Learning Partnership for the Inspect and Improve Programme
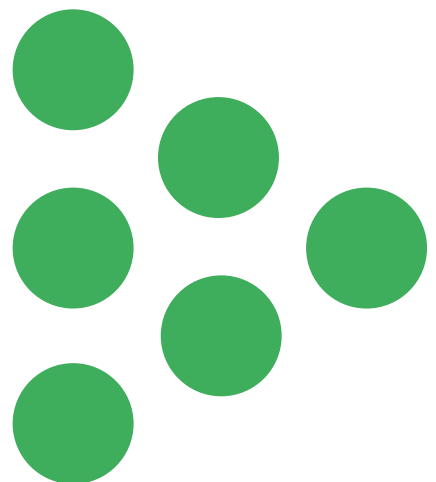
Final Report

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National Foundation for Educational Research (NFER)

Learning Partnership for the Inspect and Improve Programme

Final Report

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Abbreviations and Acronyms

BoG	Board of Governors
DES	Directorate for Education Standards
I&I	Inspect and Improve project
KII	Key informant interview
MoES	Ministry of Education and Sports, Uganda
NFER	National Foundation for Educational Research
PEAS	Promoting Equality in African Schools
PTA	Parent-Teacher Association
RISE	Research on Improving Systems of Education
SIP	School Improvement Plan
SMC	School Management Committee
ToR	Terms of Reference
ToC	Theory of change
UCE	Uganda Certificate of Education
USE	Universal Secondary Education
VfM	Value for Money
WMS	World Management Survey

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Executive Summary

1. Background of the Learning Partnership for the Inspect & Improve Programme

In March 2021, Promoting Equality in African Schools (PEAS) commissioned the National Foundation for Educational Research (NFER) to act as the Learning Partner for the second phase of the *Inspect and Improve* programme (I&I).

PEAS and the Directorate of Education Standards (DES) co-designed I&I, in response to the growing recognition that gains in education quality have not matched those in secondary school enrolment in Uganda. Uganda's Ministry of Education and Sports (MoES) identified that the quality of learning and teaching could be improved by improving school leadership and management through school inspections. I&I involves an innovative partnership between PEAS and DES and combines the enhanced DES school inspections process with PEAS' model of school improvement support. A pilot of I&I was launched in 2019 across ten schools, concluding in early 2021. Building on a body of evidence from PEAS' own schools, and evidence from NFER's pilot evaluation in 2021, the programme was then scaled up, extending to a further 40 secondary schools across Uganda.

To support I&I, the Learning Partnership had two main aims: (i) to generate evidence of impact and effectiveness to enable ongoing programme learning and improvements and (ii) to generate learning about the I&I model to support further roll-out.

2. Learning Partnership Design

Using an adaptive management approach, the partners refined the Learning Partnership milestones, research outputs work plan and timelines throughout the inception and implementation phases of the partnership. Due to Covid-19 and the resulting disruptions, the overall implementation period for the learning partnership increased by seven months, eventually covering April 2021 to December 2022.

The use of mixed methods and analysis underpinned our research approach. As with the independent evaluation of the I&I pilot, we used an adapted World Management Survey (WMS) to measure improvements in school management and leadership (NFER, 2021), alongside a Basic School Survey to explore additional school characteristics. We also carried out two case studies:

- A sustainability study exploring the sustained benefits of the I&I model and changes to the quality of teaching and learning, student-well-being and gender equity in intervention schools.

- A digitalisation study exploring the piloting of the digital inspections tools strand of I&I, the way in which programme delivery adapted to Covid-19 restrictions, and the uptake and perceived comparative benefits of using digital tools. We also explored the relative costs and benefits of different elements of the I&I programme and investigated the comparative value of digital vs non-digital delivery.

3. Findings

RQ1: What impact did the I&I pilot have on school leadership and management practice?

Overall, WMS scores did not show much difference between baseline and endline. However, we found evidence to suggest that I&I contributed to improved management practice.

School leaders reported higher authority in the areas of choosing subject content and hiring teachers compared to the baseline

We found significant changes in school leader's authority over time for choosing the subject content and teacher hiring/firing. In a policy environment that has not seen change in these areas, this implies that I&I may be supporting leaders to feel more in control of key decisions affecting their school.

Higher authority in managing budgets was associated with improved management practice. However, progress in management practice was associated with less positive relationships with the Board of Governors (BoG) and Parent-Teacher Association (PTA)

Higher authority in managing budgets predicted positive improvements in overall management practice scores. This indicated that better financial management was associated with better management practice overall. However, improvements in school management scores, overall, were associated with less positive relations with the BoG. This may be due to different factors, for example, that improved management could also involve a more critical engagement with the BoG to encourage difficult conversations about what needs to be improved at the school. This finding requires further exploration in future research, to understand the underlying processes.

School leaders' reports of improved learner attendance as a result of I&I support, were associated with improved inspection scores for this area of the School Improvement Plan (SIP)

School leaders' feedback on whether I&I improved learners' attendance was positively associated with changes in inspection scores in learner attendance. This indicates that the positive changes in attendance noticed by leaders were also picked by inspectors. In other words, this suggests that I&I helped leaders to better understand changes in student attendance, as perception maps onto the observed change.

Half of the twelve management areas measured by WMS have improved, whilst four have declined

Notable improvements in mean scores were seen in the areas of adopting and leading on education best practices and for personalisation of instruction and learning. On average, schools enrolled a third more students at endline compared to baseline, so the differentiation of teaching and learning during this time is a notable achievement. The areas of continuous improvement and budgeting showed the largest decline in scores. It is worth noting external circumstances, beyond I&I's control (for example, the impact of the pandemic) might have influenced some of the areas. This is particularly relevant in budgeting, where the effects of the pandemic limited available school

resources, and school leaders' ability to manage their budgets, in comparison to the pre-pandemic situation in 2019.

RQ2: What impact did the intervention have on the quality of teaching and learning, student well-being and gender equity in intervention schools?

Interviewees in Phase 1 and 2 schools gave similar responses on the changes they had observed since their school's engagement with I&I in the three focus areas.

Teachers' improved preparation of lessons and use of learner-centred activities helped to increase teacher and student engagement

The changed practices reported by school leaders, teachers and BoG representatives included: increased use of varied pedagogical strategies and planning for curriculum coverage and lessons; changes to teaching style, with teachers deploying more learner-centred strategies; and increased setting of remedial lessons and continuous assessments, to monitor learning. Respondents noted that students were more involved in their own learning and some mentioned that student absenteeism had decreased due to learners' greater interest in learning. Improved teacher attendance, which, along with student attendance, underpins quality education was also cited as a change.

Alternative discipline methods and an increase in psychosocial support, have helped to improve cooperation between teachers and students; these approaches are central to improved student wellbeing

I&I's guidance on the cessation of corporal punishment and the introduction of alternative behaviour management methods - for example, litter picking - helped to improve cooperation between teachers and students. The I&I programme had also prepared schools to provide psychological support and counselling to students. This provision was perceived by all three stakeholder groups to be vital in the wake of Covid-19 school closures and was seen to be key in improving student wellbeing.

Gender-sensitive teaching and wellbeing practices have positively impacted girls' enrolment, attendance and self confidence in school

Staff reported greater awareness of gender-related issues as a result of I&I, for instance, girls' needs for a private space in school during menstruation, and that their schools were working on the provision of a suitable space. Other reported changes included greater encouragement of girls to answer questions in class and reinforcing girls' equal ability to that of boys, which helped girls to be more comfortable and confident. Respondents also noted that girls were taking on more leadership roles in class and participating more in extracurricular activities.

> **Schools that improved management practices were also likely to show improved inspection scores over time, particularly in terms of teacher and student attendance**
>
> In schools, which saw an improvement in management practices during this time, as measured by the WMS, there was a corresponding improvement in the overall inspection judgement score. In particular, looking at the subcategories of inspection scores, improved management practices were aligned with improved inspection scores in Teacher and Student Attendance, but not with the other areas monitored in inspections (Teaching Quality; Learner Achievement, Behaviour and Safety; and School Leadership).

Greater numbers of females in the school workforce was related to higher proportions of girls in school

We found that schools with female leaders had a larger proportion of girls in school (approx. 6% more). These schools also had a larger proportion of female teachers (approx. 7% more). This could suggest that a greater representation of females in school leadership and teaching might be conducive to creating a more positive environment for female students and increase their enrolment. However, the scope of the current study did not allow for such analysis, thus more research is needed to understand the underlying mechanism.

In schools with higher proportions of female teachers, school leaders reported positive feedback on teacher attendance as a result of I&I support; this was reflected in the inspection score on teacher attendance

We also found an indication[1] of a positive relationship between higher proportions of female teachers and the number of school leaders who reported that they had observed positive changes in teacher attendance, as a result of I&I support. Similarly, we found an indication that schools with a higher proportion of female teachers were more likely to have a positive inspection score in teacher attendance. These are interesting patterns, which suggest that schools with a higher proportion of female teachers are likely to have higher teacher attendance than schools with lower proportions of female teachers. This finding warrants further exploration in future studies.

RQ3: How did DES inspectors and headteachers in pilot schools utilise digital tools for inspection and monitoring, and what factors determined the level of uptake?

Overall, stakeholders agreed that I&I's digital tools and platforms are user-friendly and increase the ease of accessing, synthesising, and comparing inspection findings

Respondents recognised the digital inspection tool's transformational capabilities, enabling users to generate inspection reports promptly and efficiently. They also highlighted the options of generating comparative analysis, allowing decision-makers convenient access to synthesised school-level data based on a wide range of parameters including gender, geographical location, and inspection indicators.

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[1] Near significance here was p=0.06, where normally the cut off would p=0.05

On WhatsApp support groups, school leaders reported positive experiences from fostering knowledge exchange and interaction in a semi-formal environment, for example, benchmarking on management strategies to address emerging issues, such as lack of school meals and recovering lost learning following school reopening.

> **Access to technology infrastructure and personal factors such as positive attitudes among users and their level of skills were key enablers to uptake of digital tools and platforms**
>
> Stakeholders highlighted the convenient design of I&I digital tools and availability of technology infrastructure, such as laptops provided by PEAS and DES, as key enablers of uptake. They also cited individual ownership of internet-enabled phones as an enabling factor that was well-received by school leaders.
>
> All stakeholders acknowledged that I&I's digital pilot was a timely intervention that fit within articulated government priorities for digital transformation and expansion of technology infrastructure at national level. The digital inspection tool was being used to carry out inspections beyond the scope of I&I, reaching an estimated 600 government schools at the time of the study.
>
> Positive attitudes and willingness to learn were found to be essential for meaningful engagement with digital tools and platforms, while school leaders' foundational digital skills further facilitated this engagement.

Negative attitudes towards technology, low levels of digital skills and low internet connectivity were the key barriers to engagement with digital tools and platforms

In analysing the factors that have impeded meaningful engagement with digital tools and platforms in I&I, our case study identified (i) negative attitudes among users, (ii) low levels of digital skills and (iii) the lack of access to reliable power supply as well as internet connectivity.

Stakeholders mentioned the challenges associated with using digital tools and platforms in locations with unreliable internet connection as the biggest barrier. Project staff reported that while I&I intended to develop a hybrid inspection tool with offline capabilities from the beginning, the programme encountered numerous challenges that hampered its roll out. At the time of completing the study, the programme was making progress in developing the offline version, which was expected to be launched shortly.

RQ4: How did the intervention demonstrate the observed impact and what worked (and did not work) to improve the quality of leadership and management in intervention schools?

School leaders reported that they were well equipped to maintain observed changes via I&I support

The types of support which helped to improve the quality of leadership and management and, in turn, to enable the observed changes in teaching and learning quality, student wellbeing and gender equity included target setting, writing a SIP, data analysis and monitoring teaching. This was reflected in the school survey by school leaders, who reported on the utility of different types

of support in improving school leadership and management. I&I training in conducting supportive lesson observations, guidance on behaviour management strategies as an alternative to corporal punishment, and gender sensitisation approaches were also found to be conducive to improved management and teaching practice.

> **Through the use of digital tools, school inspectors were able to improve on the timeliness, quality of reporting processes and compliance to standard operating procedures**
>
> There was consensus on the positive changes in the way inspectors delivered on reporting process. This was illustrated in the timely submission of reports, reducing the waiting period for stakeholders to access key recommendations. Respondents noted that before I&I's digital pilot, the average processing periods for generating inspection reports varied from one month to up to five months. Following the use of digital inspection tool, which was associated with real time transmission of inspection data, this average processing period has been significantly reduced by an estimated 97%[2] to one or two days.

By engaging with digital platforms, school leaders were able to improve on data-driven planning, peer collaboration and knowledge sharing on best practices

In examining observed changes in school leaders' management practice, case study respondents reported positive improvements in the way data was used for planning. This was supported by convenient data management processes, which respondents associated with access to laptops as well as the prompt provision of feedback from the enhanced inspection cycle.

Furthermore, reports suggested that school leaders' participation in WhatsApp support groups contributed to the transfer and adoption of education best practice. All stakeholders cited the knowledge exchange in a moderated community of practice as an illustration of peers fostering changes in practice and giving new opportunities for peer discussion.

RQ5: How much did the intervention cost to deliver, and what were the relative costs and benefits of different mechanisms of school inspection and school support?

Stakeholders agreed that improvements brought about by I&I justified the costs of adopting digital tools and platforms

The study shows that adoption of digital tools and platforms resulted in additional costs for the programme and individual stakeholders. These included initial developing costs, staff training costs, procurement of devices as well as maintenance costs for IT infrastructure. At individual level, school leaders and inspectors reported that they incur costs of internet data and charging electronic devices.

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[2] Based on a conservative estimate that it took 60 days previously and now it takes 2 days, hence resulting in 58 days decrease.

Despite these cost implications, there was a consensus that the investments made in digital tools demonstrated value for money. The tools helped address key gaps by adding efficiency to the inspection process and supporting timely enhancement of strategies at the school level. A number of additional cost savings that emerged from increased efficiency across the inspection cycle were noted. For instance, participating in virtual trainings cut down on travel costs, while attaining comparable outcomes.

RQ6: How can DES effectively embed I&I elements into government guidelines and practices in order to implement the programme at a wider scale?

Having examined the effectiveness of the I&I Phase 2 and the mechanisms for impact in the previous sections, we share some of the lessons from the I&I Phase 2 scale up that may be important to consider in further expansion of the model.

Stakeholders identified key lessons that promoted the sustainability of changes resulting from implementing I&I Phase 2, these included

❖ An open mindset to fostering new practices for supporting learners: highlighting that positive attitudes towards I&I programme underpin improved practice.

❖ Headteachers' awareness of the need to motivate staff and the importance of their ongoing support to staff.

❖ Peer collaboration and support within schools, and delegation of some practices meant that staff could practise a collective efficacy, for example, peer observation and learning improved practice.

❖ Cascading of school leaders' learning from I&I to all school staff can also support staff in their continued professional development.

❖ Parental and community engagement: support from the learner's family was impacted by socioeconomic factors. A continual focus on improving school funding is necessary to help avoid faltering on the progress made thus far, although this is generally external to school leaders' control and therefore something that needs to be addressed at the system level.

> **Phase 2 of the programme expanded the collaboration between PEAS and DES to support the potential for intervention at scale**
>
> PEAS and DES' collaborative approach in implementing the I&I model remained vital for successful implementation of innovative approaches to inspections and improvements in government schools.
>
> According to key project stakeholders, the launch of the digital pilot and a renewed focus on cross-cutting themes of gender equality and safeguarding provided this second phase of the programme with new opportunities for systems-level cooperation. This phase of the programme expanded formal opportunities for further coordination with DES and other departments across the Ministry of Education structure. These included collaborating with the Gender Unit, Secondary Education Department and the other departments engaged in digital transformation initiatives across the Uganda MoES. These have offered opportunities for knowledge sharing and identification of potential partners for further scale up.
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> In this phase of the programme, DES personnel received training on the use of the digital inspection tool. Staff interviewed reported that the tool was used to carry out inspections beyond the scope of I&I, reaching an estimated 600 government schools at the time of the study.

4. Conclusions

Overall, we found that study respondents reported several benefits of I&I, pointing to the intervention's generally positive impact. This is particularly noteworthy and highlights I&I's benefits, given the challenging context of the current study, which coincided with the global pandemic, teacher strikes and negative social and economic impact in Uganda.

School leaders reported higher authority in decision-making overall; in a policy environment which has remained largely constant, this suggests that I&I may have supported leaders to feel more in control of key decisions affecting their schools

Choosing subject content was one of the areas in which school leaders reported higher decision-making authority. Schools needed to address learning loss caused by the Covid-19 pandemic and as part of efforts to implement remediation strategies, school leaders may have been prioritising subject content, which could explain this finding.

Higher authority in budget management was significantly associated with improved management practice, as measured by the WMS, suggesting that I&I support in budgeting may be enabling good practice in other school processes.

School leaders also reported higher authority in hiring and firing teachers. However, to help explain this finding, more data and tracking is needed on the dynamics of teacher retention, for example, insights on government teacher deployment practices and trends in education personnel recruitment by local Parent-Teacher Associations.

Reported improvements in teacher presence and student attendance are consistent with findings from evaluation of the pilot phase

In the Basic School Survey for I&I Phase 2, 73% of school leaders reported improvements in student attendance and 80% in teacher attendance as a result of I&I support, with improved inspection scores for student attendance**.** In the pilot study, these changes were attributed to enhanced internal monitoring support processes introduced by school leaders.

Schools with improved WMS scores overall were also likely to show improved inspection scores, specifically in the areas of teacher and student attendance but not in the other areas of the inspection framework. This suggests that strengthened management practices, which would include school leaders monitoring attendance, have a positive effect on both teachers and students being in school, but that it may take time for attendance to impact on improvement in the other areas.

Gender equity in the school workforce has the potential to attract greater enrolment of girls in school

We found indication that greater numbers of females in the school workforce were associated with higher proportions of girls learning in these schools. Furthermore, in schools with higher proportions of female teachers, school leaders reported positive changes in teacher attendance as a result of I&I support, with improved teaching attendance reflected in the inspection scores of these schools.

This is consistent with a growing body of evidence that points to positive associations between female school leaders and outcomes such as student wellbeing and teacher attendance. Many interviewees in the case study also reported changes that support gender equity for girls. However, evidence gaps remain around the specific practices adopted by female school leaders and the measures that can be taken to support scaling these practices to more school leaders, both female and male. This warrants further investigation in future research.

Digital tools are transforming I&I delivery mechanisms and are vital to effecting school improvement

Despite operational challenges related to the roll out, the digital pilot delivered highly encouraging results including expedited feedback throughout inspection cycles. This study found promising improvements in leadership and management practice as a result of the incorporation of digital tools and platforms in the delivery of the I&I programme.

Consistent with the findings from the pilot evaluation, headteachers' communities of practice remain critical to the professional development of school leaders participating in I&I. In Phase 2 of the programme, all stakeholders interviewed cited knowledge exchange as an illustration of peers fostering changes in practice via WhatsApp groups. However, reported challenges with access to technological infrastructure need to be addressed for the programme to realise the full potential of investments made in digitalisation.

5. Recommendations

Our findings from the Learning Partnership offers recommendations for further scale up of the I&I programme.

1. **I&I should continue to support school leaders to maintain the focus on attendance and student wellbeing.** Where possible, I&I should find ways to facilitate knowledge exchange on solutions to key challenges to attendance. In particular, the challenge related to school meals provision consistently emerged as a barrier to school attendance across the different I&I implementation phases, including in the presented case studies. Study participants mentioned that this was also a topic that required knowledge exchange in school leader WhatsApp groups. In the I&I pilot endline evaluation, headteachers from PEAS network schools cited school feeding as one of the shared topics of interest in peer exchange with school leaders from government secondary schools.

2. **I&I should build on existing collaboration with the MoES Gender Unit to identify further opportunities for impact.** One of the ways to do this is through proposing the inclusion of indicators on gender in the national inspection framework. PEAS' current work with the MoES Gender Unit on areas such as safeguarding presents an opportunity for impact. Furthermore, I&I could contribute to addressing evidence gaps around specific management practice adopted by female school leaders and the measures that can be taken to support scaling these practices. One of the ways to do this could be through conducting a longitudinal study to track female school leaders.

3. **In refining the I&I Theory of Change (ToC), the programme should further consider more direct inputs on teaching quality.** The programme's current ToC frames PEAS' leadership and management interventions as the basis for observable changes to areas of school practice, which will ultimately result in improved learning quality in government schools. Findings from this study suggest that other improvements across the school have emerged as a result of I&I's targeted support - specifically improvements in teaching quality. This is consistent with findings from the Phase 1 pilot evaluation (NFER, 2021).

4. **I&I should use the success of the digital pilot activities to champion system-wide support for school improvement as well as investment in low resource technology.** The digital inspection tool has been used in inspections across an estimated 600 government secondary schools and it has been generally well-received. Thus, the scale and impact of the digital pilot can be used to raise the profile of the overall I&I programme. One of the ways to do this is ensuring that the issue of resourcing access to technology infrastructure receives adequate attention in the relevant decision-making structures that I&I engages with. This is maybe an area where partnerships can assist PEAS by supporting school leaders with the necessary infrastructure to enable further progress in this area.

5. **I&I should consider further evaluation with control schools.** Due to practical considerations around sampling, costs, and the suitability of an ongoing and formative learning

partnership, the study was designed without the use of a comparison group in the pilot phase and Phase 2. However, this continues to present methodological limitations as we are unable to draw causal links. Future evaluation approaches with control schools will allow the programme to understand impact and drivers for change in the I&I programme.

6. In future opportunities for learning and research, **I&I should consider further exploration of programme's impact on relationships with Board of Governors and Parent-Teacher Associations, as well as students**. While findings from the pilot evaluation suggested that strong working relationships are vital to headteachers' capacity to adopt change, in this study we found positive association between improved management practice and decline in the relationship with the BoG and PTA. It may be that improving management practices results in more critical engagement with and consideration of challenges for improvement from the BoG and PTA, or that more positive relationships with the BoG and PTA may be linked to leaders having a more self-reflective/critical perception of management at school. It would be critical to examine further how these two structures can be strategically engaged in accelerating progress in management practice. Additionally, we found some indication of positive relationships between improved school management and learner safety; future studies should aim to further explore these connections between different school stakeholders.

7. A closer exploration of **changes over time in respondents' I&I experiences and impacts** could help understand the causal relationships between the different aspects of the programme, as well as how its effects develop over time. A longitudinal study following school leaders and other stakeholders, as they participate in I&I could offer vital insights into these dynamics

1 Introduction

1.1 Background of the Learning Partnership

In March 2021, Promoting Equality in African Schools (PEAS) commissioned the National Foundation for Educational Research (NFER) to act as the Learning Partner for the Inspect and Improve project (I&I).

PEAS co-designed I&I together with the Directorate of Education Standards (DES). This was in response to the growing recognition that in Uganda, whilst secondary school enrolment has expanded greatly, it has not always been accompanied by proportionate education quality gains. In that context, Uganda's Ministry of Education and Sports (MoES) identified school inspections as a process that could support improved school leadership and management and thus improve the quality of teaching and learning. I&I involves an innovative partnership between PEAS and DES and combines the newly improved DES school inspections process with PEAS' model of school improvement support. A pilot of I&I was launched in 2019 in ten schools and concluded in early 2021. Building on the body of evidence from PEAS' own schools[3] and from the pilot evaluation[4], PEAS and DES scaled I&I by extending its operations to reach a total of 40 additional government secondary schools across all regions in Uganda. The 10 secondary schools that participated in the pilot were also included in this scale up (Phase 2) of Inspect and Improve programme.

Implementation of the Learning Partnership for I&I began in early April 2021 and was originally planned to conclude by the end of March 2022. However, as part of containment measures to address the Covid-19 pandemic, the government of Uganda announced nationwide school closures from July 2021 up to January 2022. These disruptions prompted revisions to I&I programme timelines and to research activities of the Learning Partnership. Details of adaptations made in the implementation phase of the Learning Partnership are set out in Section 3.1. To support I&I, the Learning Partnership has had two main objectives, as shown in Table 1 below.

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[3] Crawfurd, 2017; EPRC, 2018.
[4] NFER, 2019; 2021.

Table 1: Learning Partnership objectives

Objective 1. To generate evidence of impact and effectiveness in order to enable ongoing programme learning and improvements.	Objective 2. To generate learning about the I&I model to support further roll-out.
•To measure programme impact using the World Management Survey (WMS) and analysis of inspections data to provide ongoing feedback and evidence to support programme decisions as the programme is rolled out across 50 schools. •To support PEAS to adapt and improve the delivery of the programme. •To generate evidence to support both PEAS and DES to advocate for additional resources to further scale the programme.	•To analyse data on the I&I model to understand what works and why to provide lessons learned on how: •PEAS might replicate the programme elsewhere; •DES and other government stakeholders might embed the programme in government programming; and •to contribute to wider international debates about cost-effective approaches to improving school management.

1.2 Purpose and structure of the summative Report

The purpose of this report is to provide a summative analysis of the data collected and analysed throughout the Learning Partnership for Inspect and Improve programme. Additionally, this will serve as a consolidated account of the activities undertaken, findings, recommendations and lessons learned from the Learning Partnership.

The summative Report builds on the Inception Report for the Learning Partnership, submitted by the National Foundation for Educational Research (NFER) and the concept note for the case studies.[5] The structure of the remainder of the report is as follows:

- **Section 2** provides the background to the project, including an exploration of the project's context and design.

- **Section 3** summarises the approach to the Learning Partnership, including details on the design and data collected, key research questions and the limitations to our approach

- **Section 4** sets out the findings of the Learning Partnership roughly organised around the Research questions.

- **Section 5** provides the key conclusion from the findings.

- **Section 6** sets out our recommendations for project stakeholders.

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[5] The Inception Report and concept note for the case studies are available on request.

2   Project Background

This section summarises our observations on the project context and provide an overview of the I&I project design.

2.1   Context

The following section presents an overview of the relevant and recent changes in Uganda's education landscape that help contextualise the motivation for cooperation between PEAS and DES for the design of the I&I Phase 2.

The implementation of the Learning Partnership for I&I began in early April 2021 and was originally planned to conclude by the end of March 2022. However, as part of containment measures to address the Covid-19 pandemic, the government of Uganda announced nationwide school closures from July 2021 up to January 2022. These disruptions prompted revisions in I & I activities, and consequently our research activities.

2.2   Design of I&I Phase 2

In this section, we introduce I&I Phase 2 programme scale up and provide an overview of the adaptations made in an evolving operational context.

The scale up of I&I programme was grounded in evidence that the PEAS model of school inspections is successful in improving the quality of leadership and management

Since 2008, PEAS has built and run a network of 30 schools in Uganda with the aim of providing affordable, high quality and sustainable secondary schools that increase access to quality secondary education for marginalised young people. PEAS aims to also collaborate with other education providers, in particular government partners, to share best practices and pioneer new approaches to deliver education that unlocks the full potential of all children. This objective and the emerging evidence on I&I's effectiveness were key in supporting the programme's scale up.

The independent evaluation[6], of the I&I pilot found evidence that I&I was successful in improving the quality of leadership and management in all 10 participating schools across all areas of management, as defined by the World Management Survey (WMS). Moreover, improvements to school management led to improvements in student and teacher attendance, teaching practices, and student safety and well-being.

Furthermore, the Research on Improving Systems of Education (RISE) programme examined school management practices and public-private partnerships (PPP) in Uganda and found that PEAS schools had higher levels of management quality than comparable government, private or other PPP schools, as measured by the WMS (Crawfurd, 2017). A previous external evaluation of PEAS schools similarly found that a key factor contributing to the high quality of school management is PEAS' approach to school inspections and accompanying cycle of support that encourages a mindset of continuous improvement. These include teacher support and training,

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[6] NFER, 2019; 2021.

accountability measures, child protection, support for learning and development of strong school leaders (EPRC, 2018).

The inputs and activities of I&I aim to support and strengthen the inspections process as well as school leaders' capacities

The I&I approach builds on current efforts from DES to strengthen its school inspection approach and combines this with PEAS' school improvement model. The model focuses on building the capacity of school leaders to identify improvements required at the school level, centred around the inspections process. In addition to the school inspections, the I&I programme has developed a cycle of support that encourages a mindset of continuous improvement, which includes the development of a School Improvement Plan (SIP) on the basis of the initial inspection, continuous support and mentorship throughout the school year (in the form of visits and phone calls), culminating in a final inspection to assess progress against the SIP and to allow school leaders to reflect on their school's progress.

All 10 schools that participated in the pilot were enrolled in Phase 2 of the programme. In addition, 40 schools were selected by DES for participation in the scale up on the basis that they required improvement, primarily on school leadership and administrative skills. Furthermore, DES requested the inclusion of 20 schools in hard-to-reach areas[7].

I&I continued to learn and adapt amidst Covid-19 related disruptions

In March 2020, schools closed in Uganda in response to the global outbreak of Covid-19. The closures lasted nearly two years, with this being one of the longest periods globally. Later measures included revised school calendars and the development of Standard Operating Procedures (SOPs), which provided guidelines on the reopening of schools.

This disrupted the implementation of the I&I Phase 2 and reduced the scale of activities between July 2021 and December 2021. During school closures and travel restrictions imposed by Covid-19, the programme delivery shifted to digital platforms and remote activities. PEAS staff made efforts to engage with I&I school leaders through WhatsApp support groups and virtual training activities. Final inspections were conducted in October 2022.

Despite school closures and subsequent disruption of I&I pilot implementation, the project was able to garner buy-in from key government stakeholders. In Q2 of 2022, PEAS secured funding to expand I&I to a further 150 government secondary schools across all regions in Uganda.

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[7] Criteria for Hard-to-reach locations as defined by PEAS and DES

3 Learning Partnership Design

In this section, we provide an overview of our approach and our data collection methods and sampling strategy. We also provide information about how we adapted the learning partnership design due to Covid-19 disruptions.

3.1 Adaptations to design and scope

As a result of the Covid-19 outbreak and the resulting disruptions, the overall implementation period for the Learning Partnership increased by seven months. While the partnership was intended to take place between April 2021 and May 2022, the actual timelines were from April 2021 to December 2022. To account for consequent changes to the project work plan, the Learning Partnership adopted an adaptive management approach.

The Covid-19 related disruptions and subsequent changes to the timelines and programming for I&I, also resulted in a revised approach to the case studies. The case studies initially aimed to provide formative feedback on key emerging issues throughout the course of I&I by staggering the data collection periods for the studies and ensuring that each study could have two different waves of data collection. In order to adapt to the new timelines, we collected the data for our studies simultaneously. This meant that the case studies were summative and so the lessons from one case study could not inform the other, as all data was collected at the same time.

3.2 Learning Partnership milestones and outputs

In this section, we provide a summary of the Learning Partnership milestones and research outputs. This work plan and timeline has been refined and adapted throughout the inception phase and implementation phase of the partnership. Figure 1 below provides the adapted timeline.

Figure 1: Timeline of the Learning Partnership for Inspect & Improve

3.3 Research questions

The objectives of the Learning Partnership were (1) to generate evidence of impact and effectiveness in order to enable ongoing programme learning and improvements and (2) to generate learning about the I&I model to support further roll-out. The Learning Partnership was guided by the following research questions (RQs) presented in Table 2 below:

Table 2: Learning Partnership Research Questions

Research Question	Description
1. What impact did the intervention Don the quality of school leadership and management in intervention schools?	RQ1 explores changes in WMS scores in schools before and after participation in I&I.
2. What impact did the intervention have on the quality of teaching and learning, student well-being and gender equity in intervention schools?	RQ2 explores changes in inspection scores before and after participation in I&I, and impact of I&I on teacher attendance, student attendance, teaching practice, student well-being, and gender equity.

Research Question	Description
3. How did DES inspectors and headteachers in pilot schools utilise digital tools for inspection and monitoring, and what factors determined the level of uptake?	RQ3 explores the level and determinants of uptake of digital tools and perceived comparative benefits of using digital tools.
4. How did the intervention demonstrate the observed impact and what worked (and did not work) to improve the quality of leadership and management in intervention schools?	RQ4 explores the mechanisms through which I&I had an impact on school leadership and management and how the changes are embedded in schools' processes.
5. How much did the intervention cost to deliver, and what were the relative costs and benefits of different mechanisms of school inspection and school support?	RQ5 explores the cost of delivering the intervention, the cost of the I&I partnership, and the relative benefits of different inspection and support mechanisms.
6. How can DES effectively embed I&I elements into government guidelines and practices in order to implement the programme at a wider scale?	RQ6 explores the feasibility and institutional capacity of implementing I&I at scale.

The research questions are elaborated upon in our evaluation framework (Appendix A), which further breaks them into sub-questions, and maps them against the sources of data used for each question.

3.4   Methodology

3.4.1 Overall study design

The use of mixed methods and analysis underpinned our research approach. We used two different sets of tools for data collection, the WMS, with a Basic School Survey, and case studies. Their purpose and corresponding sampling framework are described in Table 3 below.

Table 3: Overview of research tools, purpose and sample

Tool	Purpose	Sample
World Management Survey (WMS) **and Basic School Survey (BSS)**	WMS: To assess changes (pre-post) in the quality of school leadership and management over time. BSS: to explore school profiles, for example, student:teacher ratio and Headteachers' decision-making authority in a number of areas.	Baseline: 40 'Phase 2' I&I schools Endline: 10 pilot schools and 30 'Phase 2' I&I schools* (*PEAS collected the data for 20 Phase 2 schools)
Case studies, including school-based and thematic-based	Exploratory case studies, to gather detailed information from key actors. Cases were focused on collecting data at the school-level, or to explore thematic cases with key stakeholders (such as project staff, DES representatives, district inspectors, and other nominated respondents).	• 24 Key Informants and Group Discussions • Semi-structured Interviews in 12 schools ~ 5 interviews per school • Purposive sample of stakeholders

3.4.2 Repeated measures design (WMS)

We used a repeated measures design with two data collection points to detect changes in WMS scores across time. For this purpose, we collected WMS scores prior the start of I&I activities (April/May 2021) and a second wave of data in October 2022 after the schools received the I&I support.

The repeated measures design allowed us to assess within-subject change across time. Although we are not able to attribute changes in WMS scores to the intervention alone, by following the same set of schools we can use the baseline scores across the different cohorts as a comparison (or a form of control measures) to assess their progress over time. The results of the WMS have been triangulated with qualitative case studies, where possible, to explore the contribution of the programme to any detected change in WMS scores.

3.4.3 Baseline and endline data collections (WMS)

As with our pilot evaluation, we used an adapted WMS to measure improvements to school management and leadership. The WMS involves a structured survey in which trained enumerators generate scores between 1 to 5 for school leadership and management by delivering a set of probing questions to headteachers around management practices. More information about our adaptation of the WMS can be found in the I&I pilot baseline report (NFER, 2019).

Based on feedback from the pilot evaluation, we refined the scoring rubric for the WMS[8], including the descriptions for scores in the rubric and by allowing enumerators to score half points (i.e. 1.5, 2.5, 3.5 and 4.5), where the responses fall between two levels.

In order to reduce research fatigue of participants who took part in the endline data collection in February 2021, we did not collect a baseline set of WMS scores for the 10 schools that participated in the pilot. Instead, we utilised the endline scores from the pilot evaluation as a baseline proxy and conducted the WMS across all 10 schools at their endline only. To ensure that the scores of the pilot and Phase 2 cohorts are comparable, we used the pilot's endline transcripts to re-score the WMS allowing for half points

In addition to the WMS and Basic School Survey, we used case studies, focused on examining contexts that exemplify particular trends of change or draw attention to particular project features or interactions. All cases were selected on a purposive basis.

We employed two different types of case studies: school-based case studies and thematic-based case studies.

Formative case study on use of digital tools and platforms

This study explored the theme of digitalisation in I&I examining not only the piloting of digital inspections tools as part of I&I, but also the way in which programme delivery shifted to digital platforms and remote activities in response to school closures and travel restrictions imposed by Covid-19. This study also examined the uptake and perceived comparative benefits of using digital tools as well as the use of digital platforms and remote activities as a mechanism through which I&I operates. Furthermore, it explored the relative costs and benefits of different elements of the I&I programme and investigates if activities drive more value by being delivered in digital or non-digital mode.

Summative case study on sustainability

In this study, we explored the sustained benefits of the I&I model. We examined whether changes to school management have been sustained, the way in which the intervention has resulted in changes to the quality of teaching and learning, student-well-being and gender equity in intervention schools, and the mechanisms for doing so. In doing so, we had an opportunity to examine these changes in pilot schools three years on from initial I&I engagement and changes in Phase 2 schools one year on.

3.5   Limitations

There are limitations to our methodological approach to the Learning Partnership. We note some of these below:

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[8] The WMS tool and scoring criteria utilised for the Learning Partnerships' baseline data collection are available on request.

- For the Learning Partnership, we utilised the WMS as the measure of project impact. This allows us to consider the observable impact of the intervention after approximately one cycle of implementation (e.g., a school year). However, we are unable to measure outcomes which are expected to require a longer incubation period, such as in changes to teaching practices or learning outcomes. We instead examine observable changes, which are explored via case studies and changes in inspection scores (see **Section 4.2.2**).

- As with the I&I pilot evaluations, our research design does not draw upon impact evaluation methods which allow us to attribute causality. While our pilot evaluation used a comparative case study approach to draw inferences about causal attribution, in the Learning Partnership, we instead use an exploratory approach (see **Sections 4.3 and 4.4**) which has allowed for detailed learnings on the topics.

- The full set of Uganda Certificate of Education (UCE) scores from intervention schools was not available at the time of writing this report. Consequently, the results we have presented exclude student learning outcomes before and after the intervention.

- In interpreting findings, it is important to consider that schools were operating in a challenging context due to Covid-19 related disruptions including extended periods of school closures restrictions on in-person gatherings. In addition, the research period coincided with more general disruptions to the education sector in Uganda, such as large teacher strike actions. It is reasonable to assume that this context may have affected schools' capacity to make progress in some of the management practices. However, the Learning Partnership's scope or data collection do not allow us to draw conclusions on the exact effects of Covid-19 and other external factors on I&I.

- Over the duration of the Learning Partnership, we encountered changes amongst our respondent population in school leader position. At the time of the endline study, 14% of school leaders surveyed were new to the leadership role as they had only been in post for less than a year at the time of data collection. Additionally, we encountered changes in the positions of the respondents surveyed. While close to 12% of respondents were Deputy Headteachers at baseline, in the endline, this proportion increased significantly to 28%. As a result, this makes it hard to control for differences in opinion, as opposed to just differences over time. This also affected the data quality as respondents could only share perspectives based on their limited participation in I&I Phase 2.

4   Findings

This section outlines a summary of the results and analysis from the Learning Partnership. The analysis comprises of, and triangulates information from the survey, case study and key stakeholder interviews.

4.1   What impact did the I&I pilot have on school leadership and management practice?

This section analyses the effect of I&I on school leadership and management practices. The main indicators used to map changes in school leadership and management practice are the WMS scores[9].

There is little change in overall WMS scores, with the mean overall WMS score equal to 2.8 at both baseline and endline. 58% of school leaders saw an increase in their overall WMS score from baseline to endline. There are some changes for some of the individual questions. Half of the twelve management areas have improved, whilst four have declined. Notable improvements in mean scores are seen for Adopting and Leading on education best practices, which has increased from 2.7 to 3.0, and for Personalisation of instruction and learning, which has increased from 2.4 to 2.8 . On average, schools have around a third more students enrolled at endline compared to baseline. As a result, the overall Student:Teacher ratio has increased, on average, from 14 to 19 between the two timepoints, so the differentiation of teaching and learning during this time is a notable achievement. The largest falls are for Continuous Improvement, which has fallen from 3.5 to 3.0, and Budgeting, which has fallen from 3.4 at baseline to 3.0 at endline. Whilst the former falls within the school leaders remit to a large extent, a high WMS score for "Budgets are effectively managed to avoid overspend" is harder to achieve now than in 2019, for reasons beyond I&I.

School leaders conveyed the positive effects in general of I&I on management, in terms of supporting schools' and staff's development and improvement. For example:

> *We identify a small area that is within our capacity to change then we work on it and the results are good. (Headteacher)*

> *So, you see administrative skills, leadership skills we have got more because of the I&I. (Headteacher)*

Overall, the results from the analysis of this research question can be summarised as follows:

- Overall WMS scores have not shown much difference between baseline and endline.

- However, when we delve deeper by cross tabulating the changes in WMS scores with other school or leader characteristics, some interesting patterns emerge. School leader's (HT or DHT) gender or leadership experience does not explain variation in WMS scores, but classroom teaching experience is positively correlated with aggregate WMS scores.

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[9] In Appendix 4.1 (available on request), we provide a descriptive analysis of the WMS scores showing the distributions and trends over time.

- Second, we find that **more authority in managing budget predicts positive improvements in WMS scores. Furthermore, there might exist a link between achieving improvements in management practices and the relationship with the BoG.** This requires further exploration.

- Finally, we find that **school leader's capacity to implement I&I significantly predicts changes in WMS scores.** This highlights that limited capacity of school leaders to exercise changes in school management practices might be an important barrier to improvement.

We analysed how the WMS scores relate to various elements of school performance like characteristics of school leaders, authority and capacity to implement I&I and inspection scores. The analysis is divided under the following subsections:

1. Relationship between WMS scores and school leader's characteristics

2. Relationship between WMS and changes in school leaders' authority, relationship with teachers, and the Board of Governors (BoG) and Parent-Teacher Association (PTA)

3. Relationship between changes in WMS I&I feedback and capacity.

4.1.1 Relationship between WMS and school leader's characteristics

We first present the distribution of respondents to WMS and school surveys in Figure 2 below.

More Deputy Headteachers compared to Headteachers responded to the WMS survey at endline, than at baseline.

In the baseline, close to 88% of the respondents were Headteachers (HT) and the remaining 12% were Deputy Headteachers (DHT). In the endline, the proportion of respondents who were DHT increased to 28% (Figure 2 below).

Figure 2: Respondents by type of position
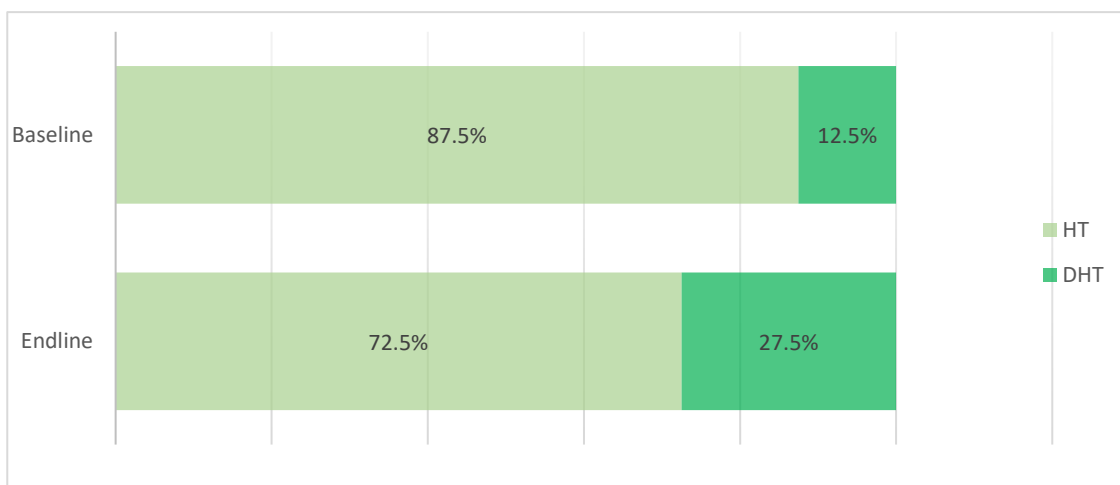
Overall, there were higher proportions of female Headteachers than female Deputy Headteachers at both baseline and endline

Table 4 presents the profile of school leaders by gender and years of experience split by position and year. We find that:

- The proportion of female DHTs at baseline was 20% and dropped to 18% at endline

- The proportion of female HTs at baseline was 31% and dropped to 28% at endline

- There is a higher proportion of female HTs than DHTs (at endline: 28% of HTs, compared to 18% of DHTs).

- HTs also have more experience in administrative roles than DHTs (approx. 16-15 years compared to 7-8 years for DHT).

- Overall, from the last section of the table we find that a school leader who has been in a school for close to five years has 15 years of Administration experience and 20-25 years of classroom teaching experience. (For simplicity, we use the term school leaders to refer to both HTs and DHTs.)

Table 4: Distribution of school leader's gender, administration and classroom experience by position and year

DHT				
	Baseline		Endline	
	Mean	SD	Mean	SD
Proportion female	**20%**	0.4	**18%**	0.4
Years in school as leader	**4**	3.4	**4.9**	4.7
Experience admin	**7.6**	3.4	**8.1**	3
Experience classroom	**19.6**	10.7	**20.4**	8.6
N	5		11	
HT				
	Baseline		Endline	
	Mean	SD	Mean	SD
Proportion female	**31%**	0.5	**28%**	0.5
Years in school as leader	**5.3**	5.03	**5.4**	5.4
Experience admin	**16.4**	8.5	**14.9**	7.2
Experience classroom	**20.6**	10.2	**27.6**	6.7
N	35		29	
Overall				
	Baseline		Endline	
	Mean	SD	Mean	SD
Proportion female	**30%**	0.5	**25%**	0.4
Years in school as leader	**5.1**	4.8	**5.2**	5.2
Experience admin	**15.3**	8.6	**13**	7
Experience classroom	**20.5**	10.1	**25.6**	7.9
N	40		40	

## School leaders with longer teaching experience had better management practices, as measured by the WMS

It is important to understand whether school leader's characteristics are associated with variation in WMS scores. We first test for significance of the gender of the school leader. There is no significant difference between female and male school leaders' overall WMS scores (or their sub-categories). Namely, taking baseline and endline together the 22 female respondents (mean=2.9, SD =0.6) compared to the 58 male respondents (mean = 2.8, SD = 0.6) did not show significant difference in WMS scores, t (78) = 0.39, p = 0.7.

There is a slight increase in the proportion of new school leaders[10] from 12.5% in the baseline to 15% in the endline. A new school leader is defined as someone who has been a leader in that school for less than a year. Although the length of time in role of these leaders may affect the level of I&I impact and they may require more management support, as highlighted in the pilot study (NFER, 2019), we did not find any significant relation between years in school as leader or with years of administrative experience and the WMS scores.

However, years in classroom teaching experience and Average WMS scores do show a significant positive correlation of 0.014 (R=0.05) as shown in Figure 3 below. This means that school leaders with longer experience of teaching tended to have higher WMS scores, i.e., better school management practices.

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[10] In Appendix 4.1.1 (available on request), we provide the Distribution of school leaders by years since they started working in that school.

Figure 3: Scatter plot of WMS Scores and Years of classroom experience

Scatterplot
WMS score Vs. Years Classroom Experience

beta=0.014 (R-squared=0.049)
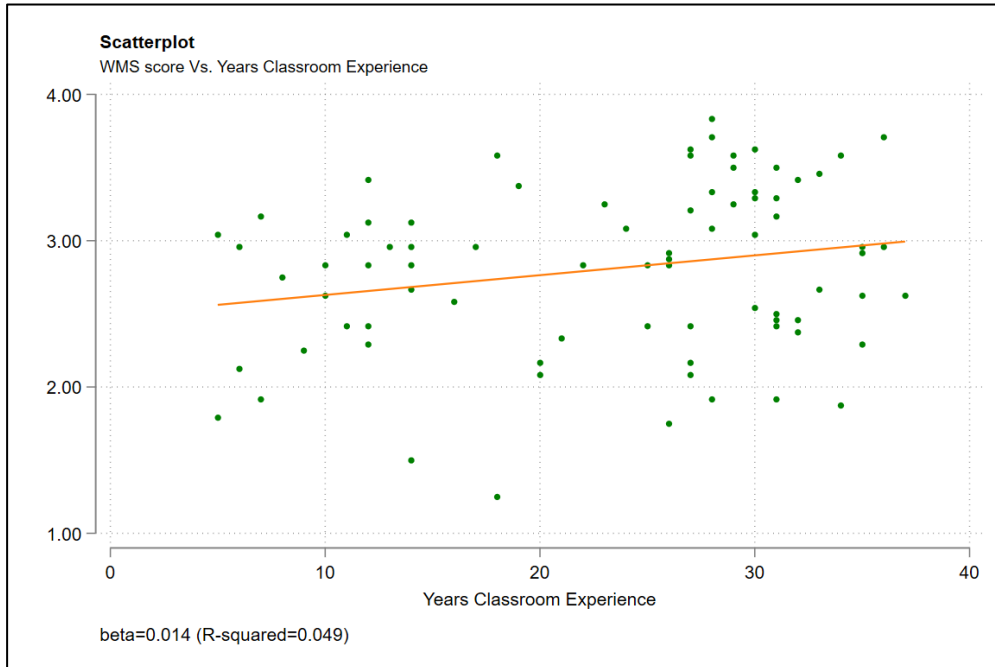
Note: This figure is a scatter plot of Average WMS scores (y-axis) and a school leaders' years of classroom experience (x-axis) for all schools' baseline and endline combined (N=80). The orange line is a linear regression fit. The regression line is upward sloping with beta=0.014 indicating that one year increase in years of classroom experience is associated with a 0.014 units increase in WMS scores (or 0.5% increase in average WMS scores)

4.1.2 Relation between WMS, school leader's authority and relation with others

Furthermore, we analyse how much authority the school leaders have in different aspects of school functioning and whether this has changed over time. School leaders rated their authority in different decision areas from 1 to 5, where 1 means the least and 5 means full authority. The school leaders were also asked to provide a measure of their relationship with the teachers, and BoG and PTA. The responses ranged from Very poor to Very good. We coded these responses from 0 to 4 where 0 means very poor and 4 means very good. For simplifying the analysis, we recoded the authority question from 1 to 5 to 0 to 4 to make it consistent with relationship variable.

School leaders reported higher authority in the areas of choosing subject content and hiring teachers compared to the baseline

In Table 5 below we present the summary statistics of the authority and the relationship variables. We find that the school leaders reported that they have least authority in hiring/firing teachers and most in admissions. On average, most school leaders reported good relations with other school stakeholders.

Table 5: Distribution of ratings by school leaders on authority in sub-areas and relationship with others

Authority/Relationship	Baseline			Endline		
	Mean	Median	SD	Mean	Median	SD
Authority Admission	**3**	3	0.9	**3.4**	4	1.2
Authority Subject	**2.5**	3	1.1	**3.1**	3	1
Authority Textbook	**2.3**	2	1.1	**2.2**	2	1.4
Authority Hiring	**1.4**	1	1.4	**2.1**	2	1.4
Authority Budget	**2.6**	3	0.8	**2.9**	3	1.2
Relationship Admin-teachers	**3**	3	0.7	**3.2**	3	0.6
Relationship Admin-BoG and PTA	**3.3**	3	0.8	**3.2**	3	1.1

Note: This table provides a distribution on the authority and relationship questions asked both in the baseline and endline (N=40 each). The scores range from 0 to 4. Where 0 in any of the sub areas implies the least and 4 implies maximum authority. The last two rows have the mean ratings of the reported relationship. Once again, a score of 0 implies very poor and a score of 1 implies a very good relationship.

We investigate whether the self-reported ratings on authority by school leaders changed over time between the baseline and endline. Interestingly, our analysis shows significant changes in school leader's authority over time for choosing the subject content and teacher hiring/firing (Figure 4 below). More precisely, in the endline school leaders reported a higher level of authority in choosing the subject content and in the area of hiring/firing teachers. In a policy environment which hasn't seen change in these areas, this implies that I&I may be supporting leaders to feel more in control of key decisions affecting their school.

It is important to note that since these are subjective ratings, it is not meaningful to interpret the magnitude of the change. The focus is to show the direction of change (positive or negative) and whether it is statistically different from zero or not.

There are no significant changes in the quality of relationships between school administrators and other stakeholders

We also investigate how the relationship between the school administration and other school stakeholders has evolved between the baseline and endline (Figure 4). There is a slight improvement between the administrators' and teachers' relationship but a slight decline in the relationship between the administration and the BoG and PTA (though not significant). Overall, only a few schools (N=3) reported a very poor relationship with the BoG and PTA in the endline[11].

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[11] We provide the distribution of Relationship over time in the Appendix 4.1.2 (available on request)

Figure 4: T-test Change in authority and relationship over time
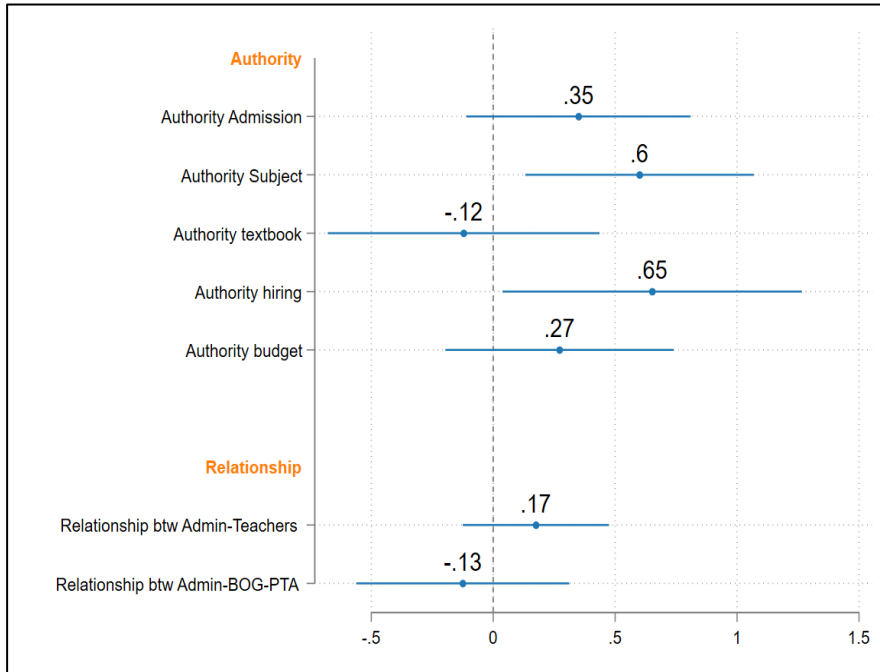
Note: This figure plots the change in average authority and relationships ratings over time (N=80). The dot plots the mean value of change for the respective question on the y-axis. The horizontal lines show the confidence interval. If the confidence intervals overlap with the vertical zero line the change is not significant.

Higher authority in managing budgets is associated with improved management practice, however progress in management practice is associated with a decline in relationships with the BoG and PTA

Finally, we correlate changes in WMS scores and changes in how much authority school leaders have. We also correlate WMS changes with score changes on leaders' relationship with their teachers, the BoG and the PTA. In Figure 5, we plot the correlation coefficient from a regression of change in WMS average scores with change in the authority and relationship variable[12]. The objective is to check if change in authority is related to improvements in WMS scores. Once again, this will only give us an understanding of the direction of patterns and not a precise magnitude of changes. Also, this analysis does not shed light on the mechanisms or the causal links between changes in authority and changes in management scores.

Two significant patterns emerge from Figure 5. First, the changes in WMS scores are positively correlated with changes in authority to manage budget (beta=.0.14). This suggests that more authority in managing budget is associated with improvements in school management.

Second, changes in WMS average scores are negatively correlated with changes in relationship with the BoG over time (beta=-0.17), which means that more positive changes in school management scores were associated with worsening of relations with BoG. This may be due to

different factors, such as more engagement with the BoG encouraging a higher level of reflection of criticality among leaders about what needs to be improved at the school, but it was outside of the scope of this study to look into this. In the pilot study, case study schools with higher WMS scores reported higher levels of collaboration with BoG, PTA and parents and one respondent associated the state of working relationships with the school's capacity to adopt change. This suggests that there might be an association between achieving improvements in management practices and the relationship with the BoG and so requires further exploration.

Figure 5: Correlation Coefficient: Change in WMS vs Change in Authority and Relationship
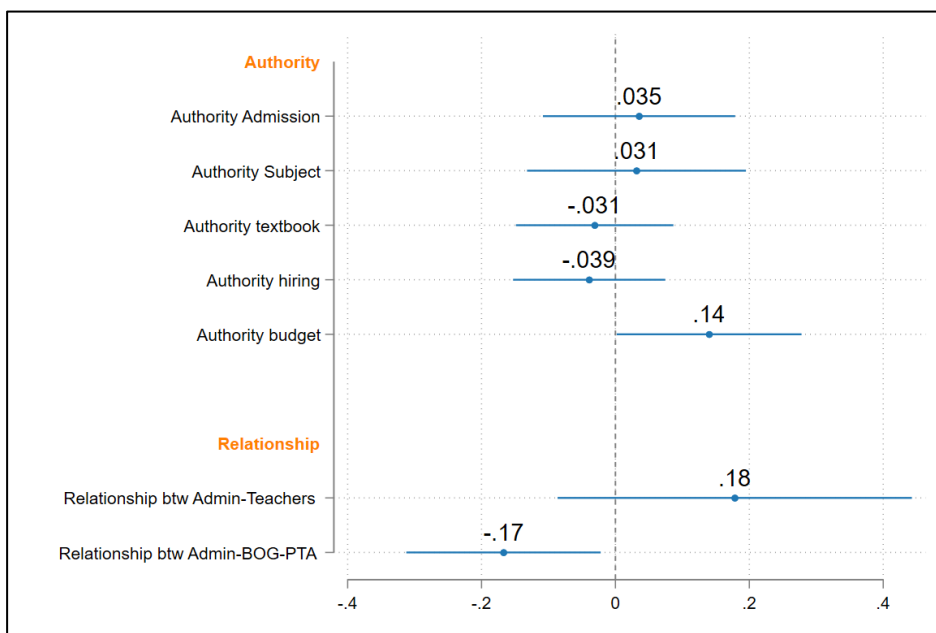
Note: *This figure plots the coefficients from a regression: y= (WMS endline-WMS baseline) x= (Authority endline-Authority baseline) (N=40). The dot plots the coefficient value (beta) showing whether changes in authority relationship are correlated with changes in WMS average scores. The horizontal lines show the confidence intervals. If the confidence intervals overlap with the vertical zero line the coefficient is not significant.*

4.1.3 Relation between WMS, I&I feedback and capacity

In the endline we also asked if the school leaders have the capacity to implement I&I. Overall, close to 67% of school leaders reported that they could completely implement the activities in I&I while the remaining 33% could implement it somewhat, as shown in Table 6 below.

Table 6: Proportion reporting positive changes as a result of I&I support

| Feedback Question	Yes* (%)
Capacity to implement I&I (Completely)	67%
Positive change in School Leadership	87.8%
Positive change in Learner achievement	81.6%
Positive change in Teacher attendance	79.6%
Positive change in Teaching quality	79.6%
Positive change in Learner safety	75.5%
Positive change in Learner attendance	73.5%
Positive change in Learner behaviour	67.3%

Note: This column reports the proportions of school leaders who said "Yes" when they were asked if they saw positive changes in each area as a result of I&I support.
N=49—Including the pilot schools.

School leaders with improved management practices are more likely to have higher capacity to implement I&I and also report that I&I supports improved learner safety

The correlation coefficients between WMS and feedback (binary variable Yes/No) reveal two significant results (in Figure 6). First, we find that that WMS scores changes are positively correlated to the capacity of the school leader to implement I&I (beta=0.51). This indicates that if school leaders have capacity to implement I&I then they are more likely to show improvements in management practices (as indicated by changes in WMS scores). Or conversely, that limited capacities to implement I&I predicted lower scores on management practices (i.e., WMS scores).

Second, schools that reported positive feedback on learner safety also saw positive changes in WMS average scores (beta=0.45).

Figure 6: Correlation coefficient: Change in WMS scores vs feedback in endline
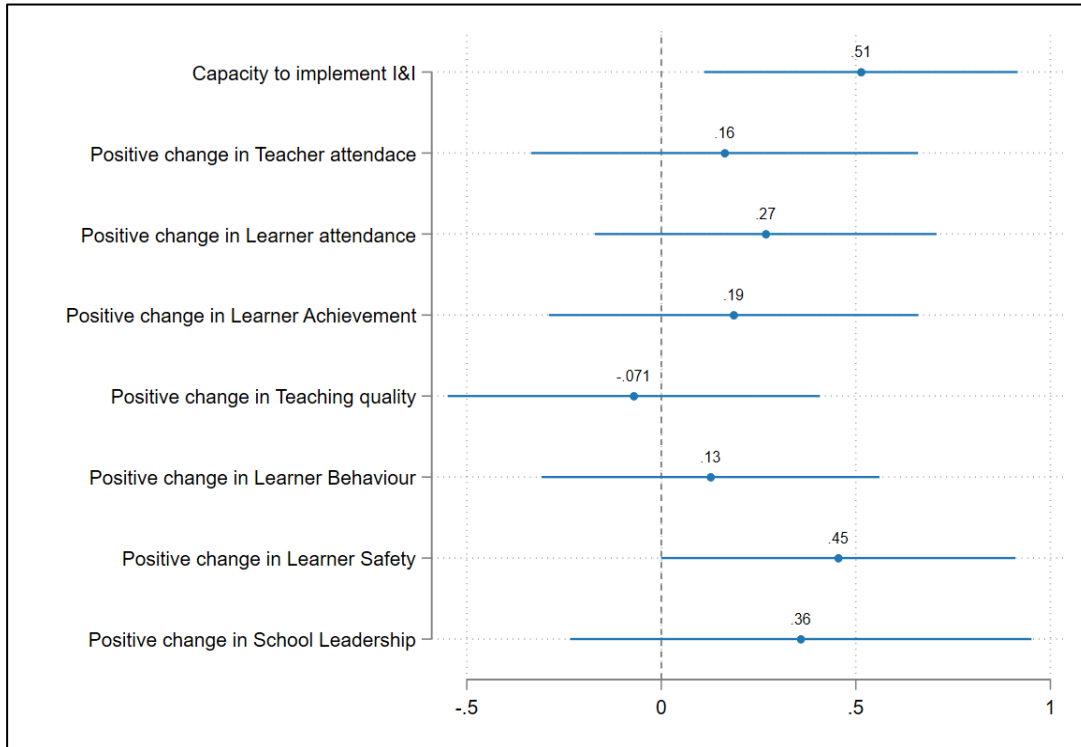
Note: *This figure plots the coefficients from a regression: y=(WMS endline-WMS baseline) x=(I&I feedback) (N=40). The dot plots the coefficient value (beta) showing whether I&I feedback is correlated with changes in WMS average scores. The horizontal lines show the confidence intervals. If the confidence intervals overlap with the vertical zero line the coefficient is not significant.*

Where school leaders reported improved learner attendance as a result of I&I support, this was reflected in improved inspection scores for this area of the SIP

Finally, we map the I&I feedback to changes in the respective inspection score in Table 7. The objective is to understand whether school leaders' feedback on different I&I indicators explains variation in inspection scores over time. This can help understand whether school leaders' feedback on the usefulness of the I&I programme in improving that particular area is consistent with improvements in that area in the inspector's report. However, it is not possible to explain whether the correlation is due to effectiveness of I&I for improving that area or just a reporting bias.

The capacity to implement I&I was mapped to overall inspection score, positive changes in teacher attendance was mapped to inspection scores on teacher attendance, and so on. We find that school leaders' feedback on whether I&I improved learners' attendance maps significantly to observed changes in learner attendance by the inspectors. This means that school leaders who are more positive about I&I's impact on student attendance are the most likely to have seen improvements in student attendance. It may also mean that I&I is helping leaders to better understand changes in student attendance, as perception maps onto observed change.

Table 7: Correlation coefficient feedback with corresponding inspection score changes

	beta	P-value	Sig.
Capacity to implement I&I	-0.20	0.22	No
Positive change in Teacher attendance	0.08	0.62	No
Positive change in Learner attendance	0.36	0.02	Yes
Positive change in Learner achievement	0.20	0.21	No
Positive change in Teaching quality	0.10	0.53	No
Positive change in Learner behavior	0.23	0.16	No
Positive change in Learner safety	-0.02	0.88	No
Positive change in School Leadership	0.20	0.27	No

Note: *This table shows the results from a regression of inspection score with I&I feedback in that area. (N=40).*

4.2 What impact did the intervention have on the quality of teaching and learning, student well-being and gender equity in intervention schools?

The case study on sustainability focused on exploring the long-term benefits of the I&I model in three key areas: quality of teaching and learning, student wellbeing and gender equity. It provided an opportunity to explore the impact in the three areas, which were developed in close consultation with PEAS during the Inception Phase. Headteachers of 14 schools (4 Phase 1 and 10 Phase 2); and Deputy Headteachers, Teachers and BoG representatives from the 10 Phase 2 schools were interviewed on whether they had observed changes in the three areas since their school's engagement with I&I.

Respondents expressed that school leadership and management had engaged with I&I in the three areas to help effect the changes, for example:

> *I think it all comes back to administration, when administration is interested in whatever is taking place in the school, then everything changes. ... We have not had many problems like we used to in the past because now the administration is keen and has interest in the school. (BoG Representative)*

4.2.1 Observed changes in the quality of teaching and learning, student wellbeing and gender equity

Interviewees in Phase 1 and 2 schools gave similar responses on the changes they had observed, as summarised in Table 8 below.

Table 8: Key observed changes in the quality of teaching and learning, student wellbeing and gender equity since engagement with I&I

Key observed changes in each of the three areas
Quality of teaching and learning • Increased planning of teaching and use of varied pedagogical strategies, to include learner-centred strategies for learners of all abilities • Increase in remedial lessons • Use of continuous assessment, rather than end of term high-stakes tests • Lesson observations are now non-judgmental and supportive, rather than fault finding • Increased teacher engagement and student interest in learning.
Student wellbeing • Cessation, or less commonly, discouragement of corporal punishment and the introduction of alternative behaviour management methods • An introduction to, or in some schools, an increase in guidance and counselling • Improved teacher-student relationships.
Gender equity • Increase in gender-responsive teaching and wellbeing practice • Reinforcing girls' equal ability to that of boys • Encouraging pregnant girls to return to school • Girls becoming more comfortable and confident in class and across school.

Teachers' improved preparation of lessons and use of learner-centred activities helped to increase teacher and student engagement

All school leaders reported increased planning of teaching and use of varied pedagogical strategies. These changed practices were also noted by the majority of teachers who reported increased planning for curriculum coverage and lessons. All teachers and school leaders observed changes to teaching style, with teachers deploying more learner-centred strategies, for example, class discussions, group work and project-based activities. Moreover, all respondents noted that teachers set more remedial lessons and continuous assessments, rather than solely relying on high-stakes exams, to monitor learning.

The majority of respondents noted that students were more involved in their own learning and some mentioned that student absenteeism had decreased due to learners' greater interest in learning. Improved teacher attendance, which, along with student attendance, underpins quality education was also cited as a change, for example:

Teacher absenteeism has reduced … in the past there used to be a lot of dodging you find a teacher who is supposed to report in school for three times or four times a week comes once but now at least they are ever there. (BoG Representative)

I&I training resulted in more frequent lesson observations. These are a Ministry of Education and Sports requirement, but teachers and school leaders conveyed that they are now conducted in a non-judgmental, supportive way, to help to improve and maintain good teaching. As one teacher explained:

By the way, first of all for me I have liked it because we have had internally inspecting ourselves, for now for me am very comfortable with someone to come and inspect my lessons that kind of fear has gone now because why I like it, it is not witch-hunting it is supportive you have done this but it would better if you improved on this, so that's what I like about it. (Teacher)

Alternative discipline methods and an increase in psychosocial support, have reduced the 'gap' between teachers and students; these approaches are central to improved student wellbeing

A few teachers (3) and one BoG representative expressed that I&I's guidance on the cessation of corporal punishment and the introduction of alternative behaviour management methods, for example, litter picking, helped to improve cooperation between teachers and students.

Two teachers explained that the I&I programme had prepared their schools to provide guidance and counselling to students. This provision was perceived by all three types of stakeholder to be vital in the wake of Covid-19 school closures and was seen to be key in improving student wellbeing, for example in this case where students had access to external counselling:

Even there in our budget we put in an area where we can invite someone to talk to them, to guide them and to counsel them. And I think this one has greatly improved on the wellbeing of the children because they are able to get advice from the counsellors. (BoG Representative)

In other schools, teachers were available for students to support their learning, which had also contributed to better teacher-student relationships:

Students told me that now at least there is value for money, they are learning, they are able to interact with teachers freely and teachers are there for them. (BoG Representative)

Gender-sensitive teaching and wellbeing practices have positively impacted on girls' enrolment, attendance and confidence in school

Staff in around half of the schools reported that they had a greater awareness of gender-related issues, as a result of I&I. This included interviewee reports of a growing awareness around, for instance, girls' needs during menstruation for a private space in school, and that their schools were working on the provision of a suitable space. These staff also noted changes such as greater encouragement of girls to answer questions in class and reinforcing girls' equal ability to that of boys, helped girls to be more comfortable and confident in class. Similarly, teachers and head

teachers in around half of the schools observed that girls were taking on more leadership roles in class and participating more in extracurricular activities:

> On the issue of gender in my opinion, I think we have improved because we give equal opportunities for the boys and girls to participate in all our activities. For instance, now they are going for sports we have both boys and girls and we have encouraged them. We had patriotism here and the girls excelled. The commander actually was a girl. So, we've encouraged the girl child that what the boys can do the girls can do and even do it better. (Headteacher)

The observed changes were reflected in the high proportion of school leaders who found positive changes in each of the seven inspection areas as a result of the SIP, as presented in the Endline Dashboard

Improvements were observed by at least 78% of leaders across teaching quality, learner safety, learner achievement and teacher attendance. While leadership and management is a key focus of the I&I Programme, these findings suggest other improvements across the school have emerged as a result of I&I's targeted support. Improvements in teaching quality and teaching attendance were the most frequently mentioned areas of improvement, a finding which also emerged from the Phase 1 pilot evaluation (NFER, 2019).

We analysed WMS and Inspection scores to explore whether these aligned to the Case Study findings in each of the three areas. To note: while inspections monitor aspects of teaching quality and student safety, as part of wellbeing, there is currently no indicator for gender equity. We therefore used school leaders' responses on girls' enrolment as a proxy for this measure.

Schools which improved management practices were also likely to show improved inspection scores over time, particularly in terms of teacher and student attendance

Overall, we found no significant changes in the inspection scores between baseline and endline. [13] However, in schools which saw an improvement in management practices during this time, as measured by the WMS, there was correspondingly an improvement in the overall inspection judgement score. This shows that where schools reported improved management practices, the inspection scores tended to also improve over time.

Overall, looking at the subcategories of inspection scores, improved management practices were aligned with improved inspection scores in Teacher and Student attendance, but not with the other areas monitored in inspections (Teaching Quality; Learner Achievement, Behaviour and Safety; and School Leadership).

Analysis revealed that in schools with a high proportion of Government teachers on payroll, leaders tended not to report teacher attendance as a positive change (i.e., there was a negative correlation between the proportion of government teachers and reports of teacher attendance).[14] A possible explanation for this is that government teachers may have concerns related to the wider context in

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[13] In the Appendix 4.2.2 (available on request), we present the distribution of mean of inspection scores and t-test for changes over time.

[14] This analysis is available on request in Appendix 4.2.2, Table 5.

Uganda education (for example, issues around teacher payroll which are linked to nationwide government teacher strikes). This may, in turn, impact teacher attendance. Positive feedback on teacher attendance was noted in the I&I pilot endline, however, at that time there was no teacher industrial action by teachers.

Greater numbers of females in the school workforce was related to higher proportions of girls in school

We found that schools with female leaders have a larger proportion of girls in school (approx. 6% more). We also found these schools have a larger proportion of female teachers (approx. 7% more).

In schools with higher proportions of female teachers, school leaders reported positive feedback on teacher attendance as a result of I&I support; this was reflected in the inspection score on teacher attendance

We also found that in schools with higher proportions of female teachers, there was near significance[15] in the relationship between the number of school leaders who reported that they had observed positive changes in teacher attendance, as a result of I&I support. A similar relationship was found with inspection score in teacher attendance.[16] These are interesting patterns which suggest that schools with a higher proportion of female teachers are more likely to report positive changes in teacher attendance than schools with lower proportions of female teachers and warrants further exploration.

4.3 How did DES inspectors and headteachers in pilot schools utilise digital tools for inspection and monitoring, and what factors determined the level of uptake

This section summarises findings from the case study and stakeholder interviews about DES inspectors' and headteachers' engagement with the digital tools and platforms available in the I&I programme.

Overall, stakeholders agree that I&I's digital tools and platforms are user-friendly and increase the ease of accessing, synthesising, and comparing inspection findings

All respondents in the case study recognised the digital inspection tool's transformational capabilities that enables users to generate inspection reports promptly and efficiently. Furthermore, stakeholders highlighted the options of generating comparative analysis, allowing decision-makers convenient access to synthesised school level data based on a wide range of parameters including gender, geographical location, and inspection indicators.

When asked about WhatsApp support groups, several school leaders noted positive experiences from fostering knowledge exchange and interaction in a semi-formal environment. Examples cited included sharing of guidance on provision of psychosocial support during Covid-19 related disruptions, as well as benchmarking on management strategies to address emerging issues, such

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[15] Near significance here was $p=0.06$, where normally the cut off would $p=0.05$
[16] This analysis is available on request in Appendix 4.2.2, Table 5.

as lack of school meals and recovering lost learning following school reopening. One interviewee described their experience of knowledge exchange using support groups:

My favourite in WhatsApp is to exchange ideas, we share… you find that you love how people are working and you are motivated to also think what you can do.(School Leader)

Furthermore, one interviewee commented on the increased accessibility and sharing potential of success stories and ease of communication with supervisors thanks to the tools:

There is a lot of information we share on, like the success stories. And it is always easy to be in touch with the supervisors. (School Leader)

Access to technology infrastructure and personal factors such as positive attitudes among users and their level of skills are key enablers to uptake of digital tools and platforms

All stakeholders reported that the convenient, user-friendly design of I&I digital tools and platforms facilitated PEAS and DES' staff in using the tools. Most school leaders highlighted the availability of technology infrastructure, such as laptops provided by PEAS and DES, and individual ownership of internet-enabled phones as other enabling factors. One respondent mentioned the experience of developing emergent digital skills through I&I digital platforms:

It was my first experience to have that kind of distant learning. I first received issues with the computer they gave us... But I think in the first session… the PEAS people were like, click here, now you click here, I think they were wonderful people and right now I am a proud online, you know, scholar, it was a wonderful thing really. (School Leader)

Two of four PEAS staff interviewed cited the complementary efforts by the Government of Uganda to expand internet connectivity for rural schools and rural electrification programmes as another factor that supported engagement with the digital tools. This view is echoed by all other stakeholders, who acknowledged that I&I's digital pilot is a timely intervention that falls within articulated government priorities for digital transformation and expansion of technology infrastructure at national level. Staff interviewed reported that the digital inspection tool was used to carry out inspections beyond the scope of I&I, reaching an estimated 600 government schools at the time of the study.

At the individual level, responses from 10 stakeholders suggest that positive attitudes and willingness to learn is essential for meaningful engagement with digital tools and platforms. This was echoed across school leaders, PEAS staff and DES officials. More than half of the school leaders interviewed associated their meaningful engagement in I&I digital platforms with having foundational digital skills. Two PEAS staff substantiated this view, noting that the school leaders' exposure and interaction with Zoom workshops allowed them to develop transferrable skills that will be applicable in other digital pilot activities. All four DES officials mentioned relevant experience with using tablets for primary school inspections as part of a previous pilot launched by MoES in 2016.

Negative attitudes towards technology, low levels of digital skills and low internet connectivity were the key barriers to engagement with digital tools and platforms

In analysing the factors that have impeded meaningful engagement with digital tools and platforms in I&I, our case study identified (i) negative attitudes among users, (ii) low levels of digital skills and (iii) the lack of access to reliable power supply as well as internet connectivity. Negative attitudes among individual personnel were specifically identified by two DES inspectors and all four PEAS staff. For instance, one interviewee recounted the experience of conducting an inspection during the pilot with a colleague that expressed limited interest and lacked the motivation to even open their laptop throughout an inspection, despite undergoing training.

The challenge of using digital tools and platforms in locations with unreliable internet connection was the most frequently mentioned gap among school leaders, DES inspectors and PEAS staff. Project staff reported that while I&I intended to develop a hybrid inspection tool with offline capabilities from the beginning, the programme encountered numerous challenges that hampered its roll out. At the time of completing of study, the programme was making progress in developing the offline version which is expected to finalised soon (see Section 4.4 for information on the impact of digital tools.)

4.4 How did the intervention demonstrate the observed impact and what worked (and did not work) to improve the quality of leadership and management in intervention schools?

In this section, we explore the different support mechanisms used by I&I and identify the ways in which respondents perceived the contribution of the programme to changing leadership and management practice.

School leaders cited that they were well equipped to maintain observed changes via I&I support

In the Sustainability study, we asked interviewees what modes of support they had received from I&I and how they thought these had collectively helped to improve the quality of leadership and management, and in turn, to enable the observed changes in teaching and learning quality, student wellbeing and gender equity. The types of support cited included target setting, writing a SIP, data analysis and monitoring teaching.

> *SIP is something we would want to develop every other year, it is a good and genuine tool and when you look at it, you see a mirror of the inspector. (School Leader)*

This was reflected in the school survey by high proportions of school leaders who reported on the utility of different types of support in improving school leadership and management, as presented in the Endline Dashboard:

- All forms of I&I support were found to be helpful.

- All respondents found the SIP, which sits at the core of the I&I programme, helpful. At least 95% of respondents found calls from an Inspector, SIP workshops and WhatsApp support helpful.

- Similarly, all of those who had used the Digital Inspection Tool in the Pilot phase found it helpful.

Examples of specific support cited in the case study for each of the three areas (teaching and learning quality, student wellbeing and gender equity) are presented in Table 9 below.

Table 9: I&I support for quality of teaching and learning, student well being and gender equity

Observed changes	How I&I interventions enabled the changes
Improved quality of teaching and learning	I&I training in conducting lesson observations in a supportive, non-judgmental way helped to improve and maintain teaching good classroom practice. There was a strong focus on learner-centred strategies, for example, group work and project-based activities to help students learn more effectively and keep them engaged in their learning.
Supported student wellbeing	I&I provided guidance on behaviour management strategies as an alternative to corporal punishment. In tandem, I&I prepared schools to provide psychosocial support and counselling to students on school reopening, to support them with the challenges they had faced during the pandemic.
More equitable school experience for girls	I&I gender sensitisation approaches imparted to school leaders contributed to gender equity, for example: • by creating a greater awareness of the need for a private space for girls in school, as part of Menstrual Hygiene Management • through I&I training on gender-responsive teaching practices: to encourage girls to answer questions in class and to reinforce girls' self-perception of their ability as equal to that of boys • by guiding schools to provide counselling for girls and greater monitoring of girls' attendance on return to school (in particular, those girls who had experienced gendered practices during school closures, for example, early marriage).

Maintaining the changes enabled by the I&I support is possible, however, there are challenges

School staff and BoG representatives all reported that the positive changes observed could be sustained, but many also noted challenges. The latter were largely around systemic factors, which were beyond the control of I&I, for example, inadequate funding for school infrastructure and teaching materials; teacher strikes due to low pay and resource shortages for the new curriculum. As a result, the enablers and barriers to sustainability of the observed changes at the school level were:

- A **whole-school mindset change**: there was an awareness of the importance of embedding a common set of values, with some improved practices, for example, alternative behaviour management strategies being willingly adopted by the majority of school staff. One school leader explained:

  Once an institution picks on a culture, the culture remains. If the ways of handling discipline matters are taken on and is appreciated by the majority, that one becomes culture, and it will continue. (Headteacher)

  However, other practices, such as aspects of lesson preparation (lesson plans, in particular), needed constant monitoring in order to be maintained.

- School leaders were also aware that **teacher motivation** needs attention when considering the sustainability of changes. All three types of school stakeholder highlighted the challenges for teachers around low pay and workload (in some cases, due to the aforementioned lesson planning). Some school leaders made efforts to support teachers by providing counselling and ensuring timely payment of salaries.

- **Cascading of I&I knowledge and skills from school leaders to their teams and peer collaboration** were key aspects of maintaining improvements. An example of this is where the HT delegated responsibilities for the quality of teaching to Heads of Department, who in turn, shared their knowledge with senior teachers. These teachers were then able to monitor their own teaching quality through peer observation and were responsible observing other teachers' classes.   Peer support was also a feature at the student level, with some schools promoting senior students to support their fellow students on student behaviour.

- The continuity of improvements was heavily contingent on **support from parents and the wider community**, however, socio-economic factors constrained parents' ability to provide this support. Parental engagement with their children's education, including providing a school meal, payment of school fees and in some cases, awareness of the value of education, was observed to be an ongoing challenge.

Through use of digital tools, school inspectors were able to improve on the timeliness, quality of reporting processes and compliance to standard operating procedures

There was consensus across case study respondents about the positive changes in the way Inspectors delivered on reporting process. This was illustrated in the timely submission of reports, reducing the waiting period for stakeholders to access key recommendations. Respondents noted that before I&I's digital pilot, the average processing periods for generating inspection reports

varied from one month to up to five months. Following the use of digital inspection tool, which was associated with real time transmission of inspection data, this average processing period has been significantly reduced by an estimated 97%[17] to one or two days.

The real time scoring also played a key role in the creation of objective reporting. This real time data entry helped enhance consistency in the inspection reports, by minimising the memory biases in making judgements on indicators. Namely, responses from the DES officials suggested that reducing the time lag between inspectors making observations and assigning scores, contributes to minimising the risk of misremembering information gathered.

By engaging with digital platforms, school leaders were able to improve on data-driven planning, peer collaboration and knowledge sharing on best practices

In examining observed changes in school leaders' management practice, case study respondents reported positive improvements in the way data was used for planning. This was supported by convenient data management processes that respondents associated with access to laptops as well as the prompt provision of feedback from the enhanced inspection cycle.

Furthermore, reports suggested that school leaders' participation in WhatsApp support groups contributed to the transfer and adoption of education best practice. All stakeholders cited the knowledge exchange in a moderated community of practice as an illustration of peers fostering changes in practice and giving new opportunities for peer discussion. School leaders reported that they found it easy to build on the rapport that was established in the regional WhatsApp groups and increasingly reached out to PEAS personnel.

4.5 How much did the intervention cost to deliver, and what were the relative costs and benefits of different mechanisms of school inspection and school support?

We asked key stakeholders to reflect on the cost implications of shifting programme activities to digital platforms in response to Covid-19 related restrictions and the cost implications of using digital tools for delivery of school inspections. Furthermore, we explored the relative costs and benefits of using digital tools in the inspection process.

Stakeholders agreed that improvements brought about by I&I justified the costs of adopting digital tools and platforms

The study shows that adoption of digital tools and platforms resulted in additional costs for the programme and individual stakeholders. These included initial developing costs, staff training costs, procurement of devices as well as maintenance costs for IT infrastructure. At individual level, school leaders and inspectors reported that they incur costs of internet data and charging electronic devices. Some PEAS staff reported that they had underestimated the costs of training personnel as part of the digital pilot, and that this resulted in new costs.

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[17] Based on a conservative estimate that it took 60 days previously and now it takes 2 days, hence resulting in 58 days decrease.

Despite these cost implications, the consensus across respondents was that the investments made in digital tools demonstrated value for money. They reported that the tools helped address key gaps by adding efficiency to the inspection process and supporting timely enhancement of strategies at school level. Respondents noted a number of additional cost savings that emerged from increased efficiency across the inspection cycle. For instance, school leaders and PEAS staff observed that participating in virtual trainings cut down on travel costs, while attaining comparable outcomes.

The study explored the question of value for money (VfM) with regards to the digitalisation study on the basis of stakeholder perception. We were unable to conduct a full VfM or cost-effectiveness analysis for I&I, as this requires data on changes due to I&I and changes due to the government inspection scheme, which was not available during the study period. Similarly, the evaluation design considered the difficulty in obtaining comparative disaggregated cost data on the government inspection programme. We instead conducted a formative study which examined relative and perceived values. Costs/resource use were estimated through discussions with PEAS programmatic and finance staff to make estimates of the relative costs of the digital and non-digital approaches.

4.6 How can DES effectively embed I&I elements into government guidelines and practices in order to implement the programme at a wider scale?

Having examined the effectiveness of the I&I Phase 2 and the mechanisms for impact in the previous sections, this section reflects upon all our findings. We share some of the lessons from the I&I Phase 2 scale up that may be important to consider in further expansion of the model.

Stakeholders identified key lessons which promote the sustainability of changes resulting from implementing I&I Phase 2, pointing to the importance of positive mindsets and school relationships

As reported in **Section 4.2,** the Sustainability study found several positive changes to quality of teaching and learning, student wellbeing and gender equity following the implementation of I&I in Phase 2. The key lessons to promote sustainability of these changes and implement the programme at a wider scale centre around positive personal characteristics as well as school interactions include:

• A mindset which is open to fostering new practices for supporting learners: highlighting that positive attitudes towards I&I programme underpin improved practice

• Headteachers' awareness of the need to motivate staff and the importance of their ongoing support to staff: a high volume of lesson planning can, for example, create a heavier workload and this, compounded with other factors (external to I&I, such as teacher strikes) can impact on staff motivation.

• Peer collaboration and support within schools, and delegation of some practices meant that staff could practise a collective efficacy, for example, peer observation and learning improved

practice. This will also help to foster the improvements in the context of Headteacher turnover. At endline, 14% of school leaders surveyed were new to their role.

- Cascading of school leaders' learning from I&I to all school staff can also support staff in their continued professional development.

- Parental and community engagement: support from the learners' family was impacted by socioeconomic factors. A continual focus on improving school funding is necessary to help avoid faltering on the progress made thus far, although this is generally external to school leaders' control and therefore something that needs to be addressed at the system level.

The Digital study also found improved leadership and management practice from the use of digital tools and platforms, the pilot for which was still ongoing at the time of the research.

The key learnings include:

- The PEAS-DES digital inspection tool significantly cuts the time lag between inspections and sharing reports with schools. This enables leaders to act quickly on inspection recommendations

- Project stakeholders and school leaders agreed that the digital component of I&I demonstrated value for money when considering multiple factors, such as a more efficient inspection process, travel savings (from the virtual training) and improved digital literacy skills.

- It is important to account for coordination costs in designing interventions at the systems level.

Phase 2 of the study expanded the collaboration between PEAS and DES to support the potential for intervention at scale

PEAS and DES' collaborative approach in implementing the I&I model remains vital for successful implementation of innovative approaches to inspections and improvements in government schools.

According to project key stakeholders, the launch of the digital pilot and a renewed focus on cross-cutting themes of gender equality and safeguarding provided this second phase of the programme, with new opportunities for systems-level cooperation. This phase of the programme expanded formal opportunities for further coordination with DES and other departments across the Ministry of education structure. These included collaborating with the gender unit, secondary education department and the other departments engaged in digital transformation initiatives across the Uganda MoES. These have offered opportunities for knowledge sharing and identification of potential partners for further scale up.

In this phase of the programme, DES personnel received training on the use of the digital inspection tool. Staff interviewed reported that the tool was used to carry out inspections beyond the scope of I&I, reaching an estimated 600 government schools at the time of the study.

During the mid-point reflection workshop, there was consensus among participants that sustainability of positive changes reported in the short term will likely be threatened by contextual challenges related to teacher motivation and Covid-19 impact.

5 Conclusions

The objectives of the Learning Partnership were (i) to generate evidence of impact and effectiveness in order to enable ongoing programme learning and improvements and (ii) to generate learning about the I&I model to support further roll-out. Our conclusions summarise key findings on effectiveness of I&I in improving the quality of leadership and management. We also identify further observations for future scaling of the programme. While our conclusions are based on learning from Phase 2 of I&I programme, some of these relate to the pilot phase of the programme.

We use a mixed-method analysis by triangulating quantitative evidence from the WMS and school surveys to the feedback from school leaders, inspections by PEAS staff, and qualitative case studies (school based and thematic based). Overall, despite the challenging context of the current study, which coincided with the global pandemic, teacher strikes and negative social and economic knock-off effect in the country, we found that study respondents reported several benefits of I&I pointing to the intervention's generally positive impact.

School leaders reported higher authority in decision-making overall; in a policy environment which has remained largely constant, this suggests that I&I may have supported leaders to feel more in control of key decisions affecting their schools

Choosing subject content was one of the areas in which school leaders reported higher decision-making authority. A possible explanation for this finding comes from the need for schools to address learning loss induced by the Covid-19 pandemic. In January 2022, the abridged curriculum[18] was introduced, to guide recovery of lost instructional time and learner progression. As part of efforts to implement remediation strategies, school leaders may have prioritised parts of the curriculum, thereby possibly conferring more autonomy in this area. It is also notable that processes for Personalisation of instruction and learning have improved, as measured by the WMS (2.4 and 2.8 at baseline and endline, respectively). This may point to an increase in remedial classes also reported as an observed change in the case studies, for catch up learning.

Budget management was also an area where school leaders reported great authority than in baseline (though not significantly). Higher authority in this area was, however, significantly associated with improved management practice, as measured by the WMS, suggesting that I&I support in budgeting may be enabling good practice in other school processes.

School leaders also reported higher authority in hiring and firing teachers. In order to help explain this finding, more data and tracking is needed on the dynamics of teacher retention, for example, insights on government teacher deployment practices and trends in education personnel recruitment by local PTAs.

Reported improvements in teacher presence and student attendance are consistent with findings from evaluation of the pilot phase

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[18] Published by National Curriculum Development Centre for the Ministry of Education and Sports

In the basic school survey for I&I Phase 2, 73% of school leaders reported improvements in student attendance and 80% in teacher attendance as a result of I&I support. These improvements were borne out by improved inspection scores for the student attendance area of the SIP**.** In the pilot study, these changes were attributed to enhanced internal monitoring support processes introduced by school leaders. It is likely that there are many factors underlying this improvement, as outlined in **Section 4.2**.

Notably, schools which self-reported improved management practices overall were also likely to show improved inspection scores over time, specifically in the areas of teacher and student attendance.

However, this was not the case with the other areas monitored in the inspection framework. This suggests that strengthened management practices, which would include school leaders monitoring attendance, have a positive effect on both teachers and students being in school, but that it may take time for attendance to impact on improvement in the other areas.

Gender equity in the school workforce has the potential to attract greater enrolment of girls in school

We found that greater numbers of females in the school workforce was related to higher proportions of girls in school. Further, in schools with higher proportions of female teachers, school leaders reported positive changes in teacher attendance as a result of I&I support, with improved teaching attendance reflected in the inspection scores of these schools.

This is consistent with a growing body of evidence that point to positive associations between female school leaders and outcomes such as student wellbeing and teacher attendance. Many interviewees in the case study reported changes that support gender equity for girls. However, evidence gaps remain around the specific practices adopted by female school leaders and the measures that can be taken to support scaling these practices to more school leaders, both female and male.

Digital tools are transforming I&I delivery mechanisms and vital in effecting school improvement

Despite operational challenges related to the roll out, the digital pilot delivered highly encouraging results including expedited feedback throughout inspection cycles. This study found promising improvements in leadership and management practice as a result of the incorporation of digital tools and platforms in the delivery of the I&I programme.

Consistently with the findings from the pilot evaluation, headteachers' communities of practice remain critical to the professional development of school leaders participating in I&I. In Phase 2 of the programme, all stakeholders interviewed cited knowledge exchange as an illustration of peers fostering changes in practice via WhatsApp groups. However, reported challenges with access to technological infrastructure need to be addressed for the programme to realise the full potential of investments made in digitalisation.

6   Recommendations

In moving forward, our findings from the Learning Partnership offers recommendations for further scale up of the I&I programme. The recommendations are presented below.

1. **I&I should continue to support school leaders to maintain the focus on attendance and student wellbeing.** Where possible, I&I should find ways to facilitate knowledge exchange on solutions to key challenges. In particular, the challenge related to school meals provision consistently emerges through the different I&I implementation phases. For example, it was cited in the case studies as a barrier to school attendance and as a topic that requires knowledge exchange in school leader WhatsApp groups. In the I&I pilot endline evaluation, Peer headteachers from PEAS network schools cited school feeding as one of the shared topics of interest in peer exchange with school leaders from government secondary schools.

2. **I&I should build on existing collaboration with the MoES Gender Unit to identify further opportunities for impact.** One of the ways to do this is through proposing the inclusion of indicators on gender in the national Inspection framework. PEAS' current work with the MoES Gender Unit on areas such as safeguarding presents an opportunity for impact. Furthermore, I&I could contribute to addressing evidence gaps around specific management practice adopted by female school leaders and the measures that can be taken to support scaling these practices. One of the ways to do this could be through conducting a longitudinal study to track female school leaders.

3. **In refining I&I's theory of change, the programme should further consider more direct inputs on teaching quality.** The programme's current ToC (Appendix B) frames PEAS' leadership and management interventions as the basis for observable changes to areas of school practice, which will ultimately result in improved learning quality in government schools. Findings from this study suggest that other improvements across the school have emerged as a result of I&I's targeted support - specifically improvements in teaching quality. This finding is consistent with what emerged from the Phase 1 pilot evaluation (NFER, 2019).

4. **I&I should build on visibility emerging from the digital pilot activities to champion system-wide support for school improvement as well as investment in low resource technology.** The digital inspection tool has been used in inspections across an estimated 600 government secondary schools and it has been generally well-received. Thus, the scale and impact of the digital pilot can be used to raise the profile of the overall I&I programme. One of the ways to do so is ensuring that the issue of resourcing access to technology infrastructure receives adequate attention in relevant decision- making structures that I&I engages with. This is maybe an area where partnerships can assist PEAS by supporting school leaders with the necessary infrastructure to enable further progress in this area.

5. **I&I should consider further evaluation with control schools.** Due to practical considerations around sampling, costs, and the suitability of an ongoing and formative Learning Partnership, the study was designed without the use of a comparison group in the pilot phase and Phase 2. However, this continues to present methodological limitations as we

are unable to draw causal links. Future evaluation approaches with control schools will allow the programme to understand impact and drivers for change in I&I programme.

6. In future opportunities for learning and research, **I&I should consider further exploration of relationships with Board of Governors and Parents Teacher Associations as well as students**. While findings from the endline evaluation suggested that strong working relationships are vital to headteachers' capacity to adopt change, in this study we found positive association between improved management practice and decline in the relationship with BoG and PTA. It may be that improving management practices results in more critical engagement with and consideration of challenges for improvement from the BoG and PTA, or that more positive relationships with the BoG and PTA may be linked to leaders having a more self-reflective/critical perception of management at school. It would be critical to examine further how these two structures can be strategically engaged in accelerating progress in management practice. Additionally, we found some indication of positive relationships between improved school management and learner safety; future studies should aim to further explore these connections between different school stakeholders.

7. A closer exploration of **changes over time in respondents' I&I experiences and impacts** could help understand the causal relationships between the different aspects of the programme, as well as how its effects develop over time. A longitudinal study following school leaders and other stakeholders, as they participate in I&I could offer vital insights into these dynamics.

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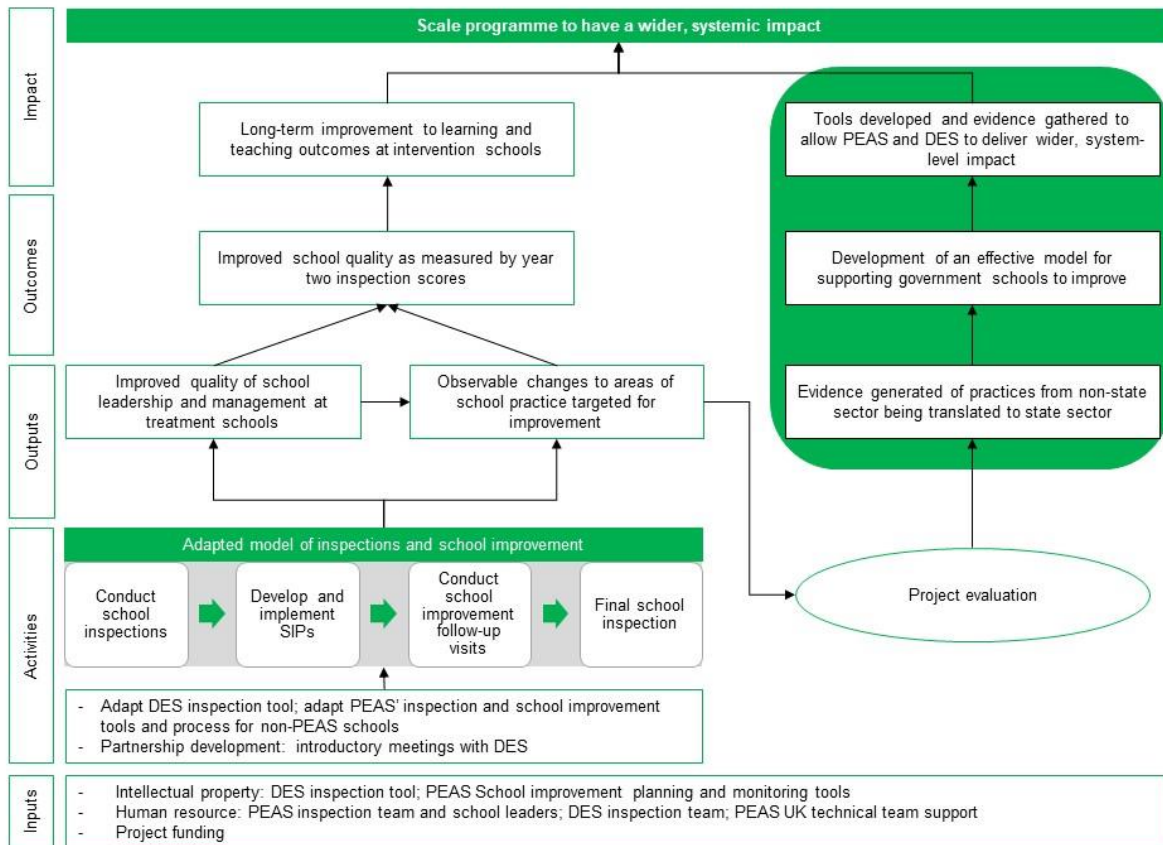
Appendix A

Phase 2 LP
Evaluation Framework

Appendix B

I&I Theory of Change

Evidence for excellence in education

Public

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