Impact Evaluation Findings of STiR Education's Programme in Tamil Nadu State, India

Year 1 Evaluation Report

November 2020

Contents

Tables, Graphs and Figures

Acronyms

BRTEs   Block Resource Teacher Educator(s)

BRTE Supervisors Block Resource Teacher Educator Supervisor(s)

EL   Education Leader (includes BRTEs)

ELM   Education Leader Manager (includes BRTE Supervisors)

HM   Headmaster

LIC   Learning Improvement Cycle

Acknowledgements

1 EXECUTIVE SUMMARY

Ichuli, an independent research organisation headquartered in Uganda, was commissioned by STiR Education to understand longitudinal trends and impacts from their programme over 4 years in eastern Uganda and two states – Karnataka and Tamil Nadu – in India. The study's objective is to test STiR's 5-year change hypothesis to understand how improvements in intrinsic motivation at different levels of the education system contribute to improved teaching practices and student learning.

The findings from Year 1 of the study are presented in this report to provide a lens on the progress made after four months of STiR's programme implementation in Tamil Nadu. Results present linkages and outcomes between the data collected across three levels of stakeholders in the education system – students, teachers and headmasters, and education officials. Findings are organised by the key measurement areas STiR uses to evaluate behaviour change: engagement, safety, self-esteem, curiosity and critical thinking, and learning time and intentional teaching.

Throughout the report, findings from Year 1 of the longitudinal study are compared against the achievements STiR anticipated for each indicator by the completion of Year 1 of their progress pathway, which expects stakeholders to be developing a shared purpose, working together and changing their mind sets as they prepare to establish routines in Year 2 of the programme.

Overall, the findings from Year 1 of the study demonstrated that stakeholders are largely on track and meeting the Year 1 progress pathway targets. All findings showed that stakeholders within the education system are well on their way to developing a shared purpose, working together and changing their mind sets within each of the foundation of ambition and lifelong learning.

Specifically, the evaluation found that the concepts of mentoring, role modelling and trying out new practices are beginning to happen – key to this year's focus of helping key stakeholders establish a shared purpose and begin changing their mind sets. But the evaluation found that these practices currently often lack substance and depth. Additional efforts are needed to ensure that stakeholders are critically engaging within these processes and practices through deeper reflection on practice and driving school and system improvements in order to drive lifelong learning.

The evaluation has shown that driving impact through intrinsic motivation is a process. Teachers and ELs/ELMs expressed positivity towards the STiR programme and reported somewhat high levels of self-reported motivation and professional gain from their involvement. These self-reported indicators are an important measure of personal opinions on motivation, and they show successful results at this stage of the journey. However, motivation must also be measured using externally verifiable behaviours and proxy measures, such as attendance and commitment to completing daily roles and programme activities. These measures show that even though the programme is still in its first year of implementation and challenges were to be expected, motivational drive needs to be improved across the education system for the intervention to be successful in embedding and sustaining motivation in stakeholders by the end of the five-year support cycle.

SPECIFIC HEADLINE FINDINGS

Overall findings from the first year of the study were positive and illuminated where the programme is on track and performing to expectation according to Year 1 of STiR's progress pathway metrics as well as which aspects of the programme need improvement in the coming years. The following findings were identified as key learnings from Year 1 of the study:

Headline Finding 1: Positively, teachers, Headmasters and ELs/ELMs report high daily motivation levels as well as feeling motivated by the STiR programme. However, these self-reported attitudes are contradicted by high rates of absenteeism from work, which are corroborated by students, and the fact that at least 28% of teachers' overall daily time is spent on tasks unrelated to teaching and learning. Time spent off-task is also frequent among Headmasters and ELs/ELMs, indicating there may be negative role modelling in this regard from teachers' superiors.

The study revealed that while teachers, Headmasters and ELs/ELMs self-reported feeling motivated at work and being motivated by the STiR programme, their frequent absences and time off-task throughout their working days may indicate that motivation may not be as high as reported and it may indicate a negative role-modelling effect whereby teachers are influenced by the frequent absences of their superiors. Although teachers are primarily on-task when in the classroom, their frequent absences and time off-task throughout the working day has a significant effect on learners because it reduces the learning time and quality of learning for pupils. Lost teaching and learning time in public Indian schools has

been uncovered by other similar studies and represents a danger point which has the potential to undermine the STiR programme's focus on building foundations of lifelong learning among students and within all levels of the education system.

Headline Finding 2: 71% of ELMs reported attending an ELM Institute in 2019; however, only 59% of ELMs organised at least one EL institute in 2019, potentially bottlenecking the transmission of knowledge from ELMs to ELs. Meanwhile, 81% of teachers attended a network meeting in the 2-3 months of project implementation in 2019, which exceeds STiR progress pathway expectation for Year 1, but should continue to move towards 100% of teacher attendance as these meetings are technically mandatory.

STiR focuses on role-modelling and developing positive relationships amongst education system actors through Learning Improvement Cycles (LICs), which promote peer-to-peer linkages and provide learning opportunities. The STiR programme team trains ELMs on a LIC who then pass the learning on to ELs who, in turn, train teachers. Though most ELMs attended an ELM institute in 2019, fewer than those trained reported organising an EL institute to pass on their knowledge, potentially bottlenecking the knowledge and skills they receive from STiR. Positively, more teachers than expected by Year 1 of the programme reported attending a teacher network meeting in 2019, indicating good progress towards Tamil Nadu State's expectation that 100% of teachers will eventually attend. Ichuli enumerators attended network meetings to observe their quality according to rubrics developed by STiR. These observations found that the quality of teacher network meetings scored an average of 3.6 out of 5, which exceeds STiR's Progress Pathway ambition for Year 1 of the programme.

Headline Finding 3: Students report liking school and were observed being positive in class and participating in classroom activities, though there is room for improvement in how they readily embark on assigned activities, contribute to class discussions and collaborate with their peers. Teachers were observed greeting students and calling on a variety of students, although they sometimes praised students unequally, treated boys and girls differently and did not call on students by name.

Teachers were found to have good rapport with their students, calling on them equally in class and greeting them at the start of the lesson; however, teachers can improve in terms of providing praise equally, calling students by name and not exhibiting gender bias to prevent children from becoming disengaged. Students were observed actively participating in classroom activities and showed engagement and positivity with their teacher. However, students reported being frequently absent. While student absenteeism can be influenced by several factors – many of which may be outside of a students' control, such as illness or family commitments – time out of class can lead to disengagement from learning and affect overall motivation and educational gains.

Headline Finding 4: ELs and ELMs reported routinely observing, supporting and giving feedback to teachers and Headmasters. Most Headmasters also reported engaging in observation and feedback with their teachers, indicating positive role modelling from ELs/ELMs to Headmasters to teachers. The majority of teachers also reported that their Headmaster reviews their lesson plans frequently and that ELs often visit them at school and provide them with direct coaching and support.

The study found that all ELs/ELMs reported supporting, supervising and giving feedback to Headmasters while the vast majority said they observe and give feedback directly to teachers. Teachers and Headmasters reported an average of 3 visits by the EL per LIC, which indicates significant engagement from the EL. Almost all Headmasters reported observing, supporting, supervising and giving feedback to teachers in their classrooms, primarily weekly. Overall, the consistency in observation visits reported across all education actors in the programme is encouraging and should be built upon going forward.

Headline Finding 5: ELs/ELMs reported supporting Headmasters in building useful relationships with their teachers during feedback sessions which relates to the high number of teachers and Headmasters who said they receive useful feedback from observations. However, Headmasters and ELs/ELMs admitted that the coaching they give during feedback sessions is often positive and focused primarily on offering praise, rather than constructive advice to improve instructional practice. Nonetheless, teachers reported that they feel they have developed in their teaching methodology as a result of observation and feedback.

Teachers and Headmasters overwhelmingly reported that the coaching and feedback provided to them by their superiors was useful, however all actors frequently reported that feedback was mostly positive and focused on praise rather than constructive feedback to help them improve. Beginning to engage in a shared purpose of observation and feedback is aligned to STiR's progress pathway ambition of in Year 1, but it should be geared more towards targeted, specific and corrective feedback during Year 2-5 moving forward.

Headline Finding 6: The majority of teachers reported meeting other teachers from their school or block to learn from each other and expressed willingness to continue even after the STiR programme ends. This is indicative of their self-reported willingness for professional growth which many have also demonstrated through attending additional, albeit compulsory trainings. However, although most teachers who have been observed by a peer teacher reported improving as a result of it, 38% of teachers have not yet had this opportunity.

The vast majority of teachers and Headmasters reported meeting with other teachers in order to learn from each other. Moreover, most of them also reported that they would continue meeting with other teachers from their school or block to learn from one another even after the STiR programme ends and that the feedback received from peers is useful. This highlights the positive experience teachers have had in their exchanges with other teachers, a major success for the STiR programme. However, while it is positive that peer observation is taking place with some regularity, more than one third of teachers have never been observed by a peer and over half of the teachers that were observed by a peer did not receive feedback, indicating that improvements are also needed to ensure that all teachers are observed by their peers and that peer observations consistently result in feedback sessions.

Headline Finding 7: The majority of teachers reported learning two instructional methods promoted by STiR and 60% are frequently trying them in their classrooms, but less than 15% of them could accurately describe how to apply them. However, nearly all teachers reported being confident in applying these strategies and most felt there had been a positive change since starting to use them. Teachers were observed using a number of other good teaching practices like articulating lesson objectives, explaining content clearly, making connections to existing content and modelling.

Teachers learn new skills and practices through network meetings, which engage them in a structured Learning Improvement Cycle (LIC) delivered by the EL using materials developed by STiR. As the programme in Tamil Nadu was only four months into implementation, teachers had only been exposed to two teaching strategies during their first LIC. Most teachers reported learning these strategies and many said they had tried them out, but very few could correctly describe how to apply them in their teaching. Nevertheless, findings positively indicate that teachers are trying out new teaching strategies to some degree which is in line with STiR's progress pathway ambition for changing mind sets in Year 1 and that they are possibly also already beginning to establish routines which is the goal of Year 2.

Headline Finding 8: Independent observations found that teachers are on-task for 89% of lesson time. However, the majority of the learning process is teacher-centred rather than student-centred, so students have very limited opportunities to work independently or in groups. This corresponds to observations of limitations in teachers' abilities to develop the critical and creative thinking abilities of their students.

Teachers were observed in their classrooms to determine how they spend their time while teaching, including whether they stimulate students' curiosity and critical thinking skills. Findings indicate that teachers were on-task 89% of the time, indicating that when teachers are in the classroom they demonstrate positive behaviours towards instruction and engage in relevant teaching and learning actions. However, teachers spent a significant amount of their time interacting with all learners as a whole group; lecturing or demonstrating to students; and writing on the blackboard, leaving little time for students to work together or independently engaged in critical and creative thinking skills.

Headline Finding 9: Teachers self-reported and were observed being welcoming, friendly and respectful towards students. Students reported feeling safe in their school and classroom. But, conversely, students reported that corporal punishment is a common method of discipline with a high percentage of students believing it is the best means of discipline, indicating a disconnect between purported feelings of safety at school and normalised physical punishment practices. Teachers and ELs/ELMs were less likely than students to admit to using or witnessing corporal punishment at school.

The majority of teachers were observed treating students respectfully and being positive and encouraging. Students overwhelmingly reported liking school and feeling safe at school and in their classroom but the high rate of corporal punishment indicates that schools likely do not actually create a safe and positive environment conducive to the foundations of lifelong learning. Although students do not seem to link feeling unsafe with physical punishment, it is important to attempt to change deep seated cultural and social beliefs about safety and punishment so students can learn in an environment that supports their physical and emotional health. Going forward, it is important to involve education stakeholders and students in targeted activities to promote positive discipline and improve the safety and emotional well-being of all learners.

Headline Finding 10: Students reported high levels of determination and excitement when faced with difficult academic exercises. This may be connected to observations of teachers exhibiting a positive attitude towards learner's challenges. However, evidence of learners' self-esteem is contradicted by the fact that over 50% of learners have never been happy with their achievements at school and 52% reporting giving up on at least half of the difficult exercises they encounter. This may be connected to teachers' observed lack of providing specific and corrective feedback and the low rate of students asking teachers and their peers for help.

Students reported feeling somewhat confident dealing with challenging academic tasks and most expressed that they were excited to try and learn more after tackling a challenging exercise. Teachers were observed having a positive attitude when students were struggling, which may contribute to students' confidence and self-esteem – one of the foundations of lifelong learning. However, there is still room for significant improvement in terms of boosting students' confidence and determination to solve difficult problems, which students and teachers can hopefully work to improve in Year 2-5 of the STiR programme.

2 PROGRAMME AND LONGITUDINAL STUDY OVERVIEW

STiR partners with Dr Rebecca Thornton, Associate Professor of Economics at the University of Illinois Urbana-Champaign and Ichuli Institute, an independent research organisation headquartered in Uganda and led by Victoria Brown, to understand longitudinal trends and impacts from the programme over 5 years in India and Uganda. The study takes place in eastern Uganda and Karnataka and Tamil Nadu States in India. The study's objective is to test STiR's 5-year change hypothesis to understand how improvements in intrinsic motivation at different levels of the education system contribute to improved teaching practices and student learning. The overarching question of the longitudinal study is:

? **How does STiR's approach, focused on strengthening intrinsic motivation, contribute to sustained improvements in the foundations of lifelong learning among education officials, teachers, and students?**

In line with the programme's theory of change, the study explores results against three impact pathways STiR focuses on to reignite intrinsic motivation: 1) behaviour change among officials, teachers, and students through role-modelling; 2) strengthening of the education system; and 3) amplification of other programme technical interventions.

STiR understands role-modelling to be the demonstration and promotion of behaviours and attitudes one wishes to see in others. There is extensive evidence that the most powerful agent in the workplace for an individual is their direct line manager. In Tamil Nadu, STiR supports state and district officials, and indirectly teachers, to understand their role in creating the right conditions for those they work with. STiR believes that this focus on role-modelling and relationships is overlooked in most education systems, and they have learned that promoting these in systems is their biggest organisational strength and source of success.

Figure 1: STiR's Theory of Change
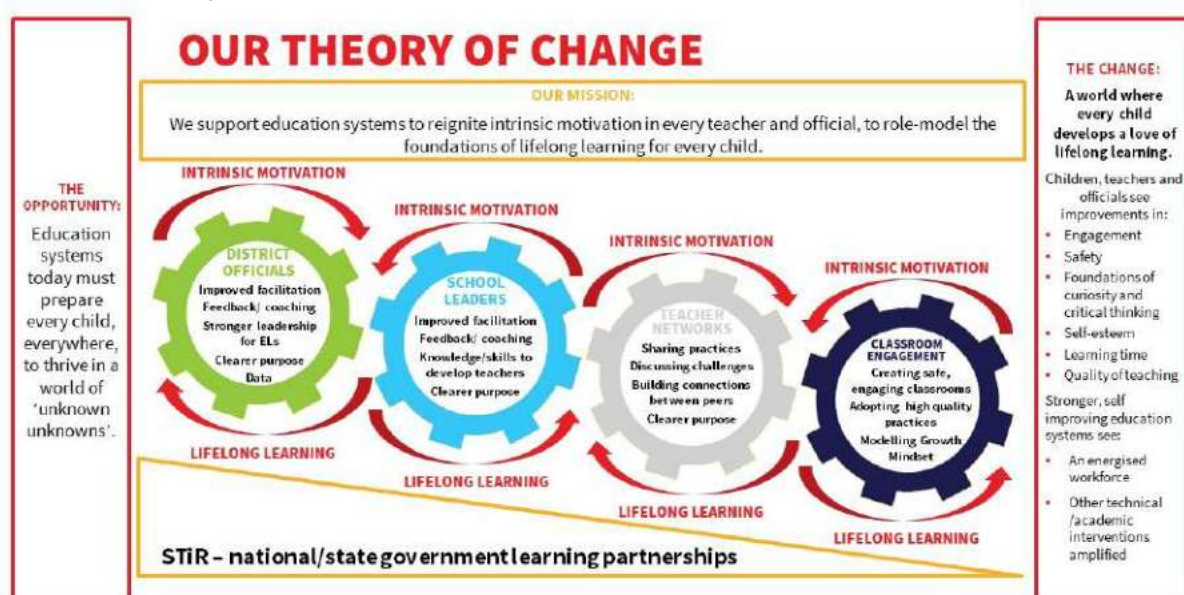
The initial phase of the study was implemented in November-December 2019. A total of 206 primary, middle and high schools were representatively sampled across two of Tamil Nadu's districts – Villupuram and Dharmapuri – to participate in the evaluation. Headmasters and primary 3, 4 and 7 or 8 teachers and students were selected to take part in data collection. The Block Resource Teacher Educator Supervisors (BRTE Supervisors), known as Education Leader Managers (ELMs) in STiR's programme, and Block Resource Teacher Educators (BRTEs), known as Education Leaders (ELs) in STiR's programme, assigned to each district were also included in the study.

Tools for the study were developed and contextualized to the Indian setting in consultation with the STiR team and translated by Gray Matters India, an independent educational assessments company. At the school level, tools included teacher, Headmaster and learner questionnaires; classroom observation and teacher time on task tools; a shadowing tool to track daily activities and actions on the part of Headmasters and teachers; and a school climate survey. At the EL/ELM level, tools included a questionnaire and a shadowing tool to track their daily activities and actions. STiR's internal monitoring rubrics for teacher network meetings and BRTE/BRTE Supervisor institutes were utilised for observing programme activities, coupled with self-administered questionnaires.

Impact Evaluation Findings of STiR Education's Programme in Tamil Nadu State, India

3 STUDY CONTEXT

STiR's approach is based around the principles of peer networks, action and feedback, and reflection. Over the course of a 3-month period, teachers engage in a development process known as the Learning Improvement Cycle (LIC). This is where teachers engage in monthly network meetings and peer observation of their teaching, focused particularly on teaching strategies. The respective LICs of teachers, cluster officials and district officials are intertwined and designed deliberately – just like the teacher networks – to build the autonomy, mastery and purpose of the participants and to align with teachers around a shared purpose of improving learning at all levels.

The STiR programme District Lead (DL) along with the District officials (specifically identified as champions for the programme in their districts) conduct BRTE Supervisor (sub-district/block level officials) institutes on the Learning Improvement Cycle (LIC). These focus on building the BRTE Supervisor's capacity for providing high-quality training and developmental support for the BRTEs. These institutes provide the opportunity for the BRTE Supervisors to develop and sharpen their facilitation, coaching and mentoring skills to conduct BRTE training on the LIC's themes and strategies. The BRTEs then facilitate network meetings for the teachers on the same LIC and continue supporting them through the month by observing them as they implement these strategies in their classrooms. These classroom observations are followed by reflections and feedback discussions. The BRTEs and BRTE Supervisors both have monthly coaching and support along with regular alignment meetings at district and state levels. These provide an opportunity for all stakeholders to reflect on their actions using data, and share feedback and learnings in order to develop plans together to strengthen delivery. The relationships at every level are necessarily two-way, based on openness, honesty and a commitment to a common goal.

An average of three network meetings are organised for each LIC. These network meetings are organised for all the teachers in a block or cluster to converge at one central location. Attendance for these meetings is compulsory for all the teachers in Tamil Nadu.

The STiR programme in Tamil Nadu was introduced in 2019, meaning that the programme was only four months into implementation when data collection for Year 1 of the study began. As such, only the ELM institutes for the BRTE Supervisors and EL institutes for BRTEs had been fully conducted on the first LIC. It is thus safe to say that the teachers at the school level had only just been exposed (or in some cases had not yet been exposed) to the first LIC. Many teacher network meetings only took place for the first time during the data collection period. Therefore, Year 1 of the longitudinal study in Tamil Nadu state collected information before the STiR programme was embedded in the education system. As such findings, conclusions and recommendations will highlight this fact and situate findings within the expectations for Year 1 of the programme according to STiR's progress pathway.

The majority of schools that were sampled were primary and middle schools which run from P1 - P7/P8 grades and high schools that run from P6-P8. The school checklist tool showed that there is an average of 6 teachers per school and, though there are only a few teachers, the enrolment numbers are also quite small and manageable. In the lower classes the classroom teacher is responsible for teaching all three grades (P1-P3) in the same classroom. This means that the teacher has a heavy workload in terms of preparing to teach all three grades, working with all three grades in the classroom, as well as marking the assignments given to all learners.

4 REPORT STRUCTURE

The findings from Year 1 of the study are presented in this report. Results are grouped according to headline findings which present linkages and outcomes between the data collected across three levels of stakeholders in the education system – students, teachers and Headmasters, and ELs/ELMs. Headline findings are organised by the key measurement areas STiR uses to evaluate behaviour change in ELs/ELMs, teachers and students: engagement, safety, self-esteem, curiosity and critical thinking, and learning time and intentional teaching. A selection of tables and graphs are included to demonstrate results for each headline finding; additional data is presented in the Annex.

A short reflection on learnings regarding measurement tools and approaches as well as conclusions from the evaluation of Year 1 of the study in Tamil Nadu is presented.

Table 1: STiR's 5-Year Progress Pathway Indicators

STAKEHOLDER / LEVEL	INDICATOR	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
ELs/ELMs	% expected district alignment meetings taking place	60 - 80	70 - 90	80 - 100	90 - 100	90 - 100
	District alignment meeting quality (DL scores)	2 to 3	2 to 3	3 to 4	3 to 4	4 to 5
	% expected DL/ELM coaching meetings taking place	50 - 70	60 - 80	70 - 90	80 - 100	90 - 100
	DL/ELM coaching meetings quality (DL scores)	2 to 3	2 to 3	3 to 4	3 to 4	4 to 5
	% expected EL institutes taking place	70 - 90	70 - 90	80 - 90	85 - 100	90 - 100
	% EL institute attendance	60 - 80	70 - 90	80 - 90	85 - 100	85 - 100
	EL institutes quality (DL scores)	1 to 2	2 to 3	2 to 3	3 to 4	4 to 5
	% expected network meetings taking place	50 - 70	60 - 80	70 - 90	80 - 100	85 - 100
	Network meeting quality (DL scores)	1 to 2	2 to 3	2 to 3	3 to 4	4 to 5
TEACHERS	% teachers present at time of observation	40 - 60	50 - 70	60 - 80	70 - 90	80 - 100
	% teachers observed who are trying out new practices	30 - 50	40 - 60	50 - 70	60 - 80	80 - 90
	% of features that show professional development observed in teachers	10 - 30	25 - 50	40 - 60	50 - 70	60 - 80
CHILDREN	% of features that show engagement in learning observed in children	10 - 30	25 - 50	35 - 55	50 - 70	60 - 80
	% of features that show trust in teachers observed in children	10 - 30	25 - 50	35 - 55	50 - 70	60 - 80
	% of features that show a physically and emotionally safe environment observed in children	15 - 35	30 - 50	40 - 60	55 - 75	70 - 90

5 PROGRAMME MONITORING DATA

The figures in the tables below present findings from the longitudinal study in comparison with STiR's internal monitoring data against the achievements STiR anticipated for each indicator by the completion of Year 1 of their Progress Pathway in Tamil Nadu. STiR adopted a 'traffic light' system to measure indicator progress: a green colour in the 'Progress Pathway Ambition' column indicates the indicator is at or above expectation; a yellow colour shows that progress is happening, but caution is needed to ensure progress continues; and a red colour shows that the indicator has not been adequately achieved according to expectation. Overall, the longitudinal study's findings positively align with STiR's results. The data collection was done between two and four months after the first ever LIC were implemented in these districts. At the start of the programme in Tamil Nadu, most indicators seem on track or exceeding expectations for developing a shared purpose among stakeholders and changing mind sets (the goals for Year 1).

Table 2: High Level Findings about ELs/ELMs Compared to STiR Progress Pathway Ambitions

Indicator	Longitudinal Study Finding	Progress Pathway Ambition
Quality of District Progress Check Meetings	No Data	2
% expected DL/ELM coaching meetings taking place	59%	60-80%
DL/ELM coaching meetings quality (DL scores)	2	2-3
% EL institute attendance	No data	70-90%
% expected network meetings taking place	81%	60-80%
Network meeting quality (DL scores)	3	2-3
EL institutes quality (DL scores)	2	1/5 in Dharmapuri and 4/5 in Villupuram 2 to 3
% of ELs/ELMs who engaged in additional training	27%	N/A
% of teachers being observed	91%	N/A
% of teachers being provided with feedback after observations	98%	N/A

Table 3: High Level Findings about Teachers/HMs Compared to STiR Progress Pathway Ambitions

Indicator	Longitudinal Study Finding	Progress Pathway Ambition
% teachers present at time of observation	95%	50-70%
% teachers observed who are trying out new practices	18%	40-60%
% of teachers who report they are improving as professionals	50%	25-50%
% of teachers calling students in class equally	59%	N/A
% of teachers providing praise to students equally	35%	N/A
% of teachers pursuing additional training opportunities	50%	N/A

Table 4: High Level Findings about Students to STiR Progress Pathway Ambitions

Indicator	Longitudinal Study Finding	Progress Pathway Ambition
% of students engaged in learning	39%	25-50%
% of students who trust their teacher	39%	25-50%
% of students who learn in a physically safe environment	30%	30-50%
% of students who learn in an emotionally safe environment	14%	30-50%
% of students who follow class rules	63%	N/A
% of students who know what's expected from them	43%	N/A

6 HEADLINE FINDINGS

6.1. INTRINSIC MOTIVATION

Headline Finding 1

Positively, teachers, Headmasters and ELs/ELMs report high daily motivation levels as well as feeling motivated by the STiR programme. However, these self-reported attitudes are contradicted by high rates of absenteeism from work, which are corroborated by students, and the fact that at least 28% of teachers' overall daily time is spent on tasks unrelated to teaching and learning. Time spent off-task is also frequent among Headmasters and ELs/ELMs, indicating there may be negative role modelling in this regard from teachers' superiors.

The STiR programme's main goal is to reignite motivation within teachers, Headmasters and ELs/ELMs in order to positively impact the learning outcomes of students. Intrinsic motivation of education stakeholders is measured by demonstrated improvements in autonomy, mastery and purpose, commitment to their roles and responsibilities; and engagement and participation in STiR programme activities.

Nearly all teachers and Headmasters (99%) self-reported that they like teaching and 95% of ELs/ELMs said that they like working with teachers. The majority of teachers, Headmasters and ELs/ELMs also reported feeling motivated in their daily work. In addition, 87% of teachers and Headmasters and 95% of ELs/ELMs reported being either "somewhat" or "very motivated" by the STiR programme. Their positive attitudes indicate elevated levels of morale and enjoyment in their daily work as educators and high levels of self-efficacy.

Table 5: Teacher and Headmaster Self-Reported Motivation

How motivated do you feel at work on most days?	Teacher					Headmaster				
	Not sure	Not at all	Somewhat motivated	Motivated	Highly motivated	Not sure	Not at all	Somewhat motivated	Motivated	Highly motivated
All teachers	5.6%	1.0%	16.7%	56.6%	20.1%	4.2%	0.0%	16.7%	54.2%	25.0%
Male	5.2%	0.9%	17.2%	52.6%	24.1%	5.5%	0.0%	12.7%	54.6%	27.3%
Female	5.8%	1.2%	16.3%	59.3%	17.4%	3.1%	0.0%	20.0%	53.9%	23.1%

However, despite these strong self-reported attitudes, 55% of teachers and Headmasters and 42% of ELs/ELMs reported missing at least one day of work in the past two weeks. Findings show that 12% more male Headmasters than female Headmasters are absent for 1-2 days every two weeks while twice as many female Headmasters are absent between 3-5 days. Frequent teacher absences were confirmed also by students. The most common reasons given for teacher and Headmaster absence included sickness, personal issues, external trainings, meetings and bereavement. Compounding the effect of their frequent absences, teacher time on task during classroom observations showed that teachers spent only 52% of their time on instruction and supporting learning. Overall, throughout the day, teachers spent 28% of their day doing activities unrelated to teaching and learning, including personal tasks and extended breaks and transitions between activities. Although it is expected that teachers will spend time having lunch, taking scheduled breaks and transitioning between activities, these extended transitions and personal activities/breaks cannot be accounted for in a school's tight timetable where there are only a few minutes between classes and regimented times for one morning break and one lunch break, meaning that teachers are not in class and teaching for as much of the day as they should be.

55% — **Teachers and Headmasters**

Percent absent at least once in past two weeks

42% — **ELs/ELMs**
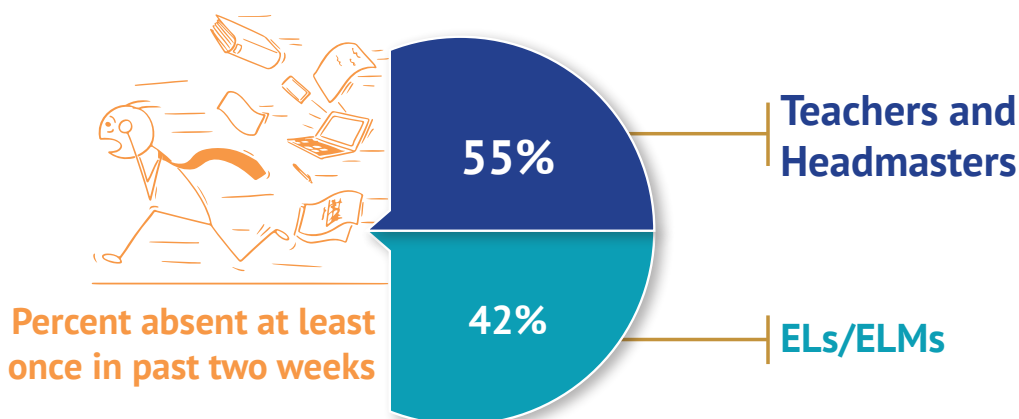
These absenteeism rates and time off task likely follow a pattern found in other studies in India. Kremer *et al* found in a nationally representative study of government primary schools in India that an average of 25% of teachers were absent from school, and of those present, only about half were actually teaching.[1] The study noted no association between higher pay and lower absence, but rather a correlation between daily incentives such as not engaging in multi-grade teaching, frequent school inspection and better infrastructure, and lower absenteeism. Another study found that 23.6% of teachers in public schools across rural India were absent, but that increased school monitoring was strongly correlated to reductions in teacher absence rates.[2]

Absence rates to this degree (seen in this study and others of its kind) have a significant effect on learners because it reduces the learning time and quality of learning for pupils. Specifically, the 28% of each day that teachers who are part of the STiR programme lose equates to more than one full day of lost time per week. This, coupled with many teachers missing at least one day of work every two weeks, quickly compounds and results in a lot of lost teaching and learning time and certainly has an effect on the foundations of lifelong learning among students. Headmasters and ELs/ELMs also spend a significant amount of their daily time on non-work-related activities, suggesting that there may be a role-modelling effect at play whereby a teacher's superiors also often miss work and spend a large portion of the day taking breaks, so teachers do the same.

Very few teachers, Headmasters and ELs/ELMs reported low daily motivation, but those who did said that better teaching materials, additional training, appreciation of their work and a reduced work load would help to increase their motivation. These could be some of the underlying demotivating factors leading to high absence rates, even among stakeholders who professed to have high levels of motivation.

While teachers, Headmasters and ELs/ELMs clearly report high levels of motivation, ensuring that they demonstrate this by regularly coming to work and spending their time on tasks related to teaching and learning will further their impact and the results they are gaining from participating in the STiR programme.

Table 6: Teacher and Headmaster Absences Over Two Weeks

Number of self-reported absences over two weeks	Teacher			Headmaster		
	1-2	3-5	5 or more	1-2	3-5	5 or more
All teachers	77.4%	18.8%	3.8%	67.8%	25.4%	6.8%
Male teachers	78.2%	18.2%	3.6%	75.0%	16.7%	8.3%
Female teachers	76.9%	19.2%	3.9%	62.9%	31.4%	5.7%

Graph 1: Teachers' Daily Time Use

Percentage of Time Spent
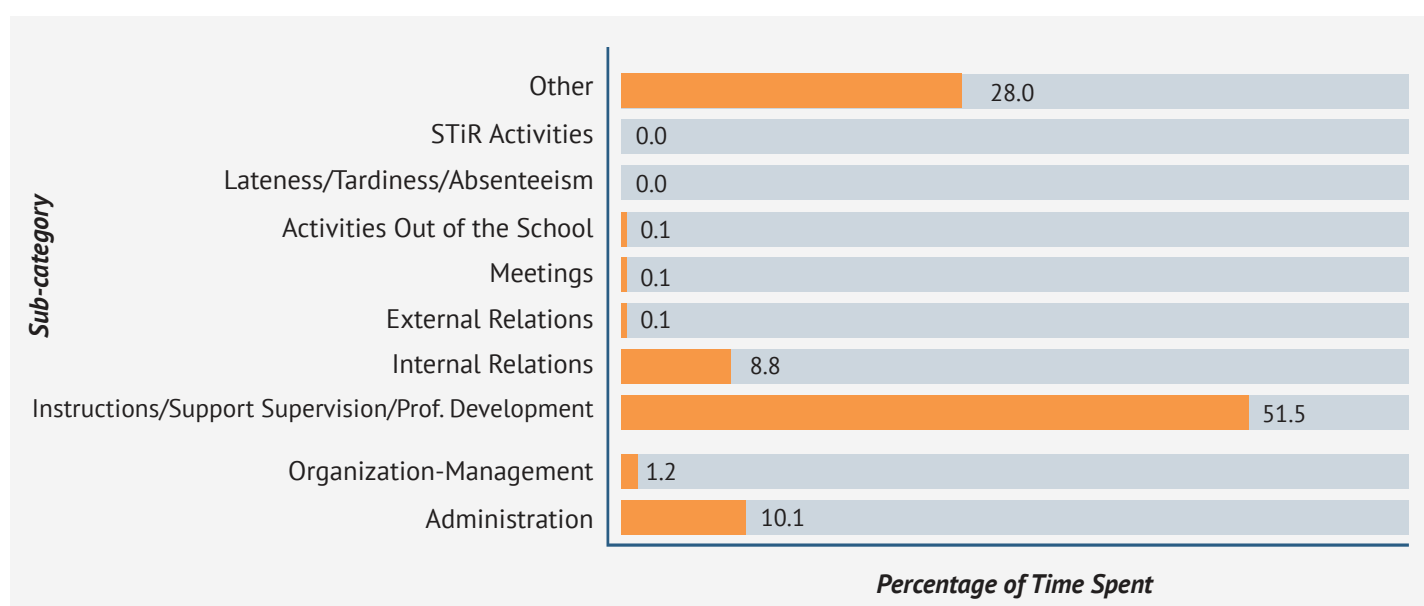
[1] Kremer, M., Muralidharan, K., Chaudhury, N., Hammer, J., and Rogers, F. H. (2005). 'Teacher Absence in India: A Snapshot', *Journal of the European Economic Association*, 3(2-3), pp. 658-667.

[2] Muralidharan, K., Das, J., Holla, A., and Mohpal, A. (2017). 'The fiscal cost of weak governance: Evidence from teacher absence in India', *Journal of Public Economics*, 145, pp. 116-135.

How Teachers Spend Their Non-Teaching Time (28% of their Overall Daily Time)

66.7% — Personal time

20.0% — Other

3.7% — Enumerator personal break

2.1% — Interacting with the researcher

2.0% — Transition between activities

1.8% — Resting

1.7% — Email/call/paperwork, topic is uncertain

1.4% — Looking through files

0.5% — Reading a newspaper/book

0.1% — Browsing on school computers

Headmaster Overall Time-use by Task Sub-category

- Other — 37.3
- Organisation-Management — 11.4
- External Relations — 1.9
- Internal Relations — 10.0
- Lateness/Tardiness/Absenteeism — 0.0
- Instruction/Support Supervision/Profesional Development — 14.7
- Administration — 23.3
- STiR Activities — 1.6
- Meetings — 0.4
- Activities Out of School — 0.3
- Travelling — 0.1

Graph 2: ELMs'/ELs' Daily Time Use

Sub-category	Percentage of Time Spent
Other	41.4
Travelling to and from Education Office	12.0
Activities Out of Education Office	0.5
Meetings at District Office	0.5
Meetings at Education Office	0.7
Meetings at the School	2.0
External Relations at School	0.1
External Relations	0.2
Internal Relations	6.3
Instructions/Support Supervision	10.8
Organisation-Management at School	15.2
Organisation-Management	1.4
Administration	8.8

STiR focuses on role-modelling and developing positive relationships amongst education system actors through Learning Improvement Cycles (LICs), which promote peer-to-peer linkages and provide learning opportunities. LICs are delivered to ELMs by the STiR programme team during ELM institutes. Upon completion of an ELM institute, ELMs are expected to organise EL institutes to train ELs on the same LIC themes. After the EL institute, the ELs can then organise network meetings to train teachers and Headmasters.

However, although 71% of ELMs reported attending an ELM institute in 2019, less than two-thirds of them reported organising an EL institute to pass on their knowledge. Since the STiR programme in Tamil Nadu relies on ELMs to pass on the the training content down to ELs and teachers, the gap between ELMs trained and ELMs passing on their training is likely bottlenecking transmission of knowledge to teachers. This failure by 12% of the trained ELMs to facilitate EL institutes (as well as the 29% of ELMs who reported not being trained at all) may be partially due to the newness of the STiR programme in Tamil Nadu and understandable start-up challenges, but it also may be partially correlated to the findings in Headline 1 which showed that many ELMs reported lacking daily motivation and being frequently absent from work, meaning they may be failing to perform their role in the system to train ELs and teachers. While ELMs reported positively on their initial participation in the STiR programme during the first four months of project implementation, additional effort is needed going forward to make planning and facilitating EL institutes an important part of their work schedules.

In addition, 81% of teachers had attended a teacher network meeting by the time of data collection in 2019. This exceeds the progress pathway expectation for this indicator in Year 1 (which only expects 50-70% attendance) and meets the progress pathway target for Year 2 (which expects 60-80% attendance) and is impressive considering the programme was only being implemented for four months before data collection. As these teacher network meetings are technically compulsory for all teachers in Tamil Nadu, STiR should continue to work over the next 4 years of programme implementation to ensure the programme is steadily being fully integrated into schools' routines so that by the end of the 5 year programme cycle, all teachers are fulfilling their mandatory duty to attend these meetings.

Male teachers say they are more motivated to attend network meetings because of their desire to share ideas while female teachers are more motivated to attend network meetings because of their desire to learn new skills.

Table 7: Number of Network Meetings Attended by Teachers Who Attended at Least One

		Teacher			
		1	2	3	More than 3
All teachers	How many network meetings did you attend this term?	41.2%	43.8%	12%	3%
Male teachers		44.2%	42.1%	12.6%	1.1%
Female teachers		39.1%	44.9%	11.6%	4.4%

Teacher motivations for attending Network Meetings

48.5% I want to learn new skills

24.8% The meetings are compulsory

14.1% I am personally motivated to attend

12.6% I want to share ideas with others
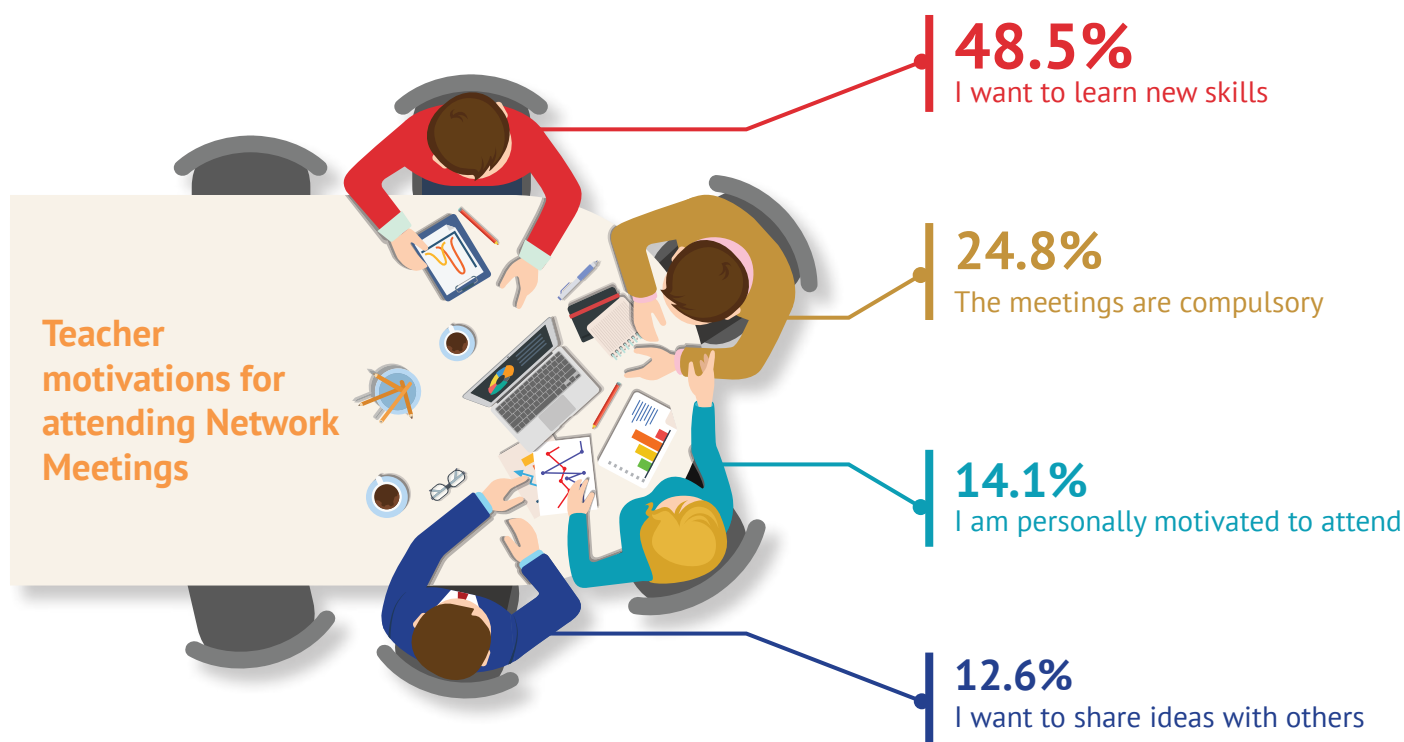
Success descriptor rubrics developed by STiR were used to observe and rate the quality of STiR programme activities against expectations using a 5-point scale where 5 is the best score. Part of a rubric used to evaluate the quality of one type of STiR activity (teacher network meetings) is shown in Figure 2 as an example. Independent observers found that the quality of teacher network meetings scored an average of 3.6 out of 5, which is in line with STiR's Progress Pathway ambition for Year 1 of the programme.

Figure 2: Example of Success Descriptors Rubric Used to Evaluate the Quality of a STiR Activity (Teacher Network Meetings)

Stakeholder	Criteria	Level 1	Level 2	Level 3	Level 4	Level 5
Facilitator	**Linking to purpose** *(Purpose: To promote the development of a shared sense of purpose)*	No rationale given for the content in the meeting	Rationale is given but the link to learning and purpose is not clear	Rationale is given and clear c.50% of the time, but limited or no checking for understanding	Most activities (75%) linked to wider purpose and usually but not always checks for understanding of this link	All activities linked to wider purpose, and checks carefully that all participants understand this
	Recognition and celebration *(Purpose: To ensure there is a sufficiently positive atmosphere for teachers to thrive)*	No appreciation of participants	Limited and mostly superficial appreciation (e.g. thanking participants for coming to meeting)	Recognises participants consistently throughout the meeting (as whole group and range of individuals)	Builds culture of recognition by ensuring there is opportunity for participants to recognize each other effectively	Consistent recognition and appreciation that is explicitly linked to wider purpose
	Probing *(Mastery: To ensure teachers are pushed to reflect deeply and thus identify ways to improve)*	No 'how' or 'why' questions asked	May be some 'how'/'why' qi's, but unclear on when they are needed	Confidently uses probing questions to go deeper	Actively promotes peer probing	Actively promotes peer probing and explains why this is important
Teacher	**Practising** *(Autonomy/Mastery: To ensure teachers are supporting each other to practise a particular strategy, receive feedback and improve)*	No practice	Limited time and/or lack of understanding of how to practice	Practice occurs (and at least 50% show a good understanding of how it should occur) but no feedback	Practice occurs followed by feedback, though feedback may not be understood and/or not implemented	Practice occurs with feedback, which is understood and implemented (evidence of both)
	Developing action plans *(Mastery: To ensure teachers are in as strong a position as possible to translate learning into their work)*	No action plan	No detail in action plan	Specific, time-bound action plans	Action plans incorporate feedback	Action plans incorporate feedback and are clearly tied to wider goals
	Attitude towards meeting *(Purpose: To ensure teachers are excited about the strategy/observing each other and therefore likely to translate it into action)*	No interest (i.e. negative body language and tone)	Minority show positivity and interest (25%)	At least 50% show passion and interest (50-75%); less than 50% show understanding of link of activities to purpose	Majority of participants show passion(75%+); most show understanding of link of activities to wider purpose	All participants highly passionate throughout and show understanding of link between activities and wider purpose

Independent Rating of the Quality Rubric for Teacher Network Meetings

4	Linking to purpose
3	Recognition and celebration
3	Probing
4	Practicing
4	Developing action plans
4	Attitudes towards meeting

Teachers also rated the teacher network meetings with an average of 3.6 out of 5 on various factors such as content of the training material and facilitation by ELs. ELs and ELMs rated the network meetings similarly highly with a 3 out of 5 score. Positively, when asked at the end of a network meeting, 99.5% of teachers said that they felt prepared to apply the content from the network meeting in their day-to-day teaching practices.

Table 8: Teachers' Rating of Teacher Network Meetings

	Content	Teacher portfolio quality	Presentation of materials	Facilitation of activities	Modelling of activities
All teachers	2.9	3.0	3.4	3.3	3.1
Male teachers	3.8	3.5	3.5	3.5	2.8
Female teachers	2.7	2.8	3.4	3.2	3.2

Table 9: ELMs' and ELs' Rating of Network Meetings They Observed

	Content	Teacher portfolio quality	Presentation of materials	Facilitation of activities	Modelling of activities
ELs/ELMs	3.3	3.1	3.2	3.4	3.3

How do you benefit from collaborating with teachers in your school network?

Receiving feedback **2.8%**

All teachers

Getting motivated **2.8%**

Gaining knowledge **67.6%**

All teachers

No benefit **10.3%**
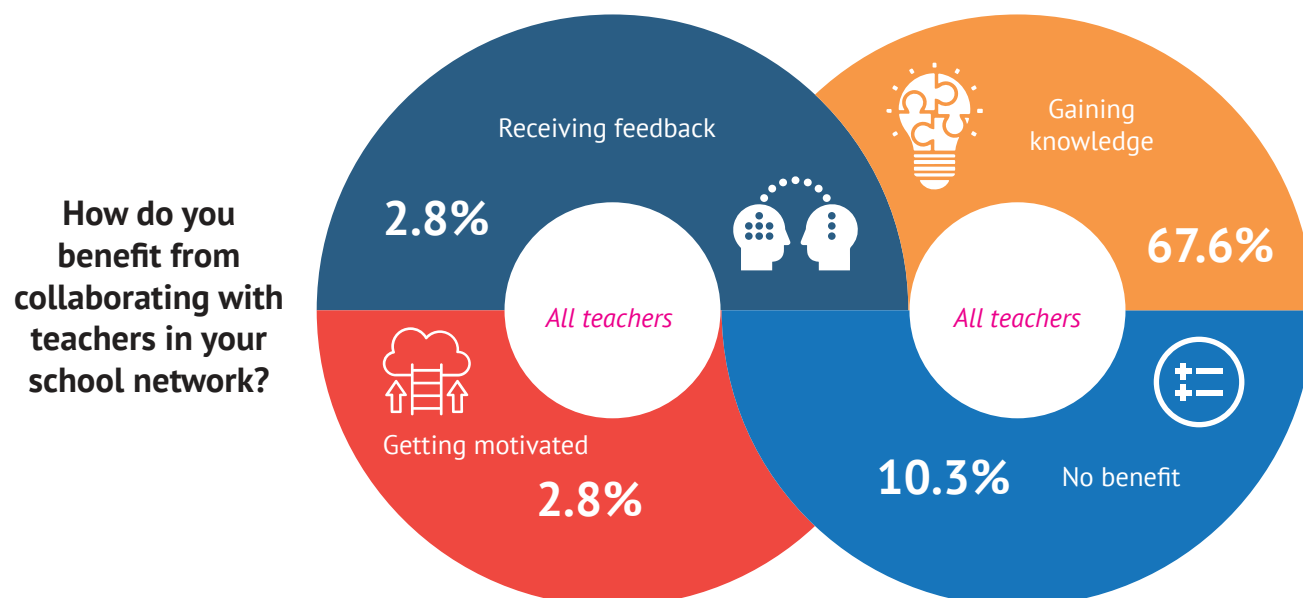
6.2. ENGAGEMENT

Headline Finding 3

Students report liking school and were observed being positive in class and participating in classroom activities, though there is room for improvement in how they readily embark on assigned activities, contribute to class discussions and collaborate with their peers. Teachers were observed greeting students and calling on a variety of students, although they sometimes praised students unequally, treated boys and girls differently and did not call on students by name.

Student engagement in school is directly connected, in part, to quality teaching and the practices and attitudes teachers display in the classroom. Students in the study overwhelmingly reported liking school and enjoying learning. The majority of students reported actively working on their assignments during class along with their peers and some students even reported continuing to work on their assignments even when their peers had left the classroom. Classroom observations demonstrated that students are positive and smile often in class as well as consistently follow the teacher's instructions and directions. Most students were also found to often participate in class activities assigned by the teacher and to sometimes volunteer to participate in activities. However, there is still room for improvement in how students readily embark on assigned activities and student peer-to-peer collaboration.

93% *of students reported liking school*

Table 10: Students' Self-reported Engagement in Class

	Never	1-2 days a week	3-4 days a week	5 days a week
How often do you go outside while others are inside the class working?	84.60%	11.88%	2.70%	0.82%
How often do you sit inside class working while others are outside?	65.96%	25.80%	5.72%	2.51%

Note: Classroom observations were measured on a 0-3 scale with 0 indicating the action was not observed at all and 3 indicating that the action was observed at the highest possible level of the scoring criteria. When reading the classroom observation tables in this report, it is important to look at the distribution of scores across 0-3, but also to look at the mean score, which shows the average score between 0-3 across all classroom observations.

Table 11: Classroom Observation of Student Engagement

	Mean	SD	Distribution of scores			
			0	1	2	3
Students are positive; they smile and follow the teacher's instructions and directions	**2.32**	0.82	4.07%	10.5%	34.9%	50.5%
Most (at least 75% of) students participate in class activities assigned by the teacher	**2.26**	1.04	11.5%	9.5%	20.7%	58.3%
Students volunteer to participate in the classroom activities	**2.14**	0.79	0%	25.1%	36.3%	38.6%
Most (at least 75% of) students embark on assigned activities or tasks readily	**1.56**	1.17	27.8%	17.3%	26.4%	28.5%
A range of students sitting in different parts of the room contribute to class discussions by trying to answer questions (even if they give the wrong answer)	**1.1**	1.09	32.2%	19.0%	24.1%	24.8%
Students collaborate with one another through peer interaction	**1.36**	1.34	44.8%	6.8%	15.9%	32.5%
Students ask their peers for clarification or help	**0.99**	1.05	44.4%	22.7%	22.0%	10.9%

Table 12: Classroom Observation of Inclusive Teaching Methods

	Mean	SD	Distribution of scores			
			0	1	2	3
Teacher provides praise to students equally, (instead of only some students) for positive responses, choices, or behaviour	1.71	1.17	23.4%	17.0%	25.1%	34.6%
The teacher does not exhibit gender bias and challenges gender stereotypes in the classroom	2.2	0.78	0%	23.7%	32.9%	43.4%
Teacher greets all students at the start of the lesson	2.46	1.01	11.5%	4.1%	10.9%	73.6%
Teacher calls on students by name during the lesson	2.03	1	9.2%	21.0%	27.1%	42.7%
Teacher calls on students in the class equally, instead of the same students repeatedly	2.29	1.02	10.9%	8.5%	21.4%	59.3%

Long-term impacts on student learning are critically affected by how teachers teach and whether they provide a positive learning environment for their students. For these impacts to grow over time, students and teachers need to be present in school and actively engaging in the teaching and learning process. Study findings also indicated, however, that students are frequently absent from school.

Nearly half of the students reported missing at least one day of school in the past two weeks. Results from attendance date collected at the schools during site visits showed that student absenteeism was about 9% for both genders, with girls less than 1% more likely to be absent.

While student absenteeism can be influenced by several factors – many of which may be outside of a students' control, such as illness or family commitments – time out of class can lead to disengagement from learning and affect overall motivation and educational gains. Student absenteeism should be explored further in subsequent evaluation points, as reducing both teacher and student absenteeism can have positive, important effects on their long-term growth and motivation.

Is there any day in the last 2 weeks that you did not come to school?

	YES	NO
All students	**45.7%**	**54.3%**
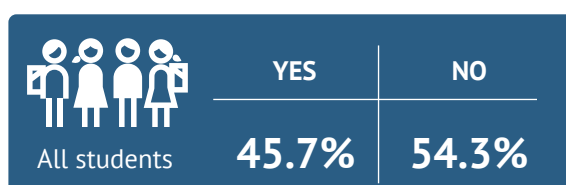
Table 13: Student Attendance on Day of Classroom Observation

	Attendance on the Day of Classroom Observation		
	Girls	**Boys**	**Total**
Attendance	8133	7594	15727
Enrolment	8918	8393	17311
% Attendance	**91.2%**	**90.5%**	**90.8%**

ELs and ELMs reported routinely observing, supporting and giving feedback to teachers and Headmasters. Most Headmasters also reported engaging in observation and feedback with their teachers, indicating positive role modelling from ELs/ELMs to Headmasters to teachers. The majority of teachers also reported that their Headmaster reviews their lesson plans frequently and that ELs often visit them at school and provide them with direct coaching and support.

Developing a culture of improvement that helps educators thrive is a key goal of STiR's programme. Observation and feedback loops between ELs/ELMs, Headmasters and teachers are a critical part of this process to strengthen the instructional and administrative capacities of school actors.

All ELs/ELMs reported supporting, supervising and giving feedback to Headmasters while 96% said they observe and give feedback directly to teachers. The majority of teachers and Headmasters (88%) surveyed also reported that ELs observe them, usually monthly or weekly. Teachers and Headmasters reported an average of 3 visits by the EL per LIC, which indicates significant engagement from the EL.

ELs visit teachers and HMs an average of

3 times per LIC

Almost all Headmasters (95%) reported observing, supporting, supervising and giving feedback to teachers in their classrooms, primarily weekly. The majority of teachers (94%) reported that their lesson plans are reviewed by their Headmaster, mostly weekly but some also said it happens either daily or once every two weeks. The frequent review of lesson plans is an indicator that most teachers are getting support from their Headmasters in order to improve their teaching practices and 82% of teachers agreed that their Headmaster routinely guides them on how they can improve. Most ELs/ELMs (86%) corroborated this by stating that they had seen Headmasters observe, support and give feedback to teachers.

Positively, based on these findings, the consistency in observation visits reported across all education actors in the programme is encouraging and should be built upon going forward. There is also some evidence to suggest that frequent EL/ELM observation, supervision and feedback of Headmasters is correlated to the high engagement between Headmasters and teachers, possibly due to a positive role modelling effect.

82% of teachers agreed that their Headmaster routinely guides them on how they can improve

Table 14: Frequency of Self-Reported Teacher Observations by Headmaster

How often does the Headmaster or someone in management observe you?	Teacher			
	Never	**Weekly**	**Monthly**	**Termly**
All teachers	14.6%	49.3%	27.4%	8.7%
Male teachers	18.1%	52.6%	24.1%	5.2%
Female teachers	12.2%	47.1%	29.7%	11.1%

Table 15: Frequency of Self-Reported Headmaster Observations of Teachers

How frequently do you observe, support and give feedback to your teachers?	Headmaster	
	Weekly	**Monthly**
All Headmasters	73.7%	26.3%
Male Headmasters	71.2%	28.9%
Female Headmasters	75.8%	24.2%

Headline Finding 5

ELs/ELMs reported supporting Headmasters in building useful relationships with their teachers during feedback sessions which relates to the high number of teachers and Headmasters who said they receive useful feedback from observations. However, Headmasters and ELs/ELMs admitted that the coaching they give during feedback sessions is often positive and focused primarily on offering praise, rather than constructive advice to improve instructional practice. Nonetheless, teachers reported that they feel they have developed in their teaching methodology as a result of observation and feedback.

The majority of ELs/ELMs reported supporting Headmasters in building useful relationships with their teachers during feedback sessions. Many said they had conducted school level meetings with teachers and Headmasters to explain the importance of giving feedback and praise, how to give positive feedback and listening to and supporting them to do their work effectively. This likely contributes to the 94% of teachers who reported finding the feedback they receive from their Headmaster useful.

However, while teachers overwhelmingly reported that the coaching and feedback provided to them by their Headmaster was useful, many do not receive constructive feedback to help them improve. Only 37% of teachers reported being asked to make some corrections to their lesson plans and most teachers were either simply appreciated for their work or given no feedback at all.

Headmasters and ELs/ELMs also self-reported that most of the feedback they give to teachers is focused on what went well, what to take forward and additional improvement areas, and often ignores giving specific concrete examples and setting clear action plans for implementation of the feedback. This makes it difficult to follow-up on whether the feedback is actually being implemented by the teachers. In addition, while almost all ELs and ELMs reported praising teachers and Headmasters, 95% also stated that they felt feedback should only be positive. This indicates a need for STiR to focus on ELs'/ELMs' and teachers' understanding of feedback and how to improve the quality of it so that it is more constructive and can help build the skills of the person receiving the feedback, in addition to offering praise where relevant.

However, in a network meeting exit survey, 99% of teachers said they had developed as a result of the feedback they received. This indicates that while additional improvement is needed to strengthen the ways in which Headmasters give constructive feedback to teachers, teachers already feel as though they are gaining from the interaction with their superiors.

Positively, observation and feedback loops appear to be consistently implemented in most schools (as described in headline 4), which is ahead of schedule in Tamil Nadu's progress pathway as it is already in line with the goal to establish routines during the next year of the programme (Year 2). However, the coaching process delivered in these sessions, especially for teachers, must be strengthened and improved. Coaching provides the greatest benefits when it helps teachers and Headmasters grow and develop their capacities; as such, it should be targeted, specific and corrective. Improving this process will likely support better school management by Headmasters and higher quality instruction by teachers.

94% of teachers found feedback given by their Headmaster useful

98% of teachers and 95% of Headmasters found coaching and support from the EL useful

98% of teachers and 99% of Headmasters found the feedback from their ELM useful

Feedback Teachers Say is Given to Them After Their Lesson Plans Were Reviewed

- Appreciated/encouraged **28%**
- Asked to make some corrections **37.1%**
- No feedback **24.2%**
- Other **10.6%**

Table 16: Stages Headmasters and ELs/ELMs Say They Follow When Giving Feedback to Teachers

	Headmasters to Teachers		ELs/ELMs to Teachers	
	Yes	**No**	**Yes**	**No**
What went well/could have been better	64.17%	35.83%	54.6%	42.86%
What to take forward	46.67%	53.33%	31.82%	33.33%
Additional improvement areas	48.33%	51.67%	9.09%	19.05%
Specific with concrete examples	34.17%	65.83%	0%	4.76%
Clear agreed action items	24.17%	75.83%	4.55%	0%

The majority of teachers reported meeting other teachers from their school or block to learn from each other and expressed willingness to continue even after the STiR programme ends. This is indicative of their self-reported willingness for professional growth which many have also demonstrated through attending additional, albeit compulsory trainings. However, although most teachers who have been observed by a peer teacher reported improving as a result of it, 38% of teachers have not yet had this opportunity.

Teachers reported engaging in knowledge exchange activities with other teachers at their school or block; 91% of teachers and Headmasters reported meeting with other teachers in order to learn from each other. Additionally, 84% of teachers and 87% of Headmasters reported that they would continue meeting with other teachers from their school or block to learn from one another even after the STiR programme ends. This highlights the positive experience teachers have had in their exchanges with other teachers, a major success for the STiR programme.

The majority of teachers (62%) reported that they are observed by a peer teacher, on average either weekly or monthly. While it is positive that peer observation is taking place with some regularity, more than one third of teachers have never been observed by a peer, with 7% more male teachers than female teachers reporting that they have never been observed. Peer observation throughout schools at regular intervals is a practice which should be improved upon as STiR's programme in Tamil Nadu moves into Year 2, which calls for establishing routines.

It is also important to note that only 67% of teachers who were observed by a peer received feedback, indicating that improvements are also needed to ensure that all peer observations result in feedback sessions. Positively, of those who received feedback, most (77%) found it useful and 80% felt they have improved either "somewhat" or "very much". Most teachers believe that peer observation is important because they receive feedback and advice from their peers and because they are motivated by their peers, further indicating that peer observation will likely benefit teachers' skills and intrinsic motivation.

Striving to make peer observations more prevalent and closely linked with constructive feedback loops is important for creating a basis for continuous professional development within a school environment, rather than only from external support mechanisms. This is critical to growing the skills of teachers and creating a culture of professionalism with colleagues.

Table 17: Teacher Self-Reported Observations by Peer Teachers

How frequently does a peer teacher observe you teaching in class and give you feedback?				
	Never	**Weekly**	**Monthly**	**Termly**
All teachers	37.9%	30.2%	24.7%	7.3%
Male teachers	42.2%	30.2%	22.4%	5.2%
Female teachers	34.9%	30.2%	26.2%	8.7%

Teachers Report on Reasons Why Being Observed by a Peer Teacher is Important

75.8% To get feedback and advice

19.4% To be motivated by my peers

3.3% To get new ideas
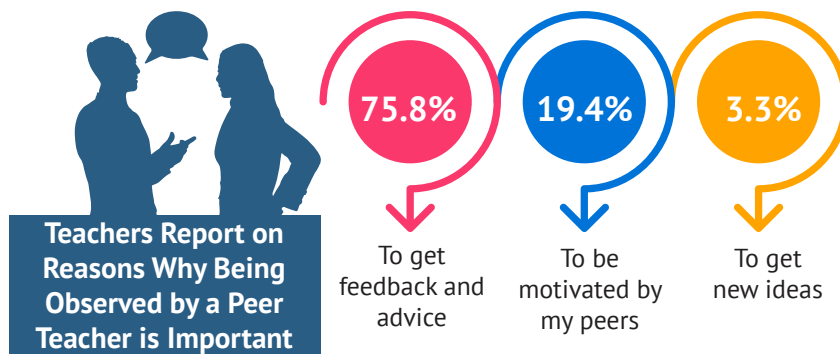
Do you feel you have improved as a result of peer observations and feedback?

All Teachers

Some what **44.79%**

Very much **34.72%**

Not at all **20.49%**
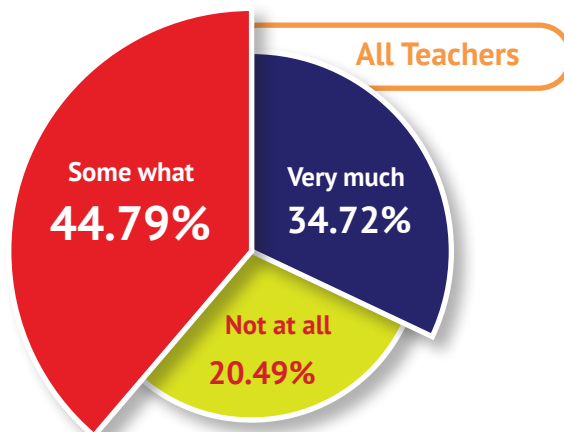
6.3. LEARNING TIME AND INTENTIONAL TEACHING

Headline Finding 7

The majority of teachers reported learning two instructional methods promoted by STiR and 60% are frequently trying them in their classrooms, but less than 15% of them could accurately describe how to apply them. However, nearly all teachers reported being confident in applying these strategies and most felt there had been a positive change since starting to use them. Teachers were observed using a number of other good teaching practices like articulating lesson objectives, explaining content clearly, making connections to existing content and modelling.

STiR's goal is for all children to be taught by teachers who are dedicated to improving their practice and spend most of their time in class maximising learning time for their students. Under the programme, teachers learn new skills and practices through network meetings, which engage them in a structured Learning Improvement Cycle (LIC) delivered by the EL using materials developed by STiR.

A high percentage of teachers reported having learnt both of the teaching practices promoted by the STiR programme during the first LIC and 60% reported trying out the teaching and learning practices either "very often" or "all the time". Positively, only about 3% say they "never" use them, highlighting that most teachers have integrated these practices into their routine instructional methods to some degree although there is room for improvement.

Despite the high percentage of teachers who reported learning the teaching practices from STiR and trying them out to some degree, only a few were able to correctly describe how to apply each practice. The reason why most teachers are failing to absorb the correct application of each method should be further explored in future evaluation points. One possible explanation may be STiR's training model whereby, through the process of role modelling, ELMs pass on their knowledge to ELs and ELs on to teachers, with very limited intervention between the STiR programme team and teachers or ELs. As shown in Headline 2, there may be some gaps in this model of execution which may negatively affect teachers' final receipt of the LIC strategies. STiR should consider having more interactions/coaching with ELMs in order to ensure that they are in a better position to provide the requisite support to the ELs who in turn will provide support to Headmasters and teachers to help ensure that teachers are correctly learning how to use the various LIC teaching practices. In addition, it might be useful for STiR to not only introduce new LIC strategies in the coming years, but to also integrate reviews of the previous strategies in order to enable teachers to improve on the previous practices they learnt during each network meeting.

Another possible explanation for the poor grasp of understanding on how to apply the practices could be due to the short programme implementation time before the study. It is understandable that after only four months of programme implementation, teachers need more time to fully consolidate their knowledge and they will likely be better able to explain how to apply the teaching techniques in future evaluation points.

Despite evidence that there may be poor application of these practices, the majority of teachers (88%) believe there has been a positive change in their classroom teaching practices since they started using the LIC strategies.

Table 18: Teacher Self-Reported Understanding and Use of LIC Strategies

LIC Strategy	% of teachers reporting learning the strategy from STiR	Frequency of Teachers Trying the Strategy				% of teachers who correctly described the strategy
		Never	Somewhat	Very Often	All the Time	
Do now	78.82%	2.64%	36.12%	38.77%	22.47%	**13.2%**
Hook	89.58%	2.71%	34.11%	38.76%	24.42%	**12.4%**

While teachers are not very familiar with STiR's strategies and practices, classroom observation showed that teaches are adept at making connections in the lessons that relate to the students' existing content knowledge or their daily lives; checking students' work; articulating lesson objectives; breaking down information into easily understood parts; and modelling how to complete tasks. These results are a positive sign that if teachers are taught the correct application of STiR LIC strategies and have a chance to review them over time, they will likely demonstrate similar competence as they do when using these other instructional methods. Teachers were less frequently observed using spaced practice; marking students' assignments during the lessons; using concept maps, think-pair-share, quizzes or tests; and using visual images or learning aids. STiR can consider including these instructional methods in future LICs in an effort to strengthen their application.

Overall, findings positively indicate that teachers are trying out new teaching strategies to some degree, which is a strong sign that they are in line with STiR's progress pathway ambition which calls for changing mind sets in Year 1 and that they are possibly also already beginning to establish routines which is the goal of Year 2. But, additional effort is needed between Year 2 and Year 5 to ensure teachers' confidence to try out new teaching strategies is also complemented by good practice because teachers must fully understand each teaching strategy and accurately apply it in class to maximise student learning and encourage higher level thinking skills.

Table 19: Teacher Application of Specific Teaching Practices

	Mean	SD	Distribution of scores			
			0	1	2	3
Teacher explicitly articulates the objectives of the lesson and relates classroom activities to the objectives	2.48	0.72	0%	13.2%	25.1%	61.7%
Teacher separates material/breaks down information into component parts so that the information can be easily understood by the students; the teacher's explanation of content is clear	2.34	1.09	15.3%	1.7%	16.6%	66.4%
Teacher makes connections in the lesson that relate to students' existing content knowledge or their daily lives	2.4	0.84	0%	23.4%	12.9%	63.7%
Teacher uses spaced practice (e.g. refers to previous lessons/materials with similar topics already taught to help students understand the new material)	0.85	1.1	54.9%	18.0%	13.9%	13.2%
Teacher models how to complete a task by demonstrating the task and/or explaining what they are doing or thinking as they do the task (e.g. thinking aloud)	2.26	0.84	0%	25.4%	23.4%	51.2%
Teacher summarizes key points of lesson at the end of lesson	1.57	1.22	31.2%	12.2%	25.4%	31.2%
The teacher uses questions, prompts or other strategies to check students' level of understanding	1.83	0.99	8.8%	32.5%	25.8%	32.9%
Teacher gives students opportunities to demonstrate their understanding of a lesson (e.g. in front of class, by calling on them in their seat, etc.)	1.85	1.05	14.6%	19.7%	31.5%	34.2%
Teacher circulates/moves around the classroom during an exercise (from front, to the sides and to the back of the class)	1.82	0.96	6.8%	36.6%	24.8%	31.9%
Teacher monitors most students during independent/group work	1.8	1.18	23.7%	9.8%	29.2%	37.3%
Teacher adjusts their teaching to the level of student understanding (e.g. teacher responds to students' level of understanding before moving on to the next step in the lesson)	1.73	1.18	25.4%	10.5%	29.8%	34.2%
Teacher checks/marks students' assignments and homework during the lesson	1.19	1.28	48.8%	8.5%	17.3%	25.4%
% of students whose work was checked (0. 1-25%, 1. 26-50%, 2. 51-75%, 3. 76-100%)	2.73	1.1	20.5%	15.2%	35.1%	29.1%
Teacher uses visual images or learning aids to match their verbal explanations to increase students' understanding or retention of information	1.93	1.16	18.0%	17.3%	18.6%	46.1%
Teacher uses concept maps, think pair share, quizzes or tests, to increase students' understanding or retention of information	1.34	1.32	44.1%	6.8%	17.6%	31.5%

6.4. FOUNDATIONS OF CURIOSITY AND CRITICAL THINKING

Headline Finding 8

Independent observations found that teachers are on-task for 89% of lesson time. However, the majority of the learning process is teacher-centred rather than student-centred, so students have very limited opportunities to work independently or in groups. This corresponds to observations of limitations in teachers' abilities to develop the critical and creative thinking abilities of their students.

Teachers must analyse, evaluate and contextualise their teaching strategies to support the development of student curiosity and critical thinking. Teachers were observed in their classrooms to record how often they were on-task and actively engaging with students or off-task, either in class but not actively engaging with their students or out of class entirely when they should have been teaching. Observations also recorded the types of activities teachers used to engage students to evaluate how they grow students' curiosity and critical thinking skills.

Findings indicate that teachers were on-task 89% of the time, spending only 11% of class time on off-task activities. Despite the high teacher absenteeism rates and time spent on non-education tasks throughout the school day (which were reported in headline 1), when teachers are in the classroom, they demonstrate positive behaviours towards instruction and engage in relevant teaching and learning actions.

Teachers spent a significant amount of class time interacting with learners as a whole group; lecturing or demonstrating as students listened; and writing on the blackboard. These teacher-centred activities take up more than 50% of the lesson time. Less time was spent interacting with small groups of learners; engaging students in hands-on tasks; or assessing students on what they learned. These actions mean less class time is spent on tasks that could stimulate student's curiosity and critical thinking skills, such as working in small groups or having students demonstrate their understanding. Very few teachers were also observed asking their students open-ended questions, instead focusing on basic recall of facts.

Although teachers were infrequently observed engaging students in critical thinking tasks and stimulating their curiosity, students reported applying academic concepts to their lives outside of school; 54% of students said they had used an academic concept and applied it to a situation outside of school and 97% of those students said that this made them 'excited to learn more'. These are positive findings pointing to the willingness of students to extend learning beyond the classroom to be challenged by new content. This could provide an entry point for further teacher training to ensure educators are able to apply effective techniques that help students develop deeper curiosity and critical thinking skills.

When in class, teachers were on-task 88.8% of the time.

4.8% of the time, the teacher was in class but not teaching

2.8% of the time, the teacher was not in class but a learning activity was on-going

2.0% of the time, class had ended early

1.1% of the time, the teacher was not in class and no learning activity was on-going
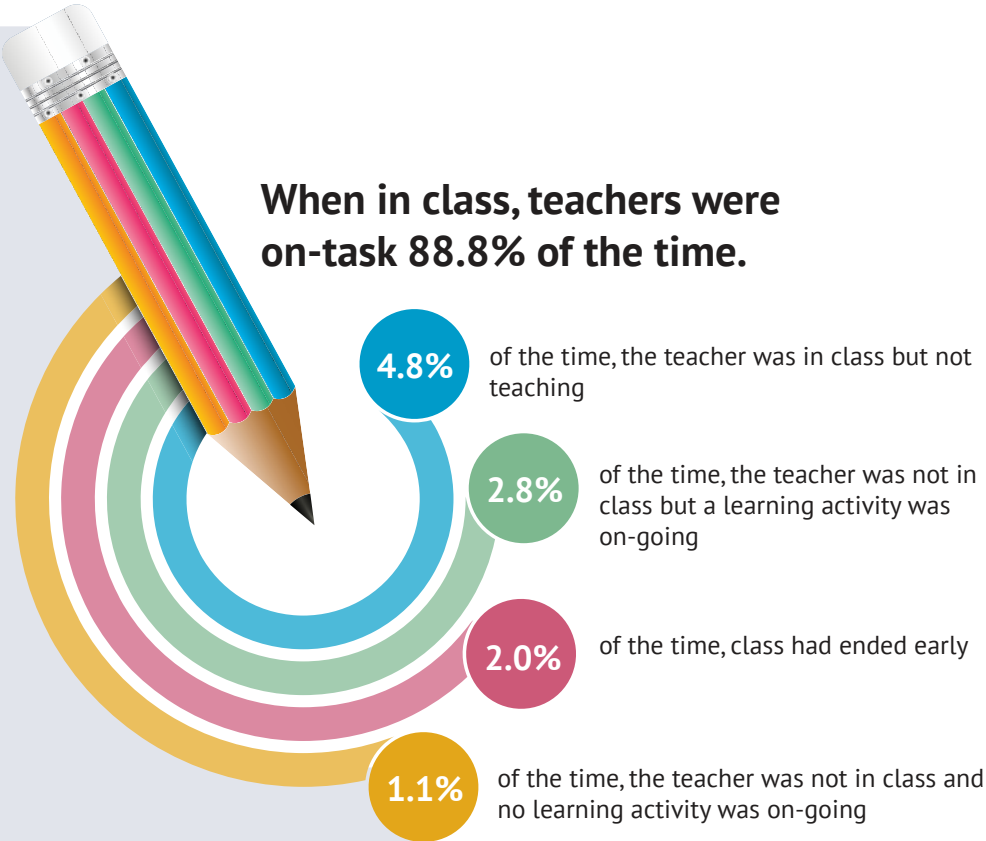
Average Percentage of Time Spent on Teacher Actions in Class

Teacher doing paperwork — 2.2%

Teacher maintaining discipline — 2.7%

Teacher testing/assessing learners — 5.0%

Teacher waiting for learners to complete — 7.6%

Teacher listening to learners read/recite — 6.5%

Teacher interacts with all learners — 25.3%

Teacher writing on blackboard — 10.1%

Teacher leads learners in singing a song — 2.1%

Teacher leads kinaesthetic (hands-on activity) — 1.8%

Teacher supervises learner(s) writing — 2.6%

Teacher dictates notes to the learners — 3.0%

Teacher reads, lectures or demonstrates — 17.2%

Teacher interacts with learner one on one — 8.2%

Teacher interacts with a small group — 5.7%

Note: A breakdown of classroom activities by 3-minute snapshots is provided in the Annex.

Key findings from these snapshots show that students do not get a gradual release from teacher-led activities to group activities to individual work; time spent on whole class work and the teacher writing on the blackboard remains consistently high throughout the lesson while small group work, students writing on the blackboard, students reading/reciting and pupils working individually remains consistently low throughout.

Overall, teacher-led activities dominate most lessons and there is not a lot of time spent on students working in small groups or individually. Positively, little time was spent on discipline and on the teacher doing paperwork.

Table 20: Classroom Observation of Critical Thinking Practices

	Mean	SD	Distribution of scores			
			0	1	2	3
Teacher asks students questions to enable them to recall basic facts and concepts	**2.01**	0.98	10.2%	16.6%	35.3%	38.0%
Teacher asks careful/effective questions that get students to really think about things deeply (beyond basic recall of facts or concepts – asking how or why questions)	**1.61**	1.15	24.1%	21.3%	24.1%	30.5%
Teacher asks open-ended questions (e.g. question requires more than a yes/no or single word answer)	**1.60**	1.11	23.4%	19.0%	32.2%	25.4%
Teacher gives students critical or creative thinking tasks during the lesson	**1.83**	0.76		38.3%	40.0%	21.7%
Students ask open-ended questions or perform critical or creative thinking tasks	**1.17**	1.15	43.7%	10.2%	31.5%	14.6%
% of students who raised hands to ask questions (0. 1-25%, 1. 26-50%, 2. 51-75%, 3. 76-100%)	**1.92**	1.16	40.6%	15.5%	18.2%	25.7%
% of students who raised hands to answer questions (0. 1-25%, 1. 26-50%, 2. 51-75%, 3. 76-100%)	**2.33**	1.17	31.3%	20.4%	19.9%	28.4%
Teacher provides students with choices (students are given options about how a learning activity should be completed)	**1.96**	0.90	0%	42.0%	20.0%	38.0%
Teacher provides students with opportunities to take on roles in the classroom	**1.97**	0.90	0%	41.7%	20.0%	38.3%

6.5. SAFETY

Headline Finding 9

Teachers self-reported and were observed being welcoming, friendly and respectful towards students. Students reported feeling safe in their school and classroom. But, conversely, students reported that corporal punishment is a common method of discipline with a high percentage of students believing it is the best means of discipline, indicating a disconnect between purported feelings of safety at school and normalised physical punishment practices. Teachers and ELs/ELMs were less likely than students to admit to using or witnessing corporal punishment at school.

The STiR programme aims to create school and classroom environments where children are physically and emotionally safe. Teachers and school leaders are morally and legally responsible for this outcome, and must be trained and empowered to implement positive discipline techniques.

Students overwhelmingly reported liking school and feeling safe at school and in their classroom. The majority of teachers were observed treating students respectfully, greeting students, calling on students by name and having a positive attitude towards students' challenges. Most students said that their teachers smile and laugh with them and 28% reported having asked their teacher or a school staff member for help with something bothering them, evidence of some positive relationships between the students and teachers.

98% *of students reported feeling safe at school and in their classrooms*

However, 45% of students reported being physically punished in the past 3-4 months and 29% of students reported seeing another student physically punished on a daily basis. Despite reports by students of frequent physical punishment, only 27% of teachers and 26% of Headmasters reported ever having beaten a child in their class for misbehaving, with females being slightly more likely to admit this than their male counterparts. ELs and ELMs seemed to corroborate teachers' claims; 98% of ELs/ELMs said they have never observed teachers physically punishing students. It is important to note that in India there are strict laws banning the use of corporal punishment at school. This is likely the reason that teachers are not very likely to admit using corporal punishment and almost no ELs/ELMs reported seeing corporal punishment at school. ELs/ELMs may truly not witness teachers using corporal punishment during their visits if teachers are careful not to use it in front of them. ELs/ELMs may also be largely unwilling to admit witnessing it happen due to the well-known law against it. Alternatively, minor physical punishments, like pulling ears or shoving heads, which were witnessed by independent enumerators, may not be interpreted by ELs/ELMs as physical punishment. Nevertheless, students reported physical punishment happening relatively frequently which indicates that it likely does happen. In addition, about one third of teachers and Headmasters admitted that physical punishment is necessary "to some extent" when disciplining students, shedding some more light on the attitudes towards corporal punishment at school. These findings indicate an overall tolerance – and possibly an acceptance – of corporal punishment in schools allowing teachers to perpetuate the practice.

45% *of students reported being beaten at school in the last 3-4 months*

One quarter of teachers and Headmasters reported that they have beaten a child in their class for misbehaving
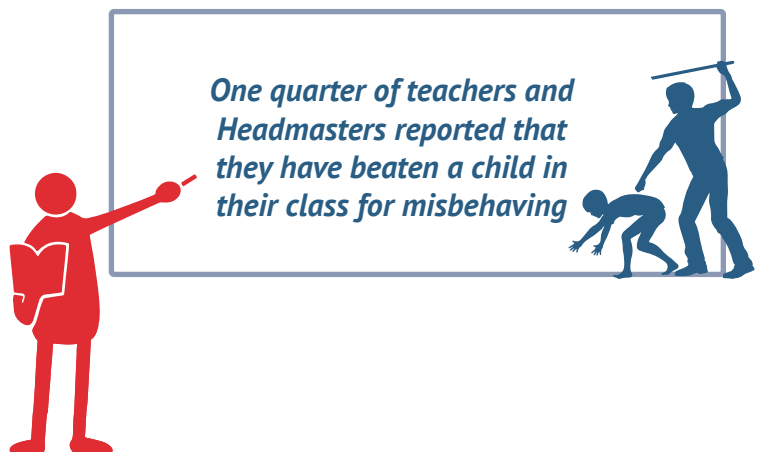
Additionally, there appears to be a disconnect between students' purported feelings of safety in school and their acceptance of physical discipline. When asked if they believed the best way to discipline a student who breaks the rules or disobeys a teacher was through physical punishment, 82% of students agreed. These results suggest that students may not necessarily correlate being physically punished at school with feeling unsafe. It is possible that corporal punishment at school is normalised for many students, and that they are unaware that physical punishment is a characteristic of an unsafe school.

Going forward, it is important to involve education stakeholders and students in targeted activities to promote positive discipline and improve the safety and emotional well-being of all learners.

When asked if they believed the best way to discipline a student who breaks the rules or disobeys a teacher was through caning or physical punishment,

82% *of students agreed*

Table 21: Frequency of Physical and Verbal Abuse Reported by Students

	Daily	Weekly	Monthly	Rarely	Never
How often do you see your teacher or staff member physically punishing students?	28.0%	16.2%	19.1%	7.9%	28.8%
How often do you see your teacher or staff member verbally abusing students?	4.8%	7.0%	2.0%	8.9%	77.3%

Graph 3: To what extent is beating/physically punishing students needed?
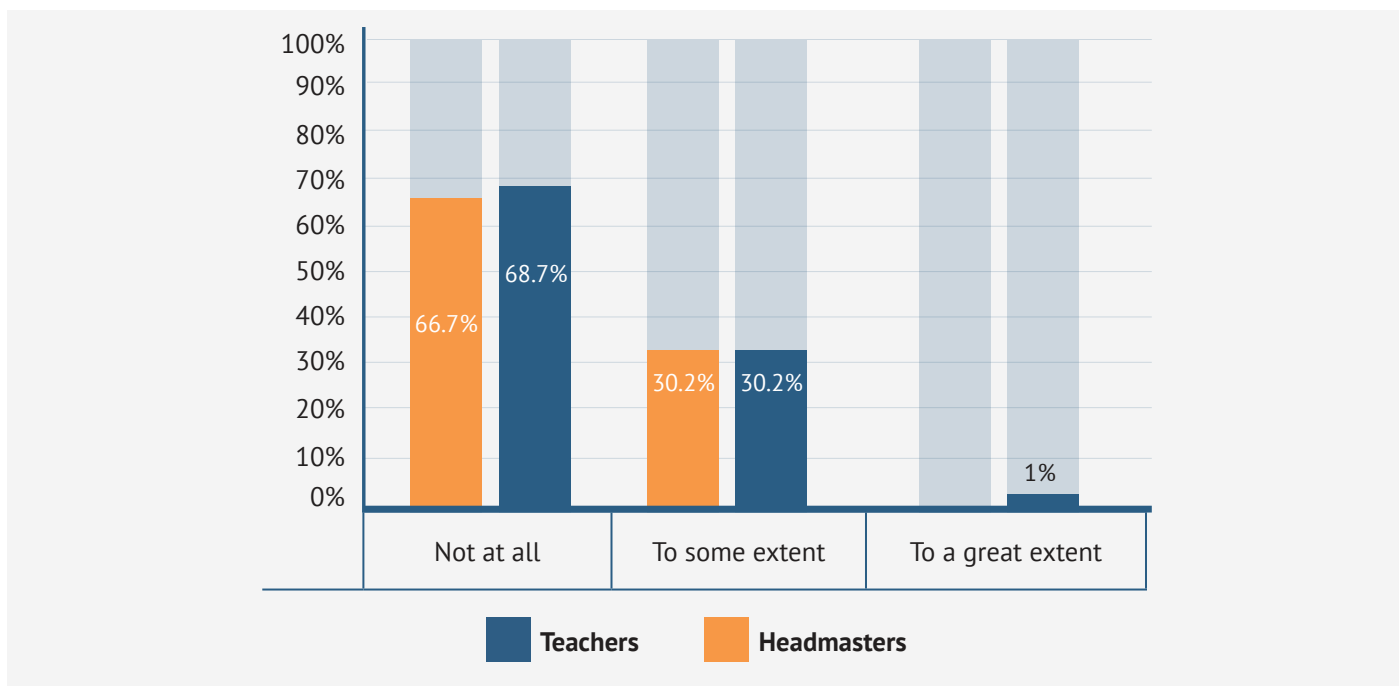
*Table 22: Self-Reported Corporal Punishment Practices by Teachers and Headmasters*

Have you ever beaten a child in your class for misbehaving?	Teacher		Headmaster	
	Yes	No	Yes	No
All teachers	26.7%	73.3%	25.8%	74.2%
Male teachers	23.3%	76.7%	21.8%	78.2%
Female teachers	29.1%	70.9%	29.2%	70.8%

6.6. SELF-ESTEEM

Headline Finding 10

Students reported high levels of determination and excitement when faced with difficult academic exercises. This may be connected to observations of teachers exhibiting a positive attitude towards learner's challenges. However, evidence of learners' self-esteem is contradicted by the fact that over 50% of learners have never been happy with their achievements at school and 52% reporting giving up on at least half of the difficult exercises they encounter. This may be connected to teachers' observed lack of providing specific and corrective feedback and the low rate of students asking teachers and their peers for help.

Self-esteem is a critical factor in ensuring students have positive beliefs about their capacity to learn. Teachers are integral to this process, as they must support and encourage their students to work hard and achieve in school.

Students indicated that they are somewhat confident dealing with challenging academic tasks in the classroom. While 53% of students reported feeling frustrated by difficult exercises, more than 80% said they were determined to solve the problem and 86% of students expressed that they were excited to try and learn more after tackling a challenging exercise. This shows self-reported determination and motivation on the part of the students as well as confidence in their ability to overcome challenges. Teachers were observed having a positive attitude when students were struggling, which may contribute to students' confidence and determination. However, more than half of students reported actually giving up on or not attempting to solve at least half of all difficult exercises they encounter. This, coupled with the 54% of students who stated that they have never felt happy with their achievements at school, highlights that while students report being determined to learn and confident solving difficult tasks, many students also give up easily and are dissatisfied with their academic achievements for some reason, which should be explored at future evaluation points.

53% of students reported feeling frustrated by difficult exercises

More than **80%** said they were determined to solve the problem

86% of students were excited to try and learn more after tackling a challenging exercise

Most students reported using problem solving strategies like asking their teacher for help or working with other students to solve these exercises. Teacher responses corroborated this, with many reporting that they frequently work with struggling students to help them learn difficult content. This suggests that teachers' instructional strategies may be positively impacting student self-esteem related to learning. However, during classroom observations, very few students were seen asking their teachers for help with an assignment and an even smaller number were seen asking for help from their peers. Thus, the independent observations do not match the self-reported claims by the students and will need to be further explored in future evaluations to determine exactly how frequently students seek and get help from their teacher and peers.

Classroom observations of teachers also indicated that they have a positive attitude towards students' challenges, but teachers need to improve how frequently they acknowledge students' efforts, encourage goal setting and provide corrective and specific feedback. Helping teachers refine their feedback and support practices will improve their instruction, which will likely have a positive impact on furthering students' self-esteem related to learning.

Table 23: Learners' Feelings When an Exercise was Hard

	Frustrated that it was hard to solve	Bored waiting to hear the answer	Sad because others had an easier time than me	Excited to try to learn more	Determined to learn how to solve the problem
All students	52.9%	36.7%	47.4%	85.7%	81.4%

Amount of difficult exercises learners decide not to try or to give up on entirely

- All: 4%
- Less than half: 48%
- About half: 29%
- More than half: 19%
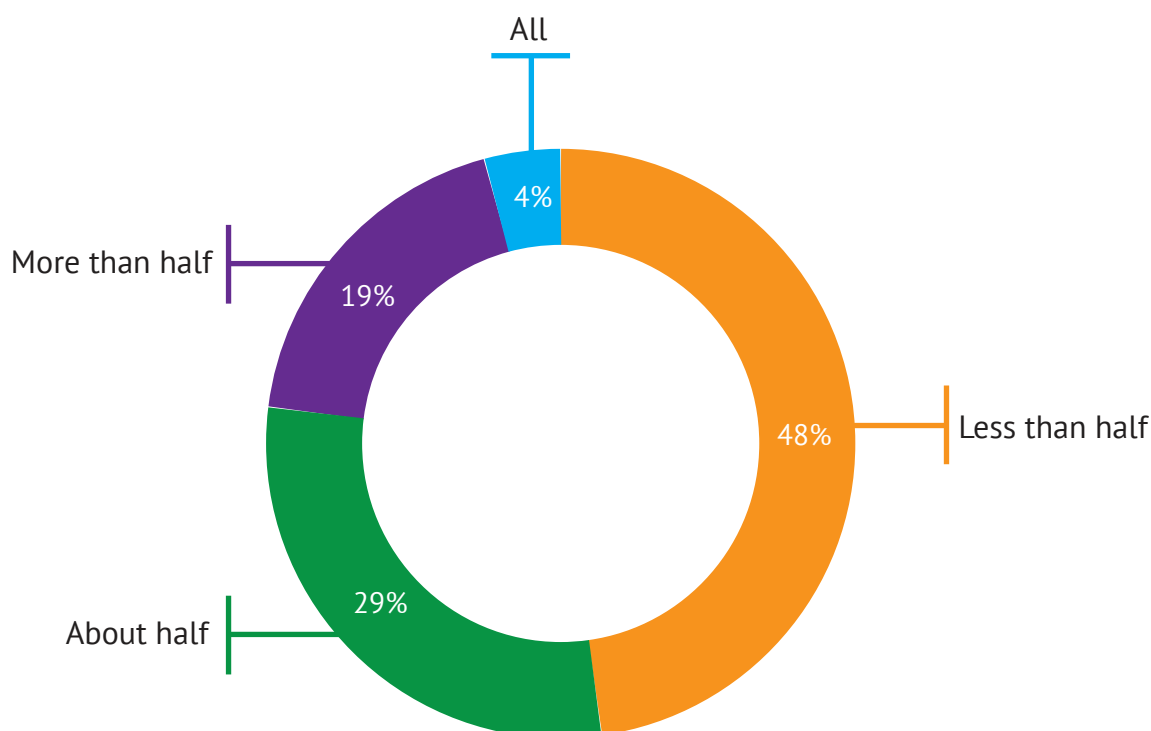
Table 24: Teacher Actions to Support Student Achievement

	Mean	SD	Distribution of scores			
			0	1	2	3
The teacher acknowledges students' efforts	**1.71**	1.17	26%	9%	33%	32%
The teacher has a positive attitude towards students' challenges	**2.22**	0.89		31%	16%	53%
The teacher encourages goal setting among students (both short and long term goals)	**1.17**	0.5	0%	89%	6%	5%
Teacher provides corrective feedback to students based on their verbal answers to questions	**1.75**	1.12	21%	15%	33%	32%
Teacher provides corrective feedback to students based on written or assigned work completed	**1.51**	1.2	32%	13%	27%	27%
Teacher provides specific feedback that points out students' successes or correct answers	**1.33**	1.16	35%	19%	25%	21%
Students ask the teacher for clarification or help with an assignment or task	**1.1**	1.09	42%	20%	25%	13%
Students ask their peers for clarification or help	**0.99**	1.05	44%	23%	22%	11%

7 MEASUREMENT APPROACHES

7.1. MEASURING SAFETY AND PUNISHMENT

One of the most important findings of the first year of the study relates to student safety in classrooms and schools. While students nearly unanimously reported that they feel safe at school, they also reported frequent use of physical punishment by teachers, either towards themselves or other students. Some teachers and Headmasters reported knowing that the use of physical punishment is wrong – and even illegal – but that it is also useful and appropriate at times to respond proportionately to student actions. These findings raise the question of whether students' self-reported feelings of safety in the classroom are aligned to a (generally accepted) belief that a 'safe' school is one where punishment is not mediated physically by teachers.

The data collected during this evaluation, as well as previous studies conducted in India,[3] indicate that corporal punishment is a common occurrence at schools in Tamil Nadu, even though it is illegal according to Indian law. As such, students (and teachers) may not link corporal punishment with a lack of safety in their school and might, on the contrary, believe it should be an acceptable and normal practice. Changing these deep seated cultural and social beliefs about safety and punishment takes long-term behaviour change on the part of both teachers and students and is not cleanly resolved by a government policy's ban on corporal punishment. This will be a key challenge for STiR to tackle in the future.

These findings also raise the question of whether we should explore alternative metrics to measure safety in the classroom and school environment during future evaluation points to assess progress on the STiR's indicators related to physically and emotionally safe learning environments. Moreover, educating teachers about effective, non-physical ways to discipline students is a clear professional development area where further work is needed. Parents, communities and ELs/ELMs should also be brought on board to support this and address school-based violence.

7.2. MEASURING INTRINSIC MOTIVATION

Findings from Year 1 of this study indicate that key stakeholders positively report high levels of intrinsic motivation and satisfaction in their daily work and also with the programme so far, stating that their participation in activities has brought about a positive mind set change. Findings also demonstrate that there is already a culture of sharing and learning among ELs/ELMs, teachers and Headmasters. These are all very good positives to note from which the STiR programme can build on going forward.

However, while all stakeholders reported high levels of intrinsic motivation and satisfaction with their participation in the STiR programme, there are other factors like poor teaching materials, the teaching workload, and desire for additional trainings and appreciation, which influence their motivation to perform their roles and to continue developing as professionals. In addition, the study found high self-reported levels of absenteeism amongst teachers, Headmasters and ELs/ELMs, as well as observations during shadowing activities that between 28%-42% of their time is spent doing tasks unrelated to learning or school improvement. These are significant findings, as reduced rates of time spent on tasks related to improving teaching and learning – coupled with reduced instructional time due to absenteeism from the workplace – mean that there is less than optimal effort and energy spent on actions that can improve learning outcomes and teacher effectiveness in general.

Further investigation of teachers' self-efficacy is pertinent for later evaluation cycles. Evidence from other research on motivation shows that external factors related to feelings about pay, societal status and working conditions, as well as observable behaviours like absenteeism, are proxy measures for measuring motivation levels at work. Studies show that self-efficacy is central to motivation because "teachers who believe that they cannot achieve their goals – whether they attribute this to their personal shortcomings, to aspects of the environment, or some combination of the two – are unlikely to put much effort into working towards them." (Stuart Cameron, 2015).

Although STiR does not focus its inputs on addressing extrinsic factors in stakeholder motivation, absenteeism and time spent off task are clearly areas that can affect the overall development of teachers, and programme impacts and sustainability at the end of five years. Through the system strengthening pathway of the programme, it might be worthwhile in the coming phase to work with local and national education officials as well as school leaders to confront these issues and find ways – through the system – to address factors related to extrinsic motivation and absenteeism. Tackling the challenges involved in addressing poor extrinsic motivation involves engaging stakeholders themselves in system level changes that can positively affect the external factors related to their jobs. STiR can participate in this by feeding back findings from Year 1 of the study (and continuing to collect relevant data about it in Year 2) and helping stakeholders determine ways to influence extrinsic motivation within the boundaries of their roles and positions within the education system.

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[3]Ogando Portela, M.J. and Pells, K. (2015). 'Corporal Punishment in Schools: Longitudinal Evidence from Ethiopia, India, Peru and Vietnam', Innocenti Discussion Paper No. 2015-02, UNICEF Office of Research, Florence.

Impact Evaluation Findings of STiR Education's Programme in Tamil Nadu State, India

7.3. MEASURING TEACHER PERFORMANCE

For Year 1 of the study, Ichuli developed a tool for classroom observations derived from the World Bank's internationally recognised TEACH tool. The TEACH tool includes 28 teacher and student behaviours within 9 areas that receive overall performance scores of 1-5. The World Bank recommends that enumerators using the TEACH tool undergo one full week of training to learn, in detail, how to utilise the tool and score findings according to TEACH guidelines. This is necessary because the TEACH tool (and tools modelled on it) are subjective and require enumerators to have a strict understanding of the tool's rubric used to score the quality of each teaching and learning behaviour. At the end of the week of training, an exam is administered to ensure trainees have accurately grasped the TEACH tool rating system and to ensure their inter-rater reliability.

Our classroom observation tool was piloted during Year 1 of the study in Uganda and also in India during the Master Training by GMI Project Managers and Training of Trainers on the GMI project team. This contributed to valuable results about teacher and student classroom behaviour in STiR programme schools; however, we identified some key areas for improvement before utilising it again in Year 2 of the study. First, enumerators using the tool could be taken through an intensive week of training to thoroughly understand how to use it and ensure accurate results with inter-rater reliability. Ichuli's staff are certified TEACH tool trainers and can use the principles and guidelines learned from their TEACH master training to achieve this. This would allow us to continue using the tool in the field at a large scale, but comes with trade-offs in terms of the time and resources necessary for conducting a large-scale training of enumerators on only one tool for a full week.

Another option is to train only a small number of enumerators on the tool for one week. While this would have the same implication in terms of time (one week of training), it would require fewer resources in terms of the number of enumerators trained. This option, however, would have implications for data collection. If Year 2 of the study were to target the same number of schools and classrooms as in Year 1, a reduced number of trained enumerators conducting classroom observations would have several logistical and time implications. This approach may work best if Year 2 of the study focuses on a smaller selection of schools and classrooms, but takes a 'deeper dive' by conducting several classroom observations over a longer school visit. A third option would be to send enumerators who have not received a TEACH tool-style training to the field to videotape lessons. These videos could be post-scored using the Quality of Teaching tool by Ichuli's staff and a small group of enumerators who are trained to use it properly. This option could allow for the collection of a large number of observations while reducing inputs related to enumerator training. There are some limitations to not scoring the observations live in the classroom, but these could be justified to deliver accuracy in results and value for money.

Alternatively, the number of teaching practices that enumerators are required to observe when using the current tool are too numerous to ensure accuracy and reliability. The TEACH tool includes 28 teaching practices to observe, but our Quality of Teaching Tool includes 60 teaching practices. Additional practices were included in the tool (alongside TEACH practices), as STiR wanted to observe whether teachers were utilising their LIC themes in the classroom and to track findings against STiR's key performance indicators for teacher instruction. In practice, observing and rating 60 teaching practices while in the field is extremely difficult, even for well-trained and seasoned enumerators. It is recommended to reduce the number of teaching practices on the tool in the future, especially if we continue scoring live lessons in the field. If observations are videotaped and post-scored, it might be possible to keep a larger number of practices on the tool. However, reducing the number of teacher and student behaviours overall will ensure we focus on collecting the most important information for the evaluation.

7.4. MEASURING THE QUALITY OF STiR ACTIVITIES USING RUBRICS

During Year 1 of the study, Ichuli used STiR's internally developed rubrics to assess the quality of programme activities, including teacher network meetings, training institutes, midterm reflection and planning meetings, and district alignment meetings. The data collection team in India was trained first using the original rubrics used in the Uganda Year 1 study at the Master training of the GMI Project Managers and the Training of Trainers of the GMI project teams by the GMI Project Managers. The structure of the original rubrics meant that they lacked progress descriptions for each performance indicator, and that some of the descriptions provided were subjective. These limitations reduced the accuracy of ratings and limited enumerator inter-rater reliability.

Later on, the first versions of the Success Descriptor Rubrics were released by STiR to replace the original rubrics, which helped bridge the gaps that had been identified in the original rubrics. They were much more comprehensive with progress descriptions for each performance indicator. The challenge, however, was that they were released when the data collection teams were about to start data collection and there wasn't enough time to train the trainers and then the enumerators on the new rubrics. This limitation reduced the accuracy of ratings and limited enumerator inter-rater reliability. Many of the activities evaluated with the tools received high scores during Year 1 of the study; it is important to investigate whether these scores persist after retraining enumerators to use them.

Going forward, it is strongly recommended that all activity quality rubrics to be used are released in time to ensure enumerators are sufficiently trained on how to use these tools to better ensure inter-rater reliability. We suggest that a group of only 10-20 enumerators are trained to use them prior to the actual general enumerator training, although this limited number of trained enumerators may pose a problem when observing the numerous teacher network meetings. We may decide that the same people trained on using the Quality of Teaching tool also conduct these observations, as both tools include quality judgements that only the most competent enumerators should be assigned to make.

8 CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS ON PROGRAMME PROGRESS

After four months of programme implementation, much has been learned during this first evaluation round about how STiR's approach, which is focused on strengthening intrinsic motivation, contributes to sustained improvements in the foundations of lifelong learning among education officials, teachers, and students.

Overall, the findings from Year 1 of the study demonstrated that stakeholders are largely on track and meeting the Year 1 progress pathway targets. All findings showed that stakeholders within the education system are well on their way to developing a shared purpose, working together and changing their mindsets within each of the foundations of lifelong learning.

Specifically, the evaluation found that the concepts of mentoring, role modelling and trying out new practices are beginning to happen to some degree – key to this year's focus of developing a shared purpose between stakeholders and changing mind sets. There is even some evidence that activities like observations and trying out teaching practices are happening with some regularity – a phenomenon only expected in Year 2 when stakeholders should be establishing routines. But the evaluation found that these activities currently often lack substance and depth. Additional efforts are needed to ensure that stakeholders are critically engaging within these processes and practices through deeper reflection on practice and driving school and system improvements in order to drive lifelong learning. In addition, motivational drive, exhibited through attendance, time on task and participation in assigned activities, still needs to be improved across the education system for the intervention to be successful in embedding and sustaining motivation in stakeholders by the end of the five-year support cycle.

RECOMMENDATIONS FOR CONTINUED PROGRAMME PROGRESS

Now STiR must strive to ensure that Year 2 of the programme continues well along the progress pathway and stakeholders continue to work to establish routines. Key areas to watch include ensuring that teachers are both routinely and effectively implementing teaching strategies in their classrooms, and that feedback mechanisms between teachers, headmasters and ELs/ELMs gains more regularity and also progresses from mainly positive praise to more constructive feedback for professional development. STiR should focus on helping stakeholders to create a feedback process and role modelling approach that combines content knowledge with an effective, repeated cycle for effective mentoring, observation and coaching. STiR can also do more to ensure that EL institutes are being organised by ELMs as frequently as planned to ensure that knowledge transmission does not get bottled-necked with ELMs and that it gets passed down to ELs and, subsequently, to teachers. In addition, STiR should continue to monitor the mandatory teacher network meetings so that all teachers have an opportunity to benefit from them.

REFLECTIONS AND RECOMMENDATIONS ON MEASUREMENT

The evaluation has shown that driving impact through intrinsic motivation is a process. Teachers and ELs/ELMs expressed positivity towards the STiR programme and reported high levels of self-reported motivation and professional gain from their involvement. These self-reported indicators are an important measure of personal opinions on motivation, and they show successful results at this stage of the journey. However, motivation must also be measured using externally verifiable behaviours and proxy measures, such as attendance and commitment to completing daily roles and programme activities.

Recommendations on measurement approaches used in the study also include: 1) the need to find alternative metrics to measure safety in the classroom and school environment during future evaluation points to assess progress on STiR's indicators related to physically and emotionally safe learning environments; 2) the need to work with local and national education officials as well as school leaders to confront the serious issues of absenteeism and time off task and find ways – through the system – to address factors that may be inhibiting motivation and causing unauthorised and unnecessary absenteeism; and 3) improvements needed in the design and/or training of enumerators on some measurement tools including the classroom observation tool and the Success Descriptor Rubrics to ensure objective, reliable measurement.

9 ANNEXES

ADDITIONAL DATA FOR HEADLINE 1

Table A: Self-Reported Love for Teaching

Do you like teaching?	Teacher		Headmaster	
	Yes	**No**	**Yes**	**No**
All teachers and HMs	99.3%	0.7%	100%	0%
Males	100%	0%	100%	0%
Females	98.8%	1.2%	100%	0%

Table B: Teachers and Headmasters Self-Reported Motivation from the STiR Programme

Teachers Self-Report about How Motivated They Feel by the STiR Programme	Teacher			Headmaster		
	Highly motivated	**Somewhat motivated**	**Not at all**	**Highly motivated**	**Somewhat motivated**	**Not at all**
All teachers and HMs	28.8%	59.4%	11.8%	25%	60.8%	14.2%
Males	31%	57.8%	11.2%	18.2%	60%	21.8%
Females	27.3%	60.5%	12.2%	30.8%	61.5%	7.7%

Table C: Students Report on Their Teachers' Absence Frequency

Number of Days Students Say Their Teacher Was Absent in the Past Two Weeks	1	2	3	4	5 or more
All students	33.8%	28.8%	15.4%	4.9%	17.2%

Table D: Teachers and Headmasters Self-Report on Their Absences from Work

Is there any day in the last two weeks that you did not come to school?	Teacher		Headmaster	
	Yes	**No**	**Yes**	**No**
All teachers and HMs	55.9%	44.1%	55%	45%
Males	57.8%	42.2%	47.3%	52.7%
Females	54.7%	45.4%	61.5%	38.5%

Table E: ELMs and ELs Self-Report Their Absence from Work

Is there any day in the last two weeks that you did not come to work?	Yes	No
ELM	47.6%	52.4%
EL	36.4%	63.6%

Table F: Teachers, Headmasters and ELs/ELMs Reported Reasons for Missing Work

Reason for missing work	Teacher	Headmaster	ELs/ELMs
Personal issues	32.4%	26.3%	66.7%
External training/meeting	7.4%	21.1%	11.1%
Sickness	54.4%	44.7%	22.2%
Bereavement	5.9%	7.9%	0%

Table G: Teacher and Headmaster Lateness Frequency Over Two Weeks

Number of self-reported tardiness over two weeks	Teacher					Headmaster		
	1	2	3	5	9	1	2	3
All teachers and HMs	53.3%	26.7%	6.7%	6.7%	6.7%	83.3%	16.7%	0%
Males	66.7%	16.7%	16.7%	0%	0%	75%	25%	0%
Females	44.4%	33.3%	0%	11.1%	11.1%	100%	0%	0%

Table H: ELMs and ELs Love for Working with Teachers

Do you like working with teachers?	Yes	No
ELM	90.5%	9.5%
EL	100%	0%

Table I: Teachers and Headmasters Self-Report on How to Increase Their Motivation

What can be done to increase your motivation at work?	Teacher			Headmaster		
	All teachers	Males	Females	All Headmasters	Males	Females
Additional training	17.4%	23.3%	13.1%	26.0%	20.8%	30.8%
Appreciation gestures	0.7%	0%	1.2%	16.0%	20.8%	11.5%
Change in teaching methods	3.5%	5.0%	2.4%	2.0%	0%	3.9%
Cooperation of parents	3.5%	6.7%	1.2%	6.0%	8.3%	3.9%
Increased staffing	2.1%	3.3%	1.2%	4.0%	8.3%	0%
Better teaching materials	40.3%	36.7%	42.9%	16.0%	8.3%	23.1%
Reduced workload	6.9%	0%	11.9%	4.0%	4.2%	3.9%
Students' cooperation	7.6%	11.7%	4.8%	10.0%	12.5%	7.7%
Salary increment	2.1%	1.7%	2.4%	0%	0%	0%
Other	16.0%	11.7%	19.1%	16.0%	16.7%	15.4%

*The "Other" category includes being advised, change of classroom interior, yoga and meditation sessions, emotional support, new buildings, increased freedom, etc.

Graph A: ELMs and ELs Self-Report on Their Motivation at Work

How motivated do you feel at work on most days?

Legend: ELMs, ELs

Graph B: ELMs and ELs Self-Report on Their Motivation by the STiR Programme

How motivated are you by the STiR programme?

Legend: ELMs, ELs
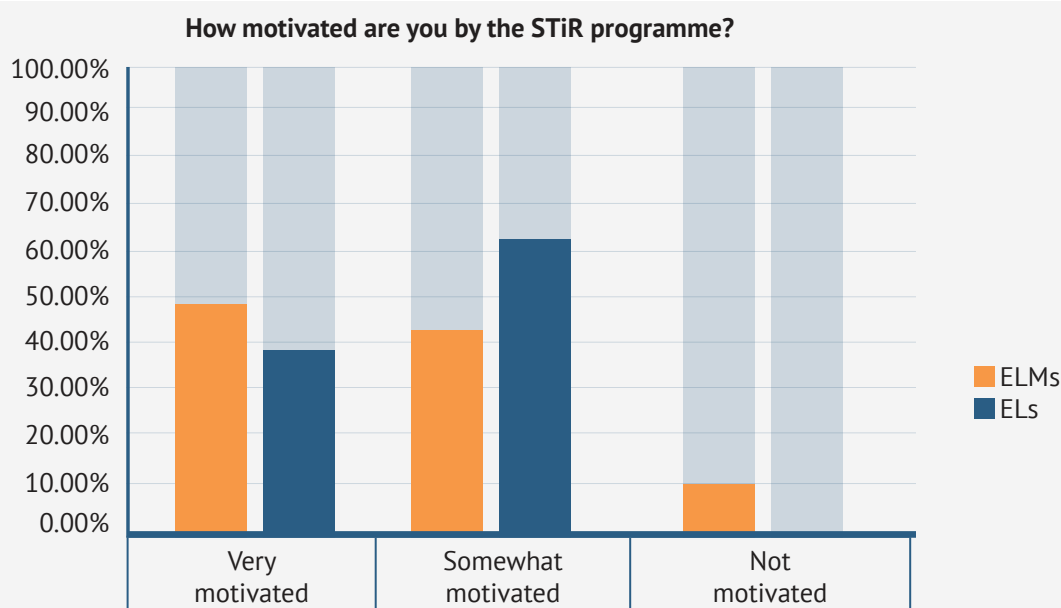
Table J: What job would you most like to have?

Think about your career goals over the next 3 years. What job would you most like to have?	Teacher	Headmaster	ELM	EL
Stay in current position	55.6%	62.5%	33.3%	22.7%
Change position in education	38.9%	34.2%	61.9%	77.3%
Change to another profession	2.8%	0%	4.8%	0%
Move to another school	2.8%	3.3%	0%	0%

ADDITIONAL DATA FOR HEADLINE 2

Table K: Self-Reported Teacher Attendance of Network Meetings

Have you attended a teacher network meeting this term?	Yes	No
All teachers	80.9%	19.1%
Male teachers	81.9%	18.1%
Female teachers	80.2%	19.8%

Table L: Self-Reported ELM Institute Attendance

Have you attended a BRTE Supervisor Institute in 2019?	Yes	No
ELM	71.4%	28.6%

Table M: ELMs Report on Organising an EL Institute

	Yes	No
Have you organised an EL institute in 2019?	59.1%	40.9%

Table N: Specific Actions after Institutes

Do you identify and commit to specific actions that you will undertake after these institutes?	Yes	No
ELM	73.3%	26.7%
EL	70.6%	29.4%

Table O: Attendance of Trainings to Improve Professionally

Have you attended any trainings or courses to improve professionally?	Yes	No
ELM	61.9%	38.1%
EL	59.1%	40.9%

Table P: Meeting with other ELs/ELMs

Do you meet with other education officials in your district to learn from each other and improve your practices?	Yes	No
ELM	95.2%	4.8%
EL	81.8%	18.2%

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Table Q: Meeting with other ELs/ELMs After the STiR Programme Ends

Will you continue meeting with other education officials in your district to learn from each other after the STiR programme ends?	Yes	No
ELM	85.0%	15.0%
EL	76.2%	23.8%

Table R: Attendance of Non-STiR Trainings

Have you attended any other non-STiR trainings in 2018 and 2019?	Yes	No
ELM	66.7%	33.3%
EL	59.1%	40.9%

Table S: Use of Knowledge from these Trainings

Are you using the knowledge from these trainings in your day to day work?	Yes	No
ELM	81.0%	19.1%
EL	86.4%	13.6%

Table T: Pursuit of Additional Training Opportunities at a Cost

Would you still pursue additional training opportunities for your own development if you had to pay for them?	Yes	No
ELM	23.8%	76.2%
EL	18.2%	81.8%

ADDITIONAL DATA FOR HEADLINE 3

Table U: Reasons Why Learners Missed School

Reason	Percentage
Lack of transport	0.7%
Working at home	10.4%
Menstruation	0.42%
Employment (has to work for money)	1.5%
Sickness	62.2%
Family emergency	8.9%
Other	16%

Table V: Students' Self-Reported Lateness to School

	Never	1 day	2 days	3 days	4 days	Everyday
How many days in the last 2 weeks were you late to school?	56.7%	15.8%	13.9%	6.8%	5.4%	1.5%

Table W: Students with Disabilities/Special Needs

Do you have any students with disabilities or who have special needs?	Yes	No
All teachers	39.0%	61.0%
Male teachers	37.7%	62.3%
Female teachers	39.8%	60.2%

Table X: Students' Self-Reported Revision Time

	All Students				
	Never	This week	Last week	Last Month	More than a month ago
Think back to when you last revised for an exam. When was it?	9.2%	35.1%	35.3%	10.8%	9.6%

Table Y: Homework to Students

Do you give the same homework to both fast and slow learners in your classroom?	Yes	No
All teachers	33.3%	66.7%
Male teachers	31.9%	68.1%
Female teachers	34.3%	65.7%

Table Z: Students' Report on Teacher Praise

	All students			
	Never	Sometimes	Most of the time	All the time
How often does the teacher provide praise to students equally instead of some students?	8.8%	41.8%	31.8%	17.6%

ADDITIONAL DATA FOR HEADLINE 4

Table AA: Support to Teachers

Do you observe, support, supervise and give feedback to your teachers in their classrooms?	Yes	No
All Headmasters	95.0%	5.0%
Male Headmasters	94.6%	5.5%
Female Headmasters	95.4%	4.6%

Table AB: Feedback to Teachers by Headmaster

Does the Headmaster observe you and give you feedback on how you can improve your teaching?	Yes	No
All teachers	82.1%	17.9%
Male teachers	85.1%	14.9%
Female teachers	80.1%	19.9%

Table AC: Frequency of Support to Teachers

How frequently do you observe, support and give feedback to your teachers?	Weekly	Monthly
All Headmasters	73.7%	26.3%
Male Headmasters	71.2%	28.9%
Female Headmasters	75.8%	24.2%

Table AD: ELs/ELMs' Praise to Teachers

Have you ever praised a teacher?	Yes	No
ELM	90.5%	9.5%
EL	100%	0%

Table AE: ELs/ELMs' Praise to Headmasters

Have you ever praised a Headmaster?	Yes	No
ELM	100%	0%
EL	95.5%	4.5%

Table AF: Lesson Plan Review

Does anyone review your lesson plans?	Yes	No
All teachers	94.1%	5.9%
Male teachers	92.2%	7.8%
Female teachers	95.4%	4.7%

Table AG: Lesson Plan Review

Who is responsible for reviewing your lesson plans?	No one	Headmaster	Deputy Headmaster	Director of studies	Other
All teachers	3.5%	91.7%	0.4%	1.0%	3.5%
Male teachers	5.2%	92.2%	0%	0.9%	1.7%
Female teachers	2.3%	91.3%	0.6%	1.2%	4.7%

Table AH: Lesson Plan Review

When was the last time your lesson plan was reviewed?	Last month	Last term	This week	2 weeks
All teachers	3.6%	1.1%	76.6%	18.7%
Male teachers	3.6%	0.9%	77.3%	18.2%
Female teachers	3.6%	1.2%	76.2%	19.1%

ADDITIONAL DATA FOR HEADLINE 5

Table AI: Usefulness of Feedback Given to Teachers by Headmaster

Did you find the feedback useful?	Yes	No
All teachers	93.6%	6.5%
Male teachers	95.5%	4.5%
Female teachers	92.3%	7.7%

Table AJ: Teachers and Headmasters Report on Support Given by ELs and ELMs

		Teachers		Headmaster	
		Yes	No	Yes	No
All teachers and HMs	Does the BRTE visit you at school to provide coaching and support?	86.5%	13.5%	91.7%	8.3%
	Do you find this coaching and support useful?	98.8%	1.2%	95.2%	4.8%
	Does the BRTE Supervisor visit you at school to provide coaching and support?	85.9%	14.1%	89.4%	10.6%
	Do you find this coaching and support useful?	98.4%	1.6%	99.0%	1.0%
Male teachers/ HMs	Does the BRTE visit you at school to provide coaching and support?	88.8%	11.2%	89.1%	10.9%
	Do you find this coaching and support useful?	99.0%	1.0%	93.6%	6.4%
	Does the BRTE supervisor visit you at school to provide coaching and support?	86.0%	14.0%	86.5%	13.5%
	Do you find this coaching and support useful?	100%	0%	100%	0%
Female teachers/ HMs	Does the BRTE visit you at school to provide coaching and support?	84.9%	15.1%	93.9%	6.2%
	Do you find this coaching and support useful?	98.6%	1.4%	96.5%	3.5%
	Does the BRTE Supervisor visit you at school to provide coaching and support?	85.9%	14.1%	91.8%	8.2%
	Do you find this coaching and support useful?	97.3%	2.7%	98.3%	1.8%

Table AK: Ease of Approach of School Administration

Do you feel you can approach the Headmaster or school administrators with concerns?	Yes	No
All teachers	96.1%	3.9%
Male teachers	98.2%	1.8%
Female teachers	94.5%	5.4%

Table AL: ELMs Comment on Quality of Coaching Meeting with STiR

	Poor	Fair	Good	Very Good
Coaching meeting content	0%	4%	56%	40%
Clarity of feedback received	4%	4%	56%	36%
Quality of support received	4%	64%	28%	4%

ADDITIONAL DATA FOR HEADLINE 6

Table AM: Changes in Learners and Teachers as a Result of Using STiR's Teaching Practices

			Not at all	Some what	Very much
Do you feel that there is a positive change in your learners ever since you started using these practices/strategies	Teachers	All teachers	12.2%	64.6%	23.3%
		Male teachers	8.6%	70.7%	20.7%
		Female teachers	14.5%	60.5%	25.0%
	ELs/ELMs		0%	95.5%	4.6%
Do you feel there is a positive change in your classroom teaching practices ever since you started using these practices/strategies?	Teachers	All teachers	14.6%	62.9%	22.6%
		Male teachers	17.2%	59.5%	23.3%
		Female teachers	12.8%	65.1%	22.1%
	ELs/ELMs		0%	100%	0%

Table AN: Teacher Behaviours/Practices During Lesson Time as Reported by Learners

Does your teacher ever do the following?	Not at all	Sometimes	Most of the time	All the time
Walk outside of class to answer a phone call	18.3%	62.9%	12.3%	6.5%
Ask students if they understood what is taught during lessons	3.5%	28.3%	38.9%	29.3%
Let students work with each other to complete tasks	4.9%	46.4%	31.0%	17.7%
Give examples or show how to do an activity during lessons	4.9%	40.3%	33.6%	21.3%

Table AO: Teacher Practices to Help Students Understand a Lesson

Do you do the following to try and help students understand the lesson more?	Call on students	Ask a fellow teacher for support	Reflect on how to reteach the lesson differently next time	Reteach the lesson
All teachers	93.8%	79.9%	96.9%	95.8%
Male teachers	91.4%	81.0%	96.6%	94.8%
Female teachers	95.4%	79.1%	97.1%	96.5%

ADDITIONAL DATA FOR HEADLINE 7

Table AP: Teachers Self Report on Meeting with Other Teachers to Learn From Each Other

		Teachers		Headmaster	
		Yes	**No**	**Yes**	**No**
All teachers/HMs	Do you meet with other teachers from your school or block to learn from each other?	91.0%	9.0%	90.8%	9.2%
	Would you continue meeting with other teachers from your school or block to learn from each other even after the STiR programme ends?	88.7%	11.3%	85.2%	14.8%
Male teachers/HMs	Do you meet with other teachers from your school or block to learn from each other?	92.2%	7.8%	89.1%	10.9%
	Would you continue meeting with other teachers from your school or block to learn from each other even after the STiR programme ends?	91.1%	8.9%	85.1%	14.9%
Female teachers/HMs	Do you meet with other teachers from your school or block to learn from each other?	90.1%	9.9%	92.3%	7.7%
	Would you continue meeting with other teachers from your school or block to learn from each other even after the STiR programme ends?	87.0%	13.0%	85.3%	14.8%

Table AQ: Teachers Self Report on Having Additional Trainings

		Teachers		Headmaster	
		Yes	**No**	**Yes**	**No**
All teachers/HMs	Have you pursued additional development opportunities?	50.5%	49.5%	NA	NA
	Have you had any education management training?	42.7%	57.4%	64.7%	35.3%
	Have you attended any other non-STiR training in 2018 and 2019?	79.5%	20.5%	69.2%	30.8%
Male teachers/HMs	Have you pursued additional development opportunities?	54.9%	45.1%	NA	NA
	Have you had any education management training?	46.9%	53.1%	56.6%	43.4%
	Have you attended any other non-STiR training in 2018 and 2019?	76.7%	23.3%	60.0%	40.0%
Female teachers/HMs	Have you pursued additional development opportunities?	47.7%	52.4%	NA	NA
	Have you had any education management training?	39.8%	60.2%	71.4%	28.6%
	Have you attended any other non-STiR training in 2018 and 2019?	81.4%	18.6%	76.9%	23.1%

Table AR: Teachers Report on the Feedback Given by a Peer Teacher

		Teachers	
		Yes	**No**
All teachers	Does a peer teacher give you feedback as to how you can improve your teaching?	67.4%	32.6%
	Do you find the feedback given by the peer teacher useful?	76.7%	23.3%
Male teachers	Does a peer teacher give you feedback as to how you can improve your teaching?	71.2%	28.8%
	Do you find the feedback given by the peer teacher useful?	75.9%	24.1%
Female teachers	Does a peer teacher give you feedback as to how you can improve your teaching?	64.9%	35.1%
	Do you find the feedback given by the peer teacher useful?	77.3%	22.8%

ADDITIONAL DATA FOR HEADLINE 8

Table AS: Breakdown of Teacher Actions in Class

Classroom Activity	Sn 1	Sn 2	Sn 3	Sn 4	Sn 5	Sn 6	Sn 7	Sn 8	Sn 9	Sn 10	Sn 11	Sn 12	Sn 13	Sn 14	Sn 15	Avg.
	2min	5min	8min	11min	14min	17min	20min	23min	26min	29min	32min	35min	38min	41min	44min	Overall
1	44.0	25.9	27.6	27.5	22.7	25.0	20.9	22.7	23.5	20.6	21.1	21.0	23.0	24.6	29.6	25.3
2	5.8	9.3	7.0	3.9	5.7	4.7	4.1	6.1	7.2	4.6	5.9	5.2	5.6	4.8	5.3	5.7
3	5.4	11.3	7.2	7.4	7.6	8.3	8.7	8.4	8.1	8.7	8.5	10.6	8.6	8.2	5.3	8.2
4	11.2	18.8	20.4	21.0	19.4	18.3	19.8	19.0	17.3	20.1	17.7	16.7	13.1	13.0	11.9	17.2
5	2.8	1.8	2.0	3.5	2.6	2.8	3.7	3.0	2.4	2.6	3.3	3.9	3.4	3.4	4.1	3.0
6	2.8	2.0	2.2	2.6	3.7	3.8	3.7	1.3	1.5	2.4	1.3	2.2	2.3	3.4	3.3	2.6
7	1.4	2.3	1.1	1.8	1.3	1.5	1.1	2.2	1.8	2.2	2.4	2.8	2.0	1.8	1.8	1.8
8	0.0	0.2	0.2	0.7	1.7	1.5	1.7	1.5	1.3	0.9	10.0	8.5	1.4	0.9	1.0	2.1
9	7.9	11.3	11.8	10.7	14.4	11.3	11.3	9.1	10.3	10.0	7.0	6.3	11.1	10.0	8.9	10.1
10	2.8	2.7	4.8	6.8	7.0	6.6	8.0	7.6	6.6	7.1	7.8	6.9	7.9	9.1	5.8	6.5
11	5.1	6.6	5.7	6.3	5.2	8.7	7.4	8.6	8.1	9.1	7.8	8.5	9.9	9.1	8.4	7.6
12	4.2	4.1	5.5	3.3	4.1	3.8	6.1	6.7	7.2	5.2	3.9	4.8	5.0	5.0	6.8	5.0
13	3.0	2.3	2.6	2.6	3.1	1.7	2.4	2.2	1.8	3.7	3.3	2.6	2.9	2.7	3.0	2.7
14	3.7	1.4	1.8	2.0	1.5	1.9	1.1	1.7	2.9	3.0	0.0	0.0	3.8	3.9	4.8	2.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.1

Key: Classroom Activities

1. Teacher interacts with all learners as a group
2. Teacher interacts with a small group of learners
3. Teacher interacts with a learner one-on-one
4. Teacher reads, lectures or demonstrates to learners while they listen
5. Teacher dictates notes to the learners as they write in their books
6. Teacher supervises learner(s) writing on the board
7. Teacher leads kinaesthetic (hands-on) group learning activity
8. Teacher leads learners in a singing a song
9. Teacher writes on blackboard
10. Teacher listens to pupils read/recite
11. Teacher waits for pupils to complete task
12. Teacher tests/assesses students in class
13. Teacher maintains discipline in class
14. Teacher does paperwork

Table AT: Students' Use of Knowledge Outside of School

Have you ever used something that you learned in school to a situation outside of school?	Yes	No
All students	54.4%	45.6%

Table AU: Last Time Students Used Knowledge Outside of School

When did this happen?	This week	Last week	Last month	More than a month ago
All students	16.2%	44.2%	22.7%	16.8%

ADDITIONAL DATA FOR HEADLINE 9

Table AV: Students Report Liking and Feeling Safe at School

	All Students	
	Yes	No
Do you like school?	99.4%	0.6%
Do you feel safe at school?	97.8%	2.2%
Do you feel safe in the classroom?	97.4%	2.6%

Table AW: Students Report on Physical and Verbal Abuse

	All Students	
	Yes	No
Have you been caned or physically punished this term at school?	44.7%	55.3%
Have you been verbally abused in the last 2 weeks at school?	8.1%	91.9%

Table AX: Students Report who has Physically and Verbally Abused Them at School this Term

	All Students					
	My teacher	Another Teacher	Headmaster	Another Student	SMC/PTA Member	Support staff
Who has physically abused you at school this term?	79.0%	26.1%	11.2%	6.0%	0.2%	0.4%
Who has verbally abused you at school this term?	74.1%	27.0%	9.6%	5.7%	0.7%	0.7%

Table AY: Students Report on Best Discipline Method

The best way to discipline a student should be with physical punishment.	Agree	Disagree
All students	81.6%	18.4%

Table AZ: How Teachers Say Different Learner Misbehaviour Should be Handled

	Teachers				
Behaviour/punishment	Physical punishment	Verbal abuse	Counselling	Ignore	Other
Making noise	1.96%	6.86%	74.75%	2.70%	13.73%
Sleeping	2.45%	1.47%	56.37%	6.13%	33.58%
Disturbing others	3.43%	4.90%	70.83%	4.41%	16.42%
Engaging in physical violence	5.88%	3.68%	75.74%	2.94%	11.76%
Distracted by an activity outside the classroom	2.45%	3.92%	74.26%	3.92%	15.44%

Table BA: Choice of Punishments Proposed by Learners and Teachers

	Physical punishment	Counselling	Extra work	Warning	Report to parents	Verbal abuse
Students	70.3%	8.4%	3.2%	9.7%	1.1%	7.2%
Teachers & Headmasters	1.3%	84.9%	2.3%	6.6%	3.6%	1.3%

Table BB: Teachers and Headmasters Self-Report on their Corporal Punishment Attitudes

Are there times when you believe it is appropriate to physically punish a child?				
	Teacher		Headmaster	
	Yes	No	Yes	No
All teachers/HMs	18.1%	81.9%	10.8%	89.2%
Male teachers/HMs	22.4%	77.6%	10.9%	89.1%
Female teachers/HMs	15.1%	84.9%	10.8%	89.2%

Table BC: Students Report on Teacher Behaviour

How often does the teacher:	All Students			
	Not at all	Sometimes	Most of the time	All the time
Discipline a student with a cane, object or their hand	24.14%	59.20%	12.65%	4.01%
Smile and laugh with students	4.9%	31.7%	36.8%	26.6%
Name calling or tell a student they are stupid/shaming students	73.21%	21.38%	3.72%	1.69%
Call on students in the back of the classroom	9.0%	42.1%	31.5%	17.4%

Table BD: Teachers and Headmasters Respond How Frequently They Praise Students for Good Behaviour

	Never	1-2 times	3-5 times	6-10 times	More than 10 times
Teachers	2.78%	19.10%	33.68%	16.32%	28.13%
Headmasters	4.17%	35.83%	26.67%	11.67%	21.67%

Table BE: ELs/ELMs Report on Observed Teacher Behaviours

In the past week, have you seen teachers do any of the following;				
	ELM		EL	
	Yes	No	Yes	No
Smile or laugh with students	100%	0%	100%	0%
Call a student a name or tell them they are stupid	9.5%	90.5%	4.8%	95.2%
Call on students in the back of the classroom	85.7%	14.3%	66.7%	33.3%

Table BF: Students Report on Whether the Teacher Calls on them by Name

Does the class teacher call on you by name?	Yes	No
All students	97.7%	2.3%

Table BG: Students Report on the School Staff that Know their Names

What other teacher or teaching staff knows your name?	All Students	
	Yes	No
Headmaster	66.9%	33.1%
Deputy Headmaster	32.8%	67.2%
Teaching staff member	50.4%	49.6%
Non-teaching staff	15.7%	84.3%
None	11.8%	88.2%

Table BH: Students Report on Asking for Help at School

	All students	
	Yes	No
Have you ever asked a teacher or staff member for help with something that was bothering you?	28.2%	71.2%

Table BI: Students Report the Last Time They Asked an Adult at School to Help with a Personal Issue

	Today	This Week	Last Week	In the Last Month	More than a Month Ago
All students	14.1%	44.2%	22.9%	17.9%	0.9%

Table BJ: Self-Reported Corporal Punishment Practices by Teachers and Headmasters

		Teachers		Headmaster	
		Yes	No	Yes	No
All teachers/HMs	Have you seen other teachers in this school verbally abuse children when misbehaving?	17.3%	82.7%	21.7%	78.3%
	Have you ever beaten a child in your class for misbehaving?	26.7%	73.3%	25.8%	74.2%
	Have you ever beaten a child in your class this year for misbehaving?	81.8%	18.2%	80.7%	19.4%
	In the last week, have you verbally abused a child for misbehaving?	12.5%	87.5%	17.5%	82.5%
Male teachers/HMs	Have you seen other teachers in this school verbally abuse children when misbehaving?	24.1%	75.9%	23.6%	76.4%
	Have you ever beaten a child in your class for misbehaving?	23.3%	76.7%	21.8%	78.2%
	Have you ever beaten a child in your class this year for misbehaving?	77.8%	22.2%	66.7%	33.3%
	In the last week, have you verbally abused a child for misbehaving?	11.2%	88.8%	18.2%	81.8%
Female teachers/HMs	Have you seen other teachers in this school verbally abuse children when misbehaving?	12.7%	87.3%	20.0%	80.0%
	Have you ever beaten a child in your class for misbehaving?	29.1%	70.9%	29.2%	70.8%
	Have you ever beaten a child in your class this year for misbehaving?	84.0%	16.0%	89.5%	10.5%
	In the last week, have you verbally abused a child for misbehaving?	13.4%	86.6%	16.9%	83.1%

Table BK: Classroom Observation of Student Safety (Trust in Teacher)

	Mean	SD	Distribution of scores			
			0	1	2	3
The teacher treats all students respectfully	2.45	0.62	0%	6.8%	41.0%	52.2%
The teacher uses positive, encouraging language with students	2.09	0.60	0%	13.6%	63.4%	23.1%
The teacher responds to students' needs	1.75	0.89	0%	54.9%	14.9%	30.2%
The teacher smiles and displays warm body language as students enter class	1.53	1.25	32.2%	15.9%	19.0%	32.9%
Teacher greets all students at the start of the lesson	2.46	1.01	11.5%	4.1%	10.9%	73.6%
Teacher call on students by name during the lesson	2.03	1.00	9.2%	21.0%	27.1%	42.7%
There is enjoyment / emotional connection between the teacher and most (at least 75% of) students (e.g. the teacher smiles and/or encourage students as they complete tasks)	1.99	0.95	10.2%	14.6%	41.4%	33.9%
The teacher acknowledges students' efforts	1.71	1.17	26.1%	8.8%	32.9%	32.2%
The teacher has a positive attitude towards students' challenges	2.22	0.89	0%	31.2%	15.9%	52.9%
The teacher used corporal or physical punishment to discipline students (e.g. hitting students or asking them to stand for a period of time)	0.35	0.82	81.9%	7.3%	5.2%	5.7%
The teacher used negative words or body language/emotional punishment to discipline students (e.g. blaming or shaming of students, rolling their eyes, etc.)	1.11	0.38	0%	91.5%	6.1%	2.4%
The teacher used an appropriate of tone (voice)/body language/physical contact to discipline students	1.15	1.13	39.9%	22.6%	20.6%	16.9%
Students ask the teacher for clarification or help with an assignment or task	1.16	1.14	41.7%	20.0%	25.1%	13.2%

Table BL: Teachers' Methods of Discipline

How do you usually discipline children in your class for misbehaving?	Teachers						Headmasters					
	Counselling	Informing parents	More work	Physical punishment	Verbal punishment	Warning	Counselling	Informing parents	More work	Physical punishment	Verbal punishment	Warning
All teachers/ HMs	84.1%	3.9%	3.4%	1.4%	1.4%	5.7%	86.6%	3.1%	0%	1.0%	1.0%	8.3%
Males	82.8%	4.6%	4.6%	0%	1.2%	6.9%	87.5%	4.2%	0%	0%	0%	8.3%
Females	85.1%	3.3%	2.5%	2.5%	1.7%	5.0%	85.7%	2.0%	0%	2.0%	2.0%	8.2%

ADDITIONAL DATA FOR HEADLINE 10

Table BM: Learners' Satisfaction With their Achievements at School

When was the last time you felt happy with your achievements at school?				
	This week	**Last week**	**Last month**	**More than a month ago**
All students	18.1%	28.9%	19.9%	33.2%

Table BN: Learners Report on Teacher Praise in the Last Week

In the last week, how many times did your teacher give you praise for your good work?				
	Never	**Sometimes**	**Most of the time**	**All the time**
All students	31.1%	47.3%	15.0%	6.6%

Table BO: Learners Report on Teacher Praise

When was the last time your teacher gave you praise for good work?					
	Never	**This week**	**Last week**	**Last month**	**More than a month ago**
All students	25.5%	17.5%	36.3%	13.2%	7.5%

Table BP: Teacher Praise to Students

Do you provide praise to a child for good behaviours/ choices?				
	Teacher		**Headmaster**	
	Yes	**No**	**Yes**	**No**
All teachers/HMs	98.6%	1.4%	98.3%	1.7%
Male teachers/HMs	98.3%	1.7%	98.2%	1.8%
Female teachers/HMs	98.8%	1.2%	98.5%	1.5%

Table BQ: Learners Attempting Difficult Exercises

How Learners Handle Difficult Exercises					
	None of them	**Less than half**	**About half**	**More than half**	**All**
Successfully complete	3.2%	31.3%	34.1%	21.0%	10.5%
Try to complete, but aren't able to solve	0%	39.6%	35.3%	20.5%	4.6%
Decide not to try	0%	48.1%	28.8%	18.9%	4.2%

Table BR: Teacher Actions to Help Students Understand a Lesson

	Teachers			ELs/ELMs	
	Do you use this practice?			Have you observed teachers use this practice in the past month?	
	All teachers	**Males**	**Females**	**Yes**	**No**
Repeat concepts	98.3%	98.3%	98.3%	97.6%	2.4%
Cover the material again another day	92.4%	91.4%	93.0%	83.3%	16.7%
Call on other students to explain	91.7%	91.4%	91.9%	90.5%	9.5%
Spend time after class/ school helping students struggling	67.4%	67.2%	67.4%	66.7%	33.3%
Spend time after class/ school helping students who need more difficult work	70.5%	69.8%	70.9%	57.1%	57.1%

Table BS: Learner Satisfaction with Achievements

Have you ever felt happy with an achievement at school?	Yes	No
All students	54.3%	45.7%

Table BT: Reasons Students Say They Felt Happy with an Achievement at School

	All Students	
Which of the following describes what happened the last time you felt happy with an achievement at school?	Yes	No
I learnt how to do something after working hard	67.27%	32.73%
I was praised by my teacher or teachers at school	95%	5%
Other students praised the good work that I did	90%	10%
I was kind or helpful to another student	95%	5%

Table BU: What Learners Did to Try and Solve a Difficult Exercise

Do you do any of the following to solve a difficult exercise?					
	Ask the teacher for help	**Work with other students**	**Keep trying to solve it**	**Wait for someone to say the answer**	**Skip and move on to the next exercise**
All students	72.8%	83.7%	74.2%	38.8%	34.6%