The Role of Intrinsic Motivation in Education System Reform

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[1] The opinions, findings and conclusions stated herein are those of the authors.

Contents

Executive Summary

Motivation Matters

Motivation is multidimensional and whilst there may not be a universally agreed definition, there is a clear recognition that it is a critical dimension of education systems across the world. Extensive research and policy efforts have attempted to identify some of the key drivers of motivation particularly given the evidence that motivation levels are low and costly to education systems already burdened by other constraints. This report, funded by STiR Education, presents findings from a review of the literature and from primary data collected on the role that 'intrinsic motivation' of teachers and local officials plays in education system reform. For the purposes of this report, STiR's definition is used to define intrinsic motivation as 'the impetus to do something because it is inherently satisfying rather than being influenced by extrinsic instigators.'

Most recent research maintains that the most effective and sustainable drivers of intrinsic motivation are **autonomy** (the sense that individuals can direct change), **mastery** (the desire to improve), **purpose** (contributing towards something over and above oneself) and **relatedness** (by engaging and reconnecting with peers and students) (Guajardo 2011, Pink 2009, STiR 2016). Identifying policy levers that can influence these drivers may provide policy makers with additional tools to improve the efficacy of their education systems.

This study aims to examine the following research questions:

1. How have some of the most promising education reforms benefited from an intrinsically motivated base of local officials and teachers (by them engaging deeply in these reforms with real commitment leading to these reforms being successful and sustainable)?
2. How can low levels of intrinsic motivation (of teachers and local officials) impede otherwise promising system reforms and system strengthening efforts (even when these reforms or efforts are well-designed, well-funded and have central government buy in)?

In addition to these two headline questions, we also further investigate intrinsic motivation by looking at:

a) How intrinsic motivation has affected system reform efforts through **behaviour change** amongst teachers, officials and students (e.g. resulting in increased attendance, engagement and curiosity);
b) The relationship between **structural change in a system and increased intrinsic motivation** (e.g. by removing administrative barriers or providing increased autonomy to stakeholders) and
c) How improvements in intrinsic motivation, although not explicitly part of a technical intervention (e.g. a reading program, etc.), might have **amplified** the take-up and impact of technical interventions?

Theoretical framework and methodology

The Theoretical Framework underpinning this study is based on STiR's Theory of Change (ToC). STiR identifies the key challenge facing young people today as the need to support them to become true lifelong learners who can adapt to a rapidly changing world. At the core of the lifelong learning challenge is the need to develop the intrinsic motivation to learn in young people. In order to do so, children need to develop a sense of autonomy, mastery and purpose – the key drivers of intrinsic motivation. Stimulating that sense ultimately depends on children feeling safe in the classroom, engaged in learning, curious and self-confident about their studies, and thinking critically about the content they're introduced to. In order to enable children to develop this genuine love of learning, STiR invests in developing the autonomy, mastery and purpose of teachers, as well as the officials who support them. Through the spirit of autonomy, mastery and purpose, STiR supports officials and teachers to develop the key pillars of lifelong learning: engagement, safety, curiosity, critical thinking, self-esteem, high quality teaching and sufficient learning time. STiR realises that their work is not sufficient to realise the system change they envision. STiR ultimately relies upon the government (as well as other NGOs) to realise this vision, and they therefore work with the central government to strengthen the underlying conditions (such as the presence of a strong support structure for teachers) to enable and sustain the behaviour change described above at all levels of the system. In addition, STiR collaborates with technical partners to amplify their impact due to increased motivation.

Based on this, STiR's ToC has identified the following three inter-related impact pathways to 'reignite' intrinsic motivation[2]:

1. direct through strengthening system structures.
2. direct through behaviour change among officials, teachers and students.
3. indirect through amplification of technical interventions.

This study adopts a mixed-methods approach which comprises of a rapid review of existing literature and supplementing this with primary data collection from key stakeholders through interviews. Given the very limited robust evidence that exists to answer these questions, the views of a range of educational stakeholders form the basis of this report. Their experiences have provided examples of instances that support their views.

Headline Findings

Structural Change – improving system conditions can help support increased motivation at all levels of the system.

This research notes that an education system is only as strong as the structure (at all levels) that supports it. Contextual factors that influence this system the roles, responsibilities, incentives and behaviours of those working within the system and the

[2] https://STiReducation.org/our-longitudinal-study/

overall political economy issues that manifest within it will all influence individual motivation and resultant behaviour. In order to improve intrinsic motivation across an education system, structural change and improvements in the underlying conditions need to be made at *all* levels of the system. A critical element of this is harnessing change agents at different levels of the education system.

Intrinsically motivated leaders may be able to encourage and support the motivation of others in the system provided that the surrounding environment is an enabling one.

The intrinsic motivation of leaders can build and encourage the motivation of others with the system. The evidence from various stakeholders consulted during the course of this research points to the fact that successful reforms at the national level require the backing and support of intrinsically motivated leaders. These leaders often instigate reform efforts, but they also need to provide continual engagement with the process. However, our study also uncovers that motivated leadership, whilst a prominent factor for success, is not enough to ensure successful implementation, scale-up and the sustainability of policies. Intrinsically motivated leadership needs to be accompanied by other enabling conditions as well as the removal of impediments to their work for example through lightening the burden of endless administrative work, ensuring access to data and information to help improve decision-making, being part of a network of other leaders where pioneering ideas can be exchanged, fostering innovation as well as a supportive environment of colleagues working alongside each other.

Political will at the mid-level and the local level of the education system can also be a key driver of change

This research has found that political champions do not only reside at the national or state level but can often drive successful initiatives from the ground level. These champions may be at the district or even the school level and their existence has been noted to be the linchpin behind successful policy making and implementation across several contexts.

A key lesson from this research is that governments engaging in reforms that require fundamental shifts in the status quo of education provision (e.g. large scale pedagogic reforms that require a change in mindset as well as the actual teaching process) need to be mindful of laying out expectations of the various stakeholders in the delivery of education in a clear manner. A critical factor in the engagement with these stakeholders is ensuring that, if they are expected to play an important role in the delivery of these changes, they are active participants throughout the process, not just passive recipients of policy. Persuasive evidence can be a useful mechanism that can help mobilise those at all levels of the education system to act in ways most conducive for effecting this change. Engaging with the mid-tier of the system is important, however, understanding what drives that engagement is even more critical.

Behavioural change – understanding what drives the incentives and resultant actions of key education stakeholders

The education system is a reflection of the behaviours and intrinsic motivations of individuals within that system. Motivated students are more likely to engage in

learning. Motivated teachers are more likely to display higher levels of effort, teach more effectively and develop professionally. Motivated officials at the sub-national and national level will engage in behaviours that support, encourage and enhance others in the education system working with them. The composite effect of this individual intrinsic motivation is likely to culminate in system wide changes across the sector.

Behaviour change amongst pupils: student motivation

This research notes that children's motivation to learn is a critical factor in their eventual learning outcomes. There is evidence to suggest that children's motivation can be improved if they are learning within an education system consisting of motivated individuals for example with teacher motivation increasing through improved pupil outcomes thereby bolstering pupil motivation in a virtuous cycle.

Behaviour change: teachers

Motivation on the front line is critical given that teachers are the most important institutional input determining pupil outcomes. There is an extensive body of research that shows mixed results on the effectiveness of interventions focusing on extrinsic motivators (e.g. salary increases, bonuses etc.). Initiatives that aim to foster intrinsic motivation have not tended to be the focus of much research. However, indicative results suggest that improving teacher intrinsic motivation could be a potentially useful pathway to improving student outcomes, particularly if these initiatives contain essential ingredients such as providing autonomy, fostering innovation and initiative and encouraging both mastery and purpose amongst the teaching cadre. Fostering teacher motivation by improving effort and practice, recognising teachers' efforts and rewarding them thereof, encourages behaviour change at the frontline and by consistently investing in the intrinsic motivation of high performing teachers, success in education systems can be achieved.

Behaviour change: motivation at other levels of the workforce

Evidence from this research has noted that encouraging intrinsic motivation at 'critical nodes of authority' (i.e. where authority rests) has the potential for crucial impact. School and district-level leaders play an important role in influencing the efficacy of reforms. Power relations and the incentives of these actors can constrain or facilitate the political agenda as well as the resultant outcomes. With decentralisation efforts, the shift in focus to this level of the education system has meant these individuals are critical to ensuring that not only are policies effectively implemented and sustained but that they are relevant to the local context. These individuals also play an important role in garnering support from other critical stakeholders such as parents, teachers and other community members and thereby have the potential to impact these stakeholders' levels of motivation as well. It has been noted in our study that whilst an intrinsically motivated base of education workers would not themselves impede good reforms, their own enthusiasm for (and participation in) the reform may be hindered or diminished if other attendant circumstances are disabling. Therefore, sub-national actors like government officials are also subject to the constraints posed by the surrounding conditions within which they are expected to act.

Amplification effects – leveraging benefits across the system

Individuals within the education workforce who are intrinsically motivated are more likely to engage deeply with existing technical interventions. Our research suggests that these 'amplification effects' might be the most promising avenue and could be an important line of inquiry for future research given the limited attention it has achieved thus far. Evidence so far suggests that strong technical interventions are often not internalised and are sometimes actively resisted by demotivated teachers and local officials. Therefore, by increasing intrinsic motivation, the uptake of these existing policies could potentially be improved, and the amplification effects of this more motivated workforce can help achieve bigger impact across the system. Developing this mindset and culture could be critical to scaling success.

Conclusions

This research has found that the actors within the education system are the ones who bring about organisational and institutional change that result in ongoing and long-term improvements. The behaviours, motivations and actions of these individuals are what determine system change and by providing them with autonomy, mastery and purpose, deeper engagement with reform effort, longer term impact and amplification effects can be achieved.

1. Introduction

There is now sufficient evidence that suggests that motivation of key players in education systems is not only low but highly costly to many already financially constrained and over-stretched education systems (Muralidharan et. al. 2014 and Bold et al. 2017). This report presents the findings from a review of the literature and primary data collected from a variety of stakeholders working in education and the role that *intrinsic motivation* of teachers and local officials play in education system reform. For the purposes of this report, intrinsic motivation is defined as the *impetus to do something because it is inherently satisfying rather than being influenced by extrinsic instigators*[3].

Individual motivation (of teachers, officials and students.) is a multidimensional concept and whilst there is no universally agreed definition, there is a clear recognition in the literature that it is a critical dimension of all education systems (Ramachandram & Pal. 2005; Bennell & Akyeampong 2007). Similarly, researchers and policy makers recognise that whilst extrinsic factors (e.g. salary, work conditions, and prospects of promotion) are important, they are not sufficient in and of themselves to ensure sustainable motivation on the part of those working within the education system (Bennell & Akyeampong, 2007; Richardson, 2014; Salifu & Agbenyega, 2013, Hertzberg, 1966).

Extensive research has been conducted across various disciplines on identifying the key drivers of motivation starting as far back as the 1940s with Maslow's Hierarchy of Needs Pyramid. Theoretically, however, there has been a shift in the discourse more recently supporting the view that intrinsic motivation may potentially be more powerful and sustainable than extrinsic motivation and can be associated with more long-term positive impacts. Most recent research maintains that the most effective and sustainable drivers of intrinsic motivation are **autonomy** (the sense that individuals can direct change), **mastery** (the desire to improve), **purpose** (contributing towards something over and above oneself) and **relatedness** (engaging and reconnecting with peers and students) (Guajardo 2011, Pink 2009, STiR 2016). Identifying policy levers that can influence these drivers could provide policy makers with additional tools to improve the efficacy of their education systems.

Policy interventions that have been effected to produce changes in the behaviours and preferences of those within the education system have been the subject of extensive research (see Masino & Nino-Zarazua 2016's systematic review of experimental and quasi experimental evidence for a summary on the types of policy interventions that improve educational quality and student learning in developing countries). This research recognises that there are three main drivers of change for educational quality improvements: supply-side capability interventions (e.g. provision of infrastructure and learning materials); the second driver of change is associated with supply side and demand side factors that influence behaviours and inter-temporal choices (of teachers, students, and households) both in the provision and utilisation of education services

[3] STiR Education

(e.g. pay incentives for teachers, conditional cash transfers etc.); the third driver of change is through bottom-up and top-down participatory and community management interventions (e.g. via community participation schemes, community management strategies, decentralisation reforms etc.) and with the involvement of communities in the school system management. After reviewing an extensive body of evidence relating to each of these, this systematic review concludes that interventions are *more* effective when social norms and inter-temporal choices are factored into policy design and importantly, when two or more of the drivers of change are combined with each other. This is an important finding for our research as it examines the link between intrinsic motivation and system change and the role that this can play in making policies more effective. For example, Masino & Nino-Zarazua (2016) note that supply side interventions are not as effective alone as when they are complemented with incentives that shift preferences and behaviours. When demand for education is generated, for instance through community involvement or behavioural incentive programmes, the evidence suggests that it is critical to upgrade infrastructure and administrative capabilities of the education system at the same time in order to meet the increase in demand for education and to maintain quality standards. Therefore, this study highlights the effectiveness for example of coupling behavioural incentives with financial resources to improve education systems.

Past evidence suggests that the incentives and behaviours of education stakeholders can play a critical role in determining the effective functioning of an education system. Given that there is anecdotal evidence and limited robust research evidence suggesting that in particular intrinsic motivation of players within the education system matter for its functioning, examining this aspect of motivation and its potential relationship with the efficacy and quality of education services is important. This study aims to delve deeper into some of the aspects of intrinsic motivation as related to the education workforce to answer specific questions. This is of further interest given that there is a pessimistic view that public sector workers across the developing world display low levels of motivation.

Previous research has suggested that the public sector tends to be characterised by a workforce with low levels of effort and motivation. If this is the case, governments need to focus on recruiting individuals who do not fit this stereotype (Delfgaauw and Dur, 2005) or to understand why current employees are not motivated and to intervene accordingly to improve their levels of motivation. This is even more important in developing contexts where often more than 90 per cent of governments' recurrent education budgets are spent on public sector teacher salaries (Dundar et al. 2014) and where the consequences of having a demotivated workforce can, therefore, be detrimental and costly.

Based on the above, this study examines the following research questions:

1) How have some of the most promising education reforms benefited from an intrinsically motivated base of local officials and teachers (by them engaging deeply in these reforms with real commitment leading to these reforms being successful and sustainable)?

2) How can low levels of intrinsic motivation (of teachers and local officials) impede otherwise promising system reforms/ system strengthening efforts (even when these reforms/ efforts are well-designed, well-funded and have central government buy in)?

In addition to these two headline questions, we also further investigate intrinsic motivation by looking at:

a) How intrinsic motivation has affected system reform efforts through **behaviour change** amongst teachers, officials and students (e.g. resulting in increased attendance, engagement and curiosity);
b) The relationship between **structural change in a system and increased intrinsic motivation** (e.g. by removing administrative barriers or providing increased autonomy to stakeholders) and
c) How improvements in intrinsic motivation, although not explicitly part of a technical intervention (e.g. a reading program, etc.), might have **amplified** the take-up and impact of technical interventions?

This report is structured as follows. Section 2 provides a theoretical framework that underpins this research and section 3 discusses the methodology used in the course of this research. Section 4 discusses the key findings in relation to the role of intrinsic motivation in structural change whilst section 5 highlights the findings in relation to behaviour change of teachers, local officials and students. Section 6 discusses the findings on amplification effects and section 7 concludes.

2. Theoretical Framework

The theoretical framework underpinning this study is based on STiR's theory of change (ToC). STiR Education works on the principle that most school systems have individuals with potential within them but whose motivation is dampened through factors including work conditions, resource constraints, and a lack of development opportunities. Lifelong learning is central to the Sustainable Development Goals (SDGs) – not only SDG4, relating to quality education, but across every goal. At the core of the lifelong learning challenge is developing the intrinsic motivation to learn in children and young people. Children need to feel a sense of autonomy, mastery and purpose over their own learning to develop a lifelong love of learning.

In order for this to be achieved, some key conditions need to be met. Children need to feel emotionally and physically safe in classrooms, be engaged in learning, be curious and critical thinkers, and have the confidence and self-belief to learn. These conditions are likely to support increased learning, which may contribute to academic mastery.

Investing in developing the autonomy, mastery and purpose of teachers – as well as the officials who support them – is viewed by some of those in the sector, including STiR, as a cost-effective and sustainable way to build a love of lifelong learning in children.

STiR's approach encompasses three pathways to impact. In the first instance, STiR aims to reignite intrinsic motivation at all levels of the system by stimulating behaviour

change among officials, teachers and children. Secondly, they aim to improve the underlying conditions that support intrinsic motivation in the long term – such conditions could include the existence of a strong support layer for teachers among others. And thirdly, by reigniting intrinsic motivation and driving behaviour change, STiR aims to magnify the impact of technical interventions already in the system.

The programme's ToC asserts that for education systems to thrive, education stakeholders need the relevant support and encouragement to 'reignite' their motivation[4]. This can be achieved through improving intrinsic motivation of students, teachers, government officials and education stakeholders across the system through developing autonomy, mastery and purpose. For example, for teachers, this can be achieved by recognising their performance in relation to innovative practice and allowing them the space to 'create, collaborate and reflect' which can, in turn, empower them to improve their own practice, exert more effort into their teaching and even affect larger scale structural reform particularly if these teachers and schools are receptive to change and capable of supporting it. Similarly, encouraging buy-in from senior officials at district, state and national levels can ensure alignment with government policy priorities and encourage higher levels of motivation amongst these stakeholders and the individuals they interact with.

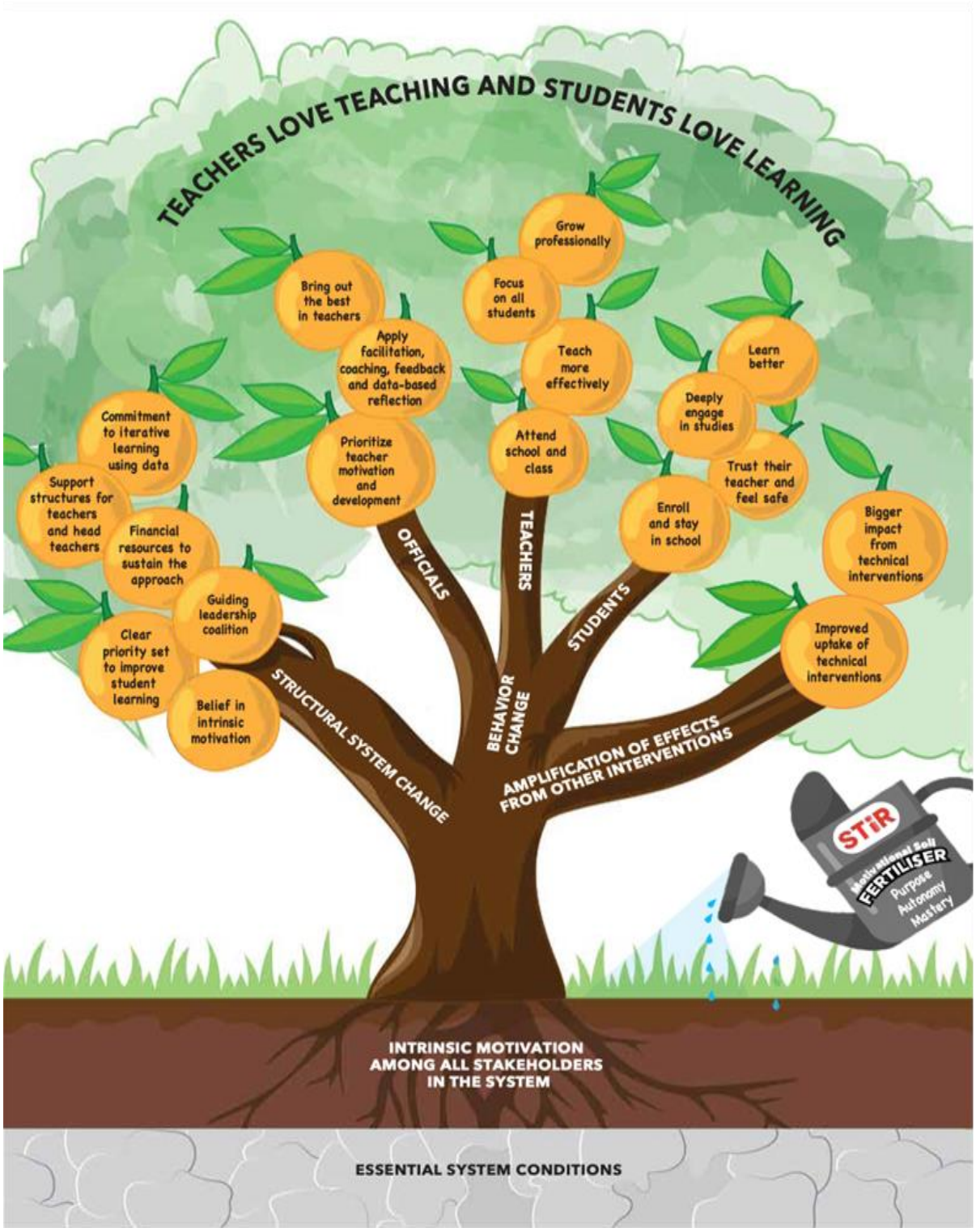
As stated above, STiR aims to develop autonomy, mastery and purpose amongst different stakeholders in the education system through government partnerships. STiR's ToC has identified the following three inter-related impact pathways to 'reignite' intrinsic motivation[5]:

1. direct through **strengthening system** structures.
2. direct through **behaviour change** among officials, teachers and students.
3. indirect through **amplification** of technical interventions.

Figure 1 below presents this framework which underpins this research report.

[4] https://STiReducation.org/what-we-do/
[5] https://STiReducation.org/our-longitudinal-study/

Figure 1: Framework for Intrinsic Motivation in Education



3. Methodology

The methodology used in this research involved a mixed-methods approach to provide evidence through a variety of components. The first component consisted of a rapid review of the evidence to examine existing literature pertaining to the research questions. The second component involved undertaking primary data collection from key stakeholders through interviews (face to face, email or telephone) aimed at answering the aforementioned research questions.

These stakeholders included senior representatives from the government (national and district level officials from Uganda, Vietnam and Pakistan), donor partners (e.g. Department For International Development, DFID Pakistan and DFID UK, Global Partnership for Education), teachers and teacher representatives (City Montessori School, Lucknow, India), academic and research organisations (Lahore University of Management Sciences, Institute of Development and Economic Alternatives (IDEAS) Pakistan, Central Square Foundation, India, University of Cambridge, Harvard, The Education Partnership Centre, Nigeria), programme implementers (e.g. STiR Education, RTI International) civil society groups and NGOs (*Idara-e-Taleem o Aagahi*, Pakistan, Education Development Trust, UK) and other education organisations (Teach for All).

The primary data collection and literature review provided a basis for the third component namely the development of case studies from Kenya, Uganda, India, Pakistan and Vietnam as well as additional examples from a very wide range of international contexts. The case studies were developed based on a desk review as well as interviews and primary data collection from key stakeholders including government officials (Pakistan, Uganda, India and Vietnam), programme implementers (Kenya, India and Uganda), donor partners (Kenya, Vietnam) and teachers (Vietnam and Pakistan). This research covered a very comprehensive and wide range of stakeholders but critically also included 26 in-depth interviews. The findings from the desk review and primary data collection are presented in the form of a narrative synthesis below.

4. Structural change – improving the underlying conditions in systems to support increased intrinsic motivation

An education system is only as strong as the structure (at all levels) that supports it. This will depend on the contextual factors that influence this system, the roles, responsibilities, incentives and behaviours of those working within the system and the overall political economy issues that manifest within it. In order to improve intrinsic motivation across an education system, structural change and improvements in the underlying conditions need to be made at all levels of the system. This can be achieved through multiple pathways that affect policy, financing, pedagogy and culture that, all combined, can bring about wider 'system change' (Gallagher et al. 2019). This includes strong leadership at the system level, an effective and focused middle tier to

work with and an engaged and motivated education workforce on the ground delivering learning as key enabling factors to ensure successful education reform (Ibid). Engaging these stakeholders and encouraging their intrinsic motivation at each of these levels requires structural change. Each of these levels of the education system and the role that the players in each play are inextricably linked, are inter-related, and play an important role in determining how well the system functions and meets its needs and goals. Structural system change can be brought about through a range of initiatives such as those that encourage a belief in intrinsic motivation, commitment to iterative learning, support systems for teachers and leaders, enabling coalition within the workforce, clear targets and the financial backing to support each of these. A critical element to achieving these could involve harnessing change agents at different levels of the education system. This section presents the findings relating to the relationship between the presence/absence of key system structures and intrinsic motivation among stakeholders at all levels of the education system.

4.1 Motivated leaders: the trickle-down effect of motivation

The intrinsic motivation of leaders can build and encourage the motivation of others with the system. The evidence from various stakeholders consistently points to the fact that successful reforms at the national level require the backing and support of intrinsically motivated leaders. These leaders often instigate reform efforts, but they also need to provide continual engagement with the process. One example of this was noted by a stakeholder in the form of the Ghana Curriculum reform effort introduced in the country in 2017. The Ministry of Education in Ghana implemented a series of reforms including a comprehensive reform of pre-tertiary and initial teacher education curricula in an effort to make education more responsive to the human resource and development needs of the country. The new curriculum aimed to address the changing national priorities of the country by equipping learners with the skills, competencies and awareness to make them able to contribute to the national development goals of the country. Similarly, a revised curriculum for teacher training aimed to develop a teacher workforce able to support pupils in achieving better outcomes in basic education.

Many countries engage in curriculum reforms in order to make teaching and learning more effective and meaningful. The process of changing a curriculum is incredibly complex and requires the involvement of a wide range of stakeholders, often with different agendas. Whilst curriculum change can take various forms, it typically results in fundamental changes in the methods of education delivery. This, in turn, requires those delivering education (as well as those within the wider education system) to exert higher levels of effort and often even retrain and do things very differently from what they are used to. Globally, these types of reforms can often face resistance and other barriers that result in them not being implemented fully or, in some instances, not at all.

The curriculum reform introduced in Ghana has been noted as a positive example of an instance where a strong and intrinsically motivated leader, in this instance the

Minister of Education, successfully drove the reform[6]. This leader's determination and clarity of vision in particular were noted to have been key in driving the reform agenda forward as was their ability to resist vested interests by taking on board various stakeholders through an open and competitive process. This was identified as being a critical requirement to break from the status quo. One stakeholder pertinently noted that '*intrinsically motivated leaders are willing to put their passion for delivery above their own careers*' and are willing to take action against those '*that are pulling the team down'*. As this stakeholder noted, this rarely happens especially where reforms are contentious as the bureaucracy often prefers maintaining the status quo especially if poor performance does not result in repercussions. This lack of motivation in turn leads to lower motivation across the board. Recognition of achievement of objectives against performance is likely to harness intrinsic motivation. In Ghana, the motivated leadership set the right culture and tones with clear targets and standards of delivery, which helped achieve systematic change. However, the trickle-down effect that this high level of motivation at the top had on sub-national levels of motivation is what helped fully achieve systematic change. The clarity of vision of a motivated leader at the top allowed them to resist the vested interests of those who held the power to develop the curriculum and to take on board several stakeholders in the process which resulted in an open competition and a transparent process which allowed the changes to happen across the system.

Similarly, the Activity Based Learning (ABL) programme in Tamil Nadu also benefited enormously from the intrinsic motivation of its primogenitor Dr M P Vijaykumar. Adopted initially in 2003, across 13 schools in Chennai, Tamil Nadu, it was rolled out in a phased manner across the entire state for all children studying in grades 1-4 in all government and aided schools by 2007-2008.The ABL programme was a fundamental pedagogic shift which involved a pioneering remodelling of not only the physical classroom space but also the role of the teacher. It was a significant departure from the status quo but it was accepted, supported and then replicated in a surprising manner. The key factors underpinning the successful adoption and scale up of this programme have included: engaging stakeholders throughout the reform process, incorporating their feedback, garnering international support as well as gathering the support and activism of key bureaucrats. Crucially, the value of involving teachers has been also highlighted as a critical factor that can enable a successful reform journey. Fundamentally, the role played by a motivated leader has been noted as one of the most critical factors that drove such a reform forward successfully. Mr. Vijaykumar's knack of creating motivation for (and acceptance of) the ABL pedagogic reform among a critical mass of teachers was key to the success of a reform which required teachers to work harder. His own intrinsic motivation and passion for the reform may in and of itself not have been enough to cause the pedagogic revolution that happened in Tamil Nadu through the ABL programme. These (his passion and intrinsic motivation) were supplemented by some other personal qualities and some enabling circumstances: he had excellent communication and team-building skills, and his position as IAS officer and Commissioner of Chennai helped to give him agency and powers of influence over education officials as well i.e. autonomy to try out the innovative agenda. His

[6] Donor agency stakeholder interview.

longevity in the post and indeed his promotion to the post of the State Project Director of *Sarva Shiksha Abhiyan* – all combined to ensure that his own intrinsic motivation for his proposed reform could influence ultimately the behaviour and even the effort level of others.

Another example that provides evidence on the role of motivation at the higher levels of the education system and the subsequent impact this can have on those throughout the education system is provided by an evaluation of Tanzania's Big Results Now (BRN) programme (Todd and Attfield 2017). According to this report, whilst this approach benefited from strong government support, there were uneven willingness and inconsistent incentives to drive change across the various tiers of the system with some resistance both at the ministry and the district levels. Whilst some within the national government wholeheartedly supported the approach, there was some covert and overt resistance (even from senior ministerial staff). This was also the case at the district level. However, on the whole, district-based officials appeared to embrace the reform more wholeheartedly potentially due to (according to this report) the increase in attention and resources that resulted from it. Hostility towards the programme and a lack of willingness to embrace it was further compounded by the fact that many of those expected to engage in the initiative were already over-burdened. Injection of technical assistance despite being initially resisted overcame some of the institutional inertia and provided a challenge to the status quo (ibid) and over time confidence and trust were regenerated. The evaluation also suggests that influential group elite capture[7] and clientelism were critical obstacles particularly pertaining to the financing of BRN priorities. The authors of this evaluation note that despite the fact that the Ministry of Education were supportive and promoted regular budgeting, other 'central-level actors' hindered effective financial management and this was in direct violation of the desires of several stakeholders within the system including local officials, unions, teachers and the broader community.

> *'The implementation gap between de facto and de jure reform efforts is predominantly due to differences in intrinsic motivation and that is at every level of the system.'*
>
> (Donor Partner)

Intrinsic motivation can lag not only in leaders, as previously mentioned, but also across the education system when those that operate within it are not only too comfortable in their roles but also do not face the fear of credible repercussions for non-delivery. Stakeholder interviews have suggested that intrinsic motivation at one level in the education system can translate into improvements across the entire system. One stakeholder[8], for example, noted that if headquarter officials are intrinsically motivated, their team is likely to be clear on delivery and objectives, get feedback and be rewarded for

> System wide change requires '*deeper shifts instead of tinkering around the edges.*'
>
> (Donor Partner)

[7] The extent to which the elite in the society dominate the political space and are able to influence policies (see Kingdon et al. 2014).
[8] Academic and donor agency stakeholder.

performing well which will in turn improve delivery at the next level. This is likely to translate at that level as well as further down the chain and therefore is a reinforcing mechanism.

Another stakeholder provided the examples of Early Grade Reading (EGR) and Early Grade Reading Assessment (EGRA) and UTSEP (Uganda Teacher and School Effectiveness Project) in Uganda as programmes that have caused tremendous system-wide change amongst staff at various levels particularly because of the full involvement of all stakeholders right from the top levels. These reforms have also involved the engagement of ministry and local government officials working as partners in collaboration with those at the school and ground level to achieve programme implementation[9].

However, some stakeholders were of the view that research and policy efforts have been focused too heavily on the intrinsic motivation of front-line workers (such as teachers) without expecting other players within the education system to demonstrate similar levels of commitment. There have been a raft of reform efforts and policy as well as media focus on making teachers more accountable that may, in fact, have had the unintended consequence of lowering motivation levels whilst expecting them to continue to work in a wider workforce that may be similarly unmotivated but unequally accountable.

According to some stakeholders, it is often easier to accept the system you have inherited, no matter how critical of it you may be, than to exert effort in changing it particularly if failure, resistance and repercussions are highly likely. In order for leaders to be effective in making changes, they need to be motivated to make those changes but also have conducive conditions that enable them to make the necessary change. For example, just the initiative and incentive to try new things is not enough. Stakeholder have suggested that effective leaders also need accompanying autonomy to put their ideas into practice. One stakeholder noted that:

'Intrinsic motivation is not born. It is developed. It is therefore important to consider some drivers to intrinsic motivation, e.g. involvement, ownership, internalisation, awareness, incentives, success, the fear to fail etc. Therefore…it may not be true to call a system promising, well-designed, well-funded etc. where key stakeholders have not been involved. Sometimes they don't impede the system knowingly but unknowingly because they are not informed.'

(Local Government Official: Uganda)

This was reiterated by another informant who stated that often reforms are impeded not because of a lack of motivation but because of explicit reasons such as fears relating to job performance and security.

[9] It is worth noting that EGRA as a tool has faced criticism with many limitations having been identified in its application. However, the point being made here is not about the efficacy of the tool but how intrinsic motivation caused system wide change during the implementation of this tool.

The evidence from the reforms examined above suggests that successful implementation, scale-up, support and sustainability of policies results from an amalgamation of several factors and whilst an effective motivated leader can be one of the most prominent factors for success, unless other conditions are conducive, their leadership alone may not be sufficient. Among the conditions that can enable leaders to be more motivated are: the need to remove the burden of endless administrative work, ensuring access to data and information to help improve their decision-making, being part of a network of other leaders where pioneering ideas can be exchanged, fostering innovation as well as a supportive environment of colleagues working alongside each other (Aslam and Rawal, 2019). Some reforms discussed above have showcased some of these additional factors: reform design that addresses the relevant key educational problems; the existence of propitious initial conditions (for example the existence of a rich history of educational innovations and an environment conducive to receiving them); the existence of a strong administrative core team; consistency of key personnel; international interest whereby reforms are championed by donors; union support and the ability to garner cooperation from other education stakeholders. Strong leaders can maximise the utility of these conditions to drive and sustain reforms.

4.2 Political will at the mid-level and the local level of the education system: a key driver of change

Giving all stakeholders at all levels of the educations system (national, regional, district and school) ownership of the reform agenda and process, a willingness to take on board their opinions and modifying the policy accordingly has been suggested by stakeholders as a key motivator for these very stakeholders to develop their motivation and therefore to champion the reform.

The existence of 'reform champions' at the national or local level has been noted to have been the linchpin of successful policy-making and implementation in several contexts. Aslam and Rawal (2019) note that these political champions need not reside only at the national or state level, but often successful initiatives have been more effective by focusing on policy-makers who are on the ground and closest to the problems. These champions can be from central government (as per as the ABL example above), at the district level or even at the school level.

Stakeholders consulted in this study provided several examples of this from different country contexts. One such example was the T-TEL programme in Ghana. The Transforming Teacher Education and Learning (T-TEL) programme has been implemented in partnership with the government of Ghana and other education stakeholders (e.g. National Teaching Council and the Colleges of Education). This DFID-funded programme helps support the implementation of the new policy framework for Pre-Tertiary Teacher Professional Development and Management in Ghana by improving the quality of teaching and learning in relevant national bodies, institutions and all 46 public Colleges of Education (CoEs) across the country. The overall goal of the programme is to build institutional capacity, transform the delivery

of pre-service teacher education and move towards a high quality, practicum focused pre-service education system. Stakeholders interviewed for this research suggested that this reform effort presented an example of an instance where extensive engagement and consultations took place acknowledging the expertise of various stakeholders in the education arena. Allowing the various stakeholders the opportunity to express their views resulted in them being motivated to back the reform efforts despite initial resistance.

A second example cited by an in-country stakeholder was the LEARNigeria programme. This was a citizens-led assessment and advocacy programme designed to generate empirical data on the foundational literacy and numeracy skills of children, aiming to inform and inspire targeted interventions in Nigeria. Due to the design of the education reform, which actively included citizens in the assessment process, volunteers and supervisors (local government officials, teachers, and other community residents) were motivated by the desire to improve learning outcomes in their communities. According to the stakeholder, this made them more engaged and involved in the process of collecting evidence to report learning. Citizens who engaged in the volunteering process felt that they had meaningfully contributed to educational development and change through their volunteering (hence creating a feeling of 'purpose'). After the LEARNigeria data collection, citizens in Kano, Nigeria, formed a self-help group to volunteer and teach students in public schools to strengthen learning.

The Annual Status of Education Reports (ASER) provide another example of how intrinsic motivation among volunteers can be developed to engender change. ASER started from humble beginnings in India in 2005 and in Pakistan in 2009 and has since flourished in both countries. This enormous annual data collection task engages citizens as volunteers across the country in understanding and tracking children's ability to read and do arithmetic through the participation of local organisations across all districts of the countries. Volunteers who take part in this effort have been so moved by the situation in their villages that they are willing to collect data and offer free classes in their villages in a desire to change things. This effort provides an extraordinary example of the engendering of intrinsic motivation of key stakeholders through engendering 'purpose'; however, it was also noted that this incredible feat could not be completed without the accompanying political will of key supporters and promoters.

A key lesson from this research is that governments engaging in reforms that require fundamental shifts in the status quo of education provision (e.g. large scale pedagogic reforms that require a change in mindset as well as the actual teaching process) need to be mindful of laying out expectations of the various stakeholders in the delivery of education in a clear manner. A critical factor in this engagement with stakeholders is ensuring that if they are expected to play an important role in the delivery of these changes that they are active participants throughout the process, not just passive recipients of policy. Political will in all players can be further engendered through *persuasive evidence*. For example, the piloting of the ABL programme before the full roll out gave credence to the programme amongst the various stakeholders. Similarly, in Kenya, robust randomised controlled trial (RCT) evidence formed the foundations

of two major education programmes – TUSOME and PRIEDE (see Box 3) and this strong evidence base provided the credibility for these initiatives to be widely adopted across the country.

5. Behavioural Change – what drives the incentives and resultant actions of the education workforce?

The intrinsic motivation of individuals within the education system is reflected in their behaviours. An intrinsically motivated student is more likely to not only be in school and to stay in school but is also more likely to engage more deeply in their learning and achieve better outcomes from their educational experience. Similarly, intrinsically motivated teachers will not only display higher levels of effort (as measured through attendance for instance), but also teach more effectively and continue to develop professionally. Officials who are intrinsically motivated will also engage in behaviours that support, encourage and enhance those in the education system working with them. The composite effect of this change in intrinsic motivation across different players within the sector can, in turn, culminate in system-wide changes across the entire sector. This sub-section explores the link between behaviour change amongst different education actors and the overall effect that this can have on the system within which they function.

Whilst there appears to be a widespread acknowledgement that intrinsic motivation matters, there is scepticism about its prevalence and most importantly its sustainability. It has been suggested that in order for intrinsic motivation to really have ongoing and long-term system-wide influences, it needs to result in behavioural change of key individuals across the sector. In the words of one stakeholder based in an education think tank, '*the power of changing the equilibrium comes from bringing about the organisational and institutional changes that then become embedded within the system*'. An example of institutional change that became embedded and accepted within a system to ultimately result in behaviour change even after the programme ended is demonstrated through the example of the Punjab Education Sector Support Programme (PESP II) in the Punjab in Pakistan. As part of this programme, District Review Committees were held monthly as a way of holding the whole hierarchy of individuals engaged as part of this programme accountable to the chief minister. This process has now become established within the system and continues to take place even after the PESP II programme ended with the district commissioner taking responsibility of holding these meetings on a regular basis even though they were no longer required. The stakeholder providing this example was of the view that such behavioural change that became established as a norm within the system has had a positive influence and has remained in place after the programme has ended mainly due to intrinsic motivation resulting in actual behavioural change amongst a range of stakeholders.

> '*Systems don't change because of policies but because of people within them*'
>
> (representative from a global teacher network organisation)

Despite this enthusiasm from some stakeholders, others remain sceptical with one academic suggesting that whilst intrinsic motivation could provide a promising direction, more tangible and explicit motivators (e.g. financial incentives, promotion etc.) may also need to be incorporated through careful design '*in order for these effects (to be) large and persistent enough*'. Delving into what motivates and incentivises public sector employees and encourages them to exert time and effort in effectively delivering social services has been the subject of research across many public sectors. Duflo, Hanna and Ryan (2012), for example, find that teachers in India respond strongly and positively to financial incentives. However, research has also shown that these effects can also be ineffective or short-lived. A recent study by Sabarwal and Abu-Jawdeh (2018) in 8 middle- and low-income countries has recognised that low teacher effort is a central issue that has been unresponsive to policy and programme interventions. The authors suggest that teachers are unlikely to increase levels of effort in response to initiatives relating to accountability and incentives structures particularly if they are of the opinion that their current levels of effort are 'socially optimal and contextually justified' (p.11). In this way, low levels of effort almost become normalised. The authors suggest that an important missing ingredient is teachers' underlying perspectives and beliefs and unless teachers fully comprehend the implications of alternative practices, they will not meaningfully change their behaviour in a long-term way. Therefore, the authors suggest that any interventions that aim to improve teacher effort should also elicit teachers' mental models around effort and use these insights to inform approaches that can counter 'pernicious mental models' (p. 11). One example provided is that around 'persuasive communication' i.e. communicating extensively and persuasively to change behaviours. This has also been noted in our research as a key factor underlying previous reforms that have shown that an effective communication strategy can be used as a lever to change resistant behaviours such as absenteeism and accountability. Similarly, speaking recently to the BBC, Nobel Laureate Esther Duflo and Abhijit Banerjee, noted that whilst financial incentives matter, conventional economic theory has failed to focus on what people really care about resulting in a 'huge blind sport in economics.' The prominent economists, based on their extensive research noted that whilst money matters, in reality people are more concerned about 'purpose, belonging and dignity' rather than making more money in a job[10].

Another experimental study from the health sector examines evidence to compare the effects of monetary and non-monetary incentives on the performance of individuals in a public health organisation in Zambia (Ashraf et al. 2014). The experiment in this research was designed to measure the relationship between intrinsic rewards and pro-social motivation of employees and examine whether this interaction differed between financial and non-financial rewards. Agents in the non-financial reward treatment group were awarded a 'star' stamped on a thermometer for each sale made with this forming the basis for a potential to win a certificate at a ceremony in recognition of their efforts. The evidence from this experiment indicated that in this setting non-financial rewards were effective in improving agent performance; the effect of both

[10] https://www.bbc.co.uk/news/business-50310815?intlink_from_url=&link_location=live-reporting-story

types of rewards (financial and non-financial) was stronger for pro-socially motivated individuals and both types of rewards were effective when their relative value was high. The authors concluded that extrinsic rewards have the potential to improve performance of individuals in public service delivery and non-financial rewards can be effective in settings where the power of financial rewards is limited (from the abstract). However, other evidence seems to suggest that financial incentives may not be sustainable in that their effects appear to wear out after a few years and in some instances can even crowd out intrinsic motivation (Benabou and Tirole 2006).

A key informant interviewed during the course of our research has indicated that in his opinion, intrinsic motivation among teachers and officials is critically important in ensuring that education officials feel genuinely engaged in improving their districts and classrooms, to ultimately improve learning outcomes. Too often, education reforms suffer from '*isomorphic mimicry*' in that such reforms '*build the institutions and processes that look like those found in functional states...but without the core underlying functionalities*'[11]. According to this stakeholder:

'If teachers and officials are not provided with sufficient autonomy, mastery and purpose – the drivers of intrinsic motivation – they will not feel fully engaged in the realisation of improvements in their behaviour, and simply go through the motions where activities happen on paper without the necessary spirit to ensure that these happen in a quality manner.'

(NGO stakeholder)

This sub-section discusses behaviour change (due to motivation and how this affects resultant practice) amongst pupils, teachers, school-leaders, local officials and parents and community members.

5.1 Behaviour Change amongst Pupils: student motivation

Students are the final beneficiaries of education reforms and therefore the role that the intrinsic motivation of those responsible for delivering their education plays must also be examined. Importantly, children's motivation to learn has been evidenced to be a critical factor in their eventual learning outcomes. Previous research has shown that intrinsic and extrinsic motivational factors of teachers may affect their instructional practices and, in turn, may enhance or diminish their students' motivation (Lam, Cheng and Ma 2009). Robust research into the direct relationship between teacher intrinsic motivation and that of their students is limited. However, anecdotal evidence from primary data collected for this report suggests that children's' motivation can be improved if they are learning within an education system consisting of motivated individuals.

11 https://www.cgdev.org/blog/one-size-doesn%E2%80%99t-fit-all-lant-pritchett-mimicry-development

In the words of one government stakeholder:

'As a teacher, the greatest joy in my service is to see my learners thrive. When children read because of an intervention, naturally teachers and other stakeholders develop greater intrinsic motivation and trust in the intervention. Eventually all stakeholders intrinsically find themselves compelled to play their roles respectively. Every human being feels happy to be associated with success. Therefore, success is another driver of intrinsic motivation.'

(Government stakeholder: Uganda)

Witnessing improvements in student outcomes (including their motivation) will in turn bolster teacher motivation through the virtuous cycle of seeing their pupils working harder and achieving more. One stakeholder provided the example of Fast-Forward British Council and LEAP Africa as a project that identified core skills that young people needed to have in the marketplace to help them succeed. This initiative provides an example of where teachers appeared to have witnessed improved motivations through witnessing the success of their students. The teachers were trained to infuse skills in the curriculum and became more involved in their students' success beyond the classroom. They supervised students' internships during the holiday with no rewards attached to this supervision and therefore this is a good example of a virtuous cycle of intrinsic motivation.

Pioneering research in Peru is exploring the power of developing 'growth mindsets' in students in an effort to promote skill development to improve educational outcomes amongst vulnerable children (Outes et al. 2017). This research provides promising evidence of a cost-effective, scalable and replicable education tool that appears to have changed the behaviour of both teachers and pupils in a developing country context. This experiment included a 'growth mindset' intervention (comprising of a single 1.5-hour session implemented by untrained local teachers) in 400 secondary schools and found that the intervention increased pupils maths test scores (by 11-24% standard deviations), improved pupil aspirations and increased teacher effort. This intervention particularly benefited low ability students. The authors note that this intervention offers a cost-effective and scalable 'remediation' tool (at a cost of $0.2/per pupil). The research also provided evidence that teachers in intervention schools appeared to believe more in their students' abilities, were more likely to be encouraging of pupils' learning and more likely to be willing to offer additional help when needed. This intervention has also been implemented in Indonesia where preliminary results are also encouraging.

5.2 Behaviour Change: Teachers – motivation on the frontline

A robust body of evidence has concluded that teachers are one of the most important institutional factors in determining schooling outcomes for pupils (Hanushek 2011). In turn, teacher motivation has also been shown to have an important effect on pupil outcomes (Atkinson 2000, Sargent and Hannum 2005) because it not only predicts teachers' behaviours, engagement and well-being but also student outcomes such as

their own motivation and engagement (Demir 2011). Self-determination Theory (Deci and Ryan 2000) provide a useful theoretical framework to understand intrinsic motivation amongst teachers . This theory proposes that there are two basic types of motivation – intrinsic and extrinsic. According to this theory, intrinsic motivation refers to inherent satisfaction from performing an activity rather than its performance for some separable consequence. This type of motivation is considered to be highly self-determined in that the purpose for carrying out the activity is linked to positivity during performance of the task (Noels et al. 1999).

Deci and Ryan (2000) also suggest that environmental factors can encourage or discourage motivation by either supporting or inhibiting people's innate needs. Demir (2011) explicitly studies teachers intrinsic and extrinsic motivation and their direct influence on student engagement in Turkey from a sample of 289 teachers in 29 elementary schools. A teacher motivation questionnaire was used to proxy for intrinsic and extrinsic motivation using a five-point scale. This research found that student engagement was predicted by both intrinsic and extrinsic motivation of teachers but that intrinsic motivation was the most important predictor of student engagement. This research also noted that teachers' extrinsic motivation had a strong and positive effect on their intrinsic motivation and that therefore leaders should provide rewards that include a combination of both intrinsic and extrinsic factors.

Adequate and timely pay are pre-requisites of a well-functioning education system but also form the backbone of individual motivation. Extrinsic rewards such as financial and non-financial remuneration not only attract candidates to the profession but will help in retaining the most effective teachers. Teacher pay remains an important incentive tool in the hands of policy makers and low salaries not only lead teachers to leave the profession but can also prove a disincentive to the productivity of a teacher. In many countries, teachers earn very low salaries that are below the poverty line and are not only paid too little, but often too late.

Whilst there is an extensive body of research examining extrinsic motivation of teachers, there is only a limited, albeit growing, focus on intrinsic motivation of teachers. Previous research (Jang, Reeve, & Deci, 2010; Katz, Madjar, & Harari, 2014) has suggested that intrinsic factors, as compared to controlled motivation through external factors, results in a workforce that is not only more meaningfully engaged but also has a higher sense of well-being and is more productive (Katz 2015). It has also been suggested that teachers' motivation positively relates to their participation in professional development activities thereby leading to improvements in teaching quality and practice (Thoonen, Sleegers, Oort, Peetsma, and Geijsel, 2011). Primary data collection conducted as part of this research also reiterates these findings. That intrinsic motivation of teachers is an important determinant of their own performance has also been explored in extant research. A study by Tripathi et al. (2018) studies the impact of intrinsic motivation (measured using self-reported data) on the academic performance of management teachers drawn from a sample of management colleges in India. The findings from this study point to the importance of intrinsic motivation of teachers and in particular their 'creativity' in determining their own academic performance.

Evidence from India also suggests that one of the ways of fostering intrinsic motivation among the teaching cadre is through the encouragement of peer learning amongst teachers (Avadhanam and Chand 2016). This research has aimed to identify the correlates of innovative work performance amongst government school teachers and hypothesised that intrinsic motivation and self-efficacy were high correlates of innovative performance and proactive behaviour. Based on a sample of 347 teachers (selected from a larger sample of 5650 teachers whose work had been peer-rated for innovativeness and performance), the study found that teachers' intrinsic motivation was the most significant correlate of innovative performance (along with qualification in a teacher eligibility test conducted by the government). Based on these findings, the authors propose the design of a model of professional development which is based on developing learning from motivated teachers for example through decentralised peer-driven teacher networks that engage with innovative teachers as 'motivational triggers for the wider teaching community' (abstract).

Providing an attractive career path with clear promotion criteria that take into account initiatives by teachers (such as learning support for weak students) has been seen as a way of motivating teachers. In this way, teachers are rewarded for meeting their responsibilities outside of classroom instruction that are also part of their role as a teacher. Similarly, addressing teacher absenteeism and low time-on task (which often stems from system-wide factors such as distance to school, illness, non-teaching obligations, and administrative tasks) and providing conducive conditions to allow teachers to fulfil their instruction time obligations will have substantial cost-savings and motivate the teaching cadre (Aslam and Rawal 2019). These system-structure aspects are intrinsically linked with how those working within the system behave. In this way, by examining the structure of the entire system, making changes where necessary, it may be possible to alter the incentives and the behaviours of those within the system. Reciprocally, it is important to acknowledge that the behaviours of those within the system may be reflecting inadequacies of the system itself. This inter-relation between system wide change and behaviour is also an important aspect when examining each of these aspects.

Many individuals in the education system (including teachers and local officials) are also working in extremely challenging conditions and with highly disadvantaged students. Motivating these individuals and providing them with the support they need to ensure quality education requires greater focus. Teachers working with disadvantaged students have noted that they remain motivated by a deep belief in the transformative power of education and that effectively teaching these children is built on strong relationships with students (Aslam and Rawal 2018).

5.2.1. Teacher motivation - initiative and effort

There is no universally agreed upon definition of 'teacher motivation' as such (Guajardo 2011, STiR undated literature review). However, Michaelowa (2002) provides a useful and succinct suggestion that teacher motivation is 'the willingness, drive or desire to engage in good teaching which is furthermore acted upon' (as cited

in Save the Children 2011). It has been suggested that, in the first instance, the basic needs of teachers must be met before they can be motivated to fulfil their 'higher order needs of self-actualisation and professional goal attainment' (ibid). Once these more extrinsic basic needs and environmental factors are adequately met, the more intrinsic or internal factors can then powerfully motivate teacher effort, performance and professional conduct in the long run. This report (Save the Children 2011) suggests eight categories that influence motivation of teachers of which three of them are largely viewed as intrinsic in nature (3, 5 and 7):

1. Work-load and challenges
2. Remuneration and incentives
3. Recognition and prestige
4. Accountability
5. Career development
6. Institutional environment
7. Voice
8. Learning materials and facilities

This report suggests several pathways through which intrinsic motivation can be improved such as by rewarding leadership and teamwork (3), treating teachers as equal partners and increasing capacity within trade unions, working with marginalised teachers etc. (7). Low teacher morale, low levels of satisfaction and motivation have frequently been reported across several developing contexts and this, in turn, is worrying given the recognition that the drive and commitment of teachers play a critical role in achieving national and international education goals (UNESCO 2017; Richardson 2014). In Kenya, for example, 'only a minority of teachers were seen to have a long-term commitment to their profession' (Hyde et al. 2005) and across the continent teaching is not viewed as a first-choice career option (Richardson 2014). Teachers across the African continent have been suggested to have a sense of powerlessness and isolation with few opportunities for autonomy, self-actualisation, empowerment and decision-making control within the school and class environment (UNESCO 2017). It has been suggested that whilst a large focus has been placed on policy efforts aimed at improving extrinsic motivation factors (e.g. managing teacher workloads, improving compensation and improving working conditions), there has been a failure to consider intrinsic motivation factors (ibid) with traditional policy approaches skimming over the importance of teachers intrinsic motivation and their feelings of job satisfaction and commitment to the teaching practice (Bennell 2005).

Depending on the field of study (e.g. psychology, economics or development) motivation as a construct has variously been proxied through variables such as commitment, satisfaction, attitudes, absenteeism and time on task. Studies have also relied on teachers' own subjective responses to questions pertaining to their motivation levels (Bennell 2005; Guajardo 2011; Hasan & Hynds 2014). In some contexts, motivation scales are now being used as a useful tool to standardise the measurement of individual motivation across different sectors.

A common measure in the field of economics proxy's teacher motivation through effort as measured by attendance and time on task of the teacher, both of which have been

suggested to be worryingly low in a variety of contexts (Muralidharan 2014; Atherton and Kingdon 2010). A more recent study suggests that system-level demands (such as high levels of administrative work) are causing low levels of attendance in teachers as opposed to them having poor levels of motivation (Azim Premji Foundation 2017). Therefore, it is critical that future studies evaluate whether teachers are in school or not but also the reasons why. However, there has been evidence that teacher effort can be improved through well-designed programmes as witnessed through STiR's efforts whereby both attendance and teaching time appear to have been improved as a result of the programme. This can be achieved by recognising high quality teachers for their innovative practice and by offering them opportunities to create, collaborate and reflect, they will be empowered to improve their own practice, invest in student learning outcomes and affect larger scale structural reform (Roozen et al. undated). The STiR model is premised on affecting teacher practice, student learning outcomes and policy. STiR's theory of change, discussed above, suggests that this can be achieved through teachers experiencing a sense of autonomy, mastery and purpose.

When teachers are thus motivated, not only are they more effective but their motivation can engender efficiencies across the entire system. One example of this emerges from STiR's work in Uttar Pradesh where teachers' classroom practice and motivation was targeted by organising them into local networks to encourage discussion and share best-practice ideas. Based on evidence from the RCT conducted to evaluate the programme, STiR found that for every dollar invested in the intervention, 7 dollars of additional teaching time were generated[12]. The UP government, in partnership with STiR, worked in 11 districts, influencing more than 12,000 teachers in a collaboration aimed at driving improvements in learning through a systematic and cost-effective initiative that aimed at brokering meaningful and sustainable partnerships within the sector as well as realising sustainable improvements in teacher motivation. By creating teacher networks, teachers were able to gain exposure to key teaching principles and were supported in making tangible changes in their classrooms through a continuous cycle of learning, development and collaboration between motivation, teacher practice and student learning. These networks were run by government officials at the cluster level who were trained by STiR (Edge et al. 2017).

According to another stakeholder from the donor community, the BRAC Education Programme (BEP) in Bangladesh is '*the most successful education programme… that is highly reliant on intrinsic motivation of teachers*'. Being an NGO run, non-formal education programme, BRAC had the flexibility to hire people as teachers who were motivated to teach and motivated by the well-being of children, particularly those from more disadvantaged backgrounds. BRAC relaxed the level of qualification needed to be hired as a teacher at BEP (in comparison to government required qualifications) but recruited candidates based on their motivation to teach and to be with children. BRAC later trained their teachers on pedagogy and provided close classroom-based monitoring and support to their performance. This programme now

12 https://static1.squarespace.com/static/5b7cc54eec4eb7d25f7af2be/t/5b7e5233898583e2d4083694/1535005265384/STiR-endline-report_ToShare.pdf

has a cadre of over 40,000 teachers who are highly skilled not only in teaching but also in all aspects of welfare of children in really deprived settings.

According to one stakeholder, a potentially useful tool for policymakers designing education interventions is to use an 'opt in' model. In such a model, participation is based on an individual choosing to be or self-selecting into the programme rather than being forced to participate. This model is based on the premise that those who choose to be involved are likely to be those who are more intrinsically motivated and that further engagement can then be built on this '*initial curiosity*'. Within these models, initial recruitment into programmes relies more on individuals who are driven to engage because of more intrinsic factors. Therefore, this intrinsic motivation is the driving factor that will encourage successful implementation of such interventions. An example of this is the Gujarat merit-based selection of head teachers in India. In this approach to recruiting head teachers, an aptitude test (rather than the oft-used sole method of tenure) was used to recruit head teachers (Central Square Foundation 2015). This allowed the state to tap into a younger and more motivated pool of individuals to become school leaders who then underwent rigorous training. In effect, this process meant that only those who were initially very driven effectively self-selected into the programme allowing this intrinsic motivation to be built upon by capacity development efforts.

A stakeholder running a chain of successful private schools in India was also of the opinion that reforms that are born out of a teacher or leader's intrinsic motivation are the most successful and enduring. These projects have benefited from intrinsic motivation because the officials/teachers that are thus motivated and believe in the inherent developmental 'rightness' of the reform. The manifestations are that they do not:

'…watch the clock, they take initiative, take ownership, have personal engagement, are often driven by a sense of mission, and it seems they drive the reform forward and win others' cooperation for it because they find personal fulfilment in this service, as if impelled by some inner force which makes them capable of personal sacrifices even – to see the reform implemented. They find solutions to problems and hurdles; they cooperate with others and get others enthused/motivated/co-opted in the reform or innovation. They drive the reform forward by going beyond the call of duty, and encourage colleagues to do so.'

(School Leader: India)

One essential ingredient according to this stakeholder is that if teachers have been given autonomy and free rein by their seniors, to engage in reforms and to give effect to their ideas, they will be even more productive.

'Having supportive and encouraging leaders who understand the power of letting people take initiative, and who are not threatened by the 'success' of their juniors, who rather take 'ownership' of the success of their juniors – unlocks and unleashes people's intrinsic motivation.'

(School Leader: India)

However, it can be difficult to disentangle extrinsic and intrinsic motivation in most reform efforts. The Competence Based Curriculum (CBC) programme in Rwanda was noted as an example of this by one stakeholder. Implementation of this innovative curriculum aimed at improving learner outcomes, motivation for learning, teaching methods and competencies amongst other goals. Whilst initial resistance from teachers was witnessed, training all the teachers on CBC countered some of this resistance as the teachers got to know the value of the programme. This was achieved through a mixture of extrinsic and intrinsic factors. Whilst extrinsic factors (such as financial allowances for attendance at trainings) improved attendance, there was a sense that the motivation to give the children the best possible outcomes was also pervasive. Despite the fact that this new pedagogy was dictated from the top initially without sufficient training or resources, the teachers themselves co-ordinated into small network to support each other and this could potentially be attributed to the fact that they were intrinsically driven to facilitate what they believed would be an improvement within the system.

More broadly, curriculum reforms typically require a highly motivated base of education workforce professionals for these reforms to be successful. An evaluation of a curriculum change in Uganda (Altinyelken 2010) recognised that teacher motivation was crucial for the successful implementation of this thematic curriculum that required further demands on teachers whose morale levels were already alarmingly low due to low salaries, perceived low status of teaching in the country and inadequate working conditions. Despite these issues, and the limitations imposed on them by structural problems and the way the curriculum was implemented, teachers reportedly did the best they could to implement the curriculum because ultimately, they believed it would lead to improvements in their students' achievement. According to a stakeholder deeply familiar with this programme, if intrinsic motivation is absent, teachers and officials do not just feel disengaged from the education reform efforts, they might even actively resist change. This is due to a lack of ownership and/or autonomy, to shape the change that they are expected to realise in their classrooms. In addition to this, mastery to become familiar with the proposed change or the feeling of purpose that the proposed change will ultimately enable improvements in learning outcomes are also critical factors. This stakeholder provided the example of when the Ministry of Education and Sports in Uganda tried to introduce a new math's curriculum, since teachers and officials didn't feel these notions of autonomy, mastery, and purpose, they actively resisted the change that they were asked to realise.

Most donor funded programmes might show short run impact on teacher behaviour but after the programmes are over, often normal behaviour resumes. Projects often do one or the other and there are consequences i.e. great policies with no implementation or institutional change with no policy backing as an anchor. According to one stakeholder, T-TEL Ghana provides an example of a reform effort that works at the policy and institutional level to make sustainable change. T-TEL is as example of an intervention where the behaviour change mechanism has been built into colleges from inception. Its central tenet is weekly professional development sessions run for tutors who are not paid or receive per diems for attending but they attend because attendance has been built into the programme from the beginning and additionally they see attendance as a positive and perceive their attendance as providing them with a

benefit that is not financial. According to this stakeholder, zonal staff monitor these sessions and on average they have 70% attendance which, given the fact that they are not paid to attend, is commendable. Another reason for high attendance may be due to a sense of ownership among those attending these sessions. In the T-TEL model, tutors develop handbooks acting as experts to encourage co-creation and increase this sense of ownership of the programme.

5.2.2 Teaching practice: supporting autonomy, mastery and purpose at the frontline

Good teaching practice is a key influence on student learning. Teachers are responsible and accountable for their own teaching practice and it will determine the quality of learning received by their pupils. Evidence from developing country contexts has increasingly shown that what teachers do within the classroom (i.e. what teaching practices they adopt whilst teaching) consistently matters for improving learning outcomes of their students (e.g. Aslam and Kingdon 2011).

Anecdotally, there is the presumption that teachers want to improve their practice and do as best as they can for their students. However, in practice, this can be challenging. According to a country-based donor agency representative the most successful initiatives for professional development have been seen when making these improvements have been made easy (or at least easier) for teachers. Initiatives that require extensive efforts on part of the teachers and substantially increase their already heavy work burdens are less likely to lead to improved teaching practices and more likely to face immense restriction. Where consideration has been given to these elements, initiatives have been seen to have shown more success. One example of this given by a stakeholder was when stamps were given to teachers in a specific context (not cited by the stakeholder) to encourage them to give more formative written feedback (but which also sped up book-marking) therefore resulting in a win-win situation for both students and teachers because not only did the teachers fulfil the objective of improved written feedback, this was also done in a manner which resulted in less work for them. Similarly, another suggestion given by a stakeholder was one where very simple questioning techniques are encouraged but which are easy for teachers to remember whilst at the same time ensuring better and wider questioning for the student. This is an example of helping to build a sense of "mastery" and "autonomy" – from which an even greater sense of "purpose" might derive as a by-product (as suggested by a stakeholder). However, it was also noted that even the most successful Continuous Professional Development (CPD) programmes do not try to build a greater sense of "purpose" itself – by trying to '*change mindsets*' instead they focus on small improvements, the cumulative effect of which can evolve mindsets over time.

> *"Teachers want to improve their practice and do better for their students, but this can be hard."*

The Teach First programme in the UK (and similar programmes in other parts of the world) are built on the premise that those who apply to become trainee teachers are

intrinsically motivated to join the profession but may not have done so due to extrinsic factors such as comparative pay differentials in other professions. One stakeholder suggested that it is this selection effect which sets the Teach First programme apart from other teacher training programmes in the UK. The training itself is arguably of higher quality, however, according to a few stakeholders, the main value-added from this model is that it attracts people to enter teaching who have '*a real sense of indignation at the inequity prevalent in the system (purpose) and a sense that they can help improve things ("autonomy/mastery").*' It is this that '*creates an extra sense of passion & motivation (which is) the important 'intrinsic motivation' that manifests itself in better outcomes*.' However, some of these stakeholders noted that this is not necessarily an appropriate strategy as it has encouraged those who do not necessarily have the '*right attributes*' to be teachers to enter the profession. They felt that the critical factor is firstly whether these individuals make effective teachers once they are in the profession and, secondly, that they remain in the profession in the longer term (an issue that has mired Teach First with many recruits leaving the profession in the early years of their career)[13].

Another example from this context is presented by the UK's Academisation programme where well performing schools could elect to convert themselves into an Academy. This programme experienced some impediments which one stakeholder argued were mainly those arising from intrinsically and extrinsically motivated teachers but not necessarily because of anything to do with differences in 'purpose'. According to this stakeholder, some teachers opposed these changes as they felt it potentially presented a risk to the quality and type of education schools might provide after converting; while others felt that teachers' jobs & conditions would be more at risk in a school with more management autonomy. However, academy conversion was welcomed by a lot of teachers and school leaders because they felt it increased their 'autonomy' and 'mastery' – schools having a greater say in the direction they chose and the actions they took.

According to a key informant, in STiR's work in both Delhi and Uttar Pradesh, despite the increases in teacher motivation, the changes in classroom practices were more limited. There was a recognition that more could be done to better support teachers to drive change in their practice. Therefore, STiR introduced more tangible, evidence-based teaching practices into the teacher networks and also worked with the government to enable classroom observation to take place. A randomised controlled trial provided a useful evidence base for making a case for classroom observation to be introduced with the agreement of government partners despite the fact that it is often politically sensitive. A year into making these changes, the level of classroom behaviour change appeared to have roughly doubled based on STiR's internal monitoring data.

[13] See for instance Parker and Gale (2017) who review the Teach First programme in the UK: http://scde.ac.uk/wp-content/uploads/2017/10/TeachFirstReviewParkerGalepaper.pdf. See also Allen and Allnut (2013).

A positive example of supporting teacher autonomy, mastery and purpose is provided by a stakeholder of an education charity. This example is of the Education Development Trust's Girls' Education Challenge programme where there is a highly engaged workforce of pedagogical coaches who work with teachers to observe and give them feedback on their teaching practice. In this programme, there is a large focus on empowering teachers and giving them developmental feedback rather than critique or correction, with the aim being to motivate teachers. Teachers are also brought together in teacher learning circles (teacher network meetings across 5 schools), facilitated by the coaches, to share their best practices and involve them in deeper conversations about their pedagogy. Wider evidence shows that this kind of teacher coaching and peer professional learning can build intrinsic motivation and a sense of self-efficacy. Coaches are given ongoing professional development throughout the year, celebrating successes and bringing them together so that they feel part of a wider reform effort to improve girls' education. Using this approach, a 0.52SD improvement in girls' literacy learning outcomes was achieved compared to a control group, over the first phase of the programme[14].

In conclusion, as argued by Bruns and Luque (2014), education systems that consistently invest in the intrinsic motivation of high performing teachers tend to be the best performing. They achieve this through recognising these teachers' efforts and rewarding and recognising them for these efforts. It is through this that these successful education systems are able to affect behaviour change amongst frontline education workers by fostering their motivation, thereby improving effort and practice. However, Bruns and Luque (2014) also note that these findings are very context specific and that there are multiple roads to achieving success but that on the whole this requires 'a balanced set of incentives sufficient to attract talented teacher candidates, establish accountability for results, and motivate continued professional growth and pursuit of excellence' (p. 47).

5.3. Behaviour Change: Motivation at other levels of the school workforce

School leadership is a crucial factor in determining school performance and in meeting the ever-growing and changing demands of all stakeholders from policy makers all the way down to children receiving the education. Primary evidence collected as part of this report has emphasised the importance of school leaders and school management teams as they are critical decision-makers who influence the efficacy of all education delivery efforts.

As mentioned above, the school is a critical 'node of authority' and at this level, head teachers can have a crucial impact. A dynamic leader at this level of the education system has the potential to make a real difference. Head teachers could have the

[14] See: Coffey, (2017) Endline Evaluation Report: Step change window; EDT case study: Wasichana Wetu Wafaulu: GEC Kenya

power and authority to problem-solve at the school level and those that are intrinsically motivated have been witnessed as doing so. For example, in Pakistan, some stakeholders suggested that headteachers have produced extraordinary results through *'vision, motivation and planning'*. This has been achieved through their '*out of the box thinking'* and by becoming transformers themselves. They also appear to have managed to mobilise youth leaders, local media, the public as well as teachers to make them all '*critical team members'*. Box 1 below provides an example of reforms in Pakistan where intrinsic motivation of other members of the education workforce (other than teachers) such as school leaders and classroom assistants matter.

Box 1: Pakistan

Intrinsic motivation evidenced at different levels of the school workforce

Since 2001 Pakistan has witnessed a spate of education reforms at the federal and provincial levels of which there are two relevant examples:

1. **Hiring of Headteachers in Sindh Province through merit based third party Sukkur IBA recruitment**. Over one thousand government school head teachers were hired directly at Basic Pay Scale (BPS) 17 through this test and placed as headteachers in primary-elementary and secondary schools of Sindh.
2. **An initiative that involved the hiring of caregiver/assistants for ECE classrooms in Punjab (approximately 5000)**. These individuals were hired locally by the school from the communities for supporting the ECE Classrooms in Punjab through the School Councils of schools directly. They were provided with a minimum honorarium of Rs. 5000 or US $ 30 -35 per month. These funds were mobilised through the 'non-salary budget (NSB)' grants transferred to the schools.

Similarly, stakeholders were of the view that **Care-giver Assistants (CAs)** in ECE classrooms **continue to do extra ordinary work for the children** of their community/neighbourhood dedicated to the belief that '*foundational learning and care matters!*' despite not being well paid or having a core post. This was perceived as being a true testament to their intrinsic motivation. This is supported by the fact that sometimes the modest honorarium due to them was reportedly not paid for months (especially if the NSB was not transferred on time to the school), nevertheless they continued to do extra ordinary work for the children of their community.

In the case of both head teachers and caregiver assistants in Sindh and Punjab respectively, the system has created these pathways for these positions that are not entirely '*system-based and administratively kosher*', through '*innovative spaces and actions'* that are clearly reliant on intrinsic motivation and whilst this appears to be a creative solution to a critical problem, stakeholders question whether these are systematically sustainable. These stakeholders also suggested that more solid pathways for intrinsically motivated leaders and teacher-assistants need to be ensured for the gains to be embedded within the institutions.

Evidence from Nigeria has also emphasised the important role that head teachers can play. The Lagos State EKO Project (a $90 million partnership between the World Bank and the Lagos state government) was designed to improve the quality of public junior and senior secondary education in Lagos state. The project trained head teachers and principals to develop school development plans, leadership and other soft skills. Head teachers also become master trainers and trained teachers. As a result of this programme, evidence from stakeholders interviewed as part of the current research suggests that teachers became more confident in their roles and they saw themselves as contributing towards children's learning and development. In addition to this, there is evidence of a cascading of the head-teacher training to other teachers within the school. Stakeholders suggested that when a reform targets the professional development of the teachers, which improves their confidence, they are more willing to contribute to the success of the programme. Though support to cascade the programme was short, there is evidence that the teachers themselves were willing to continue these efforts. There is also evidence that parents were engaging better as a result of teachers being more involved in their student's learning. Initial empowerment of teachers and head teachers led to a buy-in that improved the intrinsic motivation of the teachers that worked with them.

Similarly, an education charity stakeholder provided the example of Education Development Trust's School Partnership programme[15] in England, established in 2014, which is centred on building the agency/intrinsic motivation of school leaders to lead their own school improvement process, and support peers to do the same. The model is built on the idea of schools owning the school improvement process, as well as leading with moral purpose to share accountability of the improvement of peers' schools too – agency and intrinsic motivation are central to the model. Examples of where this can be overcome can be found in Education Development Trust's inspection reforms, where they focus very much on the building of mindsets and the right culture and building school's capacity to self-evaluate so that they own the process of improvement. Well-designed school evaluation/ supervision/ review/ inspection systems are a good example of this. The system can be well designed (e.g. the school review framework can look at the key drivers of school success such as leadership and the quality of teaching and learning; it can give school leaders feedback; it can even give them resources to improve and follow up support visits) but will fail horribly if it fails to motivate teachers to improve, and just takes a punitive approach. The process needs to be managed in a way which empowers school leaders and teachers and motivates them to build a culture of school improvement. Another example pointed towards the creation of change agents in a system, as part of the reform architecture. For example, in Rwanda the Education Development Trust have given the best performing head teachers in each district new roles as local leaders of education and national leaders of education. They have a new district-wide role in supporting other head teachers to lead school improvement plans – they run professional learning communities to support peers in this way. This is a structural

[15] Established in 2014 in England, a cluster-based school improvement model that supports school leaders to drive their own improvement through a continuous cycle of self-review, peer-review and school to school support and improvement.

change in many ways as it creates a network of new local leaders. By giving them a new role, it is possible to tap into their intrinsic motivation to want to support their peers and district-wide change.

5.4 Behaviour Change: Local Officials

A number of players within the education system have the power to influence the political economy of the education system. Whilst teachers constitute the large majority of the education workforce, other stakeholders within and outside the education system also strongly influence both teachers' actions as well as pupil outcomes. Therefore, the power relations and incentives of these other actors and ultimately the constraints or facilitation they present in the political arena within which teachers operate, all influence any contribution that teachers and other members of the education workforce can make to improving schooling quality for the children that they teach. Many countries have undergone decentralisation efforts which have shifted the focus of education attention to the district level and the officials at this tier of government. These individuals can play a critical role in the implementation of policy, in organising development opportunities and resources to meet local needs and in facilitating cooperation and collaboration between the school level and upper levels of government. The motivations of the officials at this level, therefore, can be a critical factor in more decentralised systems particularly as there is evidence that rent-seeking and local capture are more prevalent at this level and can create conditions that undermine effective education reform and policy implementation (Bari et al. 2015).

Primary data collected as part of this report also emphasises the importance of political will and motivation of individuals at the sub-national levels. The Partnership Schools for Liberia and PEAS Uganda have been provided as examples of instances where the motivation of local officials has been a critical factor in programme implementation. According to a stakeholder, the Partnership Schools for Liberia Public Private Partnership pilot was mainly driven by very motivated local officials. This motivation was essentially driven by an overall sense that something had to change in Liberia to improve education ("purpose"), and this meant that the reform was propelled through in the face of substantial civil society opposition both within the country and internationally. This example illustrates that, in some instances, purpose alone can be enough to cause change without initial mastery as this was a pioneering initiative in Liberia and the Ministry of Education needed immense technical support to deliver it. Similarly, the success of the PEAS programme in Uganda can be partly attributed to the intrinsic motivation of a number of key local staff, mostly through a sense of "purpose", as local staff perhaps did not always have the "mastery" or "autonomy" to deliver themselves without substantive support. However, as PEAS has grown and been able to attract an ever-higher quality of Ugandan staff, it was suggested that this may have begun to move more towards a sense of "mastery".

> *'Political will at critical nodes in the education system will be the key to impact.'*
>
> (Education Think Tank leader)

It was also suggested that system-level impact can typically be achieved if there are intrinsically motivated individuals at '*critical nodes of the education system*.' One such critical level is local and the role that mid-level officials can play within the wider system. As an academic and leader of an education think-tank stated, these nodes are limited (and potentially context specific), however, they tend to be the nodes across the tier of the education system where authority rests. In the Punjab, in Pakistan, for example, these nodes of authority are at the provincial level (Secretary of Education), district level (the District Commissioner) and at the school level (the head teacher). Political will and effective leadership at all of these nodes is seen to have had the most impact on reform efforts. However, the stakeholder also suggested that much of the focus tends to be at the national or school-level despite the fact that the middle-tier of the education system have a very important role to play.

Several stakeholders interviewed during the course of this research noted that whilst an intrinsically motivated base of officials/teachers at critical nodes of the education system would not themselves impede good reforms, their own enthusiasm for (and participation in) the reform may be impeded/ hindered/ diminished if other attendant circumstances are disabling, or if programme-leaders or system-leaders are discouraging or cynical about the reform. According to one stakeholder:

'…discouragement of reform attempts by junior level staff (e.g. teachers or even district level education functionaries) can come in many forms: if the more senior individuals feel threatened, want to take credit for their juniors' initiatives or achievements, rather than publicly acknowledging their juniors' reform initiatives, and giving them space for innovation and for the implementation of their ideas, that would stymie any green shoots of intrinsic motivation among juniors.'

(School Leader: India)

As uncovered in the sections above in examining the role of motivated leaders, enabling conditions at the sub-national levels of the education system can similarly impede or be conducive to what stakeholders at this level can achieve. The conditions within which a leader works have been shown to be an important factor in determining how effective this leader can be irrespective of his levels of motivation. In the same vein, sub-national actors are also subject to the constraints posed by the surrounding conditions within which they are expected to act.

The Ugandan inspection system provides an example of how structural obstacles can squash intrinsic motivation or misdirect it. As suggested by a key local government informant during the course of our research, the secondary school inspection system in Uganda is an example where incentives misdirect motivation:

'The inspection regime did not focus on anything to do with teaching or learning, instead being a paper-chase. This meant that regardless of how motivated teachers/administrators might be to improve outcomes, the external incentives required them to prepare paperwork and administrative data: an example of the wrong external incentives/motivations run counter to, rather than maximise, intrinsic motivation. By the same token, some of the school inspectors themselves were very diligent in what they did – they wanted to do a good job. Unfortunately, the system

they were operating within focused their motivation to a paper-chase rather than assessing teaching and learning: an example of structures mis-directing any intrinsic motivation.'

(Local Government Official, Uganda)

These examples highlight how behaviour change at all levels is critically linked to system wide change and how contextual factors that may hinder otherwise motivated individuals can also influence the efficacy of reforms.

5.5 Behaviour Change: Parents and Community Stakeholders

Primary data collected for this report is indicative of a need for system-wide behaviour change across a range of stakeholders including those at all levels of the system. One example of an effort that tapped into the intrinsic motivation of different education stakeholders is Pratham's 'Lakhon Mein Ek'[16] programme. This is an example of an intervention that saw improved teacher effort and behaviour change on the part of teachers as well as the wider community within the villages. This programme tapped into the intrinsic motivation of volunteers to collect data in their villages and subsequently generated behaviour change amongst teachers and the wider community. Stakeholders suggested that teachers were witnessed to be engaging more with parents. There was also a strengthening of community partnerships particularly as heads of villages wanted to discuss the learning results in village meetings with teachers. This increased parental/community interest in improving learning outcomes was also witnessed as part of the process of teachers preparing village report cards. The creative and innovative use of volunteers in this instance provides an example of how garnering the intrinsic motivation of one group of stakeholders can manifest in improvements in the education system across the board.

Another example of the generation of 'purpose' is provided by a community-based accountability programme in Anantapur, India[17] where a widely illiterate community was engaged in educational issues by empowering them through partnership rather than confrontation. Parents were empowered to give feedback on school performance as informal school reviewers and whilst this did not necessarily increase their autonomy, it nevertheless provides an example of '*a structural or a role change for parents and the community… (who) were given a new role and empowered to give them a voice in the local school performance. We saw that, in giving them this role, they become highly motivated to help improve their local schools. They became*

[16] Pratham's campaign mobilised 375,000 citizens over the course of 3 months (2015-2016) as volunteers to assess the literacy and numeracy of ten million Indian children. Volunteers were mobilised to take responsibility for action within their villages in assessing children within their village with help from others within their community.
[17] https://www.educationdevelopmenttrust.com/our-research-and-insights/research/community-based-accountability-for-school-improvem

involved in problem solving with their local community – a sure sign of intrinsic motivation in my view.'

5.6 Final reflections: behaviour change across the board

This section has discussed the importance of the motivation levels of individuals across the entire education system. According to a stakeholder,

'…what really matters is if you can make changes to the day to day experiences of children and their learning within the classroom.'

(Donor Partner)

And this, in turn, is heavily dependent on the behaviours of those within the system, be they pupils, teachers, school-leaders, parents, community members or officials across the education system. Box 2 provides a case study from Vietnam that provides insights from various education reforms in the country, the behaviours of a range of education stakeholders and the resulting influence this has had on the functioning of the Vietnamese education system.

Box 2: Vietnam

Isomorphic Mimicry: Are reform initiatives being truly engaged with or are new approaches superficially adopted?

This case study is based on primary collected from 36 key informants from the Vietnam education sector. The research was conducted in-country during May 2019 and responses were gathered in-person, via phone and through email.

Based on PISA results, Vietnam is seen as a "miracle" when it ranked above several developed countries. However, recent reports suggest that the education system in the country emphasises scores over and above education in itself and is "among the worst in the world". Stakeholders have suggested that extrinsic motivation appears to be more apparent in the system and even where intrinsic motivations is more apparent (such as amongst teachers) they do not have influence or are not high up in the decision-making hierarchy. This lack of motivation is partly attributable to the fact that it is a highly centralised system where teaching methodologies are imposed from the top with little autonomy and limited "room for bottom-up creativity". Teachers are often not fully equipped to implement new teaching methodologies and have not been given a sense of ownership of the changes. According to one stakeholder, '*Very few people dare to challenge the existing current curriculum or methodologies and take risks to find alternatives'.*

The Vietnam Escuela Nueva Project (VNEN) aimed at introducing and using new teaching and learning practices in the classrooms targeting the most disadvantaged groups of primary school children by bringing about system-wide transformation through pedagogical innovation. The project includes a set of sequential activities

that constitute a set of pedagogical and administrative reform initiatives. The programme involved encouraging close collaboration between teachers, parents and the community with the objective of creating a more conducive learning environment. Supported financially by the World Bank, VNEN was introduced in Vietnam during 2012-2015 under Ministry of Education and Training (MOET)' leadership. By 2015 there were 4,177 elementary schools in 53 provinces (30% total number of elementary schools throughout the country) adopting VNEN's teaching approaches. Unlike traditional methodologies that emphasise the role and authorities of the teachers, VNEN's approaches design for classmate discussions, encouraging students to perform activities and interactions. VNEN does not emphasise the importance of scores and testing but aims to develop students' capacities and skills instead.

However, stakeholders interviewed as part of the current research suggested that parents and teachers opposed the new approaches citing inconsistencies in teaching/learning methods and reporting that implementation was incomplete both across and within schools. Additionally, stakeholders suggested that this programme's approach '*required teachers to rethink deeply about the role of a teacher and the ultimate goals of education*' and this task was an '*overload*' especially given the low levels of extrinsic motivation (very low salaries). Therefore, according to stakeholders any performance and implementation of this teaching methodology was merely '*acting*' namely isomorphic mimicry. The most intensive criticisms came from the teachers. According to the interviewed stakeholders they named VNEN as a '*disaster*'. However, there was also some evidence that in some provinces VNEN was successfully adopted and resulted in positive changes in student behaviour and learning outcomes: in this instance the leadership of the school was critical in helping teachers understand the new methodology and not just doing what they were told. In this way the leaders' intrinsic motivation encouraged the intrinsic motivation of others. Where it was successful, it was noted that '*Principals who are knowledgeable about the reform and committed to its success are likely to make sure that all stakeholders at the school level including parents come together. More importantly, they enabled teacher professional development, helping them be fully aware of the new approaches.*'

6. Amplification Effects

STiR's theory of change places great emphasis on the importance of 'amplification effects' enabled through behavioural and structural changes across a system. In effect, this means that if individuals within the education workforce are intrinsically motivated, they are more likely to engage more deeply with existing technical interventions, i.e. through increased uptake of existing technical interventions (Jeevan and Terwindt 2019). Evidence from the RISE programme also suggests that demotivated teachers and local officials can 'fail to internalise and sometimes actively resist, strong technical interventions.' (ibid, p.4). Secondly, amplification effects

through more motivated workforce individuals can also be achieved through bigger impact from technical interventions. Developing the right culture and mindset are critical to scaling success (Gallagher et al. 2019).

Stakeholder interviews conducted during this research provide evidence that amplification effects can be achieved when intrinsic motivators are aligned with extrinsic ones. Engaging stakeholders can build intrinsic motivation and support for reforms which is then likely to bolster the effectiveness of these reforms, '*generating a virtuous cycle of intrinsic motivation*'. For example, the TUSOME/Tayari programme (see Box 3) has promoted "mastery" and "autonomy" among Kenyan officials and teachers, thereby putting in motion a virtuous cycle of intrinsic motivation.

> *'[Amplification effects from intrinsic motivation are] the most promising avenue in my experience.'*
>
> (Education Academic)

Synergies, alignment and complementarity across different programmes in a country in terms of design, implementation, training and incentives can provide scale and cost benefits as well as mobilise the same actors as key drivers of change resulting in reinforcement and augmentation across all programmes. PRIEDE and TUSOME in Kenya provide an interesting case study as presented in Box 3 below.

Box 3: TUSOME (2014-2019) / PRIEDE (2015-2019)

Evidence-based large-scale national programmes that benefited from political will, a motivated workforce and amplification effects

TUSOME is a research driven and evidence-based literacy programme at the national level in Kenya implemented through government systems. A sister-programme, PRIEDE, is also currently being implemented at the national level and focuses on improving early grade mathematics competency and strengthening management systems at the school and national levels.

Some key drivers of change enabling TUSOME's success have been its ability to communicate expectations, monitor implementation, and feedback data on the programme. Another critical factor has been the internalisation of the programme by the government system. This was achieved by working with the Teacher Services Commission (TSC – an independent government commission established under the Constitution to manage human resources within the education sector) and enhancing the role of the Community Support Officers (CSOs) because these CSOs are the frontline of public education and can be seen as the face of the policy in this context. At a more micro level, the teachers themselves, despite not having sanctions or incentives based on their performance in the classrooms, felt an accountability for their performance simply by having this classroom level monitoring, through a change in organisational culture rather than through a punitive accountability model. Another critical enabling factor in this case was the shift in focus to the classroom which was achieved through teachers developing a different means of engaging with their students through new materials, new teaching techniques and new expectations.

TUSOME has been suggested by interviewees as a well-designed reform that benefited from an intrinsically motivated workforce with teacher intrinsic motivation being cited as 'what made TUSOME successful'. Whilst the programme did not measure intrinsic motivation as such, it has been suggested that it is possible that teachers' intrinsic motivation has led to a relatively light-touch coaching intervention (that was highly visible to the senior ministry and the Teacher Services Commission leadership) resulting in a broader movement of mutual accountability and support for implementation among the teachers themselves. TUSOME's methods were thoughtfully designed to make teachers' lives easier. A key stakeholder suggested that relatively few teachers are often willing to take up a new intervention – even if it is very effective – if doing so requires a great deal of effort. According to the stakeholder it would be only the most excellent and committed teachers who would step up and unfortunately, there are not likely enough truly excellent teachers to change system-wide outcomes; focusing on them alone would leave behind the substantial majority of pupils. This stakeholder also stated that the intervention needed to also be implemented by teachers who are on the fence in order to reach the majority of teachers and thus pupils. If the intervention can show results, particularly in terms of pupil outcomes, then some of these initially reluctant teachers can become powerful advocates for the new method. However, after a period of acclimatisation, if results are not manifested, these changes will be quickly discarded and only those who are truly committed will remain part of the system. But if it doesn't make their lives easier after a very short period of acclimation, then they'll quickly discard it, and only the truly committed will persist.

The PRIEDE programme also benefited from wide-ranging political will across the board. According to stakeholders, there was a strong sense of government ownership, right from planning, through implementation to monitoring and evaluation. This government commitment has been financial as well as non-financial through the deep integration of this program within government institutions. In addition to this, it has led to increased capacity building within the workforce of the government sector. Another crucial factor has been the improvement in and engagement of many stakeholders (including parents, civil society groups, teacher organisations, government officials etc.) in an inclusive dialogue that continues to be worked on. This engagement has been cited as invaluable in improving the efficacy of the implementation of this program, in particular on the part of teachers and head teachers through extensive dialogue and engagement with them.

Complementarity across the two programmes has resulted in amplification effects. Both TUSOME and PRIEDE have used workforce reforms as a keystone to ensuring the success in their delivery. These reforms have engaged multiple actors within the education workforce. For example, by engaging CSOs, they have ensured that these programs are truly integrated into the government system. Additionally, teachers have been mobilised as drivers of change in the implementation and delivery of these programs. Delivery, training and implementation for both programs has been done by the same CSOs and teachers and this has also led to apparent cost and scale benefits. Additionally, this provides good evidence for ensuring that

where multiple education reforms are taking place in a country, alignment across the programs, in terms of design, implementation and incentives should be borne in mind as early as the planning stages. Monitoring and evaluation systems that have been implemented as part of the two programmes within the wider education sector plan goals have also been strengthened and the Teacher Performance Appraisal and Development System (TPAD) open appraisal system has been suggested by stakeholders as encouraging teacher empowerment and confidence which can in turn improve workforce motivation. However, it must be noted that remuneration differences across the programme may have resulted in extrinsic motivators benefitting the TUSOME programme at the expense of PRIEDE. Payments to CSOs through mobile real-time technology (TUSOME) as compared to through the more dated government mechanisms (PRIEDE) has been suggested as a reason why TUSOME classroom observation frequency is much higher than that for PRIEDE. This highlights a critical fact that it is often difficult to disentangle the effects of extrinsic and intrinsic motivation when many programmes are based on encouraging both.

7. Successful scaling: STiRring mindsets to promote behavioural change, encourage system wide structural improvements and leveraging amplification effects

System strengthening requires collaboration and continued engagements amongst a wide range of stakeholders particularly in order to achieve scale. Intrinsic motivation cannot be achieved by simply imposing structural reforms upon the education workforce no matter how promising, how well-funded and how well-designed these programmes are. Engaging with stakeholders at all levels of the education system, right from the planning and inception stages is a recognised and essential component for successful scale-up and system strengthening however promising, well-funded or well designed.

> *'Nothing for them without them.'*
>
> (Government Official: Uganda)

There is evidence from STiR's article Dial M for Motivation that intrinsic motivation can amplify the uptake, engagement and impact of other technical interventions in the same district. The document cites the example of Room to Read that found that the reading outcomes from its programmes were better in those districts where teachers and officials were intrinsically motivated, an example of 'amplification effects.' Other examples of instances where amplification has been enabled through behaviour and structural changes in a system are Pratham's 'Teaching at the Right Level' and TUSOME in Kenya that have shown that intrinsically motivated teachers are likely to engage more deeply in technical interventions that are already taking place and that demotivated individuals fail to internalise and sometimes strongly resist technical interventions (Jeevan and Terwindt 2019). This evidence also suggests that effort should be spent generating the demand for technical interventions as well as trying to

perfect them. This demand could lead to multiple technical interventions flourishing and ensuring that actual changes are realised due to increased interest, take-up and impact because everyone across the board is motivated (Ibid).

Box 4: STiR (2014-2020) – 'Reigniting' the spark in teachers

Highly promising results from an organisation that aims to develop intrinsic motivation amongst individuals at all levels of the education system by empowering teachers and other members of the education workforce to become more committed, skilful and influential changemakers

STiR has been experimenting with various motivators to understand how they apply to teachers in India and Uganda. This has been done through supporting governments to run teacher networks: local, ongoing communities of practice that ignite and sustain teacher intrinsic motivation. These networks expose teachers to key classroom **mastery** principles but give them the **autonomy** to adapt these principles to their own classroom contexts, **collaborating** (relatedness) with their peers in the process, all to improve student learning (**purpose**). Based on a randomised controlled trial and a quasi-experimental matched-control study in India, initial findings appear to illustrate the promise of teacher intrinsic motivation.

Results found improvements in teacher motivation, teacher effort, and to some extent student learning as well as in financial efficiency. I. Some improvements were seen in foundational classroom practices. Delhi schools saw gains in maths attainment with limited impact on reading whilst UP schools saw significant improvement in reading for government school students. Additionally, cost-benefit analysis has illustrated that each dollar invested in improving teacher motivation could potentially save education systems $7 in enhanced teacher effort and each dollar ensuring a child is taught by an intrinsically motivated teacher generates well over a hundred dollars in increased earnings.

There is also evidence that partnering with the teacher union (UNATU) at the secondary level has improved intrinsic motivation of teachers in Uganda with STiR teachers demonstrating higher levels of fulfilment with teaching and improved confidence in their learners' abilities including those who are most difficult to teach.

This case study highlights an example where providing sufficient autonomy, mastery and purpose can ensure that teachers and officials actually engage with reforms more deeply, with real commitment, as opposed to 'isomorphic mimicry' namely where individuals mimic a process rather than truly adopt it.

STiR provides an example of some of the key drivers of intrinsic motivation (according to a key government official respondent in Uganda) such as '*involvement, ownership, internalisation and awareness'*. In his opinion, this intrinsic motivation is not born but developed. He additionally notes

'By nature, man resists change. To achieve intrinsic motivation, especially where there is structural change in the system cannot be very easy. It is therefore imperative to involve the key stakeholders right at the inception, through

participation, thorough explanation, sensitisation, justifying the changes, so that stakeholders own the changes, considering them viable and inevitable as solutions to better performance of the system under the given circumstances. Move with the key stakeholders all the way through for ownership further dissemination and sustainability.'

As part of the RCT mentioned above in India, STiR explored the differences between Delhi and Uttar Pradesh in terms of underlying system conditions and learned that there are several key aspects that enable their approach to have impact. These include strong leadership at the system level; an effective middle tier to work through; and other technical interventions they can amplify. They have incorporated these learnings into a System Partnership Diagnostic Toolkit (SPDT) that they implement before working with a system to assess the likeliness of the STiR approach to have a genuine impact, as well as during their engagement with a system to understand structural change over time.

These key structural conditions play a critical role in ensuring continued improvements in intrinsic motivation. For example, if support structures are not in place at the mid-tier in an education system, teachers won't be able to develop their mastery to become better teachers and to thereby see student learning improve. Similarly, a belief in intrinsic motivation and clear leadership is key in ensuring teachers are provided with sufficient levels of autonomy to enjoy the ownership over their professional development.

STiR's experience in Delhi, India, has also provided some useful scaling lessons. These are summarised by Gallagher et al. (2019) and include the following key findings amongst others: successful partnerships can take time and effort, scaling of attitudes must be differentiated from rolling out intervention activities, a broad coalition for change that includes wide-reaching relationships is at the core for success, roles and accountabilities and where power lies may differ in practice as compared to on paper and, crucial system alignment is a marathon not a sprint.

STiR's work also provides an example of where strong feedback loops across the three pathways – of structural change, behaviour change and amplification effects – can reinforce each other. As an example, their work in Karnataka, India, has resulted in structural change (by helping central and district level officials setting priorities), behavioural change (enabling a culture of regular observation and feedback between teachers and district officials to improve teaching) and amplification effects (improvements in the effectiveness of more technical programmes likely to be witnessed from the existence of better support structures increased motivation across the board) (Jeevan and Terwindt 2019).

8. Conclusion

Motivation, be it intrinsic or extrinsic, clearly matters. It affects how those within the system behave, what they do, and most importantly, what the outcomes of their efforts are. This report has discussed that there is a complex relationship between extrinsic and intrinsic motivation especially as the latter can often be derived from or be influenced by the former and vice versa. Whether already intrinsically motivated or not, the education workforce also requires the appropriate enabling conditions that do not stifle their intrinsic motivation but actually foster it, develop it and encourage it as a driver of change. These enabling conditions include but are not limited to the following: adequate rewards and recognition, appropriate working conditions, removing administrative barriers, providing autonomy, and improving material inputs (e.g. sufficient resources, appropriate technology and information). These factors can help foster better intrinsic motivation. Examples and evidence collected in this research have highlighted instances where intrinsic motivation have been thwarted by systemic problems within the education sector. For example, an increased focus on accountability in a bid to improve education quality has been shown in some instances to have damaged intrinsic motivation. However, adopting a culture of trust-based accountability backed up by a focus on tangible improvement could be a more effective strategy to encourage a self-improving system without discouraging those within it (Eddy-Spicer et al. 2016). The School Partnerships Programme in the UK provides an example of an instance where intrinsic motivation and a deep desire to be responsible for improvement and committing the effort to achieve it has been witnessed (Ibid).

STiR's theory of change has formed the backbone of this research. STiR Education works on the principle that most school systems have individuals with potential within them but whose motivation is dampened through factors including work conditions, resource constraints, and a lack of development opportunities. For education systems to thrive, the education workforce needs the relevant support and encouragement to 'reignite' their motivation for teaching. This can be achieved by developing autonomy, mastery and purpose amongst different stakeholders in the education system and this can be achieved through government partnerships. As a result of their extensive work, STiR's ToC has identified the following three inter-related impact pathways to 'reignite' intrinsic motivation among education workforce individuals: directly through **strengthening system** structures; directly through **behaviour change** among officials, teachers and students and indirectly through **amplification** of technical interventions.

This research, based on a review of the literature and in-depth interviews with a range of stakeholders from various arenas in the education sector, has noted several key findings. Given the very limited robust evidence that exists to answer these questions, the views of a range of educational stakeholders form the basis of this report. Their experiences have provided examples of instances that support their views.

System wide change requires strong leadership at the system level, an effective and focused middle tier to work with and an engaged and motivated education workforce on the ground delivering learning as key enabling factors to ensure successful education reform. Structural system change can potentially be brought about through a range of initiatives such as those that encourage a belief in intrinsic motivation, support systems for teachers and leaders, enabling coalitions within the workforce,

setting clear targets and providing financial backing to support each of these. These efforts must also sit within an overall environment that is enabling and conducive.

This research has discussed how system strengthening can be achieved through intrinsically motivated leaders who champion reforms and engage with stakeholders across the system in a way that develops and fosters intrinsic motivation for all. These leaders often value change and delivery outcomes over their own personal interests. Successful leaders' intrinsic motivation can be enhanced by allowing them to have autonomy in making decisions and by providing them with other enabling conditions to allow them to be reform champions. System-wide strengthening also requires reform efforts that result in deeper changes rather than superficial adjustments. In particular, contrary to most policy efforts that focus too heavily on frontline workers, placing similar expectations of commitment of those throughout the education system could lead to everyone exerting more effort for change.

This research has shown that systems cannot change as a result of policies alone but because of those actors within the system who can bring about organisational and institutional change that results in ongoing and longer-term improvements. Therefore, behaviour of individuals within the system, be they teachers or local officials, is a necessary pre-requisite of system change. This research has found that by providing stakeholders with autonomy, mastery and purpose, it is possible to achieve deeper engagement with reform efforts especially if the aim is to achieve longer-term impact or amplification effects. Successful reforms efforts discussed in this research have showcased instances where system-level impact can be achieved if there are intrinsically motivated individuals at all levels of the education system. According to a donor organisation stakeholder, those who are truly motivated will engage in development opportunities if they believe it will help their students. These individuals can be viewed as 'enthusiastic adopters' and whilst their existence facilitates implementation of new policies, there are usually not enough of them for real amplification to be seen. Successful interventions, therefore, need to reach those individuals who may not necessarily be highly intrinsically motivated but who are nonetheless 'persuadable'. These individuals also need to be provided with complementary support system because whilst:

'It is relatively easy to be passionate about something (it is) much harder to acquire the skills/knowledge to act to improve things, less still feel sufficiently autonomous and masterful to derive a sense of intrinsic motivation.'

(Donor Partner)

A crucial goal of education is to improve equity in both access and learning. Therefore, in conclusion it is critical to note that pure extrinsic motivation may not necessarily consider the needs of those who are hard-to-reach or those who are most disadvantaged (Imberman 2015 and Vegas 2005). Policies, adaptations and innovations for the better education of these children are likely to stem from the intrinsic motivation of all education stakeholders, be they teachers, school leaders, government officials, policy makers or donor organisations. Fostering intrinsic motivation of all education stakeholders particularly at critical nodes of the education system can be a valuable mechanism for improving education for all.

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11. Appendix

Primary data collection questions posed to key stakeholders

1. *How have some of the most promising education reforms (that you have worked with or are aware of) **benefited** from an intrinsically motivated base of local officials and teachers (by them engaging deeply in these reforms with real commitment leading to these reforms being successful and sustainable)?*
2. *How can a lack of an intrinsically motivated base of teachers and local officials **impede** otherwise promising system reforms/ system strengthening efforts (even when these reforms/ efforts are well-designed, well-funded and have central government buy in)?*
3. *As we aim to understand how intrinsic motivation can support (or prohibit, in case of a lack of motivation) effective system reform, could you provide examples of:*

    a) *System reform/strengthening efforts where intrinsic motivation might have led to **behaviour change** among teachers, officials, and students (e.g. resulting in increased attendance, engagement, curiosity, etc.)*
    b) *The relationship between **structural change in a system and increased intrinsic motivation** (e.g. by removing administrative barriers or providing increased autonomy to stakeholders)*
    c) *How improvements in intrinsic motivation, although not explicitly part of a technical intervention (e.g. a reading program, etc.), might have **amplified** the take-up and impact of technical interventions?*

List of programmes included

- Academisation programme (UK)
- Activity Based Learning (ABL), Tamil Nadu (India)
- ASER (India)
- ASER (Pakistan)
- Big Results Now (Tanzania)
- BRAC Education Programme (Bangladesh)
- Competence Based Curriculum (Rwanda)
- ECE Caregiver Assistants (Punjab, Pakistan)
- Fast-Forward British Council and LEAP Africa (Nigeria)
- Ghana Curriculum Reform (Ghana)
- Ghana SMS Texting Initiative (Ghana)
- Hiring of Head Teachers (Sindh, Pakistan)
- Lagos State EKO Project (Nigeria)
- *Lakhon Mei Aik*, Pratham (India)
- LEARNigeria (Nigeria)
- Malawi RTI Texting Initiative (Malawi)
- Merit-based selection of Head Teachers (Gujarat India)
- National Tablets Programme (Kenya)
- Partnership Schools for Liberia (Liberia)
- PEAS (Uganda)
- PRIEDE (Kenya)
- Punjab Education Support Programme II (Pakistan)
- STiR (India and Uganda)
- Teach First Programme (UK)
- The Teaching Network Foundation (TTNF), (Nigeria)
- The School Partnerships Programme (UK)
- T-TEL (Ghana)
- TTNF (Nigeria)
- TUSOME (Kenya)
- Uganda Curriculum Reform (Uganda)
- Vietnam Escuela Nueva Project (Vietnam)