together with the village government, often through the SC, where they report parents who do not send their children to school. Only one case study school mentions the PTP as the reason why absenteeism has declined: '*changes that have occurred after this programme started is that there was a reduction of absenteeism in class because there was a selection of two representatives from each class to make follow up on that.*' (Mother, School 1, District B) (discussed further in Chapter 6).

Another factor perceived by teachers to affect pupil attendance, and hence performance, is distance to school. Pupils who live far away may only attend a few times a week, causing them to fall behind in school. They also miss the morning lessons more often due to their long walk to school, and because they cannot leave home while it is still dark. Moreover, these pupils are not able to go home for lunch, which means they stay all day in school. Children also identify pupils staying far from school as facing challenges in learning, perceiving hunger to be a main issue. Having responsibilities outside of school are also seen as contributing to pupil absence.

Pupils' chores in school can also cause a problem of absence from class, leading to a reduction in their instructional time. However, teachers and parents said that pupils do fewer chores in school now than before, due to parents and the community pushing the school to change this. Still, both boys and girls (including those from Standard 3) were observed doing chores in teachers' houses during and after school hours in the case study schools. Boys were cleaning or digging ditches, while girls would wash dishes or look after teachers' children. Girls do appear to spend more time on chores, though this is more prominent in the upper Standards, where girls will miss class to babysit for teachers.

TOC assumption: Pupils are school-ready

The TOC assumes that children are school-ready when they enter Standard 1, and will therefore be able to benefit from the teaching. The official language of instruction is Kiswahili but the IE BL survey found that 77% of Standard 3 pupils did not speak Kiswahili at home and that these pupils were significantly behind their Kiswahili-speaking peers in terms of learning levels.

The EQUIP-T SRP was designed to prepare children to enter Standard 1. The SRP runs for 12 weeks and uses stories and play to help children from homes speaking a vernacular language to become familiar with basic Kiswahili before they enter Standard 1. Community teaching assistants (CTAs) have been selected from the local community to run the SRP classes and have been given a five-day training course to this end. The first SRP was run in late 2015, which means that participating children will join Standard 1 in 2016 (assuming they enrol), and therefore any impact on pupil learning of the SRP, in combination with the other EQUIP-T inputs, would not be measurable until the IE endline in 2018.

Perceptions of the SRP were explored in the case study schools and adjacent communities, with the limitation that the SRP is only running in some wards, so not all respondents are familiar with it. Some community members confuse the SRP with another Government programme called 'MEMKWA,' which provides an accelerated basic education programme for out-of-school children. This is probably because there is no SRP in their area and the two programmes have similarities.

However, respondents who have a school readiness centre in their area can explain how it was set up and who it targets. There was confusion however, among some case study HTs and community members, on how SRP relates to the new policy on compulsory pre-schooling.

WECs, DEOs and REOs say the community response to SRP has been very positive, as it provides an opportunity for children to start education without walking long distances. Parental demand has been high, with centres wanting to increase enrolment beyond EQUIP-T's guidelines due to SRP's popularity. Another benefit according to parents is that this is a shorter route to primary school – as opposed to having to send their children to two years of pre-primary.

Parents give financial and in-kind support to the SRPs, in the form of porridge for the pupils, contributions for the CTAs, and allowing the use of buildings or even contributing towards the construction of classrooms. However, there are cases of community members not supporting the programme, with one WEC speaking of a village chairman who feels that the SRP's play-based method is not worthwhile, and that children should be learning more academically or instead should use the time to do chores at home.

Generally, children who attend the SRP are felt to be better prepared for Standard 1 than children who do not attend any type of pre-primary education. However, children from formal pre-primary are seen as in a better position than SRP children because teachers in the former have gone through a longer, professional training, and because the SRP is only 12 weeks in duration, not two years. SRP children are said to be prepared to learn, good at playing, more confident and more comfortable in Kiswahili than if they had not attended any pre-school. In one school, teachers and the HT say that SRP children may go into pre-primary for one year if they are not considered ready for Standard 1.

There are other indications of positive responses to the SRP. Some communities have asked the CTAs to continue classes throughout the year, rather than finishing after the 12 weeks, to cater for children who are too young for Standard 1, or are too far from a school. In some cases, the SRP centres are turning into 'satellite schools' attached to a nearby primary school, with a trained teacher attending on some days to support the CTAs. In other cases, the CTAs have been asked to support pre-primary schools during the rest of the year.

TOC assumption: Pupils receive adequate support at home for their studies

At ML, a majority of Standard 3 pupils (63%) receive help at home with their homework when they need it.[51] Most pupils also either read to someone at home sometimes (69%) or every day (10%), and are read to by a household member sometimes (60%) or every day (7%). However, there is also a fairly large group of pupils who do not receive help with their homework (37%), and a large group who never read to (22%), or are never read to (34%), at home, indicating a lack of parental support.

In focus groups, pupils speak of older siblings helping them with reading at home when they do not understand something. Several parents, on the other hand, say they have never helped children with reading. Teachers feel that pupils do not practice at home. One teacher said: '*they don't have reading culture. You may teach very well and when you ask them the same thing the next day they forget because they don't take initiatives to read at home.*' (School 3, District B).

In contrast to support at home, both girls and boys speak of responsibilities outside of school which affect the time they can spend on school work. While girls mainly refer to house

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[51] This figures is based on reporting by the assessed Standard 3 pupils or their parents.

chores, such as fetching water and taking care of siblings, boys speak of looking after cattle (particularly in pastoralist communities) or helping out on the farm. These responsibilities appear to not only affect the time children have to spend on homework, but also the time they spend in school. Respondents say that girls' instructional time can be limited by having tasks to do at home in the morning, resulting in girls leaving late for school and therefore arriving late. Boys in pastoralist communities appear to miss school more often than girls as they are at times away with cattle for prolonged periods of time.

3.2.9   Changes in instructional time (EQUIP-T outcome)

The *official* instructional time for Standards 1 and 2 Kiswahili and maths has increased markedly since BL due to the new 3Rs curriculum. For Kiswahili it has risen from 180 minutes per week at BL to 480 minutes per week at ML, and for maths from 210 minutes per week at BL to 240 minutes per week at ML.[52]

Actual instructional time for Standards 1 and 2 pupils is far lower than the official guidelines, mainly as a result of the high level of classroom absence of teachers. Compared with the official number of hours of instructional time in both maths and Kiswahili, early grade pupils in EQUIP-T districts receive 40% fewer instructional hours (Figure 9). Although some of this is due to schools sometimes being closed when they should be open, and scheduling of fewer instructional hours than the official guidelines, teachers not attending their lessons is a key contributing factor. This is a substantial loss in terms of learning opportunities for pupils, and also severely reduces the time during which teachers use and further develop teaching practices learnt during INSET.

The estimated number of actual instructional hours for pupils in Standards 1 and 2 is much higher at ML than BL. Overall, estimated actual instructional hours for Kiswahili have risen on average by 3.4 hours and for maths by nearly an hour since BL, improving the conditions for teaching and learning. Most of this is due to the structural change in the timetable (see Box 7), but the decline in classroom absenteeism (see next section) contributes too. Comparing official with actual instructional hours, the estimated relative loss has declined from 52% at BL to 40% at ML for Kiswahili, and from 57% at BL to 40% at ML for maths.

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[52] The official requirements for the previous Standards 1 and 2 curriculum were provided by the Director of Primary Education, as per the Education Circular of 2001. For the new curriculum they come from MoEVT (2016).

Figure 9:   Official and estimated actual instructional time for pupils of Standards 1 and 2 at ML (2016)

Source: IE Midline Survey
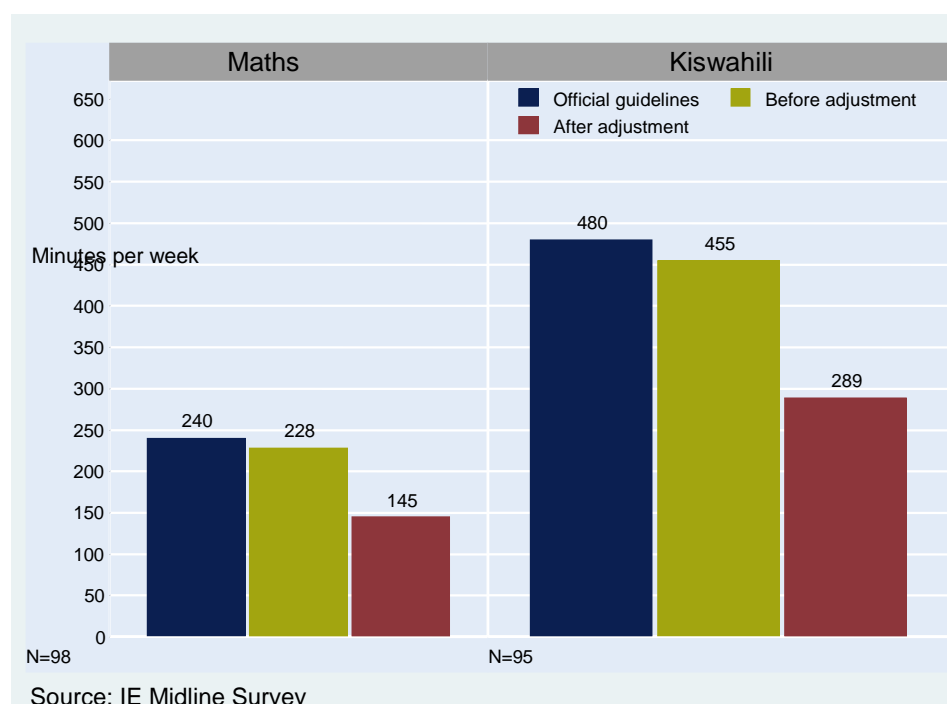
Note: (1) Weighted estimates. (2) 'Official guidelines' are the number of instructional hours set out in the new national curriculum for each subject.[53] 'Before adjustment' reflects the number of hours lessons were timetabled in EQUIP-T districts. 'After adjustment' reflects the number of instructional hours after the adjustment for Standards 1 and 2 teacher classroom absence.[54]

TOC assumption: Teachers are present at school and in classrooms, and arrive on time

High levels of teacher absenteeism reduce pupil learning by decreasing the number of instructional hours during which pupils are actually taught (UNESCO 2015). It also means that teaching practices acquired during INSET are not used to their full. Two types of teacher absence erode instructional time in the EQUIP-T districts: absenteeism from school and absenteeism from the classroom.[55] Frequent late arrival of teachers also reduces instructional time.

Teachers' absence from school has not change significantly since BL. The rate of teachers' absence from school is close to 14%, and is largely unchanged from BL (12%).[56] Of the teachers who were present on the day of the survey, 63% arrived late at BL, compared to 55% at ML – a relatively large but not significant change in late arrivals – and more than half of teachers are still not getting to school on time (Table 12). The IE also provides estimates of the impact of EQUIP-T as a whole on teacher absence from school: there has been no significant programme impact on this between BL and ML (see Box 10).

By contrast, respondents in case study schools perceive that teacher absenteeism from school has decreased due to increased monitoring. The perception among a wide range of

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[53] MoEVT (2016) 'Curriculum for Basic Education Standards I and II.' URT, MoEVT, p5.

[54] The number of hours actually timetabled for Kiswahili and maths for Standards 1 and 2 in EQUIP-T districts was collected from school timetables and averaged across the school sample. This estimate was then adjusted downwards by the overall rate of classroom absenteeism of teachers of Standards 1 and 2.

[55] How teachers use their time when in the classroom also affects pupil learning, for instance, whether they actively teach or mark pupil tests, this was not measured by the IE.

[56] Collected using a teacher head count on the day of the survey.

school and community stakeholders is that more frequent visits from WECs and school inspectors has helped, and that EQUIP-T teacher INSET training emphasising the importance of attendance and punctuality has contributed. Teachers also consider the HT to be important in regard to changes in monitoring, although this often relates to a change in a particular HT rather than directly to the training for HTs under another component of EQUIP-T.

Another reason given for the perceived reduction in teacher absenteeism from school is the Government slogan *hapa kazi tu* ('just work'), which encourages people to work hard at their job. This notion of a national change in people's work ethic was stressed by all respondents as a factor in improving teacher attendance. This is not borne out, however, in programme schools, as the rate of school absenteeism for teachers is unchanged (discussed above).

Table 12:   Teacher absenteeism and punctuality on the day of the survey, BL and ML

Indicator	BL estimate	ML estimate	Difference	BL N	ML N
On the day of the survey of all teachers in the roster					
Absent from school (%)	12.1	13.5	1.4	1,005	1,074
Of teachers present on the day of the survey					
Arrived late (%)	63.2	55.4	-7.8	873	923
Present on the day of the survey and timetabled to teach					
Absent from class (% all teachers)	66.8	61.1	-5.7	708	675
Absent from class (% teachers of Standards 1 and 2)	57.6	36.5	-21.1***	144	153

Sources: IE BL and ML surveys (teacher head count).
Note: (1) Weighted estimates. (2) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1. (3) Mean over all teachers.

The rate of teachers' absence from classrooms when they are present in school and scheduled to teach remains very high at ML. On average, 61% of teachers at ML are absent from the classroom when they are scheduled to teach, compared to 67% at BL, but the change is not significant.[57,58] The classroom absence rate at ML for teachers of Standards 1 and 2 is much lower at 37%, and there has been a significant reduction here of 21 percentage points since BL.

The IE impact estimation finds that EQUIP-T has significantly reduced classroom absenteeism (see Box 10). It is a very positive sign that EQUIP-T has had a positive impact on reducing classroom absenteeism, since this is such an important barrier to improving pupils' learning. In the case study schools EQUIP-T teacher INSET is not mentioned as a direct reason for reduced teacher classroom absence, but EQUIP-T is perceived to have increased the motivation of teachers of the lower Standards and this may be manifested in lower classroom absenteeism for this group of teachers (also see below on teacher job satisfaction and motivation).

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[57] The change is statistically significant at the 15% level.

[58] Some teachers were absent from classrooms at the time of the headcount on the day of the ML survey because they were engaging with the survey team. Adjusting for this, classroom absenteeism for all teachers is 60%.

Box 10: EQUIP-T's impact on teachers' absence from school and classrooms

- **There is no robust evidence of a significant impact of EQUIP-T on teachers' absence from school.** While some of the impact estimation models point towards a potential reduction in the proportion of teachers absent from school, the level of statistical significance of these results is low and not robust.

- **EQUIP-T as a whole has significantly reduced classroom absenteeism.** As illustrated in Figure 2, teachers in programme schools are around 12 percentage points less likely to be absent from the classroom because of EQUIP-T. This result emerges clearly from the main estimation model and holds across several robustness checks. The proportion of teachers skipping classes when present at school would have been considerably higher in the treatment group in the absence of EQUIP-T, at over 70%, rather than the measured 61%.

Figure 10: Impact of EQUIP-T on teacher absenteeism

Source: IE baseline and midline surveys.
Note: Point estimates correspond to PSM with Difference-in-Difference estimates over baseline and midline survey data, 95% confidence intervals plotted.
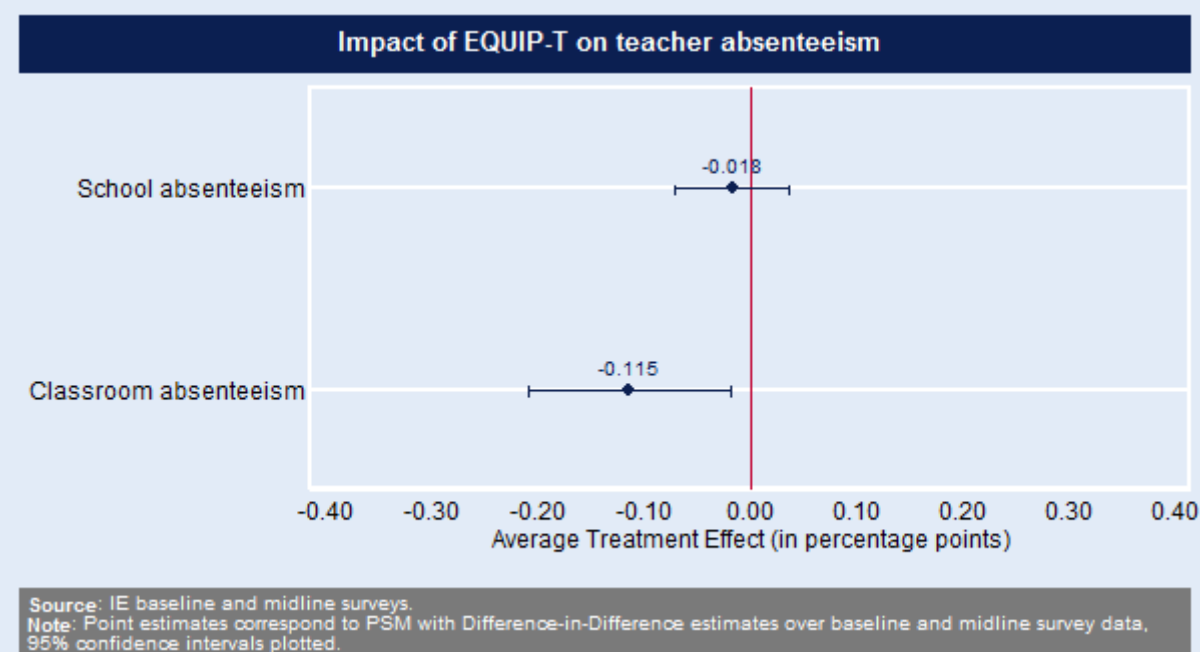
Reasons for teachers' absence from school and classrooms

There is a mix of official and non-official reasons for teachers' absence from school and classrooms. Not receiving salaries in full and on time, and long distances to school, are often cited as reasons for teacher absenteeism in developing countries.[59] However, in the EQUIP-T districts, neither seem to be an issue for most teachers.[60]

The main reasons for school absenteeism self-reported by teachers are: illness (41%); attending training (19%); official education work (17%); collecting salary (16%); family responsibilities (15%) and other private work (9%). Less than 1% of teachers report reasons related to salary level, housing, or other motivational aspects, which contrasts with 12% of HTs who cite lack of motivation as a reason for teacher absence.

Teachers report a large workload (30%) as the primary reason for classroom absenteeism. This is consistent with findings from FGDs with teachers, in which they regularly voice concerns

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[59] See for example: UNESCO (2014), Mulkeen (2010) and Bennell and Akyeampong (2007).

[60] Nearly all teachers (93%) report receiving their last three salaries in full, and 97% received their last three salaries on time. The average time to school for teachers is 15 minutes but this varies across schools. About 60% of teachers live within 10 minutes or less from school, while nearly 10% live within 30 minutes or more from school.

about their heavy workload and note that they spend a substantial amount of class time marking pupil assignments instead of teaching. Observations in the case study schools found regular instances of teachers not teaching their classes as scheduled – they would instead be marking exercise books or carrying out other school-related responsibilities. Class sizes in the early grades are particularly large, and have grown markedly since BL, which presumably has increased the volume of teachers' marking. Teachers mention that inspectors monitor their performance partly based on whether pupils' exercise books have been marked, creating the view that marking is a priority. Lesson plans are also checked by inspectors and WECs, adding to the emphasis on getting these ready. Furthermore, although teachers may be present in class, this does not mean they are necessarily teaching. In several case study schools, teachers were observed assigning pupils work and then spending the entire period marking exercises at their desk. Whether EQUIP-T is unintentionally contributing to this workload effect is not clear from the ML data, but this may merit further research at endline.

The other main reasons reported by teachers for being absent from the classroom include: illness (23%), meeting with teachers (17%), and meeting with the HT (12%). HTs report similar reasons for teachers' absence from classrooms, with large workload (39%) being the most frequent response. This suggests that both teachers and HTs regard having a large amount of lesson preparation or marking as an acceptable reason for classroom absence.

TOC assumption: Teachers' job satisfaction increases due to INSET, thereby reducing absenteeism

There has been no significant change in teachers' reported job satisfaction and perceived appreciation ratings by communities and HTs since BL. Teachers were asked how satisfied they feel with their job and how appreciated they feel for their work by the community and HT respectively.[61] The average rating for job satisfaction was 8 out of 10 at BL and ML; for community appreciation it was 7 at BL and 6 at ML; and for HT appreciation it was 9 at BL and 8 at ML. This suggests that job satisfaction is relatively high on average; that teachers generally feel appreciated by HTs; and that they feel relatively more appreciated by HTs than by the community. When teachers were asked about any change in their job satisfaction over last two years, just over half reported that they were more satisfied (55%), with the remainder either less satisfied (30%) or similarly satisfied (16%).

In case study schools, it was widely acknowledged that teachers are not necessarily motivated to teach but simply 'do their job'. The main reason for not feeling motivated appears to be the work environment, mainly relating to the availability and quality of teacher housing. Consistent with this perception, there is an acute shortage of housing for teachers on school premises in the EQUIP-T districts. Some 13% of schools do not have a single teacher's house. The cost of renting when teacher housing is not available is reported as a leading cause for teachers to seek transfers. When it comes to housing quality, teachers desire housing with facilities such as electricity. Community members agreed that there are housing shortages but feel that making basic housing available should be sufficient.

EQUIP-T training is mentioned by multiple stakeholders as having a positive effect on teacher motivation, with teachers feeling more confident and better able to try new things. Furthermore, senior managers say the EQUIP-T training is particularly raising the profile of teaching in Standards 1 and 2, which used to be unattractive for teachers since they lacked the

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[61] On the day of the survey teachers were asked to report where they would place themselves on a 10-point scale, where 1 is 'completely unsatisfied' and 10 is 'completely satisfied'.

skills and confidence to teach early grades well. The training has helped overcome capacity constraints and is also seen to come with opportunities, including the training allowances.

3.3 Summary of IE evidence on teacher capacity, performance and conditions for pupil learning

3.3.1 Teacher INSET and capacity

- The programme has provided teacher INSET largely as planned, and there are spill-overs with many teachers of Standards 4–7, although not targeted by EQUIP-T, also receiving INSET. There are some gaps in coverage as some teachers only attend part of the school-based sessions. Teachers also report some difficulties with the EQUIP-T INSET: mainly insufficient payment to attend INSET, related to teachers not considering training part of their regular job, and the fact that no food is provided during school-based sessions. A group of teachers have reservations about the pace of training, and find it difficult to grasp the material in the time allocated.

- Teachers feel they understand the new 3Rs curriculum better after attending the EQUIP-T INSET, and they feel more confident about focusing on the 3Rs compared to the previous curriculum that included a wider range of subjects. However, teachers' subject knowledge in Kiswahili and maths has not improved significantly since BL, which is not surprising as this is not a focus of EQUIP-T teacher INSET.

- Teachers consider learning new teaching methods to be one of the main benefits of the EQUIP-T INSET, and they think that increased use of lesson plans has improved the quality of their teaching. Pupils and parents have the perception that more child-centred teaching methods are used than in the past. HTs, teachers and education managers think that teachers' new knowledge of using a phonics approach has improved their ability to teach reading and writing.

- A systemic issue is high teacher turnover, which reduces the potential benefits of the INSET received and undermines the effectiveness of the school-based INSET.

3.3.2 Teacher performance

- Teachers' knowledge of how to prepare and use teaching aids has increased since BL and teachers attribute this to the EQUIP-T INSET.

- Nearly all teachers report that they can identify pupils with special learning needs. Teachers explain that they learnt during the EQUIP-T INSET that some pupils are 'slower' learners but that this does not mean they are less intelligent or unable to learn. However, despite identifying pupils whose first language is not Kiswahili as being the largest group with learning difficulties, only a small group of teachers switch language during their lessons to help accommodate these pupils.

- Teachers' interactions with pupils in the classroom have become significantly more gender-balanced since BL, and the inclusion of pupils seated in different parts of the classroom has improved significantly – both of which are aspects of the EQUIP-T INSET. Nonetheless, pupils seated at the back of the classroom still receive relatively less attention from teachers, with likely adverse consequences for their learning.

- There has been a significant reduction in the use of pupil assessments to monitor academic progress since BL, and only a small group of teachers demonstrate a range of effective teaching practices in the classroom, with no significant change since BL. There are several possible reasons for this lack of improvement in the use of effective teaching practices: the

change in lesson organisation due to the introduction of the new 3Rs curriculum; that the EQUIP-T teacher INSET does not focus on these practices; and large class sizes preventing the use of certain teaching practices. These factors will be explored as part of the IE endline research.

- In many schools, large class sizes are the norm and the average Standard 1 class size increased by nearly 40% between BL and ML in the EQUIP-T districts, after the new Government policy on free primary education came into effect. This systemic issue makes it more difficult for teachers to use methods learnt during the EQUIP-T INSET. Some HTs and teachers feel that the EQUIP-T INSET does not fully consider the reality of the environment in which teaching takes place. A major constraint in relation to reducing class sizes is the shortage of classrooms.

3.3.3   Conditions for learning

- The EQUIP-T SRP appears to be appreciated and supported by the community. In general, children who have attended the 12-week SRP are felt to be better prepared to enter Standard 1 than those who have not, but less prepared than children who have attended a formal two-year pre-school education. There is some confusion about how the SRP fits with the new policy on compulsory formal pre-schooling.

- The majority of schools have received teaching and reading materials, including big books and supplementary readers for pupils from EQUIP-T. Schools also report having received manila paper and marker pens from EQUIP-T, and feel that this has simplified their teaching. Although schools have received big books and supplementary readers, these are frequently unavailable in classrooms, and therefore are not used for teaching. A systemic issue that teachers refer to is not having received textbooks updated for the 3Rs curriculum, which impedes effective teaching of the new curriculum.

- The official instructional hours for Kiswahili and maths have increased since BL due to the introduction of the new 3Rs curriculum. The estimated actual instructional hours for Standards 1 and 2 pupils are higher at ML than at BL, but are still far below the official guidelines. A main factor contributing to the loss of instructional time is teachers' absence from classrooms when they are scheduled to teach. Given this serious constraint in regard to pupils' learning opportunities, it is a very positive sign that EQUIP-T has had a significant impact on reducing classroom absenteeism. Several stakeholders (including teachers, HT, SCs, parents and community leaders) mention that EQUIP-T has had a positive effect on early grade teachers' motivation, and that this has contributed to a reduction in absenteeism. However, classroom absenteeism remains very high, and the main reason reported by both teachers and HTs for teachers being absent from the classroom is a systemic one: large workloads.

4   EQUIP-T Component 2: SLM

EQUIP-T aims to strengthen SLM through: the implementation of new leadership performance management systems; building the capacities of HTs and WECs through professional development training and peer support networks; strengthening whole-school planning and financial management systems; and the development of more effective SISs and management processes (Cambridge Education 2014). The IE examines selected aspects of SLM through interviews with HTs, school observations, and the checking of school records and HT head counts. Qualitative FGDs and semi-structured interviews explore perceptions of changes in SLM, and factors that influence them.

There is an important caveat for the IE findings on SLM presented below. HT turnover is extremely high, at 46% between 2014 and 2016, and in seven of the nine case study schools the HTs were new to their posts. This means that any changes in the SLM outcomes of interest detected by the research are much less likely to be related to EQUIP-T than they would have been if most HTs had been at the same school at BL and ML, and therefore had been reached by EQUIP-T as intended. This caveat needs to be considered when interpreting the findings below, as it limits the conclusions that can be drawn about EQUIP-T influencing the SLM outcomes of interest.

This chapter first provides a summary of implementation progress for the SLM component at the time of the IE ML survey, and then outlines expected changes indicated in the programme TOC and those expected by EQUIP-T staff. The findings section is guided by the expanded TOC and presents evidence on changes (or lack thereof) in SLM between BL and ML, and explores possible reasons for these changes (or lack of changes) where possible. Lastly, a summary of the main findings is provided.

4.1   Programme implementation and expectations of change

EQUIP-T component 2 seeks to strengthen SLM through activities aimed at HTs and WECs. The programme activities aimed at WECs are discussed in Chapter 5. Box 11 provides an overview of implementation of activities under Component 2 by the time of the ML, as well as expectations of change according to the TOC and the programme.

Box 11: Programme aim, implementation and expectations of change

EQUIP-T Component 2: Strengthening SLM
Component aim:
- Strengthen SLM, focusing on HTs, AHTs and WECs.

Component implementation by ML according to the programme:[62]

The SLM INSET uses a cascade approach. At cascade level 1 (region-level) the training is led by the EQUIP-T technical team and is targeted at REOs, DEOs and District Inspectors, who then lead the cascade level 2 (ward-level) training targeted at HTs, AHTs and WECs. For each SLM module the training lasts three days.

- SLM module 1 contents: Education quality standards, including HT competency, roles and responsibilities and School Leadership Handbook (SLH). Rolled out in 2015.
- SLM module 2 contents: School information systems (SIS), including teacher professional development, school committees and extra-curricular activities, notice board use and record-keeping. Rolled out in 2015.
- SLM module 3 contents: School development planning, including the use of the SIS and consultations with school and community stakeholders. Rolled out in February/March 2016.

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[62] For more information on programme implementation by the time of the IE ML survey see Annex C.3.

EQUIP-T is also providing some of the Kiswahili literacy and 3Rs curriculum and syllabus INSET that teachers of Standards 1 and 2 received, to HTs (see Box 6 in Chapter 3).

Expectations of change according to the TOC:[63]

- INSET provided;
- increased HT capacity;
- quality-focused WSDPs available;
- peer support meetings facilitated by WECs take place and are useful; and
- HTs lead schools more effectively by applying new skills and knowledge.

The programme's expectations of change by ML:

- HTs are more aware of their role, particularly their key responsibility in ensuring that teaching and learning takes place;
- HTs are more open and transparent about school finances;
- HTs are using the school notice board more effectively;
- HTs are keeping better records and apply improved record management;
- better relationships between HTs and WECs, and HTs and teachers; and
- schools are running more extra-curricular activities.

Source: OPM (2016a), EQUIP-T (2015), interviews with EQUIP-T staff 2015/16.

4.2 Findings

In this section evidence from the IE BL and ML is presented to examine if changes in SLM have occurred as expected, and they reasons why or why not. This section also explores the strength of selected key TOC assumptions.

4.2.1 Provision of HT INSET (EQUIP-T input)

EQUIP-T provided both SLM and early grade teaching (Kiswahili literacy and 3Rs curriculum) INSET to HTs in 2015.

The SLM training attended by HTs reported on in this chapter does not only include the SLM 1 and 2 modules described in Box 11, it also includes the following two modules:

- EQUIP-T Component 3 (district management) LGA 1 and LGA 2 modules on PTPs and funding (see Chapter 5); and
- EQUIP-T Component 4 (community) SC1 module on SC training and PTP grants (see Chapter 6).

All of this SLM training, except for the SC1 module, is designed to be provided away from the school.

The overall provision of SLM training for HTs has increased significantly since BL. At BL some 12% of HTs reported attending SLM training over the prior two years, compared to 71% at ML.[64] At ML, the INSET providers were EQUIP-T (67%), BRN (8%), 'other' (2%) and the LANES

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[63] From EQUIP-T IE evaluation matrix, Component 2: SLM in Annex B.

[64] This estimate is for a sample of 86 schools because observations are lost when running a dependent t-test for changes in SLM training attendance between BL and ML. If the ML sample alone is used (N=93 schools) the estimate is 68%.

programme (1%); the rest of HTs did not attend any SLM training.[65] An individual HT could attend more than one type of SLM training but most only attended training by one provider.

EQUIP-T's SLM training reached only 67% of the targeted HTs.[66] One possible reason for this is that the SLM training is a one-off training event and if a HT cannot attend it presumably there is no later opportunity to attend the training. Another potential reason is that HTs consider the payment for attending to be insufficient (see below). HT turnover is also extremely high, at 46% between BL and ML (see Section 4.2.3). HT transfer is one of the main contributors to turnover; however, a majority of the HTs were transferred between schools in the same district so they should still have received the EQUIP-T SLM INSET. There are some cases where teachers were promoted to HTs since BL and therefore would not have received the training. That such a large group of HTs have not participated in EQUIP-T SLM training at ML, regardless of the reason, will undermine any potential programme impact that would have come through the SLM component compared to if HTs had received INSET as intended. One factor mitigating the fact that a large group of HTs were not reached by the SLM INSET is that AHTs are also meant to be trained. AHTs who attend the training can share their new knowledge and skills acquired during the training with HTs, although the effect of INSET in this case, compared to if HTs themselves attend, will likely be diluted.

Nearly all HTs (98%) who attended EQUIP-T SLM INSET found it useful. The main skills HTs report having acquired from the training are: teacher management skills (73%); knowledge of HTs' responsibilities (72%); school development planning skills (52%); reporting/record-keeping skills (30%); financial management skills (30%); a stronger relationship with parents and communities (28%); and better relations with teachers (23%).

HTs who did attend the EQUIP-T SLM training report some difficulties with the training. The two main difficulties are too much content (39%) and insufficient payment for attending (27%). Other much less commonly reported difficulties include transport problems/the venue being too far away (8%); the material being too theoretical (5%); limited training time (3%); and the materials being difficult (3%).

The vast majority of HTs report attending early grade teaching INSET over the last two years (89%). The training was provided mainly by EQUIP-T (81%), but also by BRN (11%), other (4%), the LANES programme (3%) and STEP (2%). An individual HT could attend more than one type of early grade teaching INSET but most attended training by one provider.

The EQUIP-T early grade training reached the majority of HTs (82%). The likely reason for the early grade teaching training coverage being higher than for the SLM training is that the former is primarily school-based and the latter is a one-off event away from school (see above). Still, this means 18% of targeted HTs did not receive the intended early grade teaching INSET.

4.2.2 Changes in HT capacity (EQUIP-T output)

Among HTs who attended the EQUIP-T SLM INSET 72% report gaining knowledge of their responsibilities as HTs by attending the training. At BL, case study HTs' understanding and implementation of their role and responsibilities was found to be weak, while at ML, awareness of

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[65] If it is assumed that HTs who report attending SLM training provided by 'other' actually attended the EQUIP-T INSET, EQUIP-T SLM training coverage would be 69%.

[66] That HTs attend the EQUIP-T INSET is a TOC assumption. The evidence shows that this is not the case for a large group of HTs. The IE ML survey does not contain data on whether HTs who did attend SLM training attended all, part or none of it.

roles and responsibilities varies more across the case study schools. Some HTs display a clear understanding of the components of SLM, while others are uncertain of what being an HT entails. For example, academic leadership is identified by five out of nine HTs as being part of their role, and in many cases this was learnt through EQUIP-T (either through EQUIP-T INSET or EQUIP-T materials).

The availability of WSDPs has increased significantly since BL. Despite the importance of having a WSDP to guide school management, at BL only 36% of HTs reported that the school had a WSDP. At ML, this has improved significantly, with 68% of HTs reporting that there is a WSDP for their school. In semi-structured interviews, HTs refer to having already had WSDPs but that EQUIP-T has taught them how to make them more effective and manageable. Some HTs now plan to revise their WSDPs in light of the training, suggesting they had not all already done so.

In several schools, teachers and community members highlight the importance of WSDPs in making the running of the school more transparent. They are perceived to help build trust between teachers and HTs, as well as between the school and the wider community. As discussed later in Chapter 6 on community participation, the SC in all schools has a role in preparing the WSDP, with the HT sitting on the SC in all case study schools. As such, schools perceive the WSDP to be a collaborative effort, with schools in many cases presenting the WSDPs to the community for 'approval'. HTs feel this process makes it easier to later cope with parents' concerns, as they can point to the WSDP and say '*remember what we agreed upon*' (HT, School 1, District C).

The comprehensiveness of WSDPs has improved at ML but remains limited. Three elements in particular – a budget; teaching and learning objectives; and baseline data and targets – are considered core features of WSDPs. At BL, only 2% of schools had WSDPs that included all three core elements, 5% had two elements and 7% had one element (Table 13). The comprehensiveness has improved at ML: 28% of schools have a plan with one of the elements, 11% have a plan with two elements and 3% have a plan with all three of the elements. Still, the large majority of plans contain only one or none of the core elements, indicating further scope in regard to training HTs on how to develop WSDPs.

Table 13:   WSDPs and their comprehensiveness, BL (2014) and ML (2016)

Indicator	BL estimate	ML estimate	Difference	BL N	ML N
School has no WSDP	63.6	32.3	-31.3***	100	100
School has a WSDP but it is not available	15.8	10.3	-5.5	100	100
WSDP has none of the core elements	6.1	15.0*	8.9	100	100
WSDP has one of the core elements	7.2	28.3	21.1***	100	100
WSDP has two of the core elements	5.0	10.7	10.7	100	100
WSDP has three of the core elements	2.2	3.4	3.4	100	100

Sources: IE BL and ML surveys (HT interview).
Note: (1) Weighted estimates. (2) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1. (3) The three elements are: a budget; teaching and learning objectives; and baseline data and targets.

The most common elements of WSDPs at ML are: improvements to school facilities (50%); teaching and learning objectives (30%); a budget (23%); pupil absenteeism/dropout (19%); how to

improve Standards 4 and 7 exam scores (15%); other unspecified elements (13%); girls' learning (12%); baseline data/targets (9%); and secondary school transition (6%).

TOC assumption: HT attend peer support meetings

WECs are facilitating peer-to-peer HT meetings as part of EQUIP-T, and at ML more than 90% of HTs report having attended a meeting with WECs and other HTs in the last 60 days. Although this was not measured at BL, in KIIs HTs say they are attending more ward-level meetings than in previous years. This is discussed further in Chapter 5 on district management.

4.2.3   Changes in HTs' SLM (EQUIP-T outcome)

Teacher management

There were no significant changes in teacher performance management practices reported by HTs between BL and ML. The most commonly reported practice at ML is to observe teachers' lesson preparations (34% at BL and 27% at ML), followed by observing teacher performance in class (24% at BL and 31% at ML), monitoring pupils' academic results (18% at BL and 22% at ML), use of continuous pupil assessment (8% at BL and 11% at ML), and other unspecified practices (11% at BL and 5% at ML) (Table 14). The least reported practice is monitoring teacher attendance and punctuality (4% at BL and 5% at ML), which is consistent with the measured high levels of teacher absence from school and classrooms (see Chapter 3).

KIIs and FGDs with HTs, teachers, SCs, community leaders and parents show that managing people, data and processes is felt to be the central responsibility of HTs, but in contrast to what HTs report, as described above, this is perceived to be largely done through the monitoring of teacher (and pupil) attendance. HTs at ML seem more conscious of the importance of attendance and punctuality than at BL, and they attribute this to the new Government's slogan *hapa kazi tu* ('just work'), and to an increase in monitoring.

Table 14:   Reported most common teacher performance management practices, BL (2014) and ML (2016)

Indicator	BL estimate	ML estimate	Difference	BL N	ML N
HTs' most commonly reported teacher performance management practices (% of HTs)					
Lesson preparation	34.0	27.1	-6.9	85	85
Teaching performance in class	24.4	30.8	6.4	85	85
Pupil academic results	17.9	21.5	3.6	85	85
Use of continuous pupil assessment	8.2	10.5	2.3	85	85
Other	11.1	5.0	6.1	85	85
Teacher attendance and punctuality	4.4	5.0	0.6	85	85

Sources: IE BL and ML surveys (HT interviews).
Note: (1) Weighted estimates. (2) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1. (3) Each HT only reported their most common teacher performance management practice.

The HTs in the case study schools who have received EQUIP-T SLM INSET feel the training made them aware of the link between punctuality and a 'good school' (one with high academic performance). Other respondents in the school and community think that HTs are focusing more

on teachers' attendance than in the past. Some HTs have introduced various tools to improve attendance, such as creating weekly reports on attendance, and motivating teachers through financial incentives if they attend all their classes in a week. Additionally, HTs say they try to lead by example, because if teachers see the HT attending and coming to school on time they will feel more motivated. However, this is not supported by the HT head count on the day of the survey: no significant reduction in HT absence since BL was found (see Section 4.2.3).

Between BL and ML, HTs' checking of lesson plans remained similar according to teacher reporting, but their provision of written feedback decreased significantly. At BL, 91% of teachers reported that HTs checked their lesson plans, compared to 93% at ML (Table 15). This is consistent with lesson preparation being reported as the most common teacher management practice by HTs.[67] Written feedback to help guide teachers to improve lesson planning has declined significantly. At BL, 47% of teachers reported that their HT provided written feedback, while at ML only 23% did.

HT observation of lessons decreased significantly between BL and ML, based on teacher reporting. The proportion of teachers reporting that HTs observe their lessons was already low at 52% at BL, and decreased significantly to 39% at ML (Table 15). Written feedback from HTs following lesson observation is very rare, and this has not changed significantly from BL. At both BL and ML, only 5% of teachers reported receiving written feedback on lessons observed by HTs.

Table 15:   Teacher performance management practices reported by teachers of Standards 1–3, BL (2014) and ML (2016)

Indicator	BL estimate	ML estimate	Difference	BL N	ML N
Lesson plans					
Report lesson plans were checked by head teacher (% teachers)	91.1	93.1	2.0	327	341
Report written lesson plan feedback from HTs (% teachers)	47.3	23.4	-23.9***	327	341
Lesson observation					
Report lesson observation by HT (% of teachers)	52.4	38.8	-13.6**	325	341
Report written lesson observation feedback from HT from last 30 days (% teachers)	4.6	4.7	0.1	325	340
Performance appraisal					
Report receiving at least one performance appraisal in the previous school year (% teachers)	27.7	29.4	1.7	327	341

Sources: IE BL and ML surveys (teacher interviews).
Note: (1) Weighted estimates. (2) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1. (3) This is teachers of Standards 1–3. Teachers who were interviewed over the phone are excluded from this analysis.

A possible explanation for the observed decline in written lesson plan feedback and in reported lesson observations is that, according to the case study research, HTs' administrative workloads have increased, as well as the amount of time spent attending meetings at ward level and taking reports to the district, reducing HTs' time for other tasks (discussed further in the section on HT job satisfaction and motivation below).[68] Whether this is partly an unintended consequence of EQUIP-

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[67] Teachers' reporting on HT practices is generally considered more reliable than self-reporting by HTs (Hallinger and Heck 1996).

[68] It is not possible to rule out the possibility that some of the changes in written lesson plan feedback and reported lesson observations were due to a change in the way data were collected at ML compared with BL. At ML, the training of

T is not possible to determine from the ML data, but this will be explored as part of the endline research.

Based on teacher reporting, HTs' use of performance appraisals did not change significantly between BL and ML. Some 28% of teachers at BL and 29% at ML reported participating in at least one performance appraisal to discuss their performance and professional development needs in the previous school year. There is no conclusive evidence of a positive impact of EQUIP-T as a whole on teachers' participation in performance appraisals (Box 12).

Box 12: EQUIP-T impact on teacher performance appraisals

- **There is no conclusive evidence of a positive impact of the EQUIP-T programme on teachers' participation in performance appraisals.[69]** This is exemplified by Figure 11, which clearly shows that the point estimate is positive but that the 95% confidence interval overlaps with zero. This weakly positive effect is not robust to different tests, which means that it cannot be conclusively inferred that EQUIP-T has had a positive impact on teacher participation in performance appraisals.

- It seems plausible to suggest that the **inconclusiveness of these estimates** may be **due to a dilution of the impact** of the EQUIP-T SLM training in treatment schools. Descriptive data presented earlier in this chapter on the training implementation show that over 30% of intended treatment HTs at ML did not attend the EQUIP-T SLM training, while almost 10% attended a different type of SLM training not conducted by EQUIP-T only or in combination with the EQUIP-T INSET. Although **some level of contamination** across treatment and control schools is to be expected, this relatively high proportion of HTs attending non-EQUIP-T INSET may help explain, together with implementation issues, the inability to robustly attribute impact to EQUIP-T

Figure 11: Impact of EQUIP-T on teacher performance appraisals

Impact of EQUIP-T on school leadership and management

Teachers reporting participation in performance appraisal — 0.073

Average Treatment Effect (in percentage points)

Source: IE baseline and midline surveys.
Note: Point estimates correspond to PSM with Difference-in-Difference estimates over baseline and midline survey data, 95% confidence intervals plotted.

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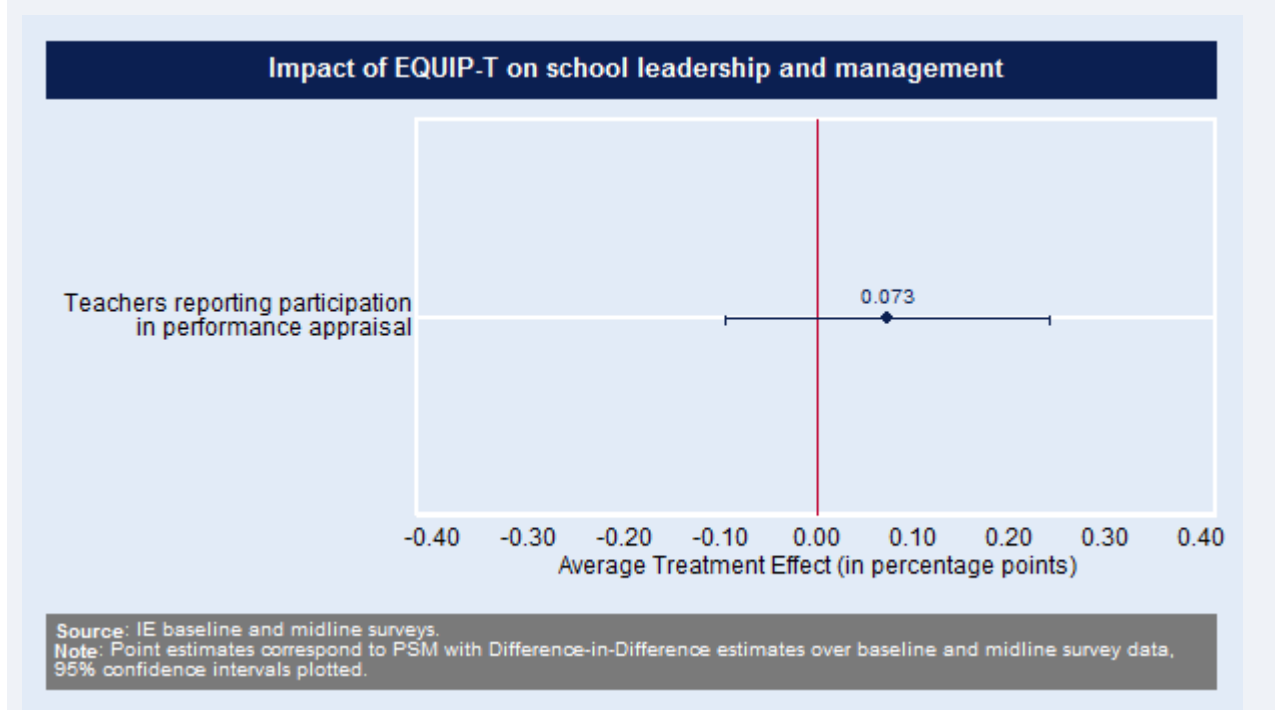
enumerators emphasised the definition of 'written feedback' as not including a situation where the HT simply ticked or signed the lesson plan or had given a one-word judgement, but that feedback on the content of the plan was needed. The definition of 'lesson observation' would not include a situation where a HT simply walked into a lesson to check it was taking place. While these definitions were also given during the BL training, less time was allocated to cover this.
[69] This holds across the estimation strategies.

Regular staff meetings provide opportunities for HTs to give feedback to teachers, and have increased since BL. At ML, 32% of Standards 1–3 teachers report that they attended four or more staff meetings over the last 60 days, a significant increase from 15% at BL. However, according to HT reporting, 24% of schools at BL and 23% of schools at ML held four or more staff meetings over the same period. Thus, it is not clear if there has been any change or not.

Use of rewards and actions taken to promote good teacher performance

There is limited evidence of HTs affirming good teaching performance. At ML, 46% of HTs (compared to 33% at BL) report that performance rewards exist, whereas only 14% of teachers of Standards 1–3 report this.[70] According to HTs the most common types of rewards include verbal recognition (16%), financial incentives (14%), and trips/events (4%). Teachers report that verbal recognition (42%) and financial incentives (29%) are most common, but they also report material rewards (28%) and certificates, cups or medals (15%).

The majority of HTs (81%) and teachers of Standards 1 to 3 (67%) report that action is taken if teachers perform poorly.[71] The most commonly reported actions by HTs are: a warning being given by the HT (58%); the HT meets with and provides advice to the teacher (18%); the provision of extra teaching support (12%); a warning is given by the WEC or the HT reports to the WEC (10%); and more lessons observations (6%). This is largely consistent with teachers' reporting. Some 89% of teachers report that a warning from the HT is the most common followed by warning from WEC or HT reports to WEC (34%); provision of extra teaching support (9%) and HT lesson observation (8%). Other types of actions reported by teachers include warning from academic teacher (8%) and HT checking of lesson plans (6%).

HTs in the case study schools have the perception that their ability to sanction teachers who perform poorly has increased. The regular monitoring by the district level helps HTs to manage teachers as there are more transparent consequences if they do not attend or perform. HTs say they prefer to first speak to teachers individually if there is a problem with attendance, before they report to the district level. HT in all schools thus seem to appreciate the clear processes around teacher sanctions, and feel it helps them to enforce their authority on this matter. The process for managing poor performance of teachers is discussed further in Chapter 10 on district management in Volume II.

Most HTs in the case study schools find it difficult to instruct teachers on how to teach more effectively. HTs consider it challenging both to know how to supervise teachers on the new curriculum, and to have the authority to do so where teachers have attended more early grade teaching INSET than they have. In addition to challenges relating to not knowing the new curriculum, HTs' own teaching responsibilities and administrative tasks appear to limit the time they have available to actively supervise teachers.

Some 75% of teachers of Standards 1–3 report that their HTs took some action to improve education quality in 2015. Among these teachers, the most commonly reported HT action is ensuring teachers attend school and arrive on time (37%); introducing extra tuition classes (35%); ensuring the supply of teaching and learning materials (26%); actions to reduce pupil absenteeism (18%); and strengthening relationships with parents and communities (17%). In the case study

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[70] The sample size for this indicator is 86 HTs as some observations are lost when conducting the dependent t-test for difference between BL and ML, and in some cases the HT was not present at the time of the interview and the AHT or academic master responded instead.

[71] The sample size for this indicator is 93 HTs.

schools, the relationship with the community is widely regarded as a responsibility of HTs, by HT themselves, by teachers, and by parents, SCs and community leaders.[72]

In the case study schools, changes in HTs' use of management practices seem to relate more to changes in the school leadership rather than to behaviour changes on the part of a particular HT. For example, teachers in one school refer to how the current HT is better at managing them than the previous HT was, as he takes the time to explain what they are doing wrong, rather than simply pointing out that they are doing things wrong. More generally, several HTs acknowledge that managing people is challenging and complex, and they emphasise the need for further training. This may be of particular concern for female HTs, who appear to experience resistance to their leadership in cases where there has been a previous male HT or where there are other older female teachers in the school. [73] There is thus some indication that gender may play a role in how effective HTs are in managing teachers.

School characteristics and infrastructure matter for effective SLM. For instance, large schools with very large class sizes and weak infrastructure typically present different leadership and management challenges than smaller schools with more manageable class sizes and adequate infrastructure. Box 13 describes the challenging context typically experienced by HTs in programme schools.

Box 13: School characteristics and infrastructure

The average school size[74] at ML is 472 pupils per school (486 at BL) and the average pupil–teacher ratio is 51 (54 at BL) – substantially higher than the recommended national benchmark of 40 pupils per teacher (MoEVT 2009). However, there is considerable variation across schools. The average class size for all Standards is 63 pupils (the same as at BL) but **schools in the first decile have 33 or fewer pupils per class, while schools in the ninth decile have 100 or more pupils per class**. (See Box 9 for information on the recent large increase in Standard 1 enrolment).

When it comes to school infrastructure, the only significant change between BL and ML is in the availability of staff rooms. At BL, 86% of schools had a separate staff room and at ML this has increased to 98% of schools. Apart from this, **school infrastructure is generally very poor**. At ML, nearly all schools (97%) had a functional toilet on the day of survey but there are large numbers of pupils per available toilet. Only 35% of schools have drinking water available, 14% have a school library, 4% have a functioning source of electricity, and 2% have working computers.

Table 16: School infrastructure, BL (2014) and ML (2016)

Indicator	BL estimate	ML estimate	Difference	BL N	ML N
Schools with (%)					
Functional toilet	95.8	97.4	1.7	100	100
Available drinking water	31.9	34.8	2.9	100	100
Functional electricity	4.5	3.7	-0.8	100	100
Staff room	86.1	97.7**	11.5**	100	100
School library	12.5	14.0	1.5	100	100
Working computers	0.9	2.3	1.5	100	100

Sources: IE BL and ML surveys (HT interviews).
Note: (1) Weighted estimates. (2) Asterisks indicate statistical significance levels: *** p<0.01, ** p<0.05, * p<0.1

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[72] See detailed discussion about the involvement of the community in school matters in Chapter 6 on communities.

[73] A female HT (School 2, District A) had been teaching in the school for 17 years, and said that although she had found issues in the beginning, it was easier now due to the fact that she is well known and respected in the school and the wider community.

[74] Across all standards.

TOC assumption: HT turnover is low

HT turnover is extremely high, with only 46% of HTs who were at the school at BL still there at ML.[75] The exceptionally high turnover is starkly illustrated in the case study schools, where in seven out of nine schools HTs had been in their post for less than one year at ML. It is not known at this stage whether the high turnover between BL and ML is typical for the EQUIP-T districts over time, or is a one-off hike: for example, due to a change in education policy or implementation.

Evidence from FGDs and KIIs suggests that HTs may be deliberately transferred to improve SLM in lower performing schools, with several HTs saying they were transferred from 'better performing schools' to take up their current positions. This is also implied by an EQUIP-T regional staff member, who described the process as: '*reshuffling either to cascade good performance or to [provide a] more conducive environment to perform better*' (RTL D). Respondents generally report that sanctions for poor performance have become more common (see Chapter 5 on district planning and management), and this appears to be related to the change in Government.

Reasons for HT turnover include retirement, HTs passing away, the transfer of HTs, teachers being promoted to HTs, and HTs being fired or resigning. When HTs retire, SLM and early grade teaching skills they have acquired during EQUIP-T training will be lost. Of HTs in the EQUIP-T districts at ML, 10% are near the retirement age of 60 years.

TOC assumption: HTs are present at school

A necessary condition for improving SLM is that HTs are present at school. However, HT absenteeism is relatively high. The IE BL and ML surveys examined HT absenteeism through a head count on the day of the survey and by checking school attendance records. At ML, the head count indicates that 15% of HTs were absent on the day of the survey and there has been no significant change since BL (16%).[76]

Reasons for HTs' absence from school

All HTs report having been absent from school during the last 30 days.[77] Official reasons for absence are by far the most commonly reported: official education work (77%); attending training (33%); other official work (30%); and collecting salary (12%). The most common non-official reasons include: family responsibilities (11%); illness (7%); and other private work (4%). No HT reported transport problems as the reason for their absence.

The school-level discussions with HTs, teachers, SCs, parents and community leaders identified additional issues that contribute to HTs' absence from school. Attending ward meetings and delivering reports to the districts were given as reasons for absence, and these are felt to be more frequent than at BL due to greater monitoring by WECs and school inspectors (at times referred to as 'the Government'). Another reason for absence is that many HTs' families live in an urban area (in particular if they have previously taught in urban schools), and HTs either also live there or they commute at weekends.

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[75] The sample size for this indicator is 99 HTs.

[76] According to school record data for the same day HT absenteeism is 14% at ML, compared to 23% at BL. Head count data are typically considered more reliable.

[77] This is HTs' self-reported absence from school and over the last 30 days, so this is not comparable to the HT school absenteeism findings based on head counts and school records.

TOC assumption: HTs' job satisfaction is high

There is mixed evidence on HTs' job satisfaction at ML. HTs were asked how satisfied they feel with their job, and the average rating for HTs' job satisfaction is 8 out of 10, where 10 means 'completely satisfied'.[78] This is in sharp contrast to the qualitative findings which are able to probe and ask more detailed questions about motivation and morale. According to these, while other stakeholders perceive HTs to be motivated because they are 'doing their job', the HTs themselves feel unmotivated and their morale is low.

The majority of HTs feel committed to their job, but they do not particularly like it. HTs also say housing and salary levels affect their motivation and morale. Many HTs have not applied for the role, but rather have been assigned it, and three of the nine HTs spoken to would prefer to be a normal teacher, as they consider the HT's workload to be too heavy.

HTs feel their workload is too heavy and face difficulties juggling teaching with administrative tasks and management. HTs have the perception that administrative tasks have increased in recent years, and teachers, parents and SCs reiterate that HTs struggle to find time to teach. This reported increase in workload relates mainly to an increase in monitoring, and the responsibility of HTs to complete forms and send information to the district. HTs perceive this to not only affect the amount of time they teach, but also their ability to follow up on wider responsibilities. As such, although HTs generally express an appreciation of district involvement and support visits by WECs and inspectors, they find the associated 'bureaucracy' too time-consuming, and they feel that it limits their ability to fulfil their role as HTs.

Moreover, HTs feel they are expected to attend more meetings at ward level and deliver more reports to the district than in previous years, and this affects their school attendance. Transport is a challenge, and is often infrequent and weather dependent, and HTs say they need to use their own funds to pay for it. HTs, teachers and parents believe that HTs would benefit from transport assistance, through allowances or motorbikes – similar to how EQUIP-T has supported WECs (see Chapter 5 on district planning and management).

TOC assumption: Capitation grants are fully released

It is difficult to collect reliable annual capitation grants data, partly because schools keep records in different formats and also because there is a high turnover of HTs.[79] In some schools the allocation for particular quarters is available; in others, total payments; and in some, individual payments are available from bank statements.[80] Nevertheless, using the data that are available, with caveats in regard to its quality, over the period 2013–2015 less than Tanzanian shilling (TZS) 4,000 per pupil was on average allocated to schools per year, compared to the norm of TZS 10,000.

HTs, WECs and DEOs all commented on the capitation grant coming monthly since December 2015, which is appreciated, although they are not clear on whether they are actually receiving more funds than in the past (see Chapter 5 on district planning and management). This is arguably the result of the actions of the new Government, which took office in late 2015, which publicly prioritised capitation grants for schools and instigated a change in the funding mechanism so that funds flow directly to schools rather than via districts. At the IE endline survey, data on capitation

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[78] On the day of the survey HTs were asked to report where they place themselves on a 10-point scale, where 1 is 'completely unsatisfied' and 10 is 'completely satisfied'.

[79] Two schools did not keep records and did not know if they received any capitation grant payments in 2014 or 2015.

[80] In 15% of schools the records are incomplete.

grant payments for 2016 and 2017 will be available from schools and the IE will use these to examine if schools have received higher capitation grant payments since early 2016.

4.3   Summary of IE evidence on SLM

4.3.1   HT INSET and capacity

EQUIP-T has provided early grade teaching INSET to the majority of the targeted HTs but there remains a group of HTs that have not attended this training. Similarly most HTs attended EQUIP-T SLM INSET, but coverage is far from universal and a large minority did not attend. A possible reason for this is that the SLM training is held as a one-off event away from school, and if a HT cannot attend there is no later opportunity to do so. One mitigating factor is that AHTs are also meant to attend SLM INSET, and so absent HTs may still benefit from peer-to-peer learning although the intended effect is likely to be diluted. HTs who did attend the EQUIP-T SLM training report that payment to attend is insufficient, which may also contribute to non-attendance. Another difficulty reported by HTs with the INSET is too much content being covered in the time allocated.

A major systemic issue is the extremely high HT turnover, which is arguably another reason for the relatively low coverage of the SLM INSET. It is not known at this stage whether this high turnover is typical, or temporary and related to a change in education policy or implementation between BL and ML. There is some evidence of HTs from 'high performing' schools being transferred to 'low performing' schools to raise performance in these schools. Respondents in the case study schools, as well as WECs, are concerned that the SLM skills acquired during the EQUIP-T SLM training will be lost due to the high HT turnover.

Findings from the case study schools point to the relevance of the EQUIP-T SLM and early grade teaching INSET. All schools identify the importance of a HT with strong leadership and management skills for the effective running of schools. Stakeholders also consider HTs essential in order for other components of EQUIP-T to work – citing the central role of the HT in managing relations between teachers, the school, and the wider community.

The availability of WSDPs has increased significantly since BL, which is a positive sign that the most recent EQUIP-T SLM INSET on school developing planning is having an effect. Schools, teachers and community members all highlight the importance of WSDPs in making the running of schools transparent and helping to build trust between HTs and teachers, as well as between schools and the wider community. Although the comprehensiveness of WSDPs has improved between BL and ML, it remains limited. A large majority of plans still contain only one or no core element (the core elements being a budget; teaching and learning objectives; and baseline data and targets).

4.3.2   SLM

The use of regular staff meetings has increased since BL. The majority of both HTs and teachers report that actions are taken if teachers perform poorly, and HTs perceive that their ability to sanction teachers who perform poorly has increased. Meanwhile the use of rewards to promote good teacher performance is uncommon.

There is no conclusive evidence of a positive impact of EQUIP-T on HTs' use of teacher performance appraisals, and other measured aspects of SLM remain largely unchanged or have even deteriorated. There has been no significant increase in HTs checking teachers' lesson plans, but the provision of written feedback has declined significantly since BL. Lesson observations by

HTs decreased significantly between BL and ML, and written feedback for teachers after lesson observations remains rare. A potential explanation for this is that HTs' administrative workloads and time spent attending ward-level meetings and reporting to districts has increased since BL according to HTs in the case study schools.

A systemic issue is that HT absenteeism from school is relatively high, which reduces the scope for HTs to use the skills acquired during INSET and reduces the potential benefits of training. The main self-reported reasons for HTs' absence by far is official education work, followed by attending training and other official work. HTs in the case study schools seem more conscious of the importance of attendance and punctuality than at BL, and they attribute this to the new Government's 'just work' slogan.

The findings on HTs' motivation levels are mixed. HTs report that they are generally satisfied with their job, whereas during semi-structured interviews HTs say they feel unmotivated and do not particularly like their job. Large workloads are one of the main reasons cited by HTs for low motivation levels, as well as housing and salary levels.

5 EQUIP-T Component 3: District planning and management

In its inception phase EQUIP-T identified that internal weaknesses in the decentralised education management system were negatively affecting efficiency and effectiveness in the delivery of quality primary education (Cambridge Education 2014). EQUIP-T aims to address this challenge with capacity building for district officers on planning, budgeting and management, with the intention of making plans more results-focused and implementation more transparent. The programme has shifted towards greater decentralisation, with LGAs[81] owning plans and budgets and implementing EQUIP-T activities, which are run through the Government's financial system.[82] The IE KIIs explore changes in district capacity, knowledge of planning processes, implementation realities, and interviewees' perceptions of the EQUIP-T decentralised mechanism.

EQUIP-T has increasingly emphasised the importance of WECs in education management – as the first level of oversight of schools and the facilitator of the communication of information to districts. EQUIP-T seeks to strengthen the capacity of WECs in regard to effective school monitoring and management through the provision of motorbikes and a grant. WECs have been included as partners in the SLM training for HTs and AHTs, and the programme intends to develop training specifically for WECs in due course. The IE seeks to understand changes in WECs' capacity and behaviours through KIIs and FGDs at school and senior manager levels. The IE school survey measures indicators relating to WECs' school visits and school reporting.

As anticipated in the IE design (see 'District planning and management' section of the ML evaluation matrix in Annex B), the research on this component relies largely on qualitative methods, as these are more appropriate for understanding changes in roles, responsibilities and processes. The balance of respondents is skewed towards senior officials because, typically, school-level, and particularly community-level, stakeholders are less aware of processes that take place at district level, or at the interface between districts and schools. Where possible, information from different respondents is triangulated, but, as with other studies which use senior key informants, there is a risk of social desirability bias.[83] Compared with the BL research, which was more exploratory in nature, the ML focuses more on respondents' understanding of the role of WECs and practices of districts, in line with changes to the emphasis of programme implementation since BL.

This chapter begins with a brief overview of implementation progress for the district management component at the time of the IE ML, and sets out the expectations of change set out in the programme TOC, as well as EQUIP-T staff's expectations of change. The findings section that follows is structured to examine, and when possible help explain, changes in WECs' performance and district planning and management between BL and ML, guided by the expanded TOC.[84] The final section provides a summary of the IE evidence relating to the TOC, and discusses sustainability issues.

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[81] LGAs are also known as districts.

[82] The programme also intends to introduce a SIS, to strengthen the collection and use of data. This was almost ready to be rolled out at the time of the ML IE.

[83] This is a type of response bias that relates to the tendency of respondents to answer questions in a manner that will be viewed favourably by others.

[84] See 'District planning and management' section of the IE Evaluation Matrix in Annex B.

5.1   Expectations of change

The main aim of EQUIP-T Component 3 is strengthen systems and staff capacities for strategic education leadership and management. Box 14 provides an overview of implementation under Component 3 up until the ML, and expectations of change according to the TOC and EQUIP-T programme staff.

Box 14: Programme aim and implementation, and expectations of change

EQUIP-T Component 3: District planning and management

Component aim:

- Strengthen and further build system and human resource capacity for strategic education leadership and management at the sub-national level.

Component implementation by ML according to the programme:[85]

- Provision of motorbikes and grants to WECs.
- WECs received the SLM training with HTs under Component 2.
- Introduction of decentralised funding mechanism: LGAs receiving 2015/16 EQUIP-T budgets.
- Training for district (and regional) officers relating to the decentralised funding: budget planning, fund requests, implementation reporting, and management of WEC and PTP grants.
- Training for district (and regional) officers on strategic planning and annual planning.

Expectations of change according to the TOC:[86]

- WECs have received SLM training, motorbikes and WEC grants.
- WECs visit schools more frequently, and monitor and manage more effectively.
- District officers have received training and their capacity for planning and budgeting has improved.
- Districts have received EQUIP-T budgets and are implementing them, and ownership of the programme and activities has increased.

The programme's expectations of change by ML:

- WECs are more active and effective at school level.
- WECs are held to account more by regions and districts.
- District officials have a better understanding of strategic and annual planning.
- There is greater financial transparency and prominence of EQUIP-T activities at the district.

Source: OPM (2016a), EQUIP-T (2015).

5.2   Findings

This section presents evidence from the IE BL and ML to assess whether and to what extent changes have occurred as expected, and if key TOC assumptions hold.

5.2.1   Provision of training to WECs (EQUIP-T input)

All WECs interviewed have attended some EQUIP-T training, and feel they have benefited from school management training and/or training given under different components. WECs refer to various aspects of the SLM training, and are quick to mention school development planning training, which they had attended very recently. While WECs could not always give the specifics of the training they received under the SLM component, they were often able to describe ways in which the EQUIP-T training more generally has changed their behaviour, discussed further below under Section 5.2.4. In addition to the SLM training, WECs associate their learning with all the training they have received. WECs and more senior managers feel it is important that they and

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[85] For more information on programme implementation by the time of the IE ML survey see Annex C.3.

[86] From EQUIP-T IE evaluation matrix 'District planning and management', in Annex B.

HTs attend all the training given at the school level, including early grade INSET, so that they know what they are supposed to monitor.

There were a small number of cases where WECs had not attended the SLM training. In one case this was because the WEC was new, but in another case the WEC had been in post for four years but was clear that he had not attended SLM training: '*I have not attended any training course on leadership from EQUIP-T. The trainings I went for through EQUIP-T with the HTs concern the modules*' (WEC Z, District B). There were also newly promoted (or transferred) WECs who may have received training when they were HT. These cases suggest a need for regular follow-up sessions to ensure all WECs receive the training.

5.2.2   Provision of motorbikes and WEC grants (EQUIP-T input)

WECs have received motorbikes, with some saying that these motorbikes had been available from as early as June 2015. It was noted by one REO that WECs in the municipal district had not yet received motorbikes because EQUIP-T had not originally included those districts, and a DEO in a different district had five WECs without motorbikes because they were working in newly created wards.

TOC assumption: WEC grants are released in full and on time

WECs are receiving the WEC grants, but the payments have not been regular. A number of WECs complained that the grants are not timely. While WECs received the motorbikes in June 2015, they did not receive any funds for fuel until January 2016: they had been expected to use their own funds until that time. WECs feel that the delay was caused by the district rather than EQUIP-T, and that further monitoring from EQUIP-T could improve this. Delays in transfers were also mentioned by WECs in relation to the PTP grants.

The WECs and DEOs interviewed understand that WECs should receive a fixed amount monthly, coming to TZS 620,000 per quarter, and WECs must submit a spending report and budget for the grant. However, the EQUIP-T WEC Grant Manual states a maximum, and the actual amount should depend on plans and budgets for the month.[87] It is therefore unsurprising that some WECs complain that their needs vary and as a result this average amount may not be sufficient.

5.2.3   Changes in the frequency of school visits by WECs (EQUIP-T output)

WECs are visiting schools more frequently than they were at BL, and respondents state that the provision of motorbikes has facilitated this. The IE survey found that the average number of visits for each school almost doubled, from 6.6 to 11.5 visits, in the previous year, and this change is strongly significant. All groups of stakeholders, from parents and teachers to DEOs, commented on this change and attributed it to the motorbikes. However, there are still wide variations: the bottom 10% of schools received four visits or fewer, but the top 10% of schools got 20 visits or more (both an increase from two and 12 at BL). WECs explained that some schools receive systematically more or less visits due to their location, with those near to the ward headquarter getting more visits and those in remote areas getting fewer visits – especially in the rainy season. As such, more remote schools may be receiving less support from WECs because of the difficulties in access even with motorbikes, and this is particularly a seasonal problem, with the number of visits being reduced further when it rains.

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[87] The OPM IE team were later told by the EQUIP-T MA that the intention was for WECs to receive a fixed rate in the first quarter.

However, there are perhaps inevitably some WECs who are not comfortable using the motorbikes. One WEC interviewed was struggling to use the motorbike as intended: '*Because of my age, I am scared to fall down. As I can remember, I fell two times from the motorbike*' (anonymised). No other WECs in the qualitative sample mentioned having a problem, but this signals that a small group will not be benefiting from, and utilising, the bikes as they should, and their schools might be frustrated as a result.

5.2.4   Changes in WECs' capacity (EQUIP-T output) and management practices (EQUIP-T outcome)

WECs feel that EQUIP-T training has improved their knowledge and ability to carry out their roles. It has given WECs a more structured idea of their responsibilities, and how to supervise and support the school. WECs talk about now knowing what to look for when visiting schools, and that EQUIP-T has given them a checklist in this regard. Teachers have noticed the change in WECs too, in terms of their confidence, organisation and effectiveness in solving problems. The training has made WECs aware of gaps in their own understanding of their responsibilities. Before EQUIP-T, WECs say they had received little or no tailored training for their role, and previous work experience and qualifications were considered sufficient. Some explain that they received an appointment letter containing general information on their responsibilities, but it did not give guidance on how to fulfil the role. WECs had to learn from trial and error, or were guided by colleagues informally. In this sense, EQUIP-T has given WECs greater knowledge. As one said: '*through EQUIP-T I can now understand better how to perform my responsibilities*' (WEC X, District B). This greater knowledge comes also from attending INSET for teachers, so WECs are able to monitor teachers effectively. Stakeholders' understanding of the responsibilities of WECs is described in Box 15.

Box 15: What are WECs' responsibilities?
Discussions in the FGDs and KIIs highlighted a number of main areas of responsibilities for WECs: • *supervise academic matters in the ward*, in particular monitoring teacher and pupil attendance, ensuring discipline, and looking at the quality of teaching; • *help solve problems for the school, HTs or teachers*, not just supervising and reporting; • *support teachers' welfare*, such as their working environment, appropriate discipline, and facilitating processes at the district offices, which are the teachers' employers; • *connect schools to the district*, taking information, directives and clarification on education policies to schools, and sending information and reports back to the district office; and • *connect schools to the community* (and support HTs in this role) in order to sensitise the community on matters of education and resolve disputes. More detail on the WECs' understanding of these responsibilities is given in Volume II, Chapter 10.

School visits are the main way in which WECs carry out their work: this is where they get the information they need about the school to carry out their responsibilities. Of the nine WECs interviewed, the number of schools they supervised ranged from two up to eight. Some WECs talk about starting their visit by meeting the HT and checking pupil and teacher attendance, after which they move on to a range of activities.

Checking lessons plans and schemes of work is one of the main ways in which WECs check the status of teaching. In some cases they look at whether these items are in line with the syllabus. In addition to these plans, some WECs also look in pupils' exercise books to verify whether teachers are delivering as planned and whether they are giving assignments to pupils. WECs observe teaching very infrequently – schools reported that only 12.5% of WECs' last visits included lesson observations. When they do observe lessons, WECs' main focus seems to be the presence and

use of teaching aids. This emphasis on teaching aids is felt to have come from the EQUIP-T INSET modules. The relatively low incidence of WEC's observing lessons may in fact be related to a structural constraint whereby lesson observation is part of the official role of Quality Assurers (see Box 16) rather than the role of WECs.[88]

Box 16: Quality assurers (previously called school inspectors)

Quality assurers (previously called district school inspectors) visit schools much less frequently than WECs do, and they are not managing to cover all schools each year. Only 55% of schools at ML had a visit from a quality assurer in the previous year – not significantly different to the coverage of schools at BL.

Quality assurers are seen as different to WECs in that they should go into more detail than WECs, and they are supposed to provide greater feedback to support teachers to improve including through lesson observation. The implication is that WECs carry out a more cursory monitoring practice, rather than deeply assessing the quality of teaching and finding solutions with teachers. However, respondents' descriptions of the two positions often bear a striking resemblance, suggesting that there is room for overlap and confusion.

The WECs interviewed are also very focused on monitoring the number of children who know how to read and write. Many WECs talk about checking the number that 'know the 3Rs', and following up on each visit to see if the number is improving. The KIIs with senior managers in particular suggest a huge focus on 'the 3Rs'.

Gathering information from different sources is important for some WECs, in order to verify what is happening in the schools. The HT is the first source of information, and as such WECs feel their relationship with the HT is important in regard to getting reliable information. Speaking to pupils directly is a valued way of getting feedback on the school – on specific teachers, as well as verifying the levels of learning – and community members confirm that this happens. A small number of WECs also appear to approach community members for information.

In addition to school visits, many WECs hold a meeting with their HTs to share their challenges, experiences and learn from each other. Some WECs refer to 'ward education committees', which appear to be the same thing as WEC-led HT meetings. In the school survey more than 90% of HTs said that they had attended a meeting with WECs and other HTs in the last 60 days, and although this was not measured at BL, in KIIs HTs say they are attending more ward-level meetings than in previous years.

WECs appear to be supervising schools more closely, and to have improved their relationships with schools due to the more frequent visits. To some extent, 'close supervision' means more regular supervision, but there are examples of cases where WECs look more deeply at issues because they can visit more often. For example, one WEC says she uses alternating visits to focus on different grades. Teachers feel that since WECs have started visiting more frequently they and the WECs know each other better and the WECs know what the current situation is in schools.

On the other hand, there are exceptions to this positive picture, with indications that WECs are merely box-ticking. School visits may be regular but they are typically short. At ML, 66% of schools report that their last visit from a WEC was less than two hours long, and 17% say it was less than 30 minutes long. One-quarter of schools (25%) were visited by WECs for more than three hours on their last visit. Although the BL did not collect data on this indicator, there are reports from case study schools of WECs coming regularly just to sign the log book and to be seen

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[88] It is not clear if this is guidance or whether WECs are not permitted to enter classrooms to observe lessons.

to have visited. Teachers in one case study school in particular have very low opinions of the WEC, who they feel fulfils their minimum obligations, with no time for support or discussion: '*We cannot sit together like this to discuss together "we have these challenges", "we would like you to do this and this"*' (Teacher School 2, District C). According to the survey results, the proportion of heads who rate WECs' support as very good or good increased from 79% at BL to 91% at ML (though this change was not significant), suggesting that a small proportion of heads are still less than satisfied with their WEC.

Meanwhile, there are examples of incidental ways in which the motorbikes and grants have improved the relationship between WECs and schools. First, HTs note that schools no longer have to pay the WEC for their visit, removing a source of conflict between WECs and schools that was identified at BL. Second, one WEC mentioned that the motorbike makes her feel more professional when arriving at school, earning her more respect from teachers.

The provision of motorbikes is thought to have made WECs more prompt in collecting data and reporting to the district. WECs can get to schools and then back to the district office more easily. This in turn is felt to make data more reliable, as WECs can verify information themselves.

The change in Government leadership is perceived to have contributed to WECs' increased commitment. WECs themselves see that there is more monitoring and supervision coming from central Government and, in turn, from the districts, and '*nowadays, there is much emphasis on meeting deadlines even from leaders*' (WEC X, district C). Community members are quick to attribute behaviour change to the Government: '*Because with the previous Government leadership there were no follow-ups made to the Government workers like how it is being done now*' (Father School 1, District C). References to this change in Government leadership, in October 2015, as a reason for increased commitment recur in the research, across respondents and components.

TOC assumption: WECs have the authority to hold schools accountable

Dealing with poor performance is a critical part of education management, and WECs are an important link in the performance management chain, from teachers, to HTs, to WECs, and then the district office, as is set out in more detail in Volume II Chapter 10.

When a teacher or HT is struggling with a particular responsibility, WECs appear to first try to support them to resolve the issue. This might be a case where a teacher is not comfortable with a topic, or an HT is having problems dealing with unprofessional behaviour from a teacher. Resolution might come from the WEC's own advice or arranging some other support, like learning from peers. HTs value this support from WECs in relation to solving problems and building their capacity. At BL, school and community stakeholders also cited disciplinary action as a key responsibility of WECs in regard to supporting school improvement, and HTs often felt powerless in this respect and had to rely on the WECs.

When poor performance persists, punitive actions can be taken by the DEO. WECs and ward education committees can give warnings, and have some leverage in advising districts what action to take. Districts have the authority to take consequential action to address poor performance. Transfers and demotions appear to be most commonly used among these actions. WECs say that transfers happen regularly, but more senior officers report that they should now only happen to '*cascade good performance*' and that '*our President does not allow transfers and he said this several times*'. (RTL D). Instead, district and regional officers say they are using demotions more regularly to deal with poor performance. Another penalty given by managers is withholding salaries until performance improves. Redundancies seem to be very uncommon, and one WEC mentioned that sacking is limited to the most extreme performance issues.

TOC assumption: WECs are held accountable

The EQUIP-T TOC requires that WECs are held accountable for their performance by the district.

According to district-level and regional-level officers, WECs' performance is judged based on the performance of the schools for which they are responsible. If a school performs badly, the WEC should be able to deal with this. Performance can be measured by a range of academic and administrative measures: for example, examination results, teacher attendance, presence of school clubs and activities, or spending of capitation in line with guidance. One way in which districts monitor the WECs is in a monthly meeting, to which WECs bring reports that are discussed. In this way, challenges are addressed. Each of the DEOs interviewed feel this is a way for WECs to share their problems, and they also see it as a way for the district to see the WECs' reports and assess their performance. The extent to which these meetings really happen was not probed – WECs talk about meeting districts occurring at least monthly, but only one specifically mentioned 'the' monthly meeting with the DEO.

WECs appear to feel more accountable to the district than at BL, due to the resources from EQUIP-T. EQUIP-T has eased resource challenges for WECs so there are fewer excuses for poor results. As one REO said, WECs used to give excuses about lacking resources '*but now under EQUIP-T they don't have reasons to not be accountable for [poor school performance]*' (REO E). Excuses are no longer acceptable.

Meanwhile the district is holding WECs accountable more than in the past: there is a sense that punitive action is being taken more regularly, and this is affecting WECs' performance. As mentioned above, demotions and penalties are becoming more regular: '*now they've seen we've started demoting they are taking seriously*' (REO E). REOs thus feel this is having an effect on WECs' efforts to improve their own performance, but also this increases the importance of the supervision of schools below them. As mentioned above, WECs themselves do feel that monitoring has increased. The source of this more zealous monitoring and accountability seems to be the new Government and its focus on hard work, and as such it is unknown how long this effect will last.

5.2.5   Provision of training to district staff (EQUIP-T input)

Three DEOs were interviewed. This subsection provides a snapshot of their experience of the EQUIP-T programme.

All three DEOs had received some training from EQUIP-T and all three feel they have gained useful knowledge. One DEO specifically mentioned the skills on planning they had learnt, and how it has helped in performing the job. This perception was reinforced by one REO: '*According to them when they did the planning and budgeting they said it was easier than years ago. Years ago they were just copying from somewhere. But now they are saying, they knew at least what they were doing.*' (REO E). However, another DEO implied they had only been to training sessions on implementing the decentralised management of EQUIP-T, rather than any attending modules on general planning and budgeting. This suggests a need for modules to be repeated and reinforced.

In fact, the turnover of district staff creates a risk in regard to the effectiveness of EQUIP-T training. Of the three DEOs interviewed, two had been transferred from other districts in the past four months. Although these DEOs have moved from other EQUIP-T districts, this may not be the case everywhere.

More generally, DEOs speak of how the EQUIP-T training organised under other components has also built their capacity to manage. As one DEO said about the training: '*when I go to schools, I always go there to assess what I was even learning there, I go there competent knowing that what I am going to assess*' (DEO D). In this sense, while Components 1 and 2 may have been intended to strengthen teaching and school leadership through INSET for teachers and SLM for HTs, they are also important in regard to ensuring that more senior managers know how to monitor education quality.

5.2.6   Changes in districts' capacity for planning and management (EQUIP-T output)

The district and regional officers interviewed explain how their annual plans and budgets should be developed in a bottom-up process. This ideal process was described as being one that starts with schools preparing budgets and plans, then these budgets and plans being collated and forwarded by wards, who send them to the district. Stakeholders, including at the school level, explained that the final decisions are made by the District Councillors. Thus the budgets are said to be prepared by aggregating priorities at successive levels of the hierarchy, as is set out in the EQUIP-T training module on annual planning. One DEO felt that this grassroots process was a key learning point from EQUIP-T. Some aspects of the module were not mentioned by participants, including the need for a situation analysis, the medium-term expenditure framework, or the wider strategic plan. DEOs appear to focus on the 'needs' of schools, rather than on improving results.

However, the efficacy of the planning process is limited by the lack or delay of funds in implementation. District officers appear to be wearied by an annual planning process that sees them prepare a budget, be given a ceiling much lower than this, and then still receive less than their allocation. As one DEO said, '*I don't know how next financial year's budget will look like, it is full of uncertainties*' (DEO F). Districts expect to receive less than they need but they do not know how much less. Furthermore, funds can be late and unpredictable: '*So since January, we have never received any funds from the government.*' (DEO E). This problem seems unchanged since BL, and, as then, the delays and reductions are attributed by DEOs to lower revenue collection than expected, or diversion to other Government priorities. According to REOs, districts may be somewhat shielded from these challenges if they have their own revenue sources – for example urban LGAs may benefit from property taxes, and rural LGAs may benefit if they have natural resources such as metals and other mined resources.

In reality it is hard to prioritise education needs in this context. The theory and the practice of the planning process differ here, as the LGAs' room for prioritisation is limited. First, priorities are imposed by higher levels of Government, with officers giving examples of a drive for desks this year, or, previously, a demand to build secondary schools in every ward. The priority identified by the Government may not reflect the needs on the ground. Second, districts have to fulfil certain recurring needs, such as administration costs and staff issues like health insurance and funerals. On top of that, emergencies can come up, requiring immediate resources. Each of these reasons, along with the unreliability of public finances, can squeeze the space for the district to carry out evidence-based planning and to prioritise the demands of its constituents.

In the face of these systemic challenges, the training from EQUIP-T is limited in how far it can build capacity for districts to plan and implement effectively.

TOC assumption: Districts have accurate and timely school-level data

Schools provide a monthly written report to the district, through the WEC, which includes data on teacher and pupil attendance, enrolment, infrastructure, school finances, pupils' performance, teachers' attendance, and challenges. In the ML IE survey, between 76% and 83% of schools were able to show a particular monthly report when requested. In addition to monthly reports, schools had recently provided the annual school statistics, and they receive *ad hoc* information requests from higher levels of Government. WECs also produce a weekly report on their activities and on their ward. There is an upward process for information collation: HTs must report to WECs, who collate and send information to districts, who may send information to regions and to PO-RALG.

The accuracy of information is felt to be improving in the case study districts, with strategies in place to verify the data being employed. The provision of motorbikes for WECs has allowed more frequent visits to schools to verify data. Districts generally lack funds for their own monitoring. WECs feel that verification is important. This relates to greater accountability, with WECs fearing disciplinary action if their information is found to be incorrect. Another strategy used by districts to improve accuracy is to request specific information, such as the names of teachers and pupils, which gives managers more confidence in the data they have received.

There are still concerns at all levels of management that the information may not be reliable, and this is why verification is important. Education managers feel the data they are given are frequently changing. The information is felt to be unreliable because HTs have an incentive to misreport: in order to get more resources (like capitation) or to reduce their own contributions, or to overstate performance (or hide bad performance). Some managers feel that HTs give incorrect data simply because they are lazy. However, managers recognise that some data do legitimately change, particularly because of transfers of students or teachers.

Schools and WECs are not totally satisfied that the information they report is being used. HTs, SC members and WECs either say they do not know what it is used for, or simply that '*it helps the district to know what is happening in the schools*' (WEC Z, District B), or that districts pass it up to the next level. DEOs, on the other hand, say they read the reports so that they will know about any issues or changes in schools and can carry out 'follow up'. Respondents rarely feel that they see some change or action taken as a result of the data they submit. WECs and HTs link pupil numbers to the allocation of the capitation grant, and while reports indicate where there are teacher, classroom or desk shortages, districts do not often have the resources to respond. In this sense, WECs are frustrated at how frequently they have to send repetitive reports. This frequency of reporting appears to be a change from BL, as one head said, '*I have seen there are now more assessment compared to last time, and the collection of information is very high in these two years*' (HT School 2, District B).

Capitation grants

A step previously articulated in the TOC was that through building public financial management (PFM) systems' and people's capacity, transfers to schools from LGAs would be more reliable and complete. However, the Government changed the modality such that transfers now go directly to schools from the Treasury, bypassing the districts. Schools have been receiving capitation grants on a monthly basis since December 2015, with stakeholders associating this change with the new President. District officers, WECs and HTs all say that funds from the Government, or even 'from the President,' come monthly – as opposed to once in every three to six months. Staff explain that the amount is based on the number of pupils, but they find it hard to explain exactly how much they are receiving per pupil, and whether it is more or less than they used to receive. At the time of data

collection schools would have received grants this way for around four months, so may not have been able to assess the scale of the change yet.

Budget transparency

Interviewees from below the level of the district office know very little about district processes. Community members and teachers do not know how the planning process takes place, or whether it has changed. Some WECs explained that the data they provide in reports goes towards the districts' plans, however generally they feel they get little or no feedback on their reports. This is important in the sense that stakeholders feel detached from the process and they feel that it is not transparent.

Management and relationships with teachers and WECs

Aspects of the EQUIP-T programme are felt by some to have contributed to improving relationships between different levels of the hierarchy. To a large extent, this is due to more regular contact: examples of this included the WECs attending training with districts, and the districts attending teacher training. This means that different levels meet each other more frequently. These different training sessions give an opportunity for managers to get to know their staff and their challenges, and for junior staff to then feel more comfortable about approaching their superiors. Similarly, the regular meetings between districts and WECs, who bring reports from the schools, helps improve the relationship due to the fact that more regular information about the schools is passed on. However, while teachers and HT noted the benefit of more frequent interaction with WECs, they did not mention any improvement in their relationship with the district.

5.2.7 Districts have an EQUIP-T budget (EQUIP-T input), which provides an opportunity for results-based planning and implementation (EQUIP-T output)

According to EQUIP-T (EQUIP-T, 2015), districts prepared budgets for the 2015/16 financial year jointly with the programme, which were uploaded into the Government financial system, Epicor.

Districts see the EQUIP-T planning and budgeting as a top-down process, which does not reinforce the bottom-up principles they are trained in. DEOs explain how the planning for the EQUIP-T budget works:

> '*EQUIP-T is somehow a top down approach, […] because they have the statistics, they know that they have a certain number of schools, they know that they have certain number of HTs, they know that they have certain number of the WECs, so you might find that, they are planning for everything. […] What are we as LGAs doing, just implement what EQUIP-T has planned.*' (DEO D)

Some district officers are thus frustrated that they are not given autonomy in regard to their planning, and that they are not given a chance to put the prioritisation process into practice. At the more senior level, REOs are positive about how this planning happens in partnership, and that EQUIP-T is located within the Government's primary education programme, which may reflect their relative distance from the process and their wish to stress the positive points to the interviewers.

LGAs have received funds much later than expected, and they feel this is due to delays by the Government. Districts understand that the central Government receives funds for EQUIP-T, and that the first receipt was in September 2015. However, the Government did not release funds to districts until December. One DEO attributed this to the Government finding other urgent priorities for spending the money. This situation presents a challenge for the districts when they

cannot implement activities as planned, and are then expected to condense activities into a shorter period. One DEO explained that if the funds are not spent before the end of the financial year, they will not be 'lost' because they are in the development budget. However, there may be a period in which they cannot implement activities because the Epicor system 'closes' at year-end. There is a risk that LGAs do not have the capacity to implement so much in such a short and unpredictable space of time.

Districts have faced some challenges in implementing their EQUIP-T budgets. DEOs feel the centralised planning assumptions mean that budgets do not always reflect reality. For example, participants of training are unhappy that the allowances under EQUIP-T are lower than normal Government rates, and a flat rate for travel costs is applied even though travel costs will vary for participants. One district even had problems getting the facilitators to agree to deliver training due to the fixed allowances. Thus the unit costs set by EQUIP-T may make it hard for LGAs to run the activities. Another problem is when the model of implementation differs from the plan, such as a decision to include school inspectors in training when they were not originally in the budget. The programme and districts need to revisit budgets when they decide to change the details of activities.

TOC assumption: Accountability is in place to ensure districts stick to their plans

EQUIP-T staff and regional officers acknowledge that there have been some difficulties, or 'discrepancies', in the reporting of activities**.** Further conversations suggest that problems arise when looking at LGAs' spending as it is entered into the financial system 'Epicor.' One EQUIP-T regional staff member said, '*Later on I came to understand that they were interchanging the codes in the allocation of the funds. Budget lines are overspent, under spent, not spent at all; others were spent but no activity*' (RTL D). Discussions with EQUIP-T staff revealed that the cause of the problem was not known, and these misallocations could be the result of human error in the entry against codes, since the Epicor system is new, or they could arise because activities cost more or less than was originally planned. To some extent, the approvals process for spending should prevent activities going over budget: '*it is my thinking that the Regional Administrative Secretary cannot approve the wrong budget*' (RTL D). However, if this process is manual, there is still room for moving the funds.

5.2.8   Ownership and sustainability of EQUIP-T programme at district level (EQUIP-T outcome)

Some DEOs and REOs feel that decentralisation has increased Government ownership of EQUIP-T. The responsibility now given to LGAs for managing funds, and to regions in their oversight role, means that EQUIP-T has greater prominence: '*…you know in the beginning of the program, the DED and others were just hearing we are doing this, District treasurer and whatever. But this time, they know that, they see it as very essential program.*' (DEO D). EQUIP-T is now known to officers outside of the Education Office, as it is a source of funds for the LGA. The transfer of responsibility may also have made the programme more sustainable, as one DEO felt that by transferring ownership, districts would prepare to deliver EQUIP-T before the funds end. Government staff now have direct experience of running the activities. That said, DEOs recognise that the ability to continue to run activities will depend on the budget from the Government.

5.3   Summary of IE evidence on district planning and management

This section summarises the main changes observed at ML compared with BL in relation to Component 3.

WECs have attended EQUIP-T training, and though turnover means they have not attended all of the SLM sessions, they feel they have benefited from early grade teaching INSET too. The majority of WECs have received motorbikes, and have received the WEC grant, but payments have been delayed and the amounts were not what was expected.

WECs are visiting schools more often, and motorbikes and WEC grants have contributed to this. In this regard, EQUIP-T is felt to have been effective in improving school supervision, with WECs reported as being more organised and confident, and having better relationships with schools. WECs feel the EQUIP-T training has improved their knowledge of how to carry out their roles: they now know what to look for, whereas before they had not had any structured guidance. However, there are still some WECs who are not performing effectively: they are making very short but frequent visits to schools and teachers feel they are just meeting the minimum requirements.

There appears to be greater accountability and monitoring in the system since BL, with the threat of demotion for poor performance. The new Government has contributed to this, but WECs' transport to schools has facilitated this too. On the one hand, this means that WECs can support HT in managing discipline issues relating to teachers, and, on the other, WECs themselves feel more pressure to perform.

As with WECs, DEOs feel they have benefited from a range of training under EQUIP-T – not only the district planning and management sessions. DEOs are familiar with most of the planning process as taught by EQUIP-T, but they struggle to use it due to systemic challenges: priorities are often imposed from above, basic administrative needs must be met, and the low levels of the budget make it hard to effectively prioritise. This raises a question about how effective EQUIP-T can be in this context.

The reliability of data coming from schools is felt to have improved due to greater verification by WECs, but there are accounts of HTs and WECs being over-burdened with demands for information. WECs do not feel satisfied that the information is being used by the district.

LGAs are receiving EQUIP-T grants, and this mechanism has increased Government ownership of EQUIP-T and LGAs' experience of implementing the activities directly – hence improving the prospects for sustainability of the programme. However, there are doubts about whether the receipt of EQUIP-T grants provides an opportunity to practice the budgeting skills learnt in training, and there have been delays in the receipt of funds at district level. These delays will affect districts' ability to implement the activities planned, putting pressure on capacity.

6 EQUIP-T Component 4: Community participation and demand for accountability

Component 4 of the EQUIP-T programme seeks to address the lack of transparency and accountability mechanisms at school level, which the programme identified as making the education system unaccountable to parents and the wider community. Before implementation, EQUIP-T found that the vast majority of communities and parents felt they were unrepresented in school planning and operations, and were unaware of school challenges, operational decisions and performance (Cambridge Education, 2014). The programme seeks to strengthen communication, engagement, and accountability between schools and communities, through training SCs to fulfil their governance mandate, establishing PTPs to bring parents closer to the classroom, and by providing support so that community-led school needs assessments become embedded in school planning. The IE examines changes in community participation and accountability largely through KIIs and FDGs in the case study schools, with some quantifiable indicators from the IE survey.

This chapter begins with a brief overview of implementation progress for the community component at the time of the IE ML survey, and sets out expectations of change set out in the programme TOC and expressed by EQUIP-T staff who were interviewed in January 2016. The findings section that follows is structured to examine, and, when possible, help explain, changes in community participation and relationships with schools. The final section provides a summary of the IE evidence related to the TOC for this component.

6.1 Programme implementation and expectations of change at ML

The main aim of EQUIP-T Component 4 is to generate demand for an improved quality of education from pupils, parents and wider community members. Box 17 provides an overview of Component 4 implementation up until the ML, expectations of change according to the TOC and expected changes by the programme at the time of the ML. More information on the expected role of SCs, PTPs and the management and use of PTP grants is given in Box 18.

Box 17: Programme aim, implementation and expectations of change

EQUIP-T Component 4: Strengthened community participation and demand for accountability component aim:

- Generate demand for improved quality of education from pupils, parents and wider community members.

Component implementation by ML according to the programme:[89]

- SCs (including HTs) received two days of training from WECs on SC roles, responsibilities, processes and ways of supporting school improvement (including applying for PTP grants).
- PTPs were formed in schools, overseen by SCs. PTPs worked with SCs to make plans for the use of part of the PTP grant, based on broad guidelines (see Box 18).
- Civil society organisation (CSO) facilitators worked with CFs to support communities to develop education needs assessments. The CF role is a short-term role specifically for this task.
- Noticeboards and support materials were distributed to schools.

Expectations of change according to the TOC:[90]

- SCs receive training on roles, responsibilities and financial management.
- PTPs are established, are active in schools, and work with SCs to apply for and use the PTP grants for school needs based on broad guidelines.

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[89] For more information on programme implementation by the time of the IE ML survey see Annex C.3.
[90] From EQUIP-T IE evaluation matrix, 'Component 1: Teacher capacity and performance', in Annex B.

- Noticeboards are used by schools to display information publically.
- Communities develop an education needs assessment facilitated by a community member and CSO, and this feeds this into the WSDP.
- Communications and relationships between the community and school improve, and the community values education more highly.
- Pupil attendance improves.
- Communities are more able to hold schools to account for the quality of education provided.

The programme's expectations of change by ML:

- Greater community involvement in schools, including oversight of teacher effort and financial management of school funds.
- Additional human resource in classrooms because of PTPs.
- Better attendance of pupils as communities value education more highly.

Source: OPM (2016a), EQUIP-T (2015).

Before presenting the findings in the next section, it is first useful to outline the intended roles of SCs and PTPs, and also to explain the size and purpose of the PTP grant (see Box 18), which goes beyond supporting PTP activities to cover more general school needs. In reality, the findings from case schools, described in the next section, show that community- and school-level respondents are much less clear on the difference between SCs and PTPs.

Box 18: Roles of SCs, PTPs and PTP grants

SCs are formal governance bodies in schools, which have a leadership role in school management. Members are a combination of community representatives and school actors, including teachers. The HT is usually the secretary of the SC, while a community member takes on the role of chairperson. The SCs' main responsibilities are[1]:

- addressing school needs and solving problems within the school and between the school and the community;
- managing the school budget, facilitating IGAs, and developing and implementing WSDPs;
- ensuring pupils' attendance and better academic performance through monitoring and educating parents on the importance of education; and
- monitoring teachers' attendance and commitment.

PTPs are supporting bodies, which aim 'to increase representation of parents and bring them closer to the classroom, in order to develop closer home-school links' (EQUIP-T MA, 2015, p. 3). PTPs are a new concept in government primary schools in Tanzania, and there is no national policy on PTPs at present.[2] They are made up of a suggested core representation of 14 parents and seven teachers (one mother and father, and one teacher for each of the seven Standards). The focus of PTPs is intended to be on classrooms (pupils and class teachers), rather than the school overall, with parents actively supporting classroom activities and helping to solve problems such as truancy and dropout, and poor class teacher attendance. However, the mandate is broad, and the anticipated activities of PTPs are not prescriptive – it was intended that each PTP would come up with its own priorities. The overall PTP structure is also intended to be flexible and to develop organically over time. Promoting community engagement in education in a new way is anticipated to be a complex, long-term process, with the initial interventions aimed at establishing PTPs and supporting start-up activities.

PTP grants: The planned grant per school is TZS 550,000, of which TZS 100,000 is for PTP activities, with the rest (the majority) for general school purposes. Hence the term 'PTP grant' is a little misleading and in practice it is a 'PTP-triggered grant', since the establishment of a PTP is a condition for obtaining the grant. As the body with financial authority in schools, the SCs apply for, manage and report expenditure on the grants to the LGAs, with input from the PTP on their spending priorities. The grant has certain restrictions on what it can be used for (there are some prohibited items). The grant is equivalent to about 10% of the value of a full capitation grant in a school with 550 children.

Source: Interviews with EQUIP-T staff (January 2016), KIIs and FGDs in case study schools (April/May 2016). Notes: (1) These responsibilities are not exhaustive. (2) There is a national policy on Parent-Teacher Associations (PTAs) which are formal legal bodies. The concept of PTPs was adapted from this and was intended to be less formal and more flexible.

6.2   Findings

This section presents evidence from the IE BL and ML to assess whether and to what extent changes in community participation and accountability have occurred as expected, and if key TOC assumptions hold.

6.2.1   Provision of training for SCs (EQUIP-T input)

About three-quarters of schools (76%) report that their SCs received training in 2014 or 2015. Almost all of these schools named EQUIP-T or WECs or HTs as the providers of the training. It thus appears that training coverage is high but not total. SCs are part of the core school governance structure, and, as at BL, almost all schools (99%) have SCs. While all SCs across the case study schools have received some training in the last two years, they appear to have received training from different actors, including other development programmes.[91] This makes it difficult to determine when informants are referring to EQUIP-T training. There seems to be a lot of confusion around which programme provides what.

TOC (input to output) assumption: SC training is effective and relevant, SC members attend

There is a lack of clarity around who has attended SC training in the case study schools and around the training content. This seems to be due to issues of definition, uneven implementation, and the existence of multiple actors providing training.[92] It is unclear whether all SC members attended training, even when it was provided, as well as what content the training covers – with respondents unclear about the specific learning components and main takeaways from training. When SCs speak explicitly of **EQUIP-T training, they feel it does not fulfil the full purpose of capacity building, but rather they see it as an informative lecture – with further training needed on how to be effective as a SC**. SC members distinguish between seminars and training, with seminars being seen as brief meetings where SCs can discuss school issues and solutions, and training being seen as providing more structured learning opportunities; they see EQUIP-T training more as the former. It is relevant to note that the EQUIP-T SC training programme and materials are based on an action learning approach, but there appears to have been some dilution of approach down the training cascade to school level.[93] SCs feel more targeted training is necessary in order for them to understand their roles and responsibilities, as well as to increase their capacity to carry these out.

6.2.2   SCs' capacity increased (EQUIP-T output)

There is a significant improvement in HTs' perceptions of the value of the contribution and support provided by the SC to the school. At BL, around 54% of HTs said that support from the SC was good or very good (based on a five-point scale from poor to very good) and this had risen to 74% by ML. This is one indication that many HTs view SCs as more useful following training.

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[91] Millennium is one example of another development programme mentioned in the case study research.

[92] It is important to acknowledge that there may be an element of social desirability, with respondents wanting to show what EQUIP has done in order to cooperate with and help the research team in their research. As such, respondents may at times assign components to EQUIP that other actors such as the Government or the Millennium project are in fact responsible for implementing.

[93] The training manual on roles and responsibilities of SC is based on principals of active learning and includes activities for SCs to practice skills. The training cascade was: EQUIP-Tanzania Technical Lead Specialist (TLS) and Advisor from Dar office trained a core group of master trainers including the EQUIP-T regional staff and REO. The master trainer team including the Dar-based TLS and Advisor went on to train DEO and School Quality Assurers who in turn trained HT and WEC to enable them to deliver training to the SCs.

SCs in the case study schools generally understand their roles and responsibilities, and see themselves as overall problem solvers in the school. Respondents say that it is now mandatory that SCs approve all the proposals for how to use money for school improvements before implementation (including PTP grants), as well as supervising IGAs. SCs represent the voice of parents in decision-making meetings with teachers, and are seen as having responsibility for enforcing parents' priorities. As discussed in the sections below on communication, and on engagement, it is, however, unclear the extent to which this occurs in practice, and whether parents' voices do feed into the school committee agenda.

As an indication of changing priorities for SCs between BL and ML, the main topics discussed at the last SC meeting show different patterns. **At ML, school finance, including parental contributions, dominates SCs' discussions in more schools (40%) than at BL (26%)**, and school development planning is also more prominent at ML (15% compared with 7%) – consistent with the increase in WSDPs being available (see Chapter 4). Pupil discipline and absenteeism is discussed less at ML (8%) than at BL (18%). Only 13% (BL) and 11% (ML) of schools referred to academic progress as the main topic of discussion.

At both BL and ML, the vast majority of SCs (91% at BL and 84% at ML) shared minutes from their last meeting, which is one indication that most SCs are active in terms of holding meetings. In the case study schools, however, several SCs indicate that they find it difficult to meet regularly due to lack of incentives for members. Besides wanting monetary incentives, **all SCs, as well as other respondents, note the need for more training in order for SCs to be able to perform their duties successfully** (despite the finding that about three-quarters of SCs have received training, many SCs members in case study schools have received little to no training. see Section 6.2.1). There is some suggestion that SC members may be expecting training to occur, and for their 'roles and responsibilities' to only start once they have been told what to do. In many cases, the HT appears to be key to the effectiveness of SCs' work. SCs in communities where the HT '*involves the committees in anything that happen within the school*' (Mother, School 3, District A) appear to function better due to better communication and increased motivation to engage with the school. Some SCs perceive that a lack of cooperation at different levels (parents/community and district/Government level) imposes constraints in regard to their overall capacity and motivation.

Data from the case study schools suggest that EQUIP-T has given SCs more power to manage the school budget and supervise school resources, as the budget increases with the EQUIP-T PTP grant. It seems to be a change that SCs are now perceived as '*the school owner, the school cannot buy anything until they have received consent [from the SC]*' (Teacher, School 1, District A). SCs say that there are certain guidelines, and that they have to use grants to address concrete school needs, such as getting new desks, building toilets, or providing sports facilities. It is not always clear whether stakeholders are referring to EQUIP-T PTP grants or Government money (including capitation) or both, and whether these are spent on different things.

Moreover, SC members state that they now check on teachers' attendance and commitment by regularly supervising teachers' activities and behaviour in school. When issues emerge, the SC brings it up at school meetings, and if the problem persists SCs bring it to the attention of community authorities. However, in the majority of case study schools other respondents do not validate this: they indicate that while SCs themselves appear to be aware that this is part of their responsibilities, they do not necessarily fulfil this responsibility. In two schools, teachers say that SC members do at times check in on classes, though this appears to be *ad hoc* rather than taking the form of structured monitoring.

Overall, there is a **general perception that SCs are more active and engaged, both within the school and between school and community, than in previous years**. This interaction and

engagement is seen as contributing to an overall improvement in pupils' attendance in the three districts. Notably, though, SCs and other stakeholders, especially parents and community leaders, tend to **attribute improvement in SCs' attitudes and work to the new HTs' ability to supervise and involve the committee**. EQUIP-T is not mentioned in relation to this issue unless interviewees are probed, and the perceived contribution made by EQUIP-T tends to be limited to the grants. Still, **through grants, WSDPs and HT involvement, EQUIP-T appears to play a role in the changes** – in spite of the fact that respondents have the perception that other factors, such as a change in HT, have a more direct effect.

6.2.3   Formation of PTPs (EQUIP-T input)

One of the key inputs of EQUIP-T under Component 4 is the establishment of PTPs to 'increase parents representation and bring them closer to the classroom in order to develop stronger home-school partnerships' (EQUIP-T MA, 2015, p. 3). The roles and activities of PTPs under this broad mandate are intended to be decided by each school based on their own priorities (see Box 18). This lack of specificity appears to cause some confusion at school level. Respondents in case study schools say they are unclear about the difference between SCs and PTPs, and they see their roles as overlapping significantly. SCs are seen to have a more formal role, while the roles of PTPs are less defined.[94]

Almost all schools have a PTP at ML (96%). This is a major and significant change from BL, where only 14% of schools reported having a parent–teacher group (defined as a group that includes parents and teachers and that meets regularly). The near universal formation of PTPs provides a positive foundation for better community engagement with schools. Eight out of the nine case study schools had established PTPs. The election process is fairly standardised. 14 parents and seven class teachers sit on the PTP, with parents electing one father and one mother from each class during a parents meeting. PTPs thus appear to be gender-balanced, with parent members having children in the class which they represent, together with the class teacher from that Standard.

Interestingly, **many parents and teachers, unless they are part of the PTP, are not aware of the existence of the PTP**. Although HTs and SCs may mention PTPs, and PTP members themselves may state that they are active, their level of activity and ability to bridge a gap between parents and schools is questionable, since it appears that the wider parent community is not aware of PTPs. In several schools which have a PTP, respondents only acknowledge this after explicit prompting.

6.2.4   PTPs are active, SCs/PTPs apply for and use PTP grants for needs of school (EQUIP-T output), PTP grants are provided (EQUIP-T input)

After being elected, the majority of PTPs in the case study schools have not been active. Based on HT's views, the school survey found that just under half (47%) of PTPs took some action to improve education in the school in the previous school year (2015). Given that PTP formation is near universal, this implies that only about half of PTPs appear to be active at this early stage according to HTs. In three case study schools PTPs display some level of activity, and respondents feel that PTPs contribute to improved relations between schools and communities, and to a decrease in pupil absenteeism, as PTPs help SCs by speaking to parents and sending truant children to class. Consistent with this, the school survey found the most common action carried out by PTPs (as reported by HTs) is ensuring pupil attendance – some 31% of schools have PTPs which are doing this. Nonetheless, only one case study school mentions the PTP as

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[94] There were some cases where awareness of PTPs was high among respondents and they were able to identify the main roles of PTPs as distinct from SCs.

the reason why absenteeism has reduced: '*changes that have occurred after this programme started is that there was a reduction of absenteeism in class because there was a selection of two representatives from each class to make follow up on that*' (Mother, School 1, District B). Instead, reduced pupil absenteeism is mainly credited to HTs and SCs engaging more actively with communities. Respondents in case study schools also state that parents are given fines if pupils do not attend, and schools threaten to take parents to court.

Other actions taken by PTPs according to the HTs surveyed were: improving school infrastructure (8% of schools have PTPs who did this), monitoring teacher attendance (4% of schools), and counselling pupils (3% of schools). A further range of actions were carried out by PTPs in less than 2% of schools (respectively for each activity): parents assisting in classrooms, organising extra tuition, providing teaching and learning materials, organising school feeding, organising extra-curricular activities, carrying out IGAs and fundraising.

Case study schools perceive there to be a link between PTP inactivity and the lack of capacity building for PTP members. While HTs in the school survey reported that 41% of PTPs had received some training, the nature of the training and the extent of participation by PTP members was not reported. It seems reasonable to assume that this was either self-organised by schools or by WECs, following the training of the SC on establishing the PTP (direct EQUIP-T PTP training is not part of the planned programme). However, case study schools did not mirror this, as no respondents reported PTPs having received training.[95] Notably, respondents expect EQUIP-T to provide training for PTPs, contrary to the programme's assumption that PTPs will be self-organised, with minimal training. In fact, some respondents legitimise PTPs' inactivity due to the absence of training, and PTPs thus often appear to have been waiting for training since their election, before implementing anything.

The engagement of the HT in the PTP appears to affect its functioning. In schools where PTPs are somewhat active, the HTs appear to act in a supervisory capacity, defining the PTP's role and responsibilities, with several respondents referring to the HT as a 'supervisor' (school 3, district A; school 2, district A). For example, in School 3, in District A, the HT has assigned the responsibility for health education to members of the PTP, where mothers and fathers come and speak to girls and boys respectively about puberty and personal hygiene. The HT decided to do this to avoid overlap between the SC and PTP's responsibilities. With the HT directing the roles and responsibilities of the PTP, and doing so taking into consideration the power balance between the PTP and the SC, PTPs may lose some of the agency and initiative envisioned in relation to EQUIP-T's aim of empowering parents.

According to WECs, HTs and parents, the absence of allowances is a key to understanding PTPs inactivity. A number of WECs describe how PTP participation has dwindled over time as members realised they were not going to receive allowances. By contrast, two of the HTs consider PTPs to be a sustainable component of EQUIP-T precisely because there are no allowances for PTP members. If PTP members can become active without allowances their activities are likely to continue after the programme ends. However, in the case study districts, pupils' families are poor and are often pastoralists. Being a PTP member is a voluntary position, and parents thus face an opportunity cost each time they take part in PTP or school activities.[96]

In spite of their low activity, **respondents in case study schools are generally positive about the idea of PTPs.** Where operative, schools perceive PTPs to have brought about positive

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[95] As no FGDs were conducted explicitly with PTP members, it was not always the case that the FGDs included anyone from the PTP. Moreover, HTs were new in many case study schools and as such might not be aware of prior training.
[96] See further discussion in Section 6.2.8 on parents' participation in schools.

changes by keeping parents involved in education issues and, hence, raising their level of awareness and empowering them. However, while the election of PTPs does this symbolically, the lack of activity of PTPs in most schools suggests that the perception may be more theoretical at this stage–change could occur through establishing PTPs, but so far there are few concrete examples of PTPs contributing to the perceived changes.

Provision and use of PTP grants

EQUIP-T reported delayed disbursement of PTP grants such that no grants had reached schools by the end of 2015 (EQUIP-T, 2015). When the research team visited case study schools in April/May 2016 they had just received their first PTP grant, which may explain why PTPs in the majority of case study schools have not been active yet. Respondents explained that when the schools receive EQUIP-T funds, PTPs and SCs sit together to decide where to allocate some of the money.

EQUIP-T staff say that all SCs/PTPs submitted grant applications before receiving the funds. School respondents explained that TZS 100,000 can be used by the PTP for smaller projects and expenditures, while the SC uses the rest for bigger projects, such as buying cement for structural works or to implement IGAs, such as the cultivation of sisal. There appears to be a lack of clarity at the school level around the purpose of the PTP grant. PTPs in case study schools spent the grant on anything from glucose to sports equipment or chickens, which may reflect different priorities (in line with the flexible PTP guidelines, See Box 18), but this spending did not appear to be supporting plans with clear objectives. As PTPs in the case study schools have not received any training, and in many cases the parent representatives appear to have had little involvement with the school prior to receiving the grant, the extent to which PTP parent representatives are empowered to take joint decisions with the teacher PTP representatives about how this money is best spent is questionable. The qualitative data are also not able to tease out the extent to which PTPs have agency in making this decision, or whether SCs and HTs play a major role in this.

6.2.5 Community-led school needs assessments developed (EQUIP-T input), which feeds into school development plan (EQUIP-T output)

Another key output of EQUIP-T is the community-led school needs assessment, aimed at fostering communities' involvement in schools and ensuring that schools take account of community priorities. According to the programme, this needs assessment is meant to be led by a community facilitator (CF), who is trained by a CSO. The CF then conducts the school needs assessment, together with a village task force (VTF), and develops an action plan that feeds into the school development plan. The CF role is a temporary role, specifically for facilitating the needs assessment.

Awareness of the community-led school needs assessment process is very weak among respondents in the case study schools. Even when prompted, almost all stakeholders say they do not know if their community has or had a CF or what a CF's roles and responsibilities were/are. Only two schools say their community selected a CF (though it is not clear how). In one of these schools, the CF was a member of the SC, and part of the FGD in that school. He was unable to clearly communicate his role and responsibilities as CF, and no further implementation (apart from identifying a CF) appears to have taken place.

Similarly, stakeholders across the three districts do not know about VTFs. Apart from the CF above, there was no mention of a specific VTF established to carry out the function envisaged by EQUIP-T. All communities refer to other VTFs, already in place before EQUIP-T. Each community

has various VTFs that focus on infrastructure, health and other issues in the community. However, an education-specific VTF does not appear to be in place. Overall, stakeholders lack clarity on each actor's role and responsibilities. It seems that respondents are aware of those bodies or roles that were in place before EQUIP-T (SCs and community leaders), but there is a lack of understanding of the roles and responsibilities of EQUIP-T-established actors (PTPs, CFs and VTFs).

The school survey paints a more positive picture of the extent of community-led school needs assessments, but still **less than half of HTs (44%) report that their school community has carried out its own assessment of school needs in either of the past two school years**. This share drops to 33% when HTs are asked if any action has been taken either by the school or the community based on a community needs assessment. **Improving school infrastructure is by far the most common action resulting from community needs assessments**, with 23% of HTs reporting that this took place in their school.

There is little evidence that any community-driven assessment is feeding into school plans or priorities in a formal way. In case study schools, SCs, parents and community leaders appear to confuse community-led school needs assessment with village meetings, where the SC or HT informs the community of school needs and then the community debates over the issues to be solved, and evaluates whether the community has the capabilities to address those issues. Instead, when asked about community-led needs assessments, respondents refer to the WSDP that SCs develop, and they explain that this is a school-driven process. In FGDs parents state that the community is hardly involved in any assessment processes. Thus, though some respondents may say they have conducted a community-led school needs assessment, this appears to be blurred with any process in which the community is involved, and often appears to be a top-down assessment (the school informing the community) instead of being community driven.

6.2.6 Provision of noticeboards (EQUIP-T input)

To encourage increased communication between schools and communities, and higher transparency, EQUIP-T has provided noticeboards to schools. Schools are supposed to hang the noticeboard in a public place, and to display relevant information for school- and community members. Out of nine case study schools, eight have a noticeboard, and respondents frequently refer to the noticeboard as one of the resources the school has received from the programme.

6.2.7 Noticeboards display relevant information publically (EQUIP-T output) and there is improved communication between schools and communities (EQUIP-T outcome)

School information is much more visibly displayed to the school community at ML compared with BL. The proportion of schools with a noticeboard displayed publically (outside on the school premises) has increased significantly, from 49% at BL to 72% of schools at ML. However, only three of the schools visited (all in District A) displayed the noticeboard outside the school building, while two schools had them inside the teachers' office, two inside the HT's office and in one school it is not clear where the noticeboard was located, but it was referred to by respondents. While all schools in District A had their noticeboards on display, in at least one of these schools – and potentially two – it seemed like the noticeboards were not normally hung outside the school building. In School 3, District A the research team found groups of pupils standing in front of the noticeboard, acting like it was a novelty. The team asked various pupils about the noticeboard and they all said the school had hung the noticeboard there the day before.

The type of information displayed on the noticeboard at ML is mainly teaching and learning information (such as academic results), and school planning or financial information, and this reflects a significant change in practices since BL (Table 17). At BL only 2% of schools had a public noticeboard with planning or financial information displayed, while at ML 32% of schools did. Similarly, at ML about one-third of schools displayed teaching and learning information, up from 10% at BL.

Table 17:   School noticeboard use

Indicator	BL estimate	ML estimate	Difference	BL N	ML N
Schools with noticeboard displayed (% schools)	49.0	71.7***	22.7	100	100
Types of information displayed (% schools)					
Plan/financial information	1.5	31.9***	30.4	100	100
Teaching/learning information	10.3	32.8***	22.5	100	100
Attendance information	8.2	6.5	-1.7	100	100
Events information	7.7	18.1*	10.4	100	100
No noticeboard displayed	51.0	28.3***	-22.7	100	100
Source: IE BL and ML surveys (head count/school facilities observation). Notes: *** p<0.01, ** p<0.05, * p<0.1					

The progress in sharing information since the BL is very positive, but it is clear that **there is still a fairly large minority of schools who are not displaying school information publically on a board.** Some schools may have received boards from EQUIP-T but they are not using them publically, as was the practice in the majority of case study schools, while a minority of schools may not yet have received boards from EQUIP-T.[97] Even those schools who are using public noticeboards are typically not displaying a range of core school information. Parents and community members did not refer to the noticeboard as a source of information. As parents rarely come to school (discussed further below), they are not likely to see the noticeboard as a means of finding out what is going on in the school.

Both school and community respondents have the perception that, overall, communications between parents/communities and schools have improved in the last two years. Parents, SLM actors and teachers report that schools now contact parents not only to inform them of a forthcoming meeting or of the results of examinations at the end of the year, but also to discuss a greater number of pupil issues (absenteeism, behaviour at school, commitment to studying) than in previous years.

As at BL, the case study research found that letters or oral messages delivered by pupils are the main means of communication between parents and schools. If the pupil is absent, teachers give the letter to another student living nearby. Various FGDs with pupils found that pupils feel responsible for delivering these messages or letters. Although the majority of them seem to accomplish this, some pupils report that they '*tear and throw them* [the letters]' (Child, School 1, District B). Therefore, this method of communication appears to not always be reliable. Furthermore, if parents are not able to read Kiswahili, pupils have to read the letter for them.

Other forums for communication mentioned were village and school meetings (with letters or oral messages mainly used as a means of communicating a time for these meetings). Schools are required to hold annual meetings of parents and teachers as a basic communication and

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[97] Three months prior to the survey, the programme had delivered boards to 88% of target schools, according to the EQUIP-T annual report (EQUIP-T, 2015, p. 3).

engagement mechanism. Both at BL and ML, the vast majority of schools reported that they hold these meetings, but, encouragingly, this practice is significantly more common at ML (96% of schools, compared with 87% at BL). As further evidence that these meetings take place, about two-thirds of schools at both BL and ML were able to show minutes from their last parents–teachers meeting. The actors who are involved in the communication between school and parents/communities are mainly SCs and community leaders.

The majority of respondents in case study schools do not directly refer to the role of EQUIP-T in improving communication and transparency. Nevertheless, respondents (including HTs, teachers, SCs, community leaders and parents) refer to there being more transparency now than two years ago, and they attributed this to an open dialogue between schools and communities through discussions around the WSDP and budget management. As such, **it appears that EQUIP-T has positive effects on transparency through its training on WSDPs, though respondents are not necessarily aware of EQUIP-T's role in this.**

6.2.8   The community values and participates in education more (EQUIP-T output)

The involvement of communities in education appears to have improved, although this seems to be a slow process. Respondents say that community members attend village meetings more (regularly), and respond more positively to requests from schools (such as helping to build or repair school infrastructure).

The research found that the main reason behind parents' increased involvement is the improved relationship between parents and teachers. In case study schools where the relationship between teachers and parents is good, or has improved, parents feel more responsible for the school's development and for the pupils' education. Being involved with teachers makes parents feel more confident about actively participating in a school's life. HTs and SCs in one school mention the PTP as a reason for why parents are now more involved (School 1, District B), as it directly creates a space for parents and teachers to meet.

HT's are less positive about the involvement of communities with the school. Only 3% of HTs at BL and at ML assess community support to the school as good or very good (on a one-to-five scale, where one is poor and five is very good). It is clear that HTs see some scope for improving the level of community support to their schools.

The most common topic discussed at annual parents–teachers meetings is academic progress, suggesting that parents are concerned with pupil learning and want information about this. Some 32% of schools at ML hold a meeting where academic progress is the main topic, similar to the share of schools at BL (Table 18). Overall, the main topics discussed do not appear to have changed much between BL and ML, with pupil discipline, absenteeism and dropout being the next most common subject. The only significant change is the apparent increase in discussions focused on school finance, including parental contributions. This may reflect the new contribution-free education policy announced at the end of the 2015 school year, but it may also overstate the change as the figures may not be strictly comparable (see footnote in table).

Table 18:   Topics discussed at parents–teachers meetings

Indicator	BL estimate	ML estimate	Difference	BL N	ML N
Main topic discussed at last parents–teachers meeting (% of schools):					
Academic progress	27.8	32.4	4.6	100	100
Pupil discipline, absenteeism or dropout	22.3	19.3	-3.0	100	100
Teacher discipline	0.0	0.8	0.8	100	100
Teacher supervision/support	0.6	1.2	0.6	100	100
School development plan	8.2	6.6	-1.6	100	100
School finance, including parental contributions	0.0	11.7**	11.7	100	100
Infrastructure	5.4	8.9	3.5	100	100
Other	22.4	15.3	-7.1	100	100
Don't hold parents–teachers meetings	13.3	3.8	-9.5***	100	100
Source: IE BL and ML surveys (HT interviews). Notes: (1) At BL the category was titled 'School finance' and enumerators were instructed to include the topic of parental contributions, but at ML the words 'parental contribution' were added explicitly to the category, so the BL and ML estimates are not strictly comparable. *** p<0.01, ** p<0.05, * p<0.1					

Additionally, **parents in case study schools appear to be more involved in monitoring pupils' learning than two years ago, though this involvement is still limited**. Parents refer to assessing teachers' commitment and attendance through checking children's exercise books. Some stakeholders acknowledge that there are limitations to this form of monitoring, as sometimes children copy work from each other or teachers simply make children copy from the board. Furthermore, some parents are illiterate and are not able to check notebooks. Notably, even in cases where parents are aware of possible biases in judging teaching/learning only by checking notebooks, parents say they rarely (if ever) take further action. Moreover, parents will not necessarily be able to assess the quality of teaching as they are not themselves educated. Many parents in FGDs stated that they felt they were not able to comment on academic progress or the quality of teaching in the school, and that teachers know better what goes on in the classroom.

Furthermore, as discussed above with reference to SCs and PTPs, pupil attendance has increased, which is one indicator of a more involved community. However, **respondents (including parents) say that not all parents in their communities see the importance of getting an education and therefore they are not always motivated to send their children to school**. In line with this, teachers in all case study schools feel that parents' attitudes towards education is still one of the main challenges, and they blame parents for pupil absenteeism. As one teacher puts it:

> '…*you find children are coming to report: "my father asked me not to come to school", "mother asked me to not attend school". This creates a conflict between parents and teachers. We believe that children do not tell lies, and when they come to school they say: "teacher don't punish me, I like school but my father said we have to go to weed the tobacco farm or apply insecticide or do this and this."* (Teacher, School 2, District B)

Still, as the above quotation illustrates, teachers acknowledge that there is an economic element to parents keeping their children from attending school – and thus this cannot necessarily be 'fixed' as a result of parents' attitudes changing. Many families are poor and need their children to contribute to the household. Teachers report that the lack of economic returns to education reinforces the reluctance that parents have in regard to bringing their children to school. This is particularly the case for pastoralist communities, where teachers and other school actors, as well

as community leaders, report that parents consider education to be superfluous, and, in fact, a barrier to their pastoralist way of life. Respondents explain that pastoralist families have always managed to provide for their household through farming and grazing, without receiving education themselves. However, when asked what they expect from the school, all parents agree that they want their children to get a good quality education so as to be able to pass exams and get a good job. Families' socioeconomic realities thus remain a challenge to pupil attendance.

Thus, **both teachers and parents refer to lack of awareness of the importance of education as a challenge for teaching, but agree that it is improving**. HTs mention that EQUIP-T's focus on community involvement in INSET and SLM training helps school actors to improve parents' attitudes to education. These references to the increased awareness of the value of education are, however, somewhat in contrast to other statements by pupils and teachers that parents keep their children from school in order for them to help with farming and other IGAs. Still, it appears that parents may view the idea of education positively, though they may not always see it as feasible within their own realities.

TOC assumption: Parents and community have the capacity and resources to engage more fully in education

As with members of the PTP, parents feel they are not able to be as involved in school matters as may be expected of them. In all case study schools, the harsh conditions of their lives limit the ability of communities and parents to be involved in education. All of the parents spoken in FGDs of finding it difficult to come to the school or attend meetings as they have other priorities. As one father explained: *'the only constraint is hunger at home […] you find yourself going for farming activities and not school matters'* (School 3, District C). Many parents live far away from the school, with some members of FGDs having walked for over an hour to attend the discussion. As such, there is not necessarily a link between low involvement and lack of interest or motivation, but rather it is the case that parents do not have the capacity in terms of time and resources to involve themselves in school matters.

TOC assumption: Parents continue to contribute to education

The implementation of contribution-free education was intended to take place from the start of the 2016 school year.[98] In the case study schools, respondents frequently cite perceptions around the new Governmental circular on free education as discouraging parents from being involved in school matters. As a teacher in School 3, District C explains:

'*You know this problem* [of community's lack of involvement]*, it is influenced by politics. We expect to [be able to] involve the community in making bricks and construction activities, but now when you try to ask the community to get involved in school matters they will tell you "the Government says the community is not allowed to do anything, the Government itself will do it."'*

This finding is consistent across case study schools. Schools thus state that they find it difficult to involve communities after communities have been told not to contribute to their children's education. Respondents tend to interpret 'community participation and involvement' mostly on a monetary/resource-driven basis, with communities involving themselves in schools either through payments or helping with construction. As such, schools feel that the announcement has had an adverse effect on involvement (meaning monetary contributions in most cases). Although this

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[98] The IE ML survey cannot confirm whether schools experienced a sharp reduction in parental contributions in the first quarter of 2016 compared with previous years because it collected information on funding received in the previous school year only.

policy does not seem to be an impediment to communities' participation in all school matters across case study sites, in some cases, as in School 3 in District C, it seems to legitimise a community's lack of involvement.

6.2.9   Improved relationship between schools and communities (EQUIP-T outcome)

As at BL, effective communication is widely viewed as the key factor in leading to a good relationship between the school and community. Respondents refer to previous conflicts regarding corporal punishment, stating that instead of now coming to school in anger, they sit down with HTs or at village meetings and discuss the issues. Some schools have thus reached agreements around how many times teachers can use the cane on a pupil.

However, though communication may have improved this does not necessarily result in an improved relationship between parents and teachers. This fact seems to be related to contrasting ideas of what is best for the school, the community and for pupils. Some teachers tend to see parents as obstacles to the changes they want to make. As one teacher explained:

> '*It reached a time when we set out road bumps, because cars are passing here with high speed, but some parents removed all road bumps that we set and said: "what is the meaning of doing that, we have been without road bumps for so many years". They think they know better than us.*' (Teacher, School 2, District B)

Parents, on the other hand, at times feel that teachers always '*give directives, there is this and this and this*' (Mother, School 3, District A), and in this sense they feel they look down on them slightly, as exemplified by the quote above. As teachers come to rural schools in communities that are different from their own, this clash is likely to occur, with teachers seen as imposing unwanted changes rather than being part of the community and its development.

Consequently, the extent to which teachers are a part of the community in which they live seems to affect the relationship between parents and teachers. In those cases where teachers are seen as part of the community, the relationship is perceived to be good. Parents say they do not feel encouraged to engage with teachers, as they only see them during meetings, and they feel that teachers are not interested in getting to know parents. Teachers themselves feel that parents want them to get involved, but on their own terms, while teachers feel they do not always fit into the communities in which they are placed: '*if you don't mix with them in their gathering and play gambling or wear a nice cloth they regard you as someone who just shows off*' (Teacher, School 2, District B). This proximity, or 'mixing', and its effect on relations, seems to be related to whether schools have teacher houses or not, and as such whether teachers stay in the communities after school closes, or if they instead commute to the city. However, some respondents report conflicts between, in particular, single female teachers and communities, as their lifestyles are not seen as proper, and are outside of community norms.

As such, while there are still conflicts between parents/communities and schools this is seen to have improved in most cases – mainly due to increased transparency and communication. Though this improvement is not directly linked to EQUIP-T, it is arguably due to the fact that HTs and SCs are more involved in the community through the WSDP process– as well as through new HTs directly engaging with the community by visiting parents etc. Communities state that, though they do not need to be involved in decision-making within the school, they prefer to know what is going on, and they state that if they have this knowledge it makes them more positive towards teachers and HTs. Thus, parents and communities feel that as the school involves them more, the

relationship improves, though they attribute this to the HT (including through the SC-led WSDP process), rather than directly to EQUIP-T.

6.2.10 Community holds duty bearer to account to improve education quality (EQUIP-T outcome)

Many parents stated in FGDs that they feel they are more empowered than at BL in regard to holding school management and teachers to account for issues such as corporal punishment, child labour, IGAs and, to some extent, for budget management. Changes seem to be the result of effective and encouraged interactions between schools and communities that have taken place in the last two years through village and school meetings:

> *'The community has an influence especially for the case of education, when they see that education is deteriorating, they must ask us the reasons for that, and we also have to take such information to required place and later give them feedback.'* (SC, School 2, District B)

However, some parents still feel that schools do not listen to their opinions, and that schools only consult parents on issues they know they will agree with. As such, parents feel that school leaders do not share information with them enough through school meetings, especially '*when they want to approve something that the community will not agree with, they do it on their own without calling community meeting*' (Father, School 3, District A). School budget management and money allocation seem to be the main areas of debate where parents do not feel sufficiently involved, though, as discussed, respondents feel this has improved drastically since the recent work on WSDPs.

Additionally, parents state that they fear the repercussions if they try to hold teachers to account for issues that directly concern their children's learning and treatment at school (such as attendance): '*it happened to my fellow parents. [They were] told that they do too many follow-ups about their children in school, so we lose confidence and get scared that teachers will not teach our children*' (Mother, School 3, District B). This notion that teachers will refuse to teach children, or will transfer away from the school, is a prominent perception among parents, community leaders and SCs. All state that since they already struggle to motivate teachers to stay and teach,[99] they worry that additional questioning of teachers will lead to the school not having any teachers left. Communities and parents thus feel that they struggle to hold teachers to account, since they do not have any bargaining power in the matter. However, as with HTs, the increased involvement of WECs and the Government slogan of '*hapa kazi tu*' make parents and communities feel more confident about asserting their opinions on education, as they feel they have more of a foundation to stand on.

Lastly, in some case study sites the overall perception of parents and other respondents is that communities/parents do not have enough knowledge or understanding of school matters to be able to hold schools to account. Instead, both parents and teachers see it as the school's responsibility to guarantee the quality of education and school development, as they have the capabilities to do so, with one teacher stating, '*[the] community normally depends on [the] school to provide opinions…it is not possible for the opinions to come from the village government to school*' (School 2, District C). Some teachers believe that communities/parents do not exert an influence in the school as '*they don't care about anything*' (School 2, District A). If in some cases this reflects the *status quo* in regard to the value communities place on education, in other cases it seems that

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[99] See further discussion on teacher motivation in Chapter 3.

school actors are not considering the opportunity costs that parents face in engaging with education.

6.3 Summary of IE evidence on community participation and demand for accountability

SCs are perceived to be more active and engaged, both within schools and between schools and communities, than in previous years. A far higher share of HTs also say they value SC support than was the case at BL. SCs' role as approvers of school budgets also seems to have strengthened. Respondents put this greater engagement down to the more active role of new HTs in the case study schools, but the provision of PTP grants and the EQUIP-T SLM training on school development planning also plays a role. There is little evidence to suggest that the EQUIP-T SC training has boosted the capacity of SCs substantially, and about a quarter of schools say that they did not receive SC training. There is a demand for further capacity development of SCs.

Almost all schools have formed PTPs, but the activity of PTPs seems limited, for a number of reasons: lack of training and therefore lack of understanding of responsibilities; confusion about the difference between PTPs and SCs; and low motivation due to lack of incentives. There is also a sense that PTPs were waiting for the grant to arrive in order to start their activities. There are mixed opinions about the sustainability of PTPs – on the one hand, they require a grant to incentivise any activity, and parents are reluctant to participate due to the lack of an allowance – on the other hand, where they are active, PTPs demonstrate what can be done without allowances.

Awareness of the community-led school needs assessment in the case study schools is very weak, suggesting that if these have taken place they are not well known and have had little involvement of community members or the school. About one-third of HTs in the school survey were aware that this exercise had taken place and said that some action had been taken as a result to improve education (most commonly infrastructure). There is little evidence that community assessments have fed into school plans or priorities in a formal way.

Both school and community respondents perceive that, overall, communications between parents/communities and schools have improved in the last two years. Schools are said to contact parents more often than in the past to discuss pupil issues. The more open dialogue around the preparation of WSDPs, following the EQUIP-T SLM training, seems to have contributed to this change in communication via the SC. EQUIP-T supplied noticeboards to schools, and information is being much more visibly displayed to the school community at ML compared with BL, but it is not clear if parents use noticeboards as a source of information. A sizeable minority of schools keep their noticeboards in school offices.

The involvement of communities in education is perceived to have improved, mainly because of improved relationships between parents and teachers. Parents are monitoring their children's learning more than in the past, and pupil attendance has improved. There is only limited evidence from the case studies that this is linked to PTP activities. Where the relationship between parents and teachers is good, parents seem more willing to get involved, and more confident about doing so, which is in line with EQUIP-T's TOC. Still, both teachers and parents point to a lack of community awareness of the importance of education as a challenge for pupil absenteeism (which is still alarmingly high) and teaching, but they agree that this awareness is improving, and that this is linked to EQUIP-T's focus on community involvement in teacher INSET and SLM training. More generally, though, school and community relationships still appear to be fractious, with teachers

dissatisfied that parents do not value education more highly, and parents dissatisfied that teachers look down on them.

While parents say they are more empowered to hold school management and teachers to account on some issues compared with BL, there are also issues they feel ignored on, and they are also scared to challenge teachers for fear of repercussions in regard to their children's learning experience. Parents mainly attribute change to more effective village and school meetings held in the past two years, but parents still do not feel involved enough, particularly in school budget debates. In some case study sites, parents and other respondents feel that communities do not have enough knowledge or understanding to hold the school to account in regard to the quality of education.

7   Cost of the EQUIP-T programme

7.1   Introduction

The cost study is intended, first and foremost, to inform the GoT of the costs of the programme, and the estimated costs of adopting and rolling out (parts of) the EQUIP-T model. It is further intended to inform the EQUIP-T MA of what the major cost drivers are, and to inform any programme adaptations. At endline, the study will be able to present the direct costs of the programme relative to impact, measured as changes in pupil learning outcomes, giving an aggregate indicator of cost-effectiveness. The endline study will also include analysis of the Government's recurrent budget for education, to give a sense of the affordability of taking on (parts of) the model.

This chapter explores and analyses the spending of EQUIP-T as at ML. The overall budget for EQUIP-T is £50 million, of which approximately £36 million goes to programme support spending and £14 million to TA. The programme will run for 4.5 years, and this analysis covers the first two years of activity and spending across all seven regions and the five components. The chapter identifies major cost drivers of the programme, and how they have varied over time. It also looks in more depth at the costs of different models of running INSET for teachers. If the GoT were to adopt or adapt the programme, this analysis gives some assessment of what the cost would be of running each of the components of EQUIP-T.

The EQUIP-T programme started with preparations and development in February 2014, and then rolled out implementation of activities in schools from August 2014.[100] Throughout, the EQUIP-T MA has managed funds centrally, holding a budget and accounting for spending whether that spending was made in the headquarters, or at the regional, district or school levels. In 2015 the decision was made to accelerate a shift to decentralised fund management, with over £22 million of the programme support budget (61%) going to LGAs directly. This began in the financial year of July 2015 to June 2016, with LGAs recording and managing an EQUIP-T budget through the standard Government financial system. LGAs received their first tranche of funds in November 2015.

Thus spending in implementation so far can be split into three categories:

- Programme support activity (PSA) funds managed by the MA – originally all PSA funds were managed by the MA, but since decentralisation this is reserved for activities at regional or national levels, the supply of equipment and materials, service contracts and printing and distribution costs;
- PSA funds transferred to and managed by the LGAs; and
- the TA budget managed by the MA – covering the running costs of the MA, which includes developing programme materials as well as ongoing direction and monitoring.

The rest of this chapter is structured as follows. Section 7.2 explores the PSA spending so far by the EQUIP-T MA and how this breaks down by component and time. It looks in more detail at the sub-component which includes the literacy and numeracy INSET as this is the largest sub-component by spending and core to EQUIP-T's model. Section 7.3 looks at the first six months of PSA spending by the LGAs, and the estimates unit costs of LGAs' activities. Given the prominence of INSET in EQUIP-T's model, Section 7.4 looks in detail at INSET spending by three LGAs, to see how their approach and unit costs differed. Section 7.5 briefly looks at the TA spend, which

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[100] There was also an inception phase in late 2013.

indicates the potential additional resources the GoT might need to effectively oversee and quality control implementation of the EQUIP-T model. Throughout this chapter, the analysis is limited by the quality and consistency of the financial data recorded by the MA and LGAs (see Box 19).

Volume II, Chapter 5, gives more information on the background and methodology for the costing, and Annex J of Volume II includes tables of spending data that support the charts shown here.

Box 19: Limitations to the data analysis
The analysis is limited by the quality and consistency of the available data. EQUIP-T operate an extensive and exhaustive database of spending. However, spending items can be coded under the wrong activity. For example, under a code relating to INSET and teaching materials, there are some payments which relate to the SRP. Without re-visiting thousands of payments and documentation, the exact correct coding is not known. Thus, this analysis is based on the spending as it was coded, with the assumption that any miss-categorisation was minimal.

7.2   PSA spending by EQUIP-T MA

Spending on programme activities by the MA during implementation (February 2014) up until the end of June 2016 came to a total of £10.8 million – around 30% of the total PSA budget.[101] The PSA budget is split across five components:

- Component 1 – Improving the performance of teachers (C1 Teachers);
- Component 2 – Strengthening SLM(C2 SLM);
- Component 3 – District planning and management (C3 DRM);
- Component 4 – Community participation and accountability (C4 Communities); and
- Component 5 – Strengthened learning and dissemination of results (C5 Learning).

The budget for cross-cutting work on gender and equity is spread across the components.

At over £5 million, almost half of the PSA spending was on C1 Teachers (see Figure 12). This component includes all the INSET for early grade teachers, INSET coordinators, HTs and WECs on the early grade reading and maths modules and new curriculum, as well as teaching and learning materials (including story (reading) books, big books, and teaching toolkits) and activities under the SRP. In addition to actual delivery and provision, it includes the up-front development of all of the items just mentioned, except for the TA costs.

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[101] This does not include the spending on the TA budget.

Figure 12:   PSA spending by EQUIP-T MA, up to June 2016
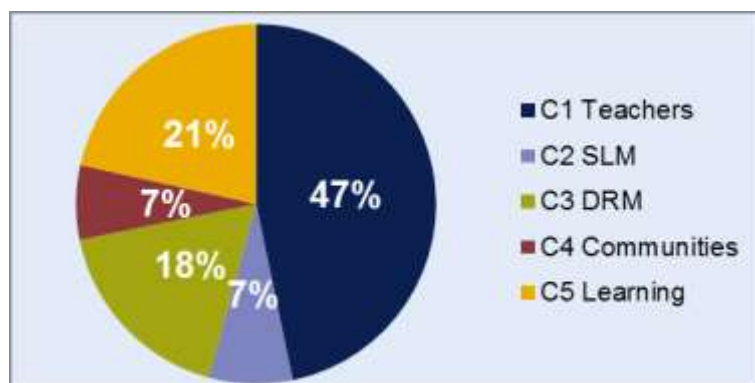
Source: EQUIP-T MA Budget Tracker

C5 Learning was the second largest component by amount of spending at the MA, at 21% of £2.3 million. Component 5 includes development of the SIS and other management information system support. After C5 Learning comes Component 3 (C3 DRM), at 18% of spending. This includes all training for district staff on planning and budgeting and on managing EQUIP-T funds, as well as the motorbikes for WECs.

C2 SLM and C4 Communities each accounted for 7% of the total spending. C2 SLM covers development of a school quality framework and training for WECs, HTs and AHTs. C4 Communities included contracting CSOs to facilitate community needs assessments, and training for SCs on PTPs.

In line with the absolute spending, C1 Teachers and C5 Learning have used the highest proportion of the intended PSA lifetime budgets, at 44% and 55% respectively. C2 SLM and C4 Communities have spent less than 8% of their budgets, reflecting the relatively slow pace of implementation of these components. Furthermore, the share of spending does not match the allocation of budgets. For example, C5 Learning is budgeted to have 12% of total spending but C4 Communities is expected to get 18% of total spending. Despite getting half of actual spending, C1 Teachers is allocated only a third of the budget.[102]

Figure 13 shows how PSA spending by the MA varied over time, and where the major peaks were. It is possible to see which sub-components were responsible for monthly jumps in spending. The top panel shows Components 1 and 5 with three notable peaks in December 2012 – when £1.1 million was spent on the education management information system (EMIS) under C5[103]; and in March 2015 and August 2015, when over £900,000 was spent in a month under sub-component C1.2 – improving the performance of teachers.[104] The bottom panel shows that the largest monthly peaks in spending for the remaining components were well under £500,000.

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[102] Full data tables are given in Annex J in Volume II.
[103] This cost was largely related to procuring 5,500 tablets, for the SIS.
[104] This cost was largely related to delivering INSET for teachers, but also relates to teaching and learning materials.

Figure 13: **Total spending on project support activities by EQUIP-T MA, by component, over time**
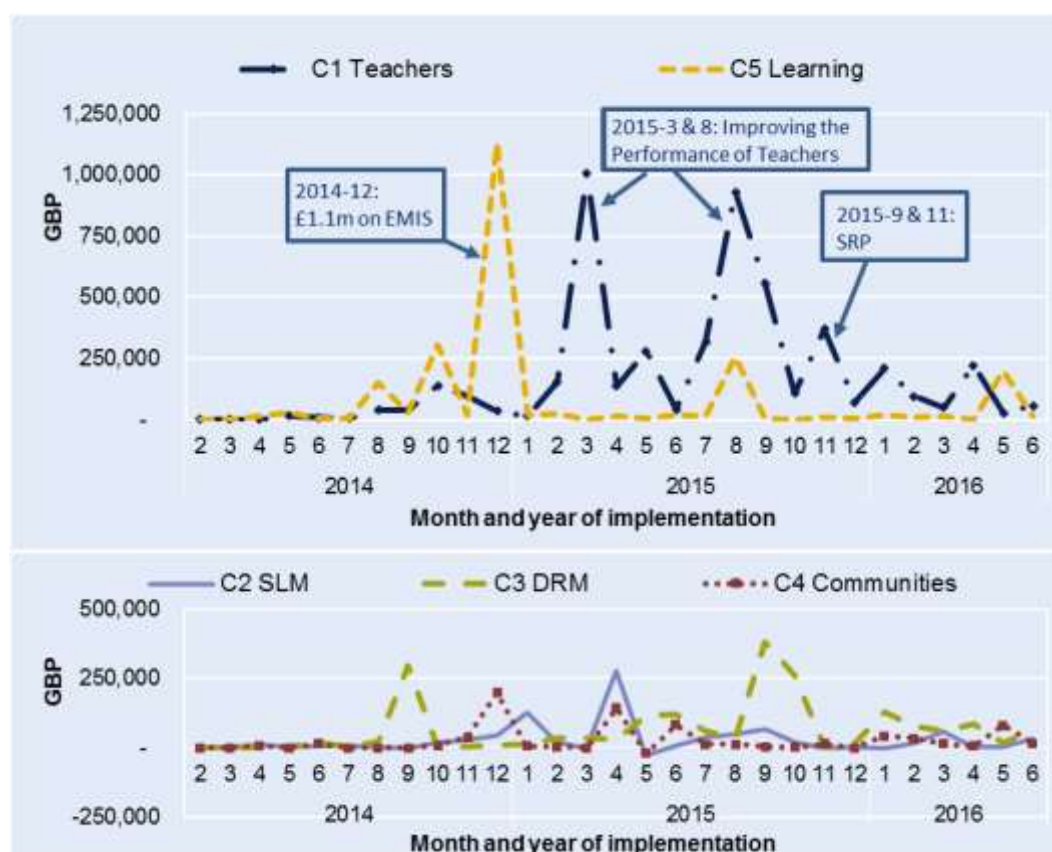
Source: EQUIP-T MA Budget Tracker

While there are five components, there are 33 sub-components underneath them (see Annex J, Volume II, for the full breakdown). The largest sub-component, within C1 Teachers, was code 1.2 on teacher INSET and materials, and this accounted for almost £4 million – and therefore around 40% of all spending so far by the MA. Two other sub-components spent over £1 million, and these were 3.4 Support to districts (for managing and coordinating activities) and 5.1 EMIS (which included pilot EMIS activities and purchase of tablets for the School Information system).

Figure 14: **Total PSA spending by EQUIP-T MA by sub-component (GBP millions)**
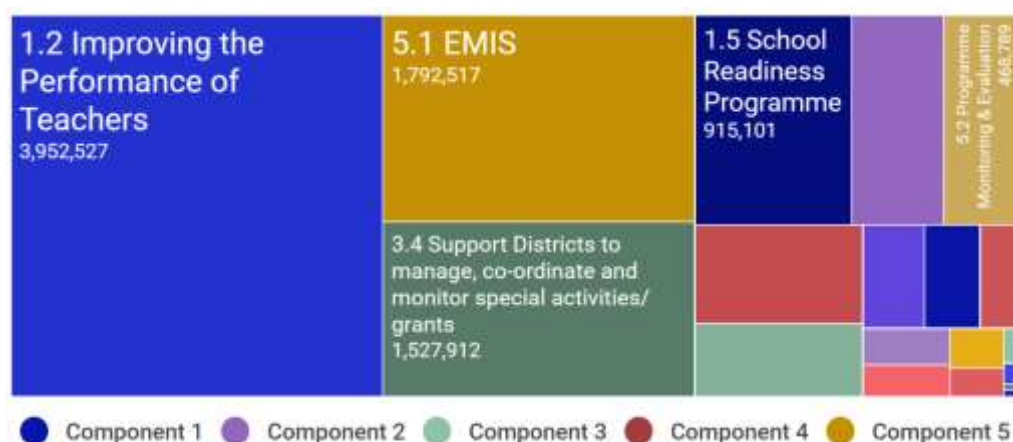
Source: EQUIP-T MA Budget Tracker. Notes: (i) Each rectangle reflects a sub-component; (ii) the size of the rectangle approximates the size of spending; (iii) the colour shading reflects the five different components; (iv) only the larger rectangles are labelled.

7.2.1   Spending on sub-component 1.2 – Teacher INSET and materials[105]

Given that sub-component 1.2 received such a large share of EQUIP-T funding, it is worthwhile to try to understand how these funds were spent. In total, £3.2 million[106] had been spent up to the end of June 2016 on sub-component 1.2. Figure 15 shows the breakdown of this spending at the next level of detail under the sub-component.[107] The names of the categories reflect the expectations of the programme earlier in its design: in the course of implementation activities may have changed but category names for accounting purposes remain the same.

Figure 15:   Breakdown of spending on sub-component 1.2 – Teacher INSET and materials – carried out by MA up to June 2016
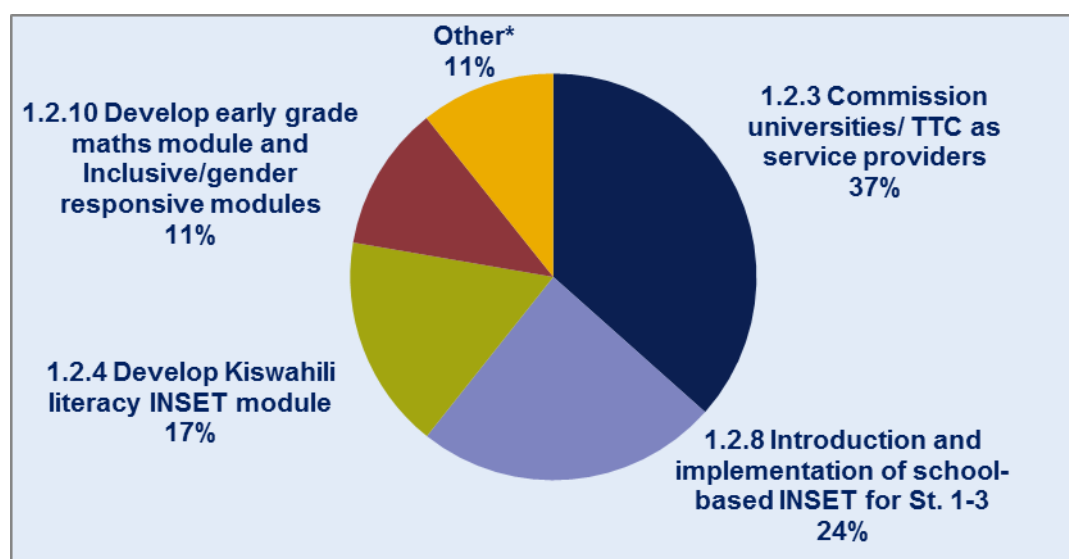
*Other includes categories which each account for less than 3.3% of spending. See Annex, J Volume II. Source: extracted from EQUIP-T MA's QuickBooks accounting software/database

As seen above, over one-third of the spending on 1.2 went towards universities and teacher training colleges (TTCs). This reflects the cascade model of the INSET training, whereby university tutors are the first trainers of trainers, followed by TTC tutors, who are themselves compensated for the time spent being trained and then the time spent acting as trainers. TTC tutors form District INSET Teams, who train WECs, HTs, INSET coordinators and early grade teachers within the districts. As trainers, TTCs receive fees and expenses. The 37% shown in Figure 15 is likely to be an underestimate since a cursory look at the line items shows that payments for expenses and some TTC contract payments were coded under different activities.

Almost one-quarter of the sub-component's spending fell under the description '1.2.8 Introduction and implementation of school-based INSET for Standards 1–3.' Almost all of this spending was for INSET workshops, both at district and ward-cluster level, and also included some

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[105] Sub-component is named '1.2 Improving the performance of teachers', but for clarity it will be referred to as 'Teacher INSET and materials.'

[106] Spending was recorded in TZS in the MA's QuickBooks accounting database, and has been converted to GBP using the exchange rate on 30 June 2016 from xe.com. Exchange rate fluctuations in the period are not accounted for. The figure is lower than the £3.95 million shown in Figure 14, which comes from the EQUIP-T MA Budget Tracker and is already in GBP.

[107] There are some items incorrectly coded under code 1.2, possibly accidentally due to habit, since 1.2 is so common. For example, a number of items relate to SRP, and some items relate to Component 4.

of the costs of training teachers on the new 3Rs curriculum. It is not possible to separate spending on different sets of modules.

Most of the provision of teaching and learning materials came under '1.2.4 – Develop Kiswahili literacy module.' Within this activity, costs included the printing of storybooks and supply of teaching aid toolkits.[108] Teaching and learning were also provided under other codes. '1.2.10 Develop early grade maths module and inclusive/gender-responsive modules' included printing the early grade maths modules, but it also has some costs that relate to literacy – modules 9–13 of the early grade literacy were included here, as were some storybooks.[109]

Figure 16 below shows how spending has varied over time by the major spending codes under sub-component 1.2. Some of the largest spending peaks have been labelled.

Figure 16:   Spending on sub-component 1.2, shown by more detailed codes, by quarter
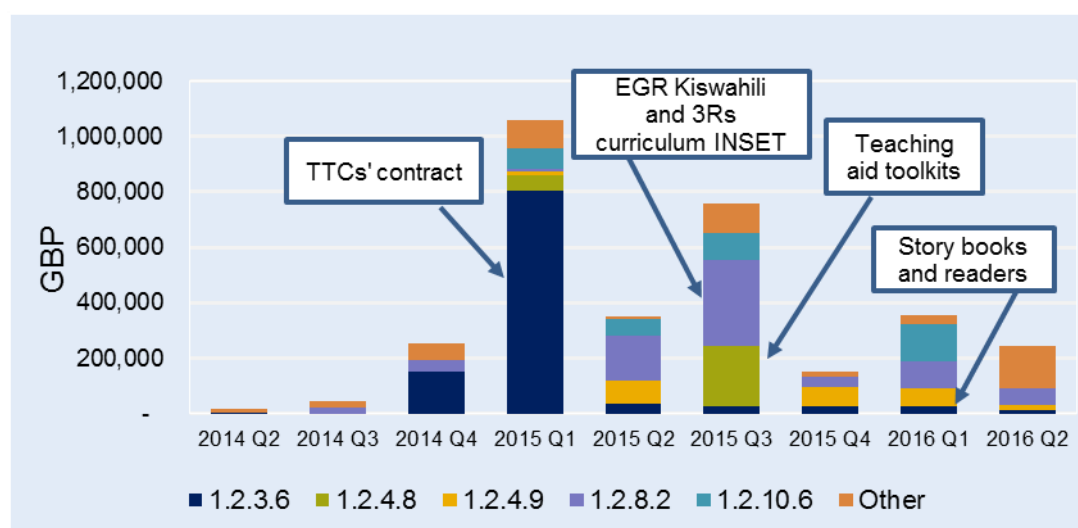
Key to codes: 1.2.3.6 – Contract TTCs; 1.2.4.8 – Teaching aid toolkits; 1.2.4.9 – Literacy material procured and distributed; 1.2.8.2 – Ward cluster launch workshops for Standards 1–3; 1.2.10.6 – early grade maths modules printed and distributed. From December 2015 LGAs' budgets also included delivering INSET. Source: EQUIP-T MA *QuickBooks*

7.2.2   Unit costs of PSA activities (MA spending)

Up to June 2016, the EQUIP-T MA spent around £925 per school on activities to improve the performance of teachers – including INSET and teaching materials. This equates to around £1.70 per child enrolled in these primary schools. Delivery of SRP cost just under £20 per child enrolled in the first cohort. As this included development costs, the actual marginal cost per additional child will likely be much lower.

Efforts to strengthen SLM have cost £180 per school, and £90 per trainee (HTs, AHTs and WECs), when including the development of performance frameworks and management systems as well as INSET.

The EQUIP-T MA has spent roughly £40,000 per district on C3 DRM. Under C4 Communities, around £160 has been spent per school to improve community participation and accountability. C5

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[108] Teaching aid toolkits includes materials to help prepare simple aids like flash cards. It included glue, scissors, pens and manila paper.
[109] And SRP training modules, which should not come under sub-component 1.2 but rather1.5.

Learning is not as clearly attributable to schools since it includes monitoring by the MA for programme learning, however this has cost over £500 per school.

Further information on these unit costs is given in Annex J, Volume II.

7.3 Decentralised PSA spending by LGAs

In the six full months of decentralised implementation, November 2015 to May 2016, LGAs in total had spent £4.5 million (TZS 13.2 billion).[110] Of this, 57% was spent on early grade INSET (Figure 17), and another 2% was spent on paying the TTCs, which relates to delivering this INSET.[111] PTP grants and SLM both received the next largest shares of spending, followed by WEC grants. Three of the 10 expected EQUIP-T activities received no spending.[112]

Figure 17: Spending by LGAs by activity, up to May 2016
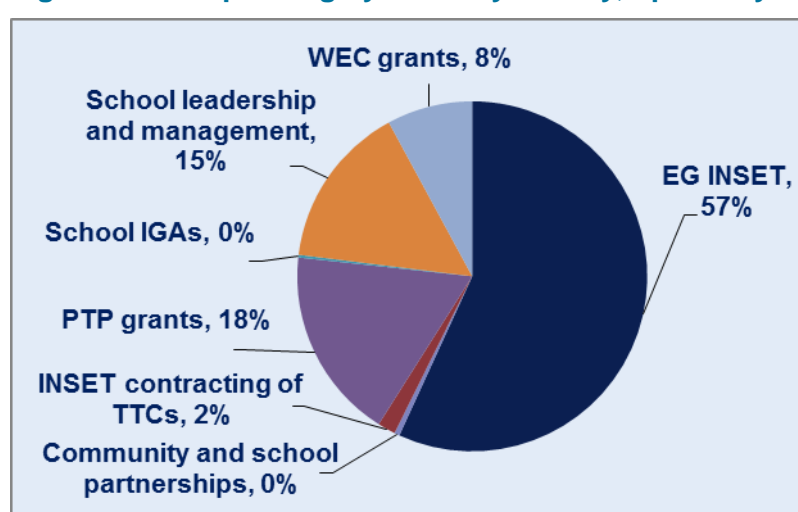
Source: EQUIP-T MA LGA spending reports

With a total budget for the 2015/16 year of £10.9 million, 42% of LGAs' budget had been spent in the first six months of implementation. This was 11 months into the budget year, making LGAs very far behind on budget execution, due to delays in receiving funds. This type of delay has efficiency and effectiveness implications as LGAs cannot implement activities as planned. EQUIP-T MA understands that LGAs can request a time extension for spending their development budgets, so funds will not be 'lost' at the end of the financial year. Figure 18 shows how for some activities (early grade INSET and PTPs) almost all of the budget had been spent (or for PTP grants, transferred), but for many others spending was much further behind. This, in part, reflects problems relating to the initial delay in funds having a knock-on effect on activities, as well as changes in implementation plans since the budgets were prepared. At the time of analysis, the EQUIP-T MA was working with LGAs to revise their budgets so as to include allocations for training SRP CTAs. This will be budgeted under early grade INSET, which indicates the difficulties of analysing spending under separate sub-components of EQUIP-T.

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[110] Spending is recorded in TZS and converted at the exchange rate on 30 June 2016.

[111] It is likely that some funds used to pay TTCs were recorded under early grade INSET.

[112] The small amount recorded against IGAs is expected to be a mis-coding.

Figure 18: **Budget execution by LGAs: Proportion of 2015/16 budget spent by activity, up to May 2016**
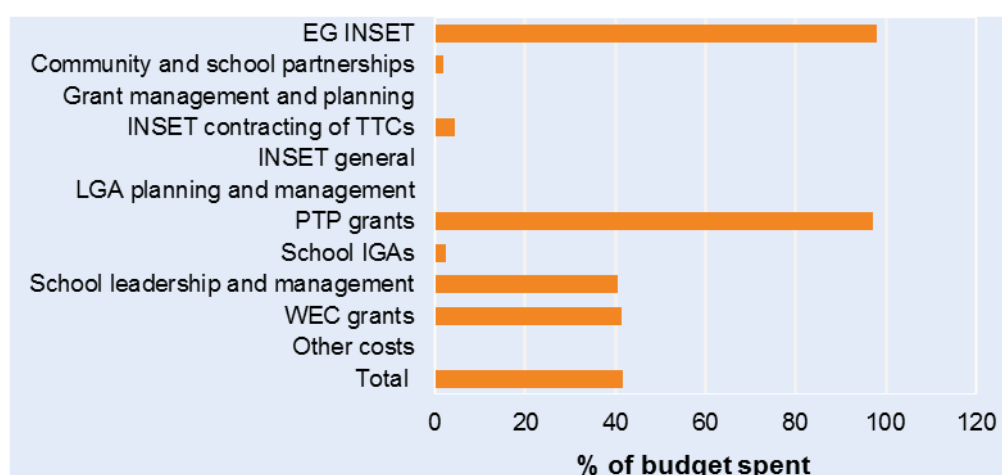
Source: EQUIP-T MA LGA spending reports. Note: most LGAs had no budget allocation for LGA planning and management in 2015/16.

Looking across the seven EQUIP-T regions, most regions had spent between 40% and 50% of their budgets. Mara had spent the lowest portion, at 30%, which is unsurprising given that Mara received its first tranche almost three months after the other regions. In absolute spending, LGAs varied substantially in the amount they had spent, from a highest of £165,000 in Shinyanga DC (Shinyanga) to a lowest of £17,000 in Tarime TC (Mara).

7.3.1 LGA spending on components and unit costs

When LGAs' spending is categorised into EQUIP-T components, the pattern again shows that C1 Teachers takes the largest share of spending, but this varied quite substantially across regions (Figure 19). C2 SLM and C3 DRM also had quite varied amounts of spending, with no obvious pattern across regions. The categorisation of the LGA activities into Components 1 to 4 of the EQUIP-T programme is shown in Annex J, Volume II.

Figure 19: **Spending by LGAs categorised by components, by region**
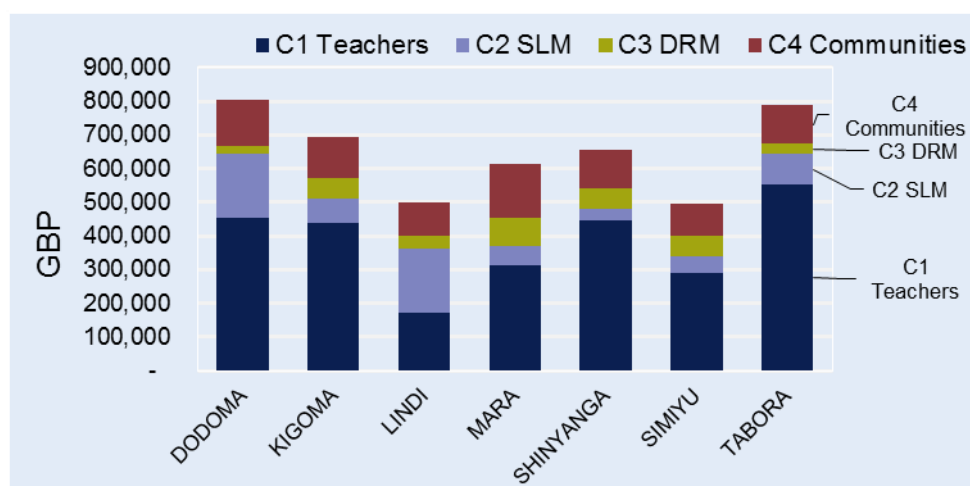
Source: EQUIP-T MA LGA spending reports.

There is wide variation in average spending per unit across the LGAs in terms of C1 on teachers' INSET, C2 on SLM and WEC grants (Figure 20 through to Figure 23, see Annex J, Volume II, for

further unit costs). On average, LGAs had spent around £1.10 (TZS 3,200) on INSET training per pupil enrolled in primary schools. Per school, this is £600 (TZS 1.7 million). Average spending varied quite substantially, from £1.60 in Shinyanga, down to £0.70 per pupil in Mara. This is largely due to implementation progress, with Mara having received its first disbursement late. Districts (and hence regions) which had delivered more modules of INSET will have spent more – so this does not reflect an average cost per set of modules. The variation due to different delivery models is analysed in Section 7.4 below.

The range in spending on SLM training is substantial, with an average of £74 (TZS 210,000) per manager (and around £150 per school), but Lindi spent over double that and Shinyanga spent less than half of that. Again this reflects a large variation in the budget execution against these activities, as not all districts will have completed the same activities.

Figure 20: INSET spending per pupil
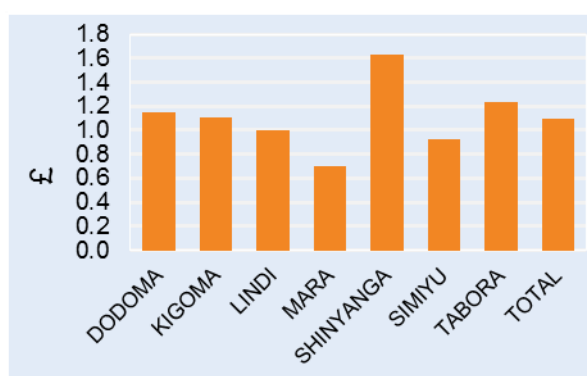
Figure 21: SLM spending per manager
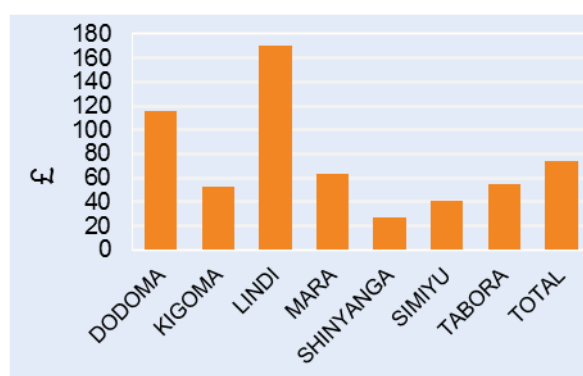
Figure 22: Average WEC grant
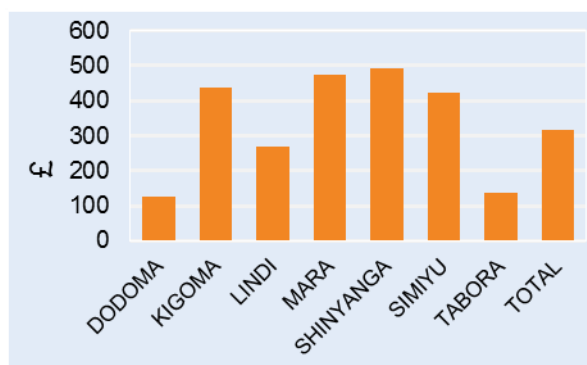
Figure 23: Average PTP grant
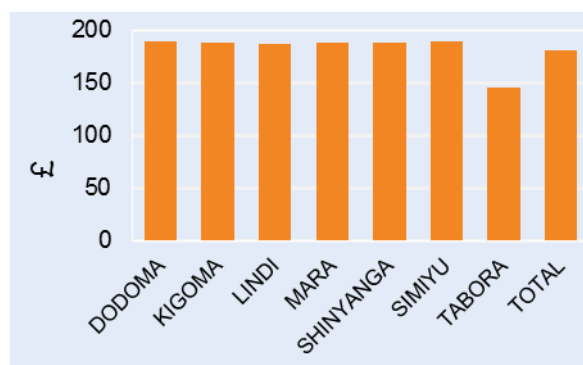
Source: EQUIP-T MA LGA spending reports

WEC grants and PTP grants are expected to be more uniform because there are guidelines on average amounts. WECs should receive an amount according to their activities, local costs and needs, but the average will be roughly similar across regions. However, the average WEC grant ranged from £130 (TZS 400,000) per WEC in Dodoma up to £500 (TZS 1.4 million) in Shinyanga. Again, this may be due to the speed of implementation and budget execution. PTP grants, on the other hand, should be an average of £190 (TZS 550,000) per school. Whilst most regions were very close to this, Tabora had a lower average PTP grant, which could be due to an error such as under-reporting on school numbers, since EQUIP-T will have approved the correct payments.

7.4   Cost of providing early grade INSET

Three LGAs were reviewed in detail to understand the costs of their models of delivering early grade INSET.[113] The standard model is that LGAs provide a long (four to five days) training session on a group of modules (e.g. early grade reading modules 9–13) to a selection of teachers. This is run by tutors from TTCs. The schools' INSET coordinators then run school-based INSET sessions for all Standards 1 and 2 teachers.[114] Selected teachers then attend one-day review/refresher sessions. Only INSET sessions away from the school have a cost to the LGA.

LGAs have some flexibility in how they implement early grade INSET, such as the exact length, which teachers (how many per school) are invited, and the location and venue. Residential training usually happens in the district centre, and cluster training involves multiple smaller groups spread around the district. Three LGAs were chosen for analysis:

- Kilwa District Council in Lindi –a rural LGA;
- Bariadi Town Council in Simiyu – an urban LGA that adapted the delivery model to use more cluster-based training; and
- Tabora Municipal Council in Tabora – to give an urban LGA.

Residential training courses cost more per day of training per beneficiary than cluster-based courses (see Figure 24; Annex J, Volume II, gives more details). On a daily basis a residential course costs between £15 and £32 (TZS 43,000 and TZS 93,000) per beneficiary. The cheaper of these sessions (labelled D, H and L in the figure below) may in fact be an underestimation of the costs since some participants only attended for one day, not the full session (usually four days). It is not surprising that residential courses cost more, since running these courses means that a large proportion of participants receive a daily accommodation allowance (£19–22/TZS 55,000–65,000 per day), whereas 'local' participants might receive £10 (TZS 30,000) per day to cover local travel. In addition, those travelling from far away are often paid an extra day's allowance for travel.

Figure 24:   Daily unit costs of early grade reading (EGR) and maths (EGM) INSET, three LGAs

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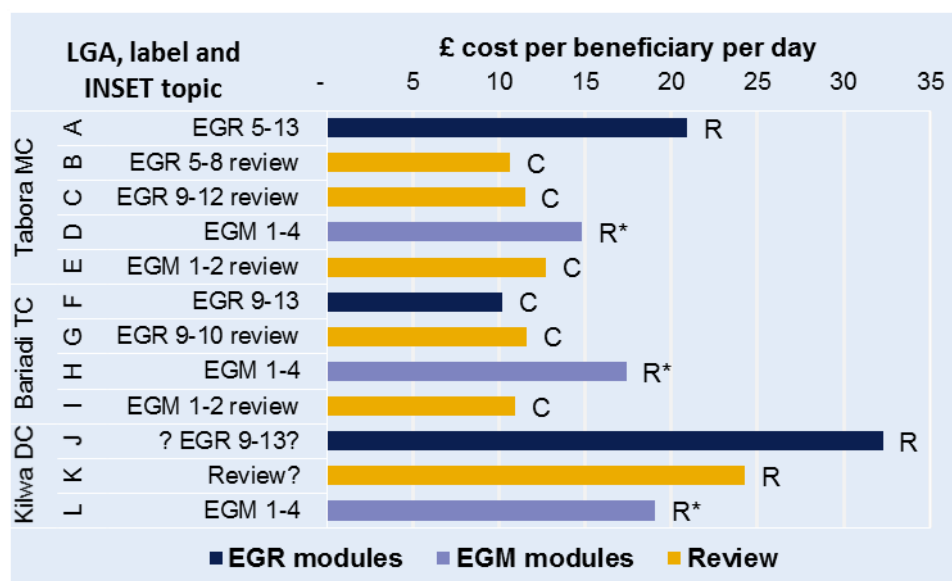
[113] This excludes the costs of printed modules. Further information on the methodology is given in Volume II, Chapter 5.
[114] Sometimes Standard 3 teachers and teachers of upper Standards are included too.

Notes: C = cluster training, R = residential training (participants who live far away from the training centre were paid accommodation allowances), R* = residential and unit cost is likely underestimated as some participants attended only one day, not the full four or five days. A question mark (?) implies that the topic of the training was not entirely clear from the spending reports. A full table of data is given in Annex J, Volume II. Source: LGA spending reports

Cluster-based training tends to be cheaper, at £10–£13 (TZS 30,000-35,000) per day. This is usually run in schools around the LGA so participants do not have to travel as far and do not need to stay overnight. In most cases, cluster-based training was used for 'review' sessions, where a small number of modules are re-visited. These usually last just one day and are attended by WECs, head teachers (HTs) and ICs, but not usually Standard 1 and 2 teachers. Bariadi TC is an exception: Simiyu region decided to use cluster instead of residential for delivery of modules 9-13 of early grade reading (EGR). This was a five day course with around five participants per school, so arguably had the most comprehensive reach of all the training seen here and yet one of the lowest unit costs.

This analysis suggests that running INSET in clusters - removing the need for overnight stay – is likely to be more affordable than residential trainings. However decisions about future modalities should also consider feedback from participants and facilitators on how effective the two models are, as residential courses may allow participants to have more focus on the topics. Then again, residential courses can be difficult for teachers with families at home.

7.5   TA spending

The EQUIP-T programme depends on management and support from the MA, with a headquarters in Dar es Salaam and regional offices in each of the seven EQUIP-T regions. Spending by the MA which is not directly on delivering programme activities comes under the technical assistance (TA) budget. This pays for the salaries and activities of MA staff in developing, managing and monitoring the programme.[115]

Approximately £14 million – or 28% - of EQUIP-T's £50 million budget is allocated to TA. Salaries, and particularly the senior full time team and short term experts, make up the largest part of the TA budget. This indicates the substantial activity and resource needed to establish and deliver the programme, which is important in considering how the Government could adapt and adopt the EQUIP-T model. Of course, when the programme is fully established the need for external TA would likely be very minimal, but the Government would incur additional costs in employing new staff to take on essential managerial and monitoring positions. Alternatively, in the case where a firm is hired to deliver a continuing or adapted programme, there would be additional overhead costs, although these would likely be lower over time as the up-front development costs will not need repeating.

7.6   Conclusions

Up until June 2016, over £15 million had been spent on programme support activities in total, with £10.8 million spent by the EQUIP-T MA, and £4.5 million spent by LGAs. In over two years of the programme, the sub-component targeted at improving teaching in the classroom accounted for a large proportion of spending (over £6 million). While within this it is not possible to separate out teaching and learning materials from INSET and so on, this gives an idea of what it might cost to roll out this entire package, with some reductions expected as start-up costs are not repeated. Now that a high proportion of PSA spending (63%) is being managed by the LGAs, their spending

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[115] Development costs of the programme therefore come from the TA budget and the PSA budget.

should increasingly provide a useful range of estimates of the potential recurrent cost of rolling out parts of the programme.

At endline, there is scope to compare the costs of the programme with the estimated impact on pupil learning, giving an aggregate indicator of cost-effectiveness. More work will also be done to compare the efficiency of spending on key activities between different LGAs, and to understand the cost drivers. In addition, the costs of the programme will be put in the context of the Government budget for education, to better understand the affordability of the EQUIP-T model for Government.

PART C: Implications and conclusion

8   Findings, recommendations, lessons and conclusion

Part C summarises the key findings based on the analysis of IE evidence in Part B, and draws from this recommendations for the MA and GoT to consider in thinking about programme amendments or future roll-out. While the recommendations have been framed principally for actions by the MA, many of the suggested actions are within the influence of local and/or national government, and hence are highly relevant for government as well. There are 40 recommendations in total, but eight are considered by the evaluation team to be core recommendations that MA and GoT should prioritise, and these are highlighted in bold.

Some of the recommendations potentially have more general applicability – for example, for other programmes carrying out similar activities – and these are noted as lessons for broader consideration. Many of the lessons are related to systemic constraints that were identified from the IE evidence as affecting the likely impact of EQUIP-T. This chapter identifies eight lessons that are evident at this stage and can be related to a wider body of literature on similar challenges found in other programmes and contexts. At endline, the study will give more focus to the analysis of wider lessons, as compared to programme-related recommendations.

The rest of this section is organised according to the five overarching evaluation criteria: impact, effectiveness, relevance, efficiency and sustainability (see ML planning report for details regarding the expected extent of evidence against these criteria at ML stage in the evaluation: OPM, 2016, pp. 20–21). Findings are presented in the main text, while recommendations (labelled R1, R2 etc.) and lessons (labelled L1 L2 etc.) are highlighted in boxes.

8.1   Impact

For the purposes of this IE, impact is defined strictly as a causal effect of EQUIP-T, or sometimes external factors, on particular indicators. The overarching goal of EQUIP-T is to have an impact on pupils' learning achievement. Other EQUIP-T impacts, for example on teacher absenteeism, are discussed in Section 8.2 on effectiveness.

There is **strong evidence that EQUIP-T has had a positive impact on learning in Kiswahili for poorer performing pupils**. The proportion of children falling into the lowest performance band declined more in EQUIP-T schools than in control schools, which can be attributed to EQUIP-T. This result is highly significant in statistical terms and highlights a clear positive impact of the EQUIP-T interventions on pupils' Kiswahili literacy outcomes. This treatment effect relates to EQUIP-T over and above any other existing training intervention taking place in the comparison schools. **The analysis is unable to detect similar changes in the top performance band for Kiswahili, suggesting** that the programme is pushing pupils upwards and out of the bottom performance band, and **that improvements at the higher end of the literacy outcomes are more difficult to achieve** and cannot be detected quantitatively at this stage. This may also suggest that the existing teaching and learning methods are relatively less effective for lower performers so there is more room for EQUIP-T interventions to improve their outcomes.

There is no clear impact of EQUIP-T on pupils' performance in maths, which is not surprising at this stage of the programme given the early grade maths teacher INSET modules had only just started to be rolled out at the time of the survey.

The gains in early grade Kiswahili skills for pupils over two years is remarkable, but it is important not to lose sight of the extent to which pupils are still behind curriculum expectations. **About half of Standard 3 pupils are achieving at Standard 1 level or below**, and are thus at least one year

behind in skills acquisition and therefore need further support to catch up. **Pupils who do not speak Kiswahili at home are particularly far behind**.

At the same time, there has been a positive national trend in early grade learning achievement in Kiswahili and maths, meaning that pupils in all schools have improved their early grade Kiswahili and maths skills. The national gains in learning attainment are likely to be related to the narrower focus of the new Standards 1 and 2 curriculum, the change in pedagogy prescribed by the curriculum, and the greater volume of instructional hours timetabled for Kiswahili and maths.

Education managers in EQUIP-T areas – WECs, DEOs and REOs – all consider learning outcomes to be improving in their schools. They frequently cited 'the number of children knowing the 3Rs' (generally referring only to reading and writing) as evidence of improvements in teaching, and this appears to be an indicator that is being measured and reported in their schools regularly in order to track performance.

Box 20: Overall programme implementation and systemic issues to consider

RECOMMENDATIONS

R1: The programme should reinforce its focus, across all components, on supporting pupils who are struggling most to acquire foundational Kiswahili and maths skills, recognising that these children are far more likely to come from non-Kiswahili speaking backgrounds. It should build on what is already working in the early grades to strengthen the Kiswahili literacy skills of the poorest performing pupils (see findings in the effectiveness section below), but also consider additional strategies targeted at non-Kiswahili speaking children.

R2: EQUIP-T should continue the dialogue with other programmes in Tanzania that share similar aims in supporting pre-school and early grade learning, to share strategies and evidence on effectiveness in different contexts.

R3: At the same time, attention needs to be given to putting in place more explicit strategies to help pupils who are close to achieving the required Standard 2 curriculum standard in Kiswahili but are falling short.

R4: Two of the components (SLM and communities) are considerably further behind in implementation than the other two components. It is important for these to catch up so that the anticipated mutually reinforcing effects have a chance to materialise.[1]

LESSONS

L1: In diverse multilingual contexts, the language of instruction has a major influence on learning progress. International and regional learning assessments confirm that when home and school language differ there is an adverse impact on learning (UNESCO, 2016). In line with international evidence, children who speak minority languages are considerably behind peers in acquiring foundational skills in this study. Evidence from classroom observation studies finds that teachers in multilingual contexts revert to using traditional, teacher-centric methods, and view children who have a different home language as lazy, unintelligent or uncooperative (Ouane and Glanz, 2011). Meanwhile planned school activities to bridge the gap between a child's home and school language appear to be rare (Nag et al, 2014).

Programmes to improve early grade pupil learning need to ensure strategies to address the language constraint are prominent in the design, or else while they may raise learning outcomes, they may fail to address equity. Teacher education programmes need to support teachers to teach in two languages and understand the needs of second-language learners, and ensure learning materials are inclusive (UNESCO, 2016). Explicit effort may be required to sensitise teachers in using a second language, given that there is often a precedent from policy of not allowing any use of local languages in the classroom.

Notes: (1) For example, arguably the community component has the greatest potential to impact on pupil absenteeism, enabling better performing teachers (Component 1) to have a greater impact on pupil learning.

8.2 Effectiveness

Effectiveness refers to the extent to which the programme has attained its objectives. This section gives a short discussion on the effectiveness of the four components, based on the ML IE

evidence, and draws out some implications for the programme to consider in terms of adjustments or plans for scale-up.

8.2.1   Component 1: Teacher capacity, performance and conditions for pupil learning

The vast majority of Standards 1 and 2 teachers have attended EQUIP-T INSET, and this is a massive increase from BL: **the programme is reaching almost all of its intended beneficiaries**. There have also been spill-overs to teachers of the upper Standards at primary level. However, some teachers only attend part of the school-based sessions, which means they do not benefit fully from the intended INSET. Teachers report some difficulties with the EQUIP-T INSET: the main ones being insufficient payment to attend training, as teachers say they do not consider training to be part of their regular job, and that no food is provided during school-based sessions. A group of teachers have reservations about the pace of training, as not all teachers are able to grasp the taught material within short periods of time.

A major systemic issue is high teacher turnover, which reduces the potential benefits of the INSET received as knowledge and skills acquired by teachers during the training may not be put to use, and it undermines the effectiveness of the school-based training. The primary reasons for teacher turnover are transfers, retirement and undertaking further studies.

The majority of schools report receiving teaching and reading materials in 2014 and 2015. In discussions, **teachers focus on manila paper and marker pens as being particularly useful**, giving little mention of reading books for pupils. Although the majority of schools received reading books, these were often unavailable in classrooms, and **pupils did not use reading books in the vast majority of observed Kiswahili lessons**. A related systemic issue that teachers refer to is not having received textbooks updated for the 3Rs curriculum, which impedes effective teaching of the new curriculum.

Box 21: Programme implementation and systemic issues to consider: Teacher INSET and teaching and learning materials

RECOMMENDATIONS

R5: The programme needs to consider strategies to reduce the risk of teachers not attending school-based INSET due to perceived lack of incentives. In addition, it should continue to consider the pace of training and carry out further investigation to ensure the adequate balance of length and cost is achieved.

R6: Given high teacher turnover, it is important for EQUIP-T to consider increasing the coverage of INSET among teachers within each school, or other mitigation strategies.

R7: At the same time, **the programme should engage with district and regional officials to understand the drivers of teacher turnover, and to explore whether EQUIP-T can support districts, regions and PO-RALG in reducing teacher turnover.**

R8: To ensure that teachers can use the skills gained during INSET, teaching and learning materials need to be available for teachers throughout the year in appropriate quantities. Basic materials to prepare teaching aids are particularly appreciated by teachers and they are using them. A sustainable strategy for replenishment, supported by the SLM programme component, needs to be in place.

R9: More pressingly, the programme should consider follow-up research to understand why teachers are not using the reading books provided by EQUIP-T in their lessons. The extent to which the 3Rs curriculum and syllabus, which does not specify reading time for pupils during lessons, is a factor will be important to investigate.

LESSONS

L2: In situations with high teacher turnover – or indeed turnover of any beneficiary as is also the case with HTs in this study – the intended changes and learning from a programme may be lost within the target area, or not put to use as teachers leave an environment where their peers have participated in the same learning experience. Wider evidence suggests that strategies such as creating learning communities among teachers to discuss teaching and learning issues, as EQUIP-T aims to do, could improve job satisfaction and reduce turnover (Diseko et al, 2015). However whilst local turnover remains high, programmes should consider ways to mitigate the risk of the learning being lost, through maintaining a continuous peer learning community such as regular time for discussion or mentoring (and monitoring of its application), and working with employers to reduce turnover issues.

L3: This study found that despite provision of reading books for pupils by the programme, teachers were not using reading books in their lessons. Wider evidence has found provision of textbooks to be ineffective at improving learning because the material was either too challenging for the children, or the books were kept in storage in case there was no further supply in future (Glewwe et al, 2009, Sabarwal et al, 2014). It is important to understand the reasons why teachers do not make full use of the aids that are given to them, and address whether this is for example about their confidence and understanding of the materials, constraints in sharing and storing materials, or the appropriateness of the materials.

Teachers in the case study schools feel they **now understand the curriculum better due to the EQUIP-T training**, whereas at BL teachers were largely unaware of the content of the curriculum. Teachers feel more confident about focusing on the 3Rs, and the training helps them understand how to teach these subjects well. **Teachers consider learning new teaching methods, including how to use teaching aids, as the main takeaways from the EQUIP-T INSET**. The use of teaching aids in lessons has become more common since BL. Pupils and parents perceive that more child-centred teaching methods are used than in the past, and HTs, teachers and education managers think that teachers' new knowledge of using a phonics approach has improved their ability to teach reading and writing. Subject knowledge in Kiswahili and maths has not improved significantly since BL, and this would not be expected as EQUIP-T does not seek to directly improve teachers' subject knowledge.

There has been a **significant improvement in the gender balance of teachers' interactions with pupils in the classroom since BL**. Respondents have the perception that **EQUIP-T has improved gender balance by helping teachers to involve girls during lessons**. Spatial inclusion of pupils seated in different parts of the classroom has also seen a large and significant improvement since BL. Nevertheless, pupils seated at the back of the classroom still receive relatively less attention, and a fairly large group of pupils still have no desk but sit on the floor, with negative effects on their learning experience. Although teachers report that they have learnt new forms of classroom management from EQUIP-T, **the use of corporal punishment remains a concern for pupils, parents and communities**.

Nearly all teachers report that they can identify pupils with special learning needs, and that they most commonly identify pupils who do not speak Kiswahili at home as needing support. Teachers explain that they learnt during EQUIP-T INSET that some pupils are 'slower' learners but this does not mean they are less intelligent or unable to learn.

Only a small group of teachers in the observed lessons demonstrated a range of effective teaching practices in the classroom, and this has not changed significantly since BL. There has been a significant reduction in the use of pupil assessments to monitor academic progress since BL. Despite identifying pupils whose first language is not Kiswahili as the largest group with learning difficulties, only a small group of teachers switch language during lessons to help these pupils. The majority of pupils say that their teacher can't speak their local language.

In many schools large class sizes are the norm and the **average Standard 1 class size increased by nearly 40% between BL and ML in the EQUIP-T districts** after the new Government policy on free primary education came into effect. Some HTs and teachers feel that the **EQUIP-T INSET does not fully consider the reality of the teaching environment**. In particular, this systemic issue of large class sizes, and mixing of different Standards in the same classroom, makes it difficult to use methods learnt during training, which may not be appropriate.

Box 22: Programme implementation and systemic issues to consider: Teacher capacity and practices

RECOMMENDATIONS

R10: The programme should build on the aspects of the Kiswahili INSET programme that appear to be particularly successful in building the capacity of early grade teachers (including gender-inclusive pedagogy, supporting the poorest performing pupils, making and using teaching aids, and understanding the new curriculum) by exploring the reasons for success in more depth, and feeding this learning into the next phases of INSET.

R11: The programme should consider placing greater emphasis on support for teaching children who do not speak Kiswahili at home, with training on methods teachers can use to help bring these children up to the levels that their peers are achieving.

R12: Pupils seated at the back of classrooms are not being equally included in lessons. The programme should put further emphasis on spatial inclusion during INSET, and on classroom strategies to enable teachers to include pupils seated at the back, even when class sizes are large.

R13: More generally, INSET may need to become even more relevant to the classroom environment – in particular the large class sizes and mixed Standards – faced by an increasing number of teachers. Large class sizes are a systemic issue and class sizes are likely to continue to grow over the next few years.

R14: The programme should further strengthen teachers' classroom management skills, to equip teachers with strategies other than corporal punishment.

R15: The programme should strengthen teachers' awareness of and ability to carry out formative and summative pupil assessments, while taking account of large class sizes and the time needed for marking (else there is a risk that classroom absenteeism, which appears to be linked to heavy workloads will rise).

LESSONS

L4: It is possible to improve early grade learning outcomes without improving teacher subject knowledge, suggesting that other factors – pedagogy, inclusiveness, and instruction time – all matter for student learning in contexts similar to those in this study. However other studies do find that teacher subject knowledge has a small yet significant impact on learning achievement (e.g. de Ree, 2016, Metzler and Woessman, 2012). It is not possible to say at this point whether teachers' subject knowledge may become a constraint for further improvement in early grade pupil learning.

L5: In contexts with large class sizes, teachers have less contact time per pupil and heavy marking loads, and international evidence points to this having a negative impact on student test scores (Glewwe and Muralidharan, 2015; Osim et al, 2012; Westbrook et al, 2013). Large and growing class sizes are thus likely to reduce the efficacy of interventions over time, and as found in this study, make it difficult for teachers to put their learning from INSET into practice. Programme design needs to take this into account, and look for ways to support teachers to manage large class sizes without compromising factors, such as instructional time, which are critical for improving pupil learning.

The official instructional hours for Kiswahili and maths have increased since BL due to the introduction of the new 3Rs curriculum. Linked to this, **estimated actual instructional hours for Standards 1 and 2 pupils are much higher at ML than at BL**. A major factor contributing to the loss of instructional time at BL and ML is teachers being absent from classrooms when scheduled to teach. **EQUIP-T has had a positive impact on reducing overall classroom absenteeism, which is a major boost in regard to instructional hours**. A range of stakeholders say that EQUIP-T INSET has had a positive effect on early grade teachers' motivation, as they feel more confident, and that this has contributed to a reduction in absenteeism. There also appears to be an increase in the monitoring of teachers by education managers, including WECs, and the national emphasis on hard work coming from the new Government appears to have contributed to this.

However, the estimated actual instructional hours for Standards 1 and 2 pupils are still far lower than official guidelines as **classroom absenteeism remains very high**, despite improvements. The **main reason reported by teachers and HTs for teachers being absent from the classroom is a heavy workload**, with class time spent on marking pupil assignments.

Box 23: Programme implementation and systemic issues to consider: Instructional time

RECOMMENDATIONS

R16: Teachers' heavy workloads appear to be the main reason for classroom absenteeism with adverse consequences for instructional time. The programme should work with WECs and HTs to understand more about how and why teachers allocate their time to particular tasks, and to see if there is scope for EQUIP-T to help teachers use their time more effectively.

R17: Whether teachers' heavy workloads are entirely a systemic issue or is partly related to the EQUIP-T programme is worth investigating further in case it is an unintended consequence. EQUIP-T should carefully consider how best to support HTs and WECs to monitor and manage teacher performance to ensure that it encourages teachers to focus on the practices most likely to be beneficial to pupils' learning. Strategies for monitoring and managing teachers' classroom absenteeism should be a key part of the teacher management element of SLM training.

R18: The channel through which EQUIP-T has most likely reduced classroom absenteeism is through its focus on, and INSET for, early grade teachers. Thus it is important for EQUIP-T to support schools to maintain this emphasis, and to continue to provide professional development opportunities for teachers, or the reduction in absenteeism may not be sustainable.

LESSONS

L6: The level of administrative workload and responsibilities affects the extent to which teachers can put new learning and pedagogical techniques into practice in the classroom. It is important to understand and consider the extent of these responsibilities, the possibilities to reduce them, and the potential additional workload that a new programme might bring.

Given that there were no observed significant improvements in the use of effective teaching practices during lessons as measured by the IE, the positive impact on pupil learning through the teacher INSET channel is probably coming from the increased use of inclusive teaching practices, the increase in instructional time and the switch to a phonics approach (related to the curriculum change), in addition to reduced classroom absenteeism (which also increases instructional time).

The SRP, although in its early stages, appears to be well appreciated and supported by the community, as it provides an opportunity for children to start education without walking long distances, and is a shorter route to entry to primary school. Parents make financial and in-kind contributions to support the SRPs. In general, children who have attended the 12-week SRP are felt to be better prepared to enter Standard 1 than those who have not, but less prepared than children who have attended a formal two-year pre-school education.

Box 24: Programme implementation and systemic issues to consider: SRP

RECOMMENDATIONS

R19: EQUIP-T should engage with GoT to encourage clear communication to schools and parents on the financing of the new compulsory pre-school policy, including the policy on community contributions.

R20: SRP is fulfilling a demand for pre-school preparation in remote communities. The programme and GoT should assess whether communities would be willing to continue to make contributions to support the SRP after EQUIP-T financing stops, and, if not, they should explore alternative options to make the SRP sustainable (or until there are sufficient formal pre-schooling places available close to communities).

R21: The programme needs to ensure that HTs and other school stakeholders have clear information on the relationship between SRP and formal pre-schooling, in view of the new policy on compulsory pre-primary education.

8.2.2   Component 2: SLM

EQUIP-T has provided early grade teaching INSET to the majority of HTs, but there remains a group of HTs that have not attended this training. Similarly, **most HTs attended EQUIP-T SLM INSET, but coverage is far from universal and a large minority did not attend**. A possible reason for this is that the SLM training is held as a one-off event away from the school, and if a HT cannot attend there is no later opportunity to do so. One mitigating factor is that AHTs are also meant to attend SLM INSET, and so absent HTs may still benefit from peer-to-peer learning but the intended effect is likely to be diluted. HTs who did attend the SLM training also report that payment to attend is insufficient, which may contribute to non-attendance. Another difficulty reported with regard to the SLM INSET is too much content being covered in the time allocated.

A major systemic issue is the extremely high HT turnover, which is another reason behind the low coverage of the SLM INSET of current HTs. It is not known at this stage whether this high turnover is typical or temporary and related to a change in education policy or implementation between BL and ML. However, there is some evidence of HTs from 'high performing' schools being transferred to 'low performing' schools to raise performance.

Box 25: Programme implementation and systemic issues to consider: SLM INSET

RECOMMENDATIONS

R22: Given that SLM INSET is provided away from school (except for the SC1 module), the programme may consider offering more than one training opportunity, to enable more HTs to attend, and to reduce the challenges caused by high HT turnover.

R23: The programme may want to review the time available for covering content to ensure it is appropriate, in order for HTs to grasp all of the content well, which will maximise the potential benefits of training.

R24: EQUIP-T should engage with district and regional officials to understand the drivers of high HT turnover, and to explore whether EQUIP-T can help address the underlying causes – if these are within the scope of the programme.

The availability of WSDPs has increased significantly since BL, which is a positive sign that the most recent EQUIP-T SLM INSET on school development planning is already having an effect. Schools, teachers and community members all highlight the importance of WSDPs in making the running of schools transparent and building trust between HTs and teachers, as well as between schools and the wider community. At ML, WECs are facilitating peer-to-peer HT meetings and most HTs report having attended such a meeting. **Although the comprehensiveness of WSDPs has improved between BL and ML, it remains limited**. A large majority of plans still only contain one or none of the core elements: a budget; teaching and learning objectives; and baseline data and targets. There is also a risk that implementation of WSDPs will continue to be

adversely affected by low and irregular capitation grant payments, although case study schools say that payments since December 2015 have been more timely.

The use of regular staff meetings has increased since BL. The majority of HTs and teachers at ML report that actions are taken if teachers perform poorly, and HTs feel that their ability to sanction teachers has increased. There is no conclusive evidence of a positive impact of EQUIP-T on HT's use of performance appraisals to support teachers.

Both at BL and ML, the vast majority of teachers say that their HT checks their lesson plans, but the provision of written feedback on plans has declined significantly since BL. **Lesson observations by HTs also decreased significantly between BL and ML**, and written feedback for teachers after lesson observations remains rare**. A potential explanation for this is that HTs' administrative workloads have increased** and that HTs now spend more time attending ward-level meetings and reporting to districts.

A systemic issue is that HT absenteeism from school is relatively high and unchanged since BL. This reduces the scope for HTs to use the skills acquired during INSET and reduces the potential benefits of training. The main reported reasons for absenteeism by far are official education work and other official work.

Box 26: Programme implementation and systemic issues to consider: HT capacity and SLM

RECOMMENDATIONS

R25: The WSDP process is already having a positive effect on school and community relationships, and there is scope to build on this. The programme should consider further training on how to develop and use WSDPs, given that most plans still lack core elements.

R26: Increases in HT workloads, including attending ward-level meetings away from school, appear to be a reason for lack of improvement in some measured aspects of teacher management. Whether this is entirely a systemic issue or is partly related to the EQUIP-T programme is worth investigating further in case it is an unintended consequence.

8.2.3   Component 3: District planning and management

WECs have attended EQUIP-T training on SLM and early grade teaching, though turnover means that some WECs missed training. **EQUIP-T has provided almost all WECs with motorbikes** and at the time of the ML IE **WECs are receiving grants for fuel, but the payments are not regular**. Delays in grants are attributed by WECs to the districts rather than EQUIP-T. Furthermore, WECs appear to be receiving a flat rate rather than a needs-based amount approved by the district.

Owing to the motorbikes and grants, **WECs are able to visit schools far more frequently than at BL**. However, there are still some schools that receive systematically more, or fewer, visits due to their accessibility. This study found that there are some WECs who do not feel comfortable using the bikes.

Box 27: Programme implementation and systemic issues to consider: INSET and grants for WECs

RECOMMENDATIONS

R27: As with HTs, refresher training may be worthwhile for WECs, some of whom missed earlier training. The programme should consider this as it develops training targeted specifically for WECs.

R28: The programme should explore with DEOs if they are still not making needs-based grant allocations, and if not why; and consider whether further training may be worthwhile if differentiation is considered important for achieving the programme's goals.

R29: It is also important for the programme to investigate whether WECs are comfortable with the type of motorbike being provided, and, if not, to explore alternative solutions.

WECs feel that EQUIP-T training has improved their knowledge and ability to carry out their roles, giving them a more structured idea of their responsibilities, and how to supervise and support the school. Teachers too have noticed a change in WECs' confidence, organisation and problem-solving. WECs generally had not received any prior training on their responsibilities, and feel that EQUIP-T INSET has made them aware of previous gaps in their capacity.

WECs appear to be supervising schools more closely and to have improved their relationships with schools due to the more frequent visits. It is thus possible for WECs to have a better understanding of issues in the school. However, lesson observations by WECs happen very infrequently, and instead WECs mostly monitor the quality of teaching by looking at lesson plans, and sometimes pupils' exercise books. Similarly, the timeliness and verification of data is felt to have improved now that WECs can go to schools regularly in person.

The change in Government leadership is perceived by community members and education managers as having contributed to WECs' increase in commitment. WECs themselves feel that there is more monitoring and supervision coming from central Government and, in turn, from the districts. Thus, while EQUIP-T has enabled WECs to visit schools more due to the transport assistance, the added motivation from monitoring and visible disciplinary actions may be critical in sustaining effective school visits. This also relates to the issue of the authority WECs have to hold schools accountable. Districts are seen to be taking clear and strong actions against poor performance, which gives WECs a lever to incentivise improvements on the part of teachers and HTs.

Box 28: Programme implementation and systemic issues to consider: WECs' capacity

RECOMMENDATIONS

R30: The programme should build on the current momentum to improve WECs' effectiveness by rolling out its planned targeted training for WECs as soon as possible. This will provide an opportunity to build WECs' capacity to use their time in schools more effectively for improving quality and improving pupil learning. The training should take care to consider the effect of WECs' support for school on HTs' and teachers' workloads and time use, to ensure there are no adverse consequences for instructional time particularly.

LESSONS

L7: Lack of transport or travel allowances limits the ability of officers with a supervision role from visiting schools and thus doing their jobs, and this is common among developing countries (De Grauwe, 2001). Making transport available for local school advisors removed a binding constraint to the better supervision of schools in this study. Although it is not possible to say at this point whether supervision will continue to improve and will be sustained, early momentum in improving local supervision systems is possible particularly in contexts where there is growing accountability for public servants.

DEOs do feel they have benefited from EQUIP-T training; however, the turnover of district staff means that benefits from EQUIP-T training are reduced. Two of the three DEOs

interviewed had been transferred in the last four months, and if this is representative of all district staff then learning from INSET may be lost as staff move and have to adjust to a new context. Particular aspects of learning emphasised by DEOs were the bottom-up process for planning and budgeting, and new teaching methods in the early grade INSET, which means DEOs know what to monitor.

District and regional officers can explain the theory of the planning process: collating needs from school and then ward level, and then prioritising. However, the **efficacy of the planning process is limited by the lack or delay of funds in implementation**. The unpredictability of funds is felt to be due to revenue shortfalls and reprioritisation by central Government. With so much uncertainty, it becomes difficult for districts to plan and prioritise, and higher directives and basic administrative needs reduce the chance for local prioritisation. This may be related to the view from schools and WECs that the information they are reporting regularly to districts is not being used.

Districts planned an EQUIP-T budget for 2015/16 and received their first transfer in November 2015, five months later than planned, and, according to DEOs, this delay was due to the Government. **Districts see the EQUIP-T planning and budgeting as a top-down process, with them providing statistics but EQUIP-T determining the budgets**. In turn, districts have faced some challenges with regard to implementing their budgets, as the centralised planning assumptions do not always reflect the reality of local costs. There have thus been some 'discrepancies' in districts' reports of spending, with a lack of clarity regarding whether budget lines are being over- or under-spent, or directed to new activities.

Despite these challenges, decentralising funds to the district level has increased local government ownership of the programme. The visibility of EQUIP-T funds as a source of income for the districts makes it an important programme for the District Executive Directors and other staff.

Box 29: Programme implementation and systemic issues to consider: District planning and management

RECOMMENDATIONS

R31: The programme should continue to engage with districts, regions, PO-RALG and central government to understand more about the drivers of irregular and late payments of government funds, and to explore whether EQUIP-T has any levers to help mitigate this critical constraint.

R32: The programme should regularly engage with regions and districts to review the assumptions underpinning EQUIP-T LGA budgets, and to clarify expectations around the level of autonomy districts have in planning and implementing these budgets.

R33: Refresher LGA training may be important for district staff, as turnover appears to be a risk to the benefits.

LESSONS

L8: Programmes which channel large budget shares via government PFM systems, need to understand and actively monitor potential blockages and fiduciary risks, and to have contingency plans in place from design stage for if systems reach a level of dysfunctionality that undermines programme effectiveness.

8.2.4   Component 4: Community participation and demand for accountability

SCs are perceived to be more active and engaged, both within schools and between schools and communities, than in previous years. SCs' role as approvers of school budgets also seems to have strengthened. Respondents put this greater engagement down to the more active role of new HTs in the case study schools, but the **provision of PTP grants and the EQUIP-T SLM training on school development planning** also **play a role**. While the majority of SCs received EQUIP-T training, a sizable minority did not, and there is demand for further practice-oriented training.

Almost all schools have formed PTPs, **but the activity of PTPs seems limited**, for a number of reasons: lack of training and therefore lack of understanding of responsibilities; confusion about the difference between PTPs and SCs; and low motivation due to lack of incentives given that opportunity costs for parents are typically high. There is also a sense that PTPs were waiting for the grant to arrive in order to start their activities.

Awareness of the community-led school needs assessment in the case study schools is very weak, suggesting that if these have taken place they are not well known and have had little involvement of community members or the school. About one-third of HTs in the school survey were aware that this exercise had taken place and said that some action had been taken as a result to improve education (most commonly infrastructure improvement). There is **little evidence that community assessments have fed into school plans or priorities** in a formal way.

Box 30: Programme implementation and systemic issues to consider: SCs, PTPs and community-led school needs assessments
R34: The programme should consider more action-related capacity building for SCs, as opposed to informative briefings, to further enhance SCs' skills and their ability to fulfil their responsibilities. The reported gap in coverage of initial SC training should be followed up to understand the causes.
R35: Based on the experience of the case study schools, the programme should consider how to better support PTPs to clarify their role, and give greater encouragement to initiate more activity. There is a risk that PTPs will only function in the presence of PTP grants which makes them less likely to be sustainable.
R36: The programme needs to develop strategies to raise awareness at school-level of community-led school needs assessment processes and outcomes, and ensure that linkages are made explicit in the SLM INSET training on school development planning.

Both school and community respondents perceive that, overall, **communications between parents/communities and schools have improved in the last two years**. Schools are said to contact parents more often than in the past to discuss pupil issues. The more **open dialogue around the preparation of WSDPs, following the EQUIP-T SLM training, seems to have contributed** to this change in communication via the SC. **EQUIP-T supplied noticeboards to schools, and information is being much more visibly displayed** at ML compared with BL, but it is not clear if parents use noticeboards as a source of information. A sizeable minority of schools keep their noticeboards in school offices.

The **involvement of communities in education is perceived to have improved**, mainly because of improved relationships between parents and teachers. Parents are monitoring their children's learning more than in the past, and pupil attendance has improved. However, **pupil absence is still a serious problem.** Both teachers and parents point to a **lack of community awareness of the importance of education as a challenge for pupil attendance and teaching, but they agree that this awareness is improving**, and that this is **linked to EQUIP-T's focus on community involvement in teacher INSET and SLM training**. More generally, though, school and community relationships still appear to be fractious, with teachers dissatisfied that parents do not value education more highly, and parents dissatisfied that teachers look down on them.

While **parents say they are more empowered to hold school management and teachers to account on some issues** compared with BL, there are also issues they feel ignored on, and they are also scared to challenge teachers for fear of repercussions in regard to their children's learning experience. Parents **mainly attribute change to more effective village and school meetings held in the past two years**, but parents still do not feel involved enough, particularly in school budget debates although this has improved following the most recent WSDP process. In some case study sites, parents and other respondents feel that communities do not have enough knowledge or understanding to hold the school to account in regard to the quality of education.

Box 31: Programme implementation and systemic issues to consider: Community-School communications and relationships

RECOMMENDATIONS

R37: The programme should look to support schools in further enhancing communication mechanisms with parents by taking account of the channels that parents most commonly use (pupils carrying information between school and home), given that most parents are not able to visit schools frequently.

R38: The programme should build on the positive change in community-school relationships which is coming partly from the WSDP process (and the PTP grant), and consider strategies to strengthen this further particularly during the plan's implementation, monitoring and reporting phases.

R39: There is clearly room to continue to improve communications and relationships between schools and communities, as a means of improving school quality and pupil attendance. EQUIP-T should accelerate planned activities under this component, including the development of school score cards which should help to mitigate the perception that communities lack knowledge of school quality criteria.

R40: The programme should consider if the objective of improving pupil attendance is stressed clearly enough in the community component's activities.

8.3 Relevance

The assessment of relevance relates to the extent to which the programme is addressing the needs and priorities of the target group. The BL IE carried out an assessment of relevance against the programme components, so the ML IE is intended solely to update this with regard to any changes in the programme or new findings.

8.3.1 Pupil learning

The ML IE results have shown improvements in pupil learning, but the current levels of achievement are still far behind those expected for Standard 3 pupils according to the curriculum. At this point, 49% of pupils are still below the emerging Standard 2 level in Kiswahili, and an even higher proportion (63%) are below the Standard 2 level in maths. EQUIP-T's aim to improve pupil learning is thus still very relevant.

Within these figures, there are gaps between groups of pupils. Girls' performance has improved relative to boys, putting girls ahead in Kiswahili and closing the gap between them and boys in maths. While this partly reflects a national trend, there is some evidence that EQUIP-T has contributed to this trend through the improvement in the gender balance of teachers' interactions with pupils. Thus the inclusive teaching practices included in the EQUIP-T INSET appear to be very relevant.

As with BL, children from homes speaking a language other than Kiswahili are far behind their Kiswahili-speaking peers in both Kiswahili and maths; the gap remains similar to that at BL. This indicates the importance of basic language acquisition for children, and hence the SRP may be considered very relevant. However, it also points to a need for more capacity building for teachers to support non-Kiswahili speakers to catch up in the early grades.

8.3.2 Teachers' capacity and performance

The objective of Component 1 – to improve teacher performance – is still highly relevant as it is the most direct link to improving pupil learning. However, though teachers believe they pick up skills around teaching, the lack of classrooms and other resources pose significant challenges for them in regard to being able to implement new skills effectively. Issues such as over-crowded classrooms and mixing of different Standards in the same classroom make it difficult for teachers

to use the methods learnt in the training. Although more desks have become available since BL, many pupils still have no desk and sit on the floor, making teaching and learning more challenging. There may be scope for strengthening the relevance of the contents of the INSET programme to better equip teachers to deal with these circumstances. Boosting teachers' morale and motivation is still a highly relevant issue, and the current programme strategy could be more explicit regarding how it expects this to happen. The original programme design planned a specific intervention to tackle this, but this was subsequently dropped, and the programme's intention is now to address this as part of a strengthened teacher professional development system.

8.3.3 SLM

While the qualitative study was largely not able to assess the effectiveness of the EQUIP-T SLM component, due to the extremely high turnover of HTs, the findings point to the relevance of the SLM and early grade INSET. All the case study schools identify the importance of a HT with strong leadership and management skills for the effective running of schools. Stakeholders also consider the role of the HT to be essential for other components of EQUIP-T to work, citing the central role of the HT in managing relations between teachers, the school and the wider community. Thus, continuing to strength SLM appears to be very relevant to the intended beneficiaries, and mitigating the risks of losing this new capacity through HT turnover will be important.

8.3.4 District planning and management

This component has seen some changes since the plans were put forward at BL. For example, an earlier focus on improving the timeliness and amounts of capitation grant transfers from districts to schools is no longer relevant, as capitation is now sent directly from the Treasury to schools. Meanwhile, there has been a much more rapid shift to decentralised fund management in EQUIP-T than was originally expected. On the one hand, this appears relevant in regard to giving districts an opportunity to put the theory they have learnt into practice. On the other hand, the centralised planning structure for EQUIP-T budgets prevents districts from using the skills and carrying out their own prioritisation to identify needs relevant to them. Districts may struggle to cope with the rapid and large volume of funds. The programme will need to continue to support districts and be flexible regarding the realities of implementation.

8.3.5 Community accountability

At ML, school respondents still feel that there is much room for improvement in community involvement in education. All respondents feel that EQUIP-T should focus on community awareness initiatives to help improve pupil attendance and learning. In this sense, planned future activities to increase communities' understanding of their entitlement and what quality education looks like appear relevant in regard to improving parents' ability to hold schools to account.

8.4 Efficiency

The overall budget for EQUIP-T is £50 million over 4.5 years, of which approximately £36 million goes to programme spending and £14 million to TA. Up to June 2016, the EQUIP-T MA had spent £10.8 million on programme support activities – around 30% of the budget – and the districts had spent roughly another £4.5 million since the decentralised mechanism was introduced in late 2015.

At the MA, almost half of the programme spending went on Component 1, on teachers and the SRP. Within this, teacher INSET and teaching and learning materials took up £3.2 million of

spending, thus accounting for a substantial part of the cost of the EQUIP-T programme. This included contracting the universities and TTCs to cascade the INSET down to district level, as well as procurement and distribution of reading materials and teaching aid toolkits. Up to June 2016, the EQUIP-T MA spent around £925 per school on activities to improve the performance of teachers – including INSET and teaching materials. This equates to around £1.70 per child enrolled in these primary schools. Delivery of SRP cost just under £20 per child enrolled in the first cohort.

Efforts to strengthen SLM have cost the MA £180 per school, and £90 per trainee (HTs, AHTs and WECs), including the development of performance frameworks and management systems as well as INSET. The EQUIP-T MA has spent roughly £40,000 per district on Component 3 (district planning and management). Under Component 4 on communities, around £160 has been spent per school to improve community participation and accountability. Component 5, on learning and dissemination of results, has cost over £500 per school.

Since LGAs began decentralised implementation almost 60% of their spending has been on Component 1. On average, LGAs had spent around £1.10 on INSET training per pupil enrolled in primary schools. Per school, this is £600 – and thus a substantial addition to the £925 spent by the MA. The modality of INSET training provided by the districts has implications for cost. Residential training courses cost more per day of training per beneficiary than cluster-based courses. This is not surprising, since a large proportion of participants receive a daily accommodation allowance, rather than just local travel cover, and they may be paid an extra day's allowance for travel. Cluster-based training is usually run in schools across the LGA so participants do not have to travel as far and do not need to stay overnight. In most cases, cluster-based training was used for 'review' sessions, where a small number of modules are re-visited for just one day.

The analysis suggests that running INSET in clusters – removing the need for overnight stays – is likely to be more affordable than residential training. However, decisions about future modalities should also consider feedback from participants and facilitators on how effective the two models are, as residential courses may allow participants to focus more on the topics. Then again, residential courses can be difficult for teachers with families at home.

8.5   Sustainability

Sustainability relates to the likelihood that the benefits of an activity will continue after EQUIP-T has finished.

As mentioned throughout this report, there are risks around high turnover, which may mean that the benefits are dispersed to other non-programme districts, that intended beneficiaries in EQUIP-T districts have not benefited, and that the cumulative effect from peer learning is lost. This high turnover was seen clearly in the teacher and HT data, as well as from KIIs with WECs and DEOs.

There are also a number of activities across the components which are intended to be sustainable because of the low funds required. However, this equally raises questions about whether they really will be sustainable. For example, teachers may be reluctant to take part in school-based INSET if they see no material incentive for attending. The SRP may require at least some input from the community and training allowances for the CTAs to be provided by the Government. PTPs have been slow to take-off – apparently due to waiting for the PTP grant – implying that grants might need to continue in order for any activity to take place. Other activities will clearly require EQUIP-T funds to be replaced by government funds if they are to continue. For example, WEC grants have certainly been critical in allowing WECs to supervise schools more closely.

While there are positive signs that the capitation grant to schools is becoming more regular now that it is routed directly to schools, the funding that districts receive from government is inadequate and unpredictable.

The evidence also suggests that external factors have contributed to changes, and these may not be sustainable. In particular, the effect of the new Government and its drive for hard work is thought to have improved commitment throughout the system, with poor performance being sanctioned. It is too soon to say if this is a fundamental shift in attitudes or a temporary response that has aided EQUIP-T's aims. If the effects wear off, some of the benefits that EQUIP-T has enabled may become less pronounced.

8.6   Conclusion

A key finding to take away from the ML IE is that the programme has had a substantial impact on improving Kiswahili learning outcomes: children who were lagging behind have been helped to catch up with their peers. As the programme continues to roll out INSET for teachers in early grade maths, it is expected that pupil learning in maths will start to see similar benefits. The levels of learning are still low, and it is hoped that continuing the efforts seen in the first two years of implementation will mean further improvements in learning outcomes by endline.

Throughout the components, most of the intended inputs of EQUIP-T appear to have been provided as expected, and there are signs of changes in outputs and outcomes – though not always with complete consistency. Some of the areas with less observable change, such as SLM and communities, are also ones identified as very relevant for intended beneficiaries – only serving to highlight the importance of these components going forward.

Although a number of challenges have been identified by the ML IE, many relate to systemic factors, and the programme must continue to find ways to work best within these parameters, and to actively engage with key stakeholders at national, regional and district level on these issues. Other challenges relate more to implementation, and the programme and education stakeholders may choose to review activities within the components and make changes to improve the likely impact.

References

Abadzi, H. (2006) Efficient learning for the poor: Insights from the frontier of cognitive neuroscience. World Bank, Directions in Development Series.

Bennell, P. and Akyeampong, K. (2007) Teacher Motivation in Sub-Sahara Africa and South Asia. Researching the Issues, 71, London, UK DFID.

Blundell, Richard, and Monica Costa Dias (2000) 'Evaluation Methods for Non-Experimental Data'. *Fiscal Studies* 21, no. 4: 427–68. http://www.jstor.org/stable/24437670.

Boyden J and Ennew J (eds) / Save the Children (1997) Children in Focus – a Manual for Participatory Research with Children. Stockholm: Save the Children Sweden

Caliendo, M. and Kopeinig, S. (2005). Some practical guidance for the implementation of propensity score matching. *IZA Discussion Papers*, No. 1588.

Cambridge Education (2014) Final EQUIP-Tanzania Inception Report, 5 February.

Cartwright, N, and Hardie, J., (2012) Evidence Based Policy: A Practical Guide To Doing It Better. Oxford: Oxford University Press.

Carvalho, S. and White, H. (1997) 'Combining The Quantitative and Qualitative Approaches to Poverty Measurement and Analysis', Technical Paper 366. Washington DC: World Bank.

Cueto, S et al. (2009) Psychometric characteristics of cognitive development and achievements instruments in Round 2 of Young Lives. Young Lives Technical Note #15, January 2009.

De Grauwe, A. (2001). School Supervision in Four African Countries: Vol. I: Challenges and Reforms. Paris: UNESCO IIEP.

De Ree, J. (2016). How Much Teachers Know and How Much it Matters in Class: Analyzing Three Rounds of Subject-Specific Test Score Data of Indonesian Students and Teachers. World Bank Policy Research Working Paper

Diseko, E., Barkhuizen, N., and Schutte, N. (2015) The Relationship between Talent Management and Turnover Intentions of Teachers in Botswana. 20th International Academic Conference

DFID (2013) Intervention Summary, Education Quality Improvement Programme in Tanzania (EQUIP-T). London, UK DFID.

DFID (2011) DFID Ethics Principles for Research and Evaluation

Dowd, A *et al.*, (2013) Literacy Boost Cross Country Analysis Results, Save the Children, Washington D.C.

EQUIP-T MA (2015) EQUIP-Tanzania Annual Report 2015. URT, PMO-RALG, MoEVT and DFID.

Garbarino, S., and Holland, J., (2009), 'Quantitative and Qualitative Methods in Impact Evaluation and Measuring Results', Issues paper commissioned by DFID. GSDRC Emerging Issues Service.

Glewwe, P and Muralidharan, K. (2015) Improving School Education Outcomes in Developing Countries: Evidence, Knowledge Gaps and Policy Implications. RISE-WP-15/001. RISE Programme.

Glewwe, P, Kremer, M, and Moulin, S (2009). "Many children left behind? Textbooks and test scores in Kenya." American Economic Journal: Applied Economics 1 (1) (January 2009): 112-35

Guest, G., MacQueen, K., Namey, E., (2012). Applied Thematic Analysis. Sage Publications.

Hallinger, P., and Heck, R. (1996) The Principal's Role in School Effectiveness: An Assessment of Methodological Progress, 1980-1995. In K. Leithwood, *The International Handbook of Research on Educational Leadership and Administration*. New York: Kluwer Press.

Hardman, F, and Dachi, H. (2012*)* Evaluation of School-Based INSET Pilot Programme. York, UK: Institute for Effective Education, University of York.

Imbens, G. and Rubin, D. (2015) *Causal Inference for Statistics, Social, and Biomedical Sciences*, Cambridge University Press.

Krippendorff, K., (2004). Content Analysis: An Introduction to Its Methodology. Sage Publications.

Mays, N., and Pope, C. (1995). Rigour and Qualitative Research, British Medical Journal 311(6997): 109-112.

Metzler, J and Woessmann, L. (2012). The Impact of Teacher Subject Knowledge on Student Achievement: Evidence from Within-Teacher Within-Student Variation. Journal of Development Economics. 99 (2)

MoEVT (2016) Curriculum for Basic Education Standards I and II. URT, MoEVT.

MoEVT (2009a) Basic standards for pre- and primary education in Tanzania. Dar es Salaam: MoEVT. www.ed-dpg.or.tz/pdf/PE/Basic%20Standards%20for%20Pre%20and%20Primary%20Education%20in%20TZ_2009.pdf

MoEVT (2005a) Mathematics Syllabus for Primary Schools Standard I-VII. URT, MoEVT.

MoEVT (2005b) Kiswahili Syllabus for Primary Schools Standard I-VII. URT, MoEVT.

Mulkeen, A. (2010) Teachers in Anglophone Africa. Issues in Teacher Supply, Training and Management. Washington, DC: The World Bank.

Nag S, Chiat S, Torgerson C, Snowling MJ (2014) Literacy, Foundation Learning and Assessment in Developing Countries: Final Report. Education Rigorous Literature Review. Department for International Development

OPM (2016a) EQUIP-Tanzania Impact Evaluation: Midline Planning Report. OPM.

OPM (2016b) EQUIP-Tanzania Impact Evaluation: Preliminary Indicators for the Programme Treatment Districts: Results from the Baseline and Midline Quantitative Surveys. OPM.

OPM (2015a) EQUIP-Tanzania Impact Evaluation Final Baseline Technical Report, Volume I: Results and Discussion. OPM. Available at: http://www.opml.co.uk/sites/default/files/OPM%20IE%20Final%20Baseline%20Report%20Volume%20I.pdf.

OPM (2015b) EQUIP-Tanzania Impact Evaluation Final Baseline Technical Report, Volume II: Methods and Technical Annexes. OPM. Available at: http://www.opml.co.uk/sites/default/files/OPM%20IE%20Final%20Baseline%20Report%20Volume%20II.pdf.

OPM (2016c) EQUIP-Tanzania Impact Evaluation: Propensity Score Analysis Review: A Technical Note. OPM.

OPM (2016d) EQUIP-Tanzania Impact Evaluation: Midline Quantitative Fieldwork Report. OPM.

Osim, R.O., Chika, C., Uchendu, I. O. (2012) Class size pressure: An Impediment to teacher's work. Global Advanced Research Journal of Educational Research and Review. Vol 1(5)

Ouane, A and Glanz, C (2011). Executive Summary. In Ouane, A and Glanz, C eds Optimizing Learning, Education and Publishing in Africa: the Language Factor. A Review and Analysis of Theory and Practice in Mother-Tongue and Bilingual Education in sub-Saharan Africa. UNESCO Institute for Lifelong Learning and the Association for the Development of Education in Africa / African Development Bank

Paternoster, R., Brame, R., Mazerolle, P. and Piquero, A. (1998), Using the correct statistical test for the equality of regression coefficients. *Criminology*, 36: 859–866. doi:10.1111/j.1745-9125.1998.tb01268.

Rosenbaum, P.R. and Rubin, D.B. (1985) Constructing a control group using multivariate matched sampling methods that incorporate the propensity score. *The American Statistician.* 1985: 39:33–38.

RTI (2016) Assistance to Basic Education All Children Reading (ABE ACR): Preliminary Findings Report, Tanzania National Early Grade Reading Assessment (EGRA). North Carolina. USAID.

RTI (2014) National Baseline Assessment for the 3Rs (Reading, Writing, and Arithmetic). Using EGRA, EGMA, and SSME in Tanzania. Study Report. Draft. Washington, DC: USAID.

Rubin, D. (2001) Using Propensity Scores to Help Design Observational Studies: Application to the Tobacco Litigation. *Health Services & Outcomes Research Methodology* 2, 169–188.

Sabarwal, S., Evans, D., and Marshak, A. (2014). The permanent input hypothesis: the case of textbooks and (no) student learning in Sierra Leone. Policy Research working paper, no. WPS 7021. Washington, DC: World Bank Group

Siraj, I., Taggart, B., Melhuish, E., Sammons, P., and Sylva, K. (2014). *Exploring Effective Pedagogy in Primary Schools: Evidence from Research*. London: Pearson. Available at: https://research.pearson.com/content/plc/prkc/uk/open-ideas/en/articles/explore-eppse/_jcr_content/par/articledownloadcompo/file.res/Exploring%20Effective%20Pedagogy%20in%20Primary%20Schools.pdf

The National Commission for the Protection of Human Subjects of Biomedical and Behavioural Research (1979) 'The Belmont Report': Ethical Principles and Guidelines for the Protection of Human Subjects of Research. Department of Health, Education, and Welfare. [http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html]

The Open University (no date) Ethics Principles for Research Involving Human Participants, [http://www.open.ac.uk/research/main/sites/www.open.ac.uk.research.main/files/files/OU%20Ethics%20Principles%20for%20Research%20Involving%20Human%20Participant.pdf]

UNESCO (2016) If you don't understand how can you learn? GEM Report Policy Paper 24. Paris: UNESCO.

UNESCO (2015) Education For All Global Monitoring Report 2015: Education for All 2000-2015: Achievements and Challenges. Paris: UNESCO.

UNESCO (2014) Education For All Global Monitoring Report 2013/14: Teaching and Learning: Achieving Quality for All. Paris: UNESCO

US Department of Health and Human Services (2009) Code of Federal Regulations TITLE 45 Public Welfare. PART 46. Protection of human subjects. [http://www.hhs.gov/ohrp/policy/ohrpregulations.pdf]

Vogel, I., (2012), 'Review of the use of theory of change in international development', Review paper for the Department of International Development. Department for International Development.

Westbrook, J., Durrani, N., Brown, R., Orr, D., Pryor, J., Boddy, J., and Salvi, F. (2013) Pedagogy, Curriculum, Teaching Practices and Teacher Education in Developing Countries. Final Report. Education Rigorous Literature Review. UK DFID. Available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/305154/Pedagogy-curriculum-teaching-practices-education.pdf

White, H. (2009) Theory-Based Impact Evaluation: Principles and Practice. 3ie Working Paper 3. International Initiative on Impact Evaluation.

Wright, B and Stone, M. (1979) *Best Test Design*. Chicago: Mesa Press.

ANNEXES

Annex A   Agreed and original terms of reference

During the contracting and inception phases it was agreed by DFID and OPM that the scope of the impact evaluation needed to be reduced from that outlined in the original terms of reference (TOR) and that not all of the original TOR objectives could be met by the impact evaluation.[116]

This section begins by setting out the original impact evaluation purpose and then discusses the implications of DFID's design choices during the contracting and inception phases. It goes on to outline what the impact evaluation will measure and the evaluation questions to be answered, and then sets out the revised impact evaluation purpose.

A.1   Impact evaluation purpose in original TOR

According to the original TOR the purpose of the impact evaluation of the EQUIP-T programme is twofold:

- "Assess if the EQUIP-T interventions in supported councils [districts] contribute to better basic learning outcomes amongst primary school age students."; and
- Assess "which specific support interventions and measures of quality service provision were most significant in improving learning outcomes and to what extent are these replicable and affordable in the Tanzanian/E. African context."

The original TOR also specified that:

- "The IE must ensure that the evidence is used to promote lesson learning, accountability, and understanding of the cost effectiveness and potential of the programme's intervention and approach."

A.2   Impact evaluation design options

OPM's technical proposal (May 2013) provided DFID three impact evaluation design approaches to choose between.[117]

The first option, the gold standard randomised control trial (RCT) approach would have been able to identify which specific EQUIP-T interventions were most effective in improving learning outcomes and programme scalability, but would have required the specification of multiple treatment groups across which to randomise assignment of programme exposure.

The second option, the hybrid approach, offered an intermediate option. Under this approach, a base package of EQUIP-T interventions would have been implemented in all treatment schools. Then the treatment group of schools would have been split into treatment sub-groups with an additional EQUIP-T programme intervention randomly assigned to each sub-group. This would have allowed for the assessment of whether adding specific EQUIP-T interventions to the base package led to further relative improvements in the key indicators and scalability.

For the final option, the basic approach, no attempt would be made to control the roll-out of specific EQUIP-T interventions within the EQUIP-T programme districts, allowing assessment of the impact

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[116] DFID-OPM correspondence March 10, 2014.
[117] OPM's technical proposal is available on request.

of the EQUIP-T programme as a whole, but not of relative importance of different EQUIP-T components in improving learning outcomes or scalability.

The technical proposal also provided two options for the sample size for the quantitative baseline survey. The first option was for 100 EQUIP-T (treatment) schools and 100 non-EQUIP-T (control) schools, a total of 200 primary schools. The changes in the baseline proportion of pupils meeting Kiswahili and mathematics proficiency requirements detectable with this sample size are given in the EQUIP-T Impact Evaluation Inception Report (OPM 2014a). This was the minimum sample size to detect the expected effect size changes. A second option that would yield higher precision and improve the ability to detect EQUIP-T programme effects was offered, with a sample of 150 treatment schools and 150 control schools, a total of 300 primary schools.

For all three quantitative design approaches outlined above and provided in the technical proposal, the qualitative research would provide additional detail on issues around gender, reasons for observed changes in pupil learning levels, data on district education management and community participation in and demand for accountability in education. These qualitative data would be complementary to the quantitative survey data, but would not in themselves provide a theory-based evaluation or a rigorous attribution of impact to different EQUIP-T components.

A.3   DFID design choices

The three quantitative design options: gold standard, hybrid and basic approaches (see section A.2), were discussed during the contracting and inception phases and DFID selected the **basic approach** because of a preference for implementation of all EQUIP-T programme components in all EQUIP-T districts at approximately the same time and for cost considerations, as the gold standard and hybrid approaches would have required larger sample sizes and additional research activities and therefore would have been more costly than the basic approach.

The two **sample size** options provided: a total of 200 vs 300 schools were also discussed during contracting and inception and DFID selected the 200 school sample size.

Based on discussions with DFID and comments from the Specialist Evaluation and Quality Assurance Services (SEQAS), the qualitative research design was revised to include **development of an enhanced programme TOC** including contextual factors, priority parts of which will be tested during the follow-up rounds of the qualitative fieldwork.

A.4   What the impact evaluation will measure under the agreed terms of reference

The main focus of the impact evaluation will be to measure any EQUIP-T impact in the EQUIP-T programme districts covered by the IE and to provide accountability for the UK taxpayer in terms of the impact of resources used. The impact evaluation will also provide evidence on programme cost-effectiveness and fiscal affordability (separate fiscal study), promote lesson learning across districts and provide indications to DFID and the Government on which EQUIP-T programme components may likely be more effective in improving pupil learning outcomes.

Original TOR purpose 1

The evaluation will provide quantitative evidence on **the impact of the EQUIP-T programme on learning outcomes for primary school pupils** supported by qualitative research findings that will probe gender aspects and reasons for changes in pupil learning levels.

Original TOR purpose 2

Given DFID's choice of the basic approach (section A.3), the impact evaluation will explore other possibilities for understanding which EQUIP-T components may be more effective in improving pupil learning outcomes (assuming there is impact) and scalability.

The quantitative component will explore whether it will be possible to take advantage of any naturally occurring variation in roll-out of specific EQUIP-T interventions within the evaluation treatment sample, in order to identify **impact of specific interventions**. However, without random assignment of specific interventions or without stratifying the sampling of treatment schools by package of interventions (see above) it is unlikely that that there would be enough variation in the sample to robustly identify differential impact.

It should be noted that the original TOR did not specify a theory-based impact evaluation nor was the development of a TOC required beyond that developed by the MA part of the original TOR for the IE. However, in light of SEQAS comments and discussions with DFID, the IE design has been revised to set out a process whereby the qualitative research will develop an enhanced TOC including contextual factors.

The EQUIP-T programme TOC will inform the IE as a whole, but is particularly important for the qualitative component because it should permit stronger **generalisation and some attribution of impact.** Specifically, the EQUIP-T TOC change will be used to map out EQUIP-T's causal chain and the contextual assumptions that must hold for EQUIP-T activities to lead to the desired impact (following the approach set out in White 2009). The IE will use (primarily) qualitative data to conduct 'rigorous factual analysis' on whether the expected links in the causal chains hold and whether the assumptions are valid over time, for some of the links in the causal chain selected on the basis of their perceived importance by key stakeholders.

While this is not a theory-based evaluation in the pure sense because it is not comprehensive on all causal pathways, the IE will use theory to produce results on which components of EQUIP-T are likely to contribute to changes in key outcomes and outputs in different contexts. This will yield **indicative results on which interventions were perceived to be more effective**, and coupled with secondary data analysis of the context in other areas of Tanzania to check whether these contextual assumptions hold there as well, this will enable **consideration of the likely impact of EQUIP-T if implemented at scale**.

Following the discussions and agreements with DFID during the contracting and inception phases, the primary aim of the impact evaluation will be to measure the impact of EQUIP-T over time. To do this the design of the quantitative component seeks to maximise internal validity. The EQUIP-T regions and districts were purposively selected by the MA on the basis of region rankings and district rankings in terms of education performance and financial resources and include primarily rural districts (see OPM 2014a). A large majority of rural districts in Tanzania share similar characteristics and therefore although the IE impact results will not be statistically generalizable outside the IE sample, it is **reasonable to expect that the findings will have some applicability in other districts as well if sufficiently similar to the treatment districts**, other things being equal. The impact evaluation will use, among other things, the rich dataset compiled for the quantitative baseline sampling frame to compare EQUIP-T districts along several key characteristics including education performance, infrastructure, poverty measures and population density, to similar districts not participating in EQUIP-T to assess the potential for generalisation.

The impact evaluation will also assess **cost-effectiveness of the EQUIP-T programme** and the fiscal affordability of rolling out EQUIP-T to regions and districts beyond the initial programme areas in a separate fiscal study (see OPM 2014a).

A.5 Evaluation questions

The original TOR specified key questions related to the OECD-DAC evaluation themes of relevance, effectiveness, impact and sustainability, to be answered by the impact evaluation. These questions are shown in Annex table 1, together with what the impact evaluation will measure, given the EQUIP-T programme design and changes to the TOR agreed with DFID.

Annex table 1:   What the impact evaluation will measure

Original terms of reference evaluation questions	Measured by the impact evaluation under agreed TOR
"Have the programme interventions targeted the most necessary, most economical and appropriate combination of interventions for improvements in the quality of education?"	Partly, as the EQUIP-T components had already been determined by the MA during their inception phase and differential roll out of different EQUIP-T components was not deemed possible by DFID. The qualitative component will examine which EQUIP-T components were perceived to raise education quality.
"Has pupil-teacher 'time on task' been significantly increased in target schools?"	Yes.
"Are better pedagogic practices that promote effective learning, demonstrably in place?"	Yes.
"Have the target councils been able to increase learning outcomes for girls / boys, including disadvantaged children, beyond those more generally obtained in comparable areas?"	Yes.
"Do councils have costed plans in place that are realistic both fiscally and institutionally for the long term maintenance of quality within schools including provision and quality of teachers, operations, inputs and maintenance of school infrastructure?"	Partly if possible. The qualitative component will through the district level interviews attempt to collect information on the availability of costed plans, but not their quality, for the EQUIP-T programme councils (districts) selected as qualitative research sites.
"Improved education quality."	Yes.
"Improved teaching of early-grade reading and numeracy resulting in more children able to read with comprehension" and with curriculum appropriate numeracy skills."	Yes.
"Improved teaching of early-grade reading and numeracy resulting in more children able to read with comprehension" and with curriculum appropriate numeracy skills."	Yes.
"More time on task for primary school children, resulting in more children passing their end of primary school examinations"	Yes.
"More girls able to make the transition to secondary school".	No, as the EQUIP-T programme will focus on the early grades and impact of the programme, if any, on this outcome would be highly unlikely to be detectable within the life of the impact evaluation.
Pupil learning results should be disaggregated by gender.	Yes.

| The impact evaluation should examine impact for disabled children. | No, because the EQUIP-T programme does not contain any component or activities aimed at this particular group[118]. |
| The impact evaluation should include poverty measures for pupils. | Yes. |

A.6   Revised purpose of the impact evaluation

Thus the impact evaluation will:

- Generate evidence on impact of EQUIP-T on learning outcomes for pupils in primary education, including any differential impacts for girls and boys;
- Provide evidence on the fiscal affordability of scaling up EQUIP-T beyond the initial EQUIP-T regions and districts (separate fiscal study);
- Assess perceptions of effectiveness of different EQUIP-T components through the qualitative research and explore possibilities to do so through the quantitative component; and
- Communicate evidence generated by the impact evaluation to policymakers and key education stakeholders, including DFID and MOEVT to promote accountability and lesson learning.

A.7   Changes to the impact evaluation design since the technical proposal

In addition to the reduction of scope of the TOR outlined above the following changes to the IE design compared to the technical proposal were made based on discussions with DFID during the inception phase and feedback from the first Reference Group meeting for the impact evaluation[119].

- Scope of impact evaluation expanded for the qualitative component to examine perceived EQUIP-T contributions to changes in relevant outcomes and outputs, to the extent possible within the scope of the IE;
- Quantitative fieldwork to start in March 2014 (first start date was October 2013, second start date was January 2014);
- Use of EGRA/EGMA style pupil learning assessments instead of UWEZO assessment testing 3,000 standard 3 pupils in Kiswahili (EGRA) and mathematics (EGMA);
- Test standard 3 pupils (Kiswahili and mathematics) instead of standard 2 and standard 5 pupils;
- Administer teacher development needs assessment (TDNA) to standards 1-3 (Kiswahili and mathematics) and 4-7 (mathematics) teachers instead of to standard 2 and standard 5 teachers;
- One standard 2 Kiswahili and one standard 2 mathematics lesson will be observed for each sample school instead of one standard 3 lesson and one standard 5 lesson;
- Replace pupil tracer survey to collect data for poverty measure by data collected at school level (from tested pupils' parents);
- To obtain school sample: in the second stage, match control schools to treatment schools using PSM instead of random selection;

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[118] MA-OPM and DFID-OPM correspondence December 2, 2013.

[119] The draft inception report was subsequently further revised based on comments received from the SEQAS review on March 7, 2014.

- 17 EQUIP-T programme (treatment) districts in the five EQUIP-T regions covered by the impact evaluation will be surveyed instead of 20 districts due to contamination by other education programmes or projects.

Annex B   Midline evaluation matrix

A comprehensive set of midline evaluation questions are set out in Annex table 2, linked to the TOC which has been slightly modified since BL to reflect the changes that the programme has made to its design (see Annex C.2 for more details). The final two columns identify the primary sources of data as either the quantitative survey or the qualitative research, and reference the main instruments that provide the data to answer each question (an instrument key is given below the main table). This sets the framework for the midline research, but it is important to highlight that the research did not expect to deliver full and comprehensive evidence on all the questions listed below. One important reason is that the nature of the qualitative research is partly exploratory, and by nature unpredictable, which means that the findings provide more or less evidence than expected on different research questions. Note that the district planning and management (component 3) and community participation and accountability (component 4) sections in the matrix have been condensed into fewer rows (without losing information) from the version presented in the ML planning report (OPM 2016a) to make the presentation of findings in the component chapters clearer.

Annex table 2:   **Midline evaluation matrix**

Prog. Comp.	Results chain level	Descriptive link in theory of change	Midline evaluation questions	Quantitative survey[1][3]	Qualitative research[2][3]
All	impact	Contributions from all component result chains reinforced by interlinkages. Strong governance model (community monitoring to school leadership to ward co-ordination to district management to regional strategic leadership), acts as a foundation for impact and sustainability.	Did standard 3 pupil learning improve? Why? Was this because of EQUIP-T? Did learning gaps narrow for marginalised groups (girls, non-Kiswahili speakers)? Why?	X (I1,I2,I3,I4)	X (I12, I13, I14, I15, I16, I17, I19, I20, I21, I22, I23, I24)
Teacher capacity and performance					
C1: Tchs	input	INSET for stds 1-3 teachers, teaching and learning materials (TLM) provided	Did teachers receive INSET as intended? Did school received materials as intended?	X (I5,I8)	
C1: Tchs	output	Std 1-3 teachers' capacity increased, materials available in classrooms	Did teachers' capacity (subject, curriculum and pedagogical knowledge/skills) increase? Why? Are materials in classrooms?	X (I5,I6,I7,I11)	X (I12, I13, I14, I15, I16, I17, I18, I19, I20, I21, I22, I23, I24)

C1: Tchs	input to output (assumption)	Teachers readiness to learn, relevance/accessibility of INSET & TLM materials, teacher attendance at INSET	Did assumptions on attendance hold? If not, why?	X (I5)	
C1: Tchs	outcome	Classroom teaching improved & inclusive, materials being used effectively, instructional hours appropriate	Has classroom teaching improved? Why? Is teaching more inclusive? Why? Have instructional hours increased? Why?	X (I9,I10,I11)	X (I12-I24)
C1: Tchs	output to outcome (assumption)	SUPPLY-SIDE SUPPORTING CONDITIONS RIGHT including high teacher school & classroom attendance, punctuality, salaries paid, low teacher turnover, increased morale and job satisfaction	Did assumptions hold? If not, why? Have there been changes since baseline? Why?	X (I5,I8,I9,I10)	X (I12-I24)
C1: Tchs	outcome to impact (assumption)	DEMAND-SIDE SUPPORTING CONDITIONS RIGHT including regular pupil attendance, school-ready children (especially to learn in Kiswahili), adequate support at home, appropriate class sizes	Did assumptions hold? If not, why? Have there been changes since baseline? Why?	X (I4,I9,I10)	x (I12-I24)
C1: Tchs	input	SRP (CTA stipend, materials, training)	Did communities establish SRP as intended? Training of CTAs and materials provided?		x (I12-I17, I19-I24)
C1: Tchs	outcome to impact (assumption)	Children who attended SRP will enter std 1?	Did children who attended SRP enter std 1?	x (I8)	x (I12-I17, I19-I24)
C1: Tchs	impact	Children learn more because they are school ready	Is there any evidence that children who have attended SRP are school-ready, especially in Swahili acquisition? Why?		x (I12-I17, I19-I24)
C1: Tchs	outcome	INSET system continues to operate after EQUIP-T ends and there is continuous improvement in classroom teaching practices	Is there any evidence that the INSET system will be sustainable? Are there any constraints to sustainability? Will new teachers be able to benefit easily?		x (I12-I24)
School leadership and management					
C2: SLM	input	SLM training of HTs/WECs (sch leadership competency framework; sch quality stds; PTP/SRP/SIS; WECs with transport and grants (from C3)	Did HTs receive SLM training as intended?	X (I8)	x (I12-I24)

C2: SLM	output	HT capacity increased (knowledge of role/responsibilities, tools, and empowerment); Quality-focused SDPs available; Effective monitoring/support from WECs; Peer support meetings happen and are useful	Has HT SLM capacity increased? Are SDPs available? Have WEC visits increased? Are there any changes in what WECs are doing during visits? Is it contributing to stronger SLM or having other positive/negative effects? Are HTs benefiting from peer support network meetings?	X (I8)	x (I12-I24)
C2: SLM	input to output (assumption)	HT/WEC readiness to learn; relevance/accessibility of INSET materials; HT/WEC attendance at INSET and at peer support meetings.	Did attendance assumptions hold? If not, why?	X (I8)	
C2: SLM	outcome	HT leads school more effectively by applying new skills and knowledge (positive changes in attitude and confidence)	Has SLM improved? In which areas? Why? Why not in some areas?	X (I5,I8)	X (I12-I24)
C2: SLM	output to outcome (assumption)	High level of HT attendance and punctuality. Low turnover of HTs . Salaries paid, hierarchy appropriate. Capitation grants fully released. Morale and motivation is high.	Did assumptions hold? If not, why?	X (I8,I9)	X (I12-I24)
C2: SLM	outcome	Heads continue to use improved practices after the programme ends. Improved management systems established that new Head teachers can easily adopt, supported by deputy heads or WECs (SLM trained). Peer support network is embedded in the system so that it continues to run after the programme ends.	Is there any evidence that any improved management systems or practices are sustainable? Could they be easily adopted by a new Head? Is there any evidence that the ward-level peer network will be sustainable? Are there any constraints to sustainability of management systems or the peer network?		x (I12-I24)
District planning and management					
C3: DPM	input	Capacity building for district (and regional) officials in planning, budgeting, use of evidence. School information system/EMIS data is provided to districts	Did the relevant district officials receive training? Is school level data available?		x (I12-I17, I19-I24)

C3: DPM	finance to input (assumption)	LGA grants released in full and on-time by MoF/PO-RALG	Have LGAs received the amounts budgeted for this year / this point in the year?		x (I12-I17, I19-I24)
C3: DPM	output	District officials' capacity for planning and budgeting increases, planning is results focussed and districts implement according to plans. Funds are disbursed in full and on time.	Can districts explain the planning process, what their priorities are/how they were arrived at, how they developed solutions? Are districts planning according to their objectives, and data/evidence on needs? Are plans linked to realistic budgets? How does the EQUIP-funds plan fit into their wider budget? Do districts implement according to their plans? If not, how and why have they changed course?		X (I12-I17, I19-I24)
C3: DPM	input to output (assumption)	LGA training was relevant. Relevant staff attended, motivated to change behaviour. Staff turnover is low. School level data is trusted and timely.	Are the assumptions true?		x (I12-I17, I19-I24)
C3: DPM	input to output (assumption)	Accountability in place to hold districts to their plans: PFM system holds districts to their plans - this was identified as a weak assumption.	Does the PFM system ring-fence and control district spending according to the planned amounts? Does the system control the implementation model?		X (I12-I17, I19-I24)
C3: DPM	outcome	Decentralisation of EQUIP-T management and implementation to LGAs gives greater government ownership and sustainability for continuing to see the benefits of the programme	Do LGAs feel greater ownership of the programme? Will the benefits from the programme (e.g. capacity for planning) be sustained after EQUIP-T funds finish?		x (I12-I17, I19-I24)
C3: DPM	input	WECs provided with motorcycles and grants. WECs receive the School leadership framework / school quality training under Component 2	Do WECs have access to motorbikes, or other form of transport? Do WECs receive WEC grants? Do WECs look for funding from elsewhere for school visits? Did WECs attend school leadership training?		x (I12-I17, I19-I24)
C3: DPM	output	WECs' capacity increased and they visit schools more frequently.	Are WECs familiar with the school leadership competences and standards? Do WECs know how to monitor schools? How frequently do WECs visit schools?	X (I8)	X (I12-I17, I19-I24)

C3: DPM	input to output (assumption)	WEC grants are disbursed in full and on time, and are sufficient for regular monitoring. WECs use the funds as planned. Districts have planned incentives and sanctions to hold WECs accountable. WEC turnover is low.	Are WEC grants released to WECs in full and on time? Are the amounts enough for fuel and maintenance? Do WECs use the funds as planned? Does the LGA monitor the performance of the WEC?		X (I12-I17, I19-I24)
C3: DPM	outcome	WECs monitor schools more effectively, applying their skills/knowledge to support and improve performance of schools.	What do WECs do on school visits? How do they address poor performance? What is the relationship like between WECs and HTs?		X (I12-I17, I19-I24)
C3: DPM	output to outcome (assumption)	WECs have sufficient authority/ incentives are in place that their monitoring does hold schools (HTs particularly) accountable.	What incentives and sanctions do WECs have to monitor schools and hold HTs and teachers accountable?		X (I12-I17, I19-I24)
Community participation and demand for accountability					
C4: Com	input	School committees receive training on roles, responsibilities, financial management and PTPs / PTP grants. PTPs are established. PTP grants disbursed. Noticeboards given to schools	Which/how many school committee members received training? Were PTPs established, if so, how? What is the make-up of the PTP? Did schools receive noticeboards? Were PTP grants delivered?	X (I8)	x (I12-24)
C4: Com	output	SC capacity improves. SCs perform their role. PTPs are active, apply for and use PTP grants for needs of school. Schools display relevant/comprehensive information on noticeboards publically.	Has the knowledge/skills of SCs improved? What do SCs do? What does the PTP do? What are PTP funds used for? Do any interests disrupt use of PTP grants / role of the SC? Is there a public noticeboard? What information is on it?	x (I5,I8,I9)	X (I12-24)
C4: Com	input to output (assumption)	School committee training is effective and relevant, SC members attend, and have capacity and motivation to change behaviour. People elected to the PTP have the capacity and motivation to engage. PTPs self-organise with minimal training.	What was the content of the training? Are PTP members capable and motivated to support school improvement? Why?		X (I12-24)
C4: Com	input	Community facilitator trained by CSO, and conducts school needs assessment with a task force from the village. Action plan developed.	Was a facilitator trained? Did a village meeting take place? Was a task force established - who was on it? What did they do?		x (I12-24)
C4: Com	output	Community action plan feeds into school development plan	Is the HT aware of the community action plan? Has it fed in to the school plan?	x (I8)	X I12

C4: Com	outcome	Communications improve between school and community. Better information flow and transparency.	How does the community get information about the school? Is it satisfied with the information?		X (I12-24)
C4: Com	outcome	Relationship between school and community improves, conflict reduces, both sides feel supported.	What is the relationship like between the community and the school? Is there respect? How does the community support the school? Has pupil attendance improved?	x (I5,I8,I9,I10)	X (I12-24)
C4: Com	output to outcome (assumption)	Parents and community have the capacity and resource to engage more fully in education. Parents continue to contribute to education - despite announcement of free education	What do parents see as their expected contribution to education? Do parents have the time and interest to engage in education?	x (I4,I8)	X (I12-24)
C4: Com	outcome	Community holds duty bearer to account to improve quality of education: monitor teacher activity, use of funds	Does the community feel able to hold the school to account?		X (I12-24)
C4: Com	outcome	Parents/community continue to be engaged and active in supporting quality education even without incentive of PTP grants.	Would the community be engaged without the incentive of further funding?		x (I12-24)

Source: OPM IE team. Notes: (1) The large X symbol means that the weight of evidence is likely to come from this source, while the small x symbol means that evidence is likely to be more limited from this source. (2) While qualitative evidence will be sought on the questions set out in this matrix, this type of research has an important element of unpredictability which means that the emphasis of the findings may not be as set out here. (3) The I1, I2.I3...etc reference the 23 data collection instruments used in the evaluation. These are listed in the instrument key in the table below, and further details are provided in Annex E and Annex F.

Annex table 3 Data collection instrument key

Quantitative instruments		Qualitative instruments	
I1	Adapted Early Grade Maths Assessment	I12	Head teacher key informant interview (KII)
I2	Adapted Early Grade Reading Assessment	I13	Community leader KII
I3	Pupil background	I14	Teacher focus group discussion (FDG)
I4	Poverty score card	I15	School committee FGD
I5	Teacher interview	I16	Mothers' FGD
I6	Teacher Development Needs Assessment Kiswahili	I17	Fathers' FGD
I7	Teacher Development Needs Assessment Maths	I18	Children's FGD
I8	Head teacher interview	I19	Ward Education Coordinator KII
I9	Head count	I20	District Education Officer KII
I10	School records	I21	Regional Education Officer KII
I11	Lesson observation	I22	EQUIP-T Regional Team Leader KII
		I23	EQUIP-T National Team Leader and component leads KII

Annex C   Supplementary information on EQUIP-T

C.1   Constraints underpinning the EQUIP-T programme design

Figure 25:   Constraints on children's capability to learn to their full potential

Source: Cambridge Education 2014, p. 6.

C.2   Expanded EQUIP-T TOC and modifications since BL

Figure 1 Complete, expanded EQUIP-T programme theory of change

Strong: The wider literature base and contextual data from the baseline survey provide substantial evidence that the main assumptions underpinning the link are likely to hold

Weak: The wider literature based and contextual data from the baseline survey provide little to no evidence that the main assumptions underpinning the link are likely to hold.

Mixed/contextual: There is some evidence from the wider literature base and the contextual data from the baseline survey that the main assumptions underpinning the link are likely to hold. However, the assumptions may only hold under certain conditions and may therefore lead to heterogeneous results

The diagram above represents the expanded TOC developed at the BL. It shows the main intended programme interventions (dark blue hexagons), as well as the changes that are expected to flow from these (white hexagons for outputs, and orange hexagon for the intended outcome).

The coloured 'traffic light' arrows, explained in the key below the diagram, show the numerous causal pathways though which the programme expects to see change. Chapter 8 in the BL report (OPM, 2015a) takes each link shown in the TOC above, and articulates the assumptions underpinning the expected change, and then draws on the wider literature base together with contextual information and findings from the BL research, to assess the strength of each link (the likelihood of the intervention leading to the expected change). This analysis was used to provide the programme with information on areas to consider in strengthening the programme's design.

Since the BL, the programme has adapted its design to some extent by dropping some interventions, adding others, and placing earlier emphasis in certain areas than originally planned. This has implications for the underlying TOC to be tested at ML, which differs in some areas from Figure 1 above, although the core of the TOC remains unchanged. The evaluation team documented the key design changes in the ML Planning Report (OPM, 2016a), and developed the ML evaluation matrix (Annex B) to include descriptions of links in the TOC relevant for testing at ML. The table below summarises the main changes since BL in relation to the interventions shown in Figure 1 above, and briefly explains the implications for the TOC at ML.

Annex table 4 Main modifications to the expanded TOC since BL

Intervention planned at BL (shown as dark blue hexagon in Figure 1 above)	Modification to intervention	Implication for TOC at ML
Teachers given a morale toolkit and incentives	Dropped as a separate intervention.	Morale and motivation of teachers is expected to improve as a result of a strengthened continuous teacher professional development system, which will result from further development of the initial INSET model for teachers.
Scholarships offered to Form 4 leavers to undertake teacher training (especially girls)	Dropped as a separate intervention. At ML the programme was scoping possibilities for volunteer community teaching assistants who are running the SRP (preschool classes) to develop into rural teachers.	Not clear at ML whether the strategy being scoped out will have the same expected casual path, namely to increase the number of female teachers and to contribute to a more conducive learning environment for girls.
PFM system further developed (at district level)	Decision taken to channel EQUIP-T funds through government PFM systems to districts, earlier than anticipated. Additional training and mentoring support for district officers to plan for and disburse and account for EQUIP-T funds.	The district-level PFM system strengthening was expected to lead to funds for schools (capitation grants) being disbursed in full and on time. The government decision to disburse capital grants directly to schools means that this link in the TOC is no longer relevant in this form. The accelerated support for decentralisation of EQUIP-T management and implementation to districts is expected to help to strengthen PFM systems, and in the longer term result in greater ownership and likelihood of sustainability of the programme.
Community sensitisation	The community interventions go beyond sensitisation to provide facilitation for community-driven school needs assessments, and support to improve communication between schools and communities among other activities.	The community-driven school needs assessment feeds into the school development plan so that community priorities are reflected, and there is better information flow and transparency between schools and communities. This contributes to the changes expected in Figure 1, including communities holding duty bearers to account.

Source: OPM IE team drawing on material in OPM, 2016a.

More details on implementation progress since BL across all of the main planned interventions is given in the section which follows below.

C.3   EQUIP-T implementation between baseline and end-2015

EQUIP-T's annual report for 2015 (EQUIP-T MA, 2015) sets out implementation progress in 2014 and 2015 under each component against the original plan (see pp100-103). The summary table for each component is reproduced below. The detailed explanation in the tables also gives reasons why some activities have been scrapped or changed. Given the scope of the IE, activities that principally concern Lindi or Mara at this stage are omitted.

Annex table 5:   Component 1, Improving the capacity and performance of teachers

Sub-Activities		Progress at end 2015	Explanation of progress
1.1	Developing a teacher performance framework	Achieved	Now called the Teacher Competency Framework (TCF) and was approved as part of the National Quality School Standard Framework. Will be reviewed and simplified in 2016 to become a part of the Teacher Professional Development Strategy
1.2	Improving the performance of teachers	On track and ongoing	Early Primary Literacy INSET modules 1-13 have been developed and rollout is partially complete in all regions. New 3Rs curriculum training was rolled out to teachers in all 7 regions. Early Primary Maths INSET modules 1-8 have been drafted with a further 4 underway.
1.3	Developing a Teacher Performance Management system	Commenced	With the approach to delivering teacher INSET now working relatively smoothly a concept note has been developed on Teacher Professional Development Strategies to build on the INSET model and increase the focus on and support to performance – operationalisation of this will be a focus for 2016. This will also link to the School Information System.
1.4	Improving teacher morale	Merged with Teacher Performance Management	A concept note was developed in 2014, however experience in 2015 has shown that this needs to be incorporated as an element of a more structured approach to Teacher Professional Development rather than an item on its own
1.5	School Readiness Programme (SRP)	Launched and ongoing	SRP has been developed from scratch in 2015. Competency frameworks, training manuals and storybooks have been produced. Training has been delivered and the sub-national system has mobilised children and communities. Over 1,000 centres are implementing the 12 week course.
1.6	TTC scholarships for rural candidates	Approach altered - merged with SRP	Changes to the PRESET teacher training model moving from a 2-yr to a 3-yr model restricted the possibility of this during the lifetime of the programme As a result exploration has begun about possibilities for developing SRP Community Teaching Assistants into rural teachers. This will be looked at further in 2016
Source: EQUIP-T MA 2015, p101			

Annex table 6: **Component 2, Strengthening school leadership and management**

	Sub-Activities	Progress at end 2015	Explanation of progress
2.1	Developing a school quality framework and leadership competency framework	Achieved	Draft National School Quality Standard Framework and draft National School Leadership Competency Framework developed and approved
2.2	Design and implementation of leadership performance management system	On track and ongoing	The School Information System to support leadership and school performance management has been introduced in phase 1. The full phase 2 is in draft form and will be rolled out in early 2016[1], this will also be done in tablet application form. In addition leadership performance management will link to the Teacher Professional Development strategies that C1 is focussing on in 2016.
2.3	Strengthening Head Teacher and WEC School Leadership and Management	Ongoing but behind schedule	SLM Modules 1 and 2 have been rolled out to all regions. SLM 3 on School Development Planning has already been drafted but implementation has been frustrated by approval delays. Recent developments with the Agency for the Development of Education Management (ADEM) should unblock this and 2016 should see a pick-up in the pace of implementation.
2.4	Peer support for whole school development	Planned to commence in 2016	Delays to WEC motorbike procurement prevented the development of system owned and run peer networks. With these now in place, developing sustainable ward peer support networks should be possible in 2016. This has already begun to happen organically in the odd location since motorcycles have been given to WEC.

Source: EQUIP-T MA 2015 p101. Note (1) The SIS had not started by the time of the ML research.

Annex table 7: **Component 3, strengthening district planning and management**

	Sub-Activities	Progress at end 2015	Explanation of progress
3.1	EQUIP set-up, Baseline & Programme Planning	Achieved	Setup and Baseline was completed in 2014. EQUIP-T Programme planning was completed with all LGA for 2015/16 in relation to decentralised funds.
3.2	Strengthening District planning & management capacity	On track and ongoing	Strategic Planning 1, Strategic Planning 2 and Annual Planning trained in all regions. Budget and Budget Management tested in Dodoma. Remaining modules drafted.
3.3	Support Districts to prepare to manage EQUIPT programmes from 2016 and plan for replication and scale-up	On track and ongoing	Support to enable LGA to produce budgeted plans, upload on to EPICOR and request fund transfer from DFID via PMO-RALG. Support to EQUIP-T implementation through training and guidelines. This support will be ongoing throughout 2016 as LGA take greater ownership in expenditure, planning and management. First transfer was made in November 2015
3.4	Support Districts to manage, co-ordinate and monitor special activities / grants	Ongoing but behind schedule	Preferred method of fund release (WEC bank account and direct school transfer) not wanted by PMO-RALG. Grants were then wrapped into LGA fund transfer budgets but delays in these funds reaching LGA accounts has delayed disbursement. WEC and Schools have all been trained on WEC/PTP Grant Management in preparation.
Source: EQUIP-T MA 2015 p102			

Annex table 8:   Component 4, Supporting communities for better accountability

	Sub-Activities	Progress	Explanation of progress
4.3	Core Activity 1: Improve communications mechanisms for communities	On track and ongoing	Noticeboards were distributed to 4,000 schools. More activities to come in 2016.
4.4	Core Activity 2: Community engagement in education planning	On track and ongoing	43 CSO have supported community education needs assessments in 63-80% of villages in each original region. Quality of implementation varies significantly. Recruitment of CSO to lead the process in Lindi and Mara is ongoing.
4.5	Core Activity 3: Build capacity of WECs to train SCs /Build capacity for effective operations of the school committee	On track and ongoing	Training delivered by WEC to all School Committees, including in Lindi and Mara
4.6	Support to link community education plan objectives into School Development Plan	Achieved but ongoing	Community needs assessment process linked to school planning in the draft School Development Planning capacity building materials
4.7	Core Activity 4: PTP formation	Achieved	PTP formed in all schools. Level of activity reportedly varies substantially at this point.
4.8	Core Activity 5: Development of school IGAs	Commenced	Materials developed and ready for testing but this has not yet happened due to other priorities.
4.9	Support PTP to establish school clubs/ student parliaments/ interest groups	Commenced	Testing of using PTP to establish school clubs with a focus on equity has begun in Mara and a full pilot is due to begin in late 2015/early 2016
4.10	Develop Transparency, Accountability and representation mechanisms and projects	Commenced	Noticeboards were the first step. Community Based Performance Monitoring is a core focus for 2016 to develop this further
4.11	Advocacy and communication campaigns	Planned to commence in 2016	Limited progress so far. Will be an important part of work on FGM and Community Based Performance Monitoring in 2016.
4.12	Community score cards	Planned to commence in 2016	Community Scorecards will be developed once the School Information system is operational.
4.13	Community capacity building programmes and maintenance)	Achieved but ongoing	Commenced through the training of 2 community facilitators in every community but will this will be expanded upon through Community Based Performance Monitoring in 2016
Source: EQUIP-T MA 2015, pp 102-3			

Annex D   Education sector policy and other programmes

D.1   National policy context

The Ministry of Education, Science and Technology (MoEST)[120] leads in setting education policy in Tanzania. Since 1995, the system has been organised under an overarching policy document (the Education and Training Policy (ETP)) which sets the aspirations and structure for education. Under the ETP I, the Ministry developed two Education Sector Development Programmes (ESDP 1998-2007; and ESDP 2008-2017). Under these ESDPs, there have been five-year sub-sector plans, such as the Primary Education Development Programme (PEDP I, II and now III) and the same for secondary (now on SEDP II). Under these there are donor-supported programmes. Each successive layer of policy is designed to be coherent with the one above, with the National Strategy for Growth and Reduction of Poverty II (MKUKUTA II in Kiswahili) arching over all sectors. Furthermore, EQUIP-T implicitly links to aims in the 2008 National Strategy for Gender Development.

D.2   Major education policy changes since BL

In February 2015 the former President launched a new Education and Training Policy (ETP II, 2014) replacing the 1995 ETP I. This new policy document contains intentions for major reforms across the sector. Of most relevance to primary education are two policy intentions:

- Expansion of fee-free, compulsory basic education to include pre-school and lower secondary school. This shows the government's focus on access.
- Removing the school inspectorate from the Ministry and setting it up as an independent body to monitor the quality of schools. This is intended to improve the quality of schooling.

His Excellency, John Magufuli, the incoming President campaigned on fee-free school education, and one of the first actions of the new government, in December 2015, was to implement this policy. The MoEST released a circular that states that **parents and guardians will not have to pay for education of their children from standards one to form four**.[121] Part of the circular reads: '*Provision of free education means pupils or students will not pay any fee or other contributions that were being provided by parents or guardians before the release of new circular*'. The directive does not explicitly mention pre-school. There are early reports that this change in cost burden away from parents is having an immediate effect on demand for primary education, with pressure on standard one enrolment in particular. Added to this pressure is the change in the age of entry to primary school from 7 to 6 years, under the new basic education structure. This allows for a one-off double-intake of children into Standard 1 and is likely to be a contributing factor to any increase in Standard 1 enrolment.

The status of the school inspectorate policy is less clear. In mid-2015, this initiative was reported to be in the pipeline, although various stakeholders suggested that accountability lines still needed to be clarified.

As a further signal of the importance of education, and service delivery more generally, to the new government, the Ministry responsible for implementing school education policy and managing the

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[120] Prior to the new government which took office in November 2015, the Ministry had responsibility for vocational training and was known as Ministry of Education and Vocational training (MoEVT).
[121] Government Circular Number 5 of 2015

school system has been moved from the purview of the Prime Minister's Office to the Presidency. The new Ministry is called the President's Office Regional and Local Government (PO-RALG).

Another up-coming change in the implementation of primary education under the new government, is in the funding mechanism for **school capitation grants**. As of the school year 2016, it has been reported that these government grants, which cover non-salary school expenses, **will flow directly from central government (PO-RALG) to schools** rather than through districts first. This appears to be happening in at least some districts already. During a pre-testing exercise in primary schools for this study in February 2016, head teachers reported receiving capitation grants directly into their school's bank account.

In the past two years, there has been a significant change in the early-grade primary school curriculum—both what is being taught and the pedagogical approach. This started in 2015 with the **standards one and two curriculum**, which was reduced from eight subjects to **focus on reading, writing and arithmetic (3Rs)**.[122] The rationale for change was that the previous 2005 curriculum was overloaded, leading to a situation where teachers were overemphasising subject contents to the detriment of basic skills development, considered an essential foundation for future learning (MoEVT, 2016, p1). The new curriculum, syllabi and teachers' guides**, promote a phonics approach to teaching children to read**, which is new to most primary teachers in Tanzania. The Literacy and Numeracy Education Support programme (LANES) has been a key driver of primary curriculum reform, and this programme, together with others, including EQUIP-T, is providing materials and in-service training to support teachers. More details are in the next section. The new standards one and two curriculum started being implemented in schools part-way through 2015, and the government is currently finalising the new standards three and four curriculum.

D.3   LANES implementation since BL

Annex table 9:   LANES activities in 2014 and 2015

Overview	2014/15 to 2016/17 funded by Global Partnership for Education US$95m budget
Objectives	Improved basic skills in literacy and numeracy for children aged 5-13 years
Expected outputs	Improved teaching and learning; improved education sector management; increased community participation
Geographical coverage	14 regions for training[1]: Kagera, **Mwanza**, Geita, **Arusha**, Kilimanjaro, **Tanga,** Manyara, Dar es Salaam, Morogoro, **Singida, Pwani, Rukwa**, Katavi and **Ruvuma**; national for materials distribution
Main activities in 2014 & 2015	Training of 18,656 standards one and two teachers on the new 3Rs curriculum (9 days, centralised training model in Dodoma, delivered by TTC tutors)
	Training of 10,870 head teachers, and 2,480 WECs in school leadership and management (3 days, regional training model, delivered by ADEM; 3 additional regions Iringa, Mbeya, Njombe)
	Materials development and distribution to schools via these trainees of: standards 1&2 curriculum; std 1 syllabus; std 2 syllabus; stds1&2 teachers guide for reading/writing; stds 1&2 teachers guide for maths; school leadership and management guidelines (on general school management and 3Rs programme implementation)[2]
	Materials development and procurement of (national distribution planned for 2016): 6 std 1 textbooks: reading, story book writing, maths, health, art & sports).
	Production and distribution of Primary School Leaving Examination (PSLE) item analysis booklets for each of 8 subjects to regions and districts for forwarding to all schools

Sources: (i) MoEVT (2015) (ii) Interview with LANES National Co-ordinator (January 2015). Note: (1) The IE control districts are in the regions highlighted in bold italics. (2) BRN-Ed developed the general SLM guideline.

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[122] 24 out of 30 periods per week are allocated to 3Rs, leaving 6 periods for supportive skills (health and environmental education; games and sports; fine and performing arts; and religious studies

Annex E   Quantitative survey instruments and indicators

E.1   Contents of ML quantitative survey instruments

Annex table 10:   Summary of the contents of the ML quantitative survey instruments

Description of content[1]	
1. Standard 3 pupil Kiswahili test (same pupils tested in both Kiswahili and mathematics)	
Kiswahili literacy pupil test based on standard 1 and 2 curriculum requirements Pupil background information [ML+: pre-school attendance, languages spoken at home, use of languages by teachers, disability status]	Adapted Early Grade Reading Assessment (EGRA) Pupil background
2. Standard 3 pupil mathematics test (same pupils tested in both Kiswahili and mathematics)	
Mathematics pupil test based on standard 1 and 2 curriculum requirements	Adapted Early Grade Mathematics Assessment (EGMA)
3. Parents of Standard 3 tested pupil interview	
Set of household characteristics that can be used to convert scores into poverty likelihoods based on a pre-existing instrument [ML+: languages spoken at home, support for homework and learning to read, child work]	Poverty score card
4. Standards 1, 2 and 3 teacher interview	
Background information: gender, age, years of teaching, qualifications Frequency/type of in-service training received [ML+: including EQUIP-T INSET] Frequency/nature of lesson observation and nature of feedback Frequency/nature of performance appraisal *[ML+: languages spoken at home and school; teaching the new curriculum, inclusive teaching practices; views on head teacher and parent-teacher partnership (PTP) actions on school improvement; travel time to school; salary payments; reasons for absenteeism]*	Teacher interview
6. Standards 1, 2 and 3 teacher development needs assessment Kiswahili	
Teacher Kiswahili subject knowledge assessment based on the primary school curriculum (standards 1-7 but only limited materials from standards 1 and 2)	Teacher Development Needs Assessment Kiswahili (TDNA Kiswahili)
7. Standards 1, 2 and 3 teacher development needs assessment mathematics	
Teacher mathematics subject knowledge assessment based on the primary school curriculum (standards 1-7 but only limited materials from standards 1 and 2)	TDNA Maths

8. Standards 4-7 teacher development needs assessment mathematics	
Teacher mathematics subject knowledge assessment based on the primary school curriculum (standards 1-7 but only limited materials from standards 1 and 2)	TDNA Maths
9. Head teacher interview, head count, and data collection from school records	
Background information on head teacher: gender, age, years of experience, qualifications School background information: teachers, physical facilities, school timetable, number of days school open Frequency/type of school planning/management in-service training received; material and financial resources received Teacher attendance (by records and by headcount on the day) Pupil attendance (by records and by headcount on the day) *[ML+: reporting to Ward Education Coordinator (WEC)/district; views on PTP; use of community needs assessments; reasons for teacher absenteeism; actions taken by WECs during visits; salary payments; reasons for own absenteeism; pre-school classes & provision in community]*	Head teacher interview Head Count School Records
10. Standard 2 Kiswahili and mathematics lesson observations	
Inclusive behaviour of teachers with respect to gender Key teacher behaviours in the classroom Availability of lesson plan Availability of seating, textbooks, exercise books, pens/pencils etc. during the lesson *[ML+: adapted to account for 3Rs lessons where reading, writing and arithmetic are often taught sequentially with no break; teacher's approach to teaching reading; materials used in class]*	Lesson observation

Source: OPM 2016 (pp23-24). Note: (1) information that was added at ML is given in square brackets

E.2   Teaching behaviour descriptors

Annex table 11:   Teaching practices and descriptors

	The teacher	Teaching practice descriptor
Lesson introduction		
1	States the objectives of the lesson, and introduces the topic in a clear way	Learning objectives are clearly stated at the beginning of the lesson. Teacher explanation is accurately and clearly presented with good signposting and makes strong connections to pupil experience.
2	States what new skills or knowledge pupils will have by the end of the lesson	Teacher specifically states what new skills or knowledge the pupils should have acquired by the end of the lesson. For example, solving particular type of problems in maths or a specific writing skill in Kiswahili.
3	Checks for prior knowledge of the topic among the pupils	Teacher asks pupils about previous work covered in the topic and questions them about their understanding.
Lesson middle stage		
4	Asks pupils to demonstrate in front of class	Teacher calls on pupils to answer questions, explain ideas and report back on activities in front of the class.
5	Asks open-ended questions	Teacher asks questions which have more than one answer. Teacher asks questions which encourage speculation and require more than a 'yes' or 'no' answer or the recall of information.
6	Probes or comments on pupils' answers	Teacher asks the pupils for further explanation of his/her answer (probe). Teacher uses pupils answer to give an example, or expands, or provides additional information (comments).

7	Encourages pupils to ask questions	Teacher encourages pupils to ask questions to the teacher or to other members of the class.
8	Provides written or verbal feedback to pupils on their individual work	Teacher provides spoken comments to pupils individually on their work. Teacher provides written feedback such as marking of work, including formative feedback if the pupil has made mistakes or does not understand well.
9	Uses paired or group work	Pupils carry out activities in pairs or in groups.
10	Makes effective use of the chalk/white board	Teacher's writing and diagrams are clearly laid out.
11	Uses different instructional materials	Teacher makes use of a variety of instructional aids (not the blackboard) such as maps, posters, tables, charts, real-life items.
12	Relates well to pupils and uses praise	Teacher conveys enthusiasm through voice and body language. Teacher has a good rapport with pupils. Teacher uses encouragement and praise to give positive feedback. Teacher calls on pupils by name to make a contribution to the lesson.
13	Switches between Kiswahili and a vernacular language	Teacher code-switches between Kiswahili and a vernacular language during the teaching and learning process.
Lesson end stage		
14	Checks if pupils have acquired the new skills or knowledge stated in the introduction	Teacher asks questions or uses another approach to find out if pupils have acquired the new skills or knowledge set out in the introduction.
15	Uses a plenary (whole class session) to summarise and extend learning	Teacher draws the whole class together at the end of the lesson to summarise what has been covered in the lesson; consolidate and extend learning by directing pupils to the next stage of learning.
Source: OPM (2014b).		

About the project

The independent Impact Evaluation of the Education Quality Improvement Programme in Tanzania (EQUIP-T) is a four-year study funded by the United Kingdom Department for International Development (DFID). It is designed to: i) generate evidence on the impact of EQUIP-T on primary pupil learning outcomes, including any differential effects for boys and girls; ii) examine perceptions of effectiveness of different EQUIP-T components; iii) provide evidence on the fiscal affordability of scaling up EQUIP-T post-2018; and iv) communicate evidence generated by the impact evaluation to policy-makers and key education stakeholders.

EQUIP-T is a Government of Tanzania programme, funded by UK DFID, which seeks to improve the quality of primary education, especially for girls, in seven regions of Tanzania. It focuses on strengthening professional capacity and performance of teachers, school leadership and management, systems which support district management of education, and community participation in education.