

Funders Report

BRiCE Project DRC and Niger: Endline Report

Teacher Wellbeing and Teaching Quality in Fragile and Conflict-Affected Contexts

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November 2022

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Summary

This report presents the final results of the Building Resilience in Crisis through Education (BRiCE) research project, which is led by the Institute of Development Studies (IDS) and the Institut Supérieur Pédagogique de Bukavu (ISP Bukavu). The research project is part of the BRiCE education programme funded by the European Commission's Directorate-General for International Partnerships and led by Save the Children in Niger and the Democratic Republic of the Congo (DRC). This report presents the results of the endline evaluation of two components of the BRiCE education programme: Teacher Professional Development (TPD) and Improving Learning Environments Together (ILET). It also presents an in-depth analysis of teacher wellbeing and teaching quality in the regions of Zinder and Diffa in Niger, and the territories Uvira and Fizi in South Kivu province in the DRC. The report summarises the final results of the project regarding the causes and consequences of violence against teachers, and also investigates teacher's knowledge on how to deal with the effects of violent conflict at school.

Keywords

education; education in conflict-affected contexts; governance; Niger; DRC

Authors

The analysis and writing of the current report was carried out by **Gauthier Marchais, Cyril Brandt, Diego de la Fuente Stevens, Pierre Marion, Jean-Benoît Falisse** and **Samuel Matabishi**. The report builds on the work of a wider team of researchers.

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Executive Summary

The Building Resilience in Crisis through Education (BRiCE) research project is led by the Institute of Development Studies (IDS) and the Institut Supérieur Pédagogique de Bukavu (ISP Bukavu). It is part of the BRiCE education programme funded by the European Commission's Directorate-General for International Partnerships and led by Save the Children Norway, Save the Children UK and Save the Children International (referred to hereafter collectively as Save the Children). This report focuses on furthering the understanding of education in fragile and conflict-affected contexts by exploring four central research questions (RQs):

1. Whether (and, if so, how) exposure to and experience of violence influence teaching quality and wellbeing in fragile and conflict-affected contexts;
2. Examining the impact of the Teacher Professional Development (TPD) and Improving Learning Environments Together (ILET) components of the BRiCE project on teaching quality and teacher wellbeing in fragile contexts;
3. Examining how teaching quality and wellbeing influence children's cognitive and non-cognitive outcomes in fragile and conflict-affected countries;
4. How knowledge developed by teachers in conflict-affected contexts can be used effectively in policy and programming.

Methods

The research focuses on 49 schools in the Democratic Republic of the Congo (DRC) and the 71 schools in Niger that were selected to be part of the BRiCE education programme. Save the Children staff and educational authorities of Niger and the DRC selected the schools following a series of criteria including accessibility, infrastructure and school viability. Our methodological approach rests on a combination of quantitative and qualitative methods.

The quantitative component of the BRiCE study is based on three surveys carried out between 2019 and 2021. The baseline survey took place in May 2019 in the DRC and in November 2019 in Niger; the midline survey in October–November 2020 and November–December 2020, respectively; and the endline survey in June 2021 and November 2021, respectively. In the DRC, school, teacher and child/caregiver questionnaires were administered in 49 schools in the territories of Uvira and Fizi; a total of 637 randomly selected young students (307 female) and 704 randomly selected teachers (197 female) were followed from baseline to endline. In Niger, the set-up was similar, with the study covering 71 schools in the regions of Diffa and Zinder and a total of 694 students (319 female) and 609 teachers (537 female) followed over time. Attrition was important across the board, especially between baseline and endline: in the DRC 44.4 per cent of the students and 11.2 per cent of the teachers initially sampled could not be re-interviewed at endline, while in Niger those figures are respectively 19.6 per cent and 26.2 per

cent. The collection of quantitative data on education in crisis-affected contexts was a complex, time-intensive and risky process that involved highly qualified teams and intensive support.

The survey instruments related to teaching were designed to correspond to the competencies and activities of the TPD module. These include seven indices of teaching quality: teachers' interactions with other teachers; lesson delivery; providing feedback to students; use of high-quality literacy practices in the classroom; use of physical punishment; providing conflict-sensitive education; and unbiased gender attitudes. The survey also measures teachers' professional wellbeing as job satisfaction, motivation, and support with challenges on the job. An additional measure of post-traumatic stress disorder is also added. For student outcomes, learning assessments were carried out, including the Early Grade Reading Assessment (EGRA) and Early Grade Maths Assessment (EGMA). These were complemented with measures of students' wellbeing, including perseverance, educational aspiration, empathy, and a nurturing classroom environment.

The qualitative component of the study relied on secondary sources, educational policy literature and qualitative interviews carried out in Niger and the DRC in 2020 and 2021. In the DRC, the research team of the Institut Supérieur Pédagogique de Bukavu and the IDS conducted a total of 211 semi-structured interviews over the baseline, midline and endline phases of the data collection (59 during baseline; 36 during the Covid-19 short study; 62 during midline; 54 during endline). In Niger, a total of 129 interviews were carried out by the research team from International de la Communication et de l'Accompagnement Professionnel (ICOMAP); 80 during the midline data collection in February and March 2021, and a further 49 during the endline data collection in November and December 2021. The main respondents were teachers, head teachers and parents. Other respondents included government and faith-based administrators, students, chiefs, teacher unionists and officers of the national military.

Key findings

Schools, students, and teachers in shifting contexts

In Niger, the situation in the regions where BRiCE took place remained one of political and economic fragility. Violence – especially in Diffa region – but also food insecurity and the forced displacement of populations disrupted school and the education system before, during and after the BRiCE project.

In the DRC, the BRiCE project also took place in difficult circumstances. As in Niger, armed conflict and Covid-19-related disruptions did not spare the areas where the project took place. The Covid-19 school closures were comparatively longer in the DRC than in Niger, lasting 4.5 months in 2020 and 1.5 months in 2021. The schools of the project were also affected by a poorly implemented new nationwide policy of free primary education (the *Gratuité* policy) and flooding.

The free primary education reform led to a measurable sharp increase in the number of students in the BRiCE schools. Our data suggests that this increase has been to the benefit of more

vulnerable students and girls; overall, though, long-term gender disparities remain as students go through the years. Importantly, the reform has not been accompanied by an increase in the school staff or school infrastructure. This has led to important teacher strikes across the country and in the areas of the project.

The difficult context of schools in Niger and the DRC is perhaps best reflected in the very high attrition rate between our baseline and endline studies, which partly reflects dropouts and a more general inability to partake in social life. Unsurprisingly, socioeconomic factors that diminish resilience to the many shocks mentioned above are the most accurate predictors of why some students and teachers went missing between baseline and endline – they include, for instance, working conditions for the teachers and gender, age, ethnicity, wealth (measured with asset ownership), and parental education background for the students.

Unsurprisingly, the overall picture is one also of teachers who do not appear to be in good shape when it comes to wellbeing, with many of them exhibiting what may be forms of trauma related to their experiences of violence. The situation does not appear to improve over time – if anything, it is the opposite. In both countries, most teachers felt ‘used up at the end of day’ and as if they were working too hard at least a few times a month. Levels of self-assessed post-traumatic stress disorder (PTSD) remained high over time, especially in the DRC, which is marked by a greater prevalence of violent events.

In terms of teaching quality, the overall picture is slightly more encouraging, with improvements between baseline and endline in both countries, after a clear dip for the DRC, probably due to the *Gratuité* policy. (A breakdown of the indicators for this index shows that this dip is driven by a decline in the percentage of teachers reporting that they felt able to manage larger classrooms.)

These dynamics are gendered. In the Midline Report, we showed that the ‘feminisation’ of the teaching profession in Niger was closely linked to increasing casualisation, with lower salaries and few prospects for career progression driving men away from the profession. As in Niger, gender also seems to be a key structuring factor in professional hierarchies of the Congolese education sector, with men dominating the higher echelons: 93 per cent of head teachers and educational administrators in our sample are men. Gendered norms within the profession and within society played a key role in explaining these differences. Worrying cases of sexual favours and sexual abuse in schools, concerning both students and teachers, also came up in interviews.

Violence in the school environment

One of the central objectives of the BRiCE research project has been to **understand the causes and manifestations of violence in the school environment, and the consequences of violence on teacher wellbeing and teaching quality (RQ1)**. Based on our sample of teachers in both countries, there is no doubt that the DRC is most affected – 37 per cent of the teachers in the BRiCE schools of the DRC experienced at least one attack between 1990 and 2021. As a result, the present report focuses centrally on the DRC for this question.

The causes of violence against teachers in the territories of Uvira and Fizi in South Kivu are numerous and cannot be reduced to a single overarching cause. Our previous reports emphasised the historical roots of contemporary violence in eastern DRC and how quotidian and interpersonal conflicts can turn violent in militarised contexts (such as Uvira and Fizi), but a few other non-mutually exclusive explanations are also important to point out. First, schools and teachers in Uvira and Fizi are targets of rackets, kidnappings, extortion and threats – for example, by local militia known as the Mai-Mai. Second, ethnocultural fault lines, being *originnaire* (i.e. a local) versus *non-originnaire*, and religion, were the most cited reasons teachers gave in the qualitative interviews carried out for this project for why they felt threatened. Third, teachers' social status can also play a role in their exposure to violence – because they are deeply involved in community matters (and therefore more exposed to various forms of grievance), more likely to be involved in mediation as notables and caught in crossfire, and more likely to be seen as close to a key target (and actor) of violence, the state and its security apparatus. Fourth, armed groups can influence teacher and school governance and there is some evidence that teachers have joined armed groups as a protection strategy, or to gain advantages and influence.

Our data allows us to identify the socioeconomic characteristics most present among the teachers who have experienced an attack: (1) male teachers; (2) teachers who identify as Beembe and Bafuliro (two ethnic groups involved in important communal conflicts); (3) teachers with functional limitations; (4) teachers with higher salaries and more favourable teaching contracts; (5) teachers with stronger ties to local authorities and associations; (6) teachers who are part of larger households; and (7) teachers who are part of households with a higher number of information and communication assets. These elements should not be interpreted as directly or indirectly causal; the research does not allow us to make such claim, but they provide a sense of who is most likely to be affected by violence.

Such exposure to violence has a clear effect on teachers' wellbeing and their capacity to teach. At an organisational level, we show that exposure to violence leads to a high turnover of teachers, prolonged absences, and transfers away from conflict-affected areas. Head teachers explain that it is particularly challenging to manage teachers who have been members of armed groups or who have a relationship with armed groups. At individual level, we find a strong negative and statistically significant effect of teachers' exposure to violence on our PTSD index. Together, these results provide further evidence of the negative effect of violence on teaching and learning experiences.

Effects of the TPD and ILET interventions

The report studied the effects of Save the Children's ILET and TPD interventions on teaching quality and wellbeing (RQ2), as well as students' learning and wellbeing (RQ3). The TPD is a professional development course that seeks to improve teaching quality, and teachers' motivation and wellbeing. The course aims to develop a set of agreed competencies – knowledge, skills and attitudes – in addition to increasing teachers' sense of ownership to develop their own work. It works in line with, and seeks to strengthen, national education

systems. Through ILET, parent committees, school management committees (SMC) and local authorities were trained on their roles and responsibilities in school improvement plans, development of improvement plans, good school governance and financial management. After the plans are developed, Save the Children provides schools with small grants (US\$2,000), spread over a three-month period, to implement priority improvement activities they have identified. Examples of improvement activities are recreational support for students, improving the safety at school by installing appropriate fencing, and improving school infrastructure such as access to clean drinking water.

The quantitative research design employed a phased-in cluster randomisation approach for ethical reasons, with all surveyed schools receiving the interventions. It is important to note that TPD and ILET were implemented at the same time, making it impossible to attribute effects to one of the interventions in particular. The TPD and ILET interventions had ambitious goals and were implemented in difficult conditions that led to a series of delays and an implementation of the different packages that stretched over a longer period than expected, making the baseline and midline surveys less clear-cut moments than they should have been. This, in turn, complicates the evaluation: rather than the complete set of activities initially planned by the TPD and ILET interventions, what is being evaluated is a subset of these activities at midline – and the subset differs between Niger and the DRC – and the rest of the activities planned at endline. Nevertheless, our analysis does provide us with a good sense of the impact of the ILET and TPD interventions. We differentiate between immediate effects (relative to the baseline) and so-called ‘delayed treatment effects’ that manifested later in time.

The analysis found only limited evidence of an overall impact of the interventions, though there were some specific positive effects worth emphasising.

In terms of **teaching quality**, the TPD and ILET effects were different between countries. In Niger, the index on teacher interactions, lesson delivery and literacy activities are all positively affected. These effects appear to be reinforced over time. They are mostly driven by women teachers. In the DRC, the only visible effect is on physical punishment. Different baseline levels may explain the difference between countries. The delay in implementing some of the TPD modules may explain the lack of effects on related teaching quality indices.

In terms of overall **teacher wellbeing**, the TPD and ILET improved teacher wellbeing in Niger but not in the DRC, mostly through perceived improvements in the teaching environment and built environment, and job security (the latter also holds in the DRC, but it is the only variable affected).

Turning to **students’ experience and learning**, we could not detect any TPD and ILET effects on students’ cognitive learning in the DRC. We find positive effects on boys’ literacy and girls’ numeracy in Niger. These limited effects are not surprising given: (1) the schools’ closure during the intervention; and (2) the long and indirect possible channel linking TPD and ILET and cognitive learning. The same explanation probably applies to the overall lack of effects of TPD and ILET on socioemotional learning; here we find some slight effects on boys in the DRC only.

Perhaps unsurprisingly, effects on other aspects, such as students' perceptions of positive discipline or feeling of safety and security, are equally limited, and inconsistent between sites.

Learning from emerging teacher competencies

Finally, we examined RQ4: **how can knowledge developed by teachers in conflict-affected contexts be used effectively in policy and programming?** Teachers and school staff in fragile and conflict-affected contexts have the most precise understanding of the challenges that schools face in such contexts and crucial insights on how to address them. There are, however, considerable challenges regarding the recognition of teachers' knowledge and its incorporation into programming.

Discrimination at school

Many (head) teachers claimed that schools are neutral spaces, where ethnic identities do not matter and where discrimination does not occur. But several interviews pointed to the existence of such identity-based tensions and discrimination in schools. Teachers, we found, need to navigate the inherent tension between high ethical standards and the lived realities of ingrained prejudices, discrimination on ethnic grounds and armed conflict. TPD-type interventions cannot turn a blind eye to discrimination and should embed critical discussions on the idea that a school is, in practice, 'neutral and does not know ethnic groups'.

Teaching about armed conflict

In the DRC, we found very different practices when it comes to discussing violent conflict in the classroom (which in a context of ongoing violence is very challenging): some felt that the topic should be avoided so as not to exacerbate tensions (a view also held by many in Niger), whereas others felt, on the contrary, that discussing tensions was the best way to help defuse them. It is hard to make a normative judgement: we found that teachers' own views and political opinions, which are forged by their own identity, personal background and experience, can in some cases reinforce fault lines in their classroom. What can be done is to equip teachers with the pedagogical tools to take decisions about whether or not to discuss violent conflict in class, how to discuss it if they do, and how to respond to students' questions on such issues. Building on these insights, a teaching module has been developed as part of the BRiCE research project in the DRC and is presented in Annexe A.1.

Positive discipline

Our study has found that many teachers showed hesitation regarding positive discipline (in particular, with regards to not using physical punishment). They saw it as weakening teachers' authority and reinforcing students' misbehaviour. These concerns need to be taken seriously in a violent context marked by teachers' overall sense of eroding authority and high levels of teachers' mental distress. Emphasising that positive discipline does not necessarily lead to a reduction in authority and resorting to examples of teachers who have achieved positive discipline in such a context, is key. Behavioural norms and ingrained practices take time to change and the impact evaluation suggests that change might be on the way. It will likely be gradual and achieved through discussions rather than injunction.

Teaching in a multilingual setting (in the DRC)

Our research found tensions around the use of French, which is not the household language of the students. This is a substantial challenge for teachers, and classrooms can at times become spaces of linguistic conflict. A slight difference in language proficiency can generate social discrimination. The BRiCE TPD 'literacy boost' module was adapted to French literacy in the national curriculum. The fluency and vocabulary modules are tailored to French as well. They do not address learning of national languages, nor the challenges teachers face in a multilingual setting. While it is clear that a TPD component cannot address all relevant aspects, our discussion suggests that further contextualisation with regard to multilingualism would do justice to recent changes in the DRC national policy and teachers' lived realities.

Finally, we highlight that **overcrowded classrooms** harm teaching quality. We find teachers adapting to large cohorts, with the support of a designated TPD module that was added to the programme, but there is also a clear limit to what their creativity can allow.

Key conclusion points

Our past and present reports provide considerable empirical evidence on the negative effects of violent conflict on education. They point to a set of questions that every intervention in a context of conflict should seek to address: first, **levels of violence need to be understood properly** (our study found the situation is more violent than broad-level estimates suggest); this is key to identifying, second, **how generally violent environments affect schools and teachers**; and third, our study invites careful consideration of exactly **how teachers' work is shaped by violence and the type of challenges they face in violent environments**.

Our reports cast light on the contexts in which teachers operate. Teachers are members of society and we have explored several facets of teachers' social position in the societies of the DRC and Niger. We have also shown that the socioeconomic situation of teachers is shifting in both countries, and highlighted a few dimensions that help explain what may have affected BRiCE's result and will deserve more attention in future interventions in the DRC and Niger (and beyond). These include: salaries and financial compensation create different incentives for engagement; time is a key constraint and teachers can realistically spend only a limited amount of time on self-directed activities; and absenteeism is rampant and raises questions about the durability of activities.

The research has also highlighted limitations in terms of genuinely integrating the socioeconomic context and working globally in equal partnerships. We sought to tailor the research instruments, both the qualitative and the quantitative, to the contextual and cultural specificities of the regions studied. The input of the researchers from the Institut Supérieur Pédagogique de Bukavu has been invaluable in that regard, and the lack of a research counterpart in Niger has been sorely felt. Nevertheless, there have also been obstacles to contextualising and incorporating existing forms of knowledge: there are deep inequalities between researchers in so-called global collaborations – 'fixing' these issues requires a lot of

time and resources, which the phased-in cluster randomisation approach may have partly absorbed.

Finally, time has been a central challenge. It is a concern for the evaluation overall – whether it has been long enough to allow us to see change, which may take time. It is also a concern for the epistemological progress. Notions such as teaching quality, which are deployed through education interventions and serve as guiding principles for monitoring and evaluation, as well as research, still reflect Western-centric conceptions of education. Moving beyond them and proposing new, more appropriate, tools will require substantial and repeated discussions.

The report concludes with recommendations for policy and programming in Niger, the DRC and beyond, and possible next steps for research.

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Acronyms

BRiCE	Building Resilience in Crisis through Education
CAC	Community Action Cycle
DRC	Democratic Republic of the Congo
EGMA	Early Grade Maths Assessment
EGRA	Early Grade Reading Assessment
EiE	education in emergencies
EL	endline
FARDC	Forces Armées de la République Démocratique du Congo (Armed Forces of the Democratic Republic of the Congo)
GCPEA	Global Coalition to Protect Education from Attacks
HEI	higher education institute
ICOMAP	International de la Communication et de l'Accompagnement Professionnel
IDP	internally displaced person
IDS	Institute of Development Studies
ILET	Improving Learning Environments Together
INEE	Inter-agency Network for Education in Emergencies
Int.	interview
ISELA	International Social and Emotional Learning Assessment
ISP	Institut Supérieur Pédagogique (teacher training institute)
ISP Bukavu	Institut Supérieur Pédagogique de Bukavu
LOI	language of instruction
MEAL	Monitoring, Evaluation, Accountability and Learning
MEPST	Ministry of Education
NGO	non-governmental organisation
PAQUED	Projet d'Amélioration de la Qualité de l'Education (Project for the Improvement of Education Quality)
PROVED	province éducationnelle (educational province); also the name of the director of that province

PSS	psychosocial support
PTSD	post-traumatic stress disorder
QLF	Quality Learning Framework
RQ	research question
SMC	school management committee
SIP	school improvement plan
TLC	teacher learning circle
TPD	Teacher Professional Development
USAID	United States Agency for International Development

1. Introduction

1.1 Rationale of the BRiCE research project

The education sectors in Niger and the Democratic Republic of the Congo (DRC) have experienced considerable challenges over the past four years. The escalation of violent conflict in eastern DRC and the Sahel have exposed schools to increased violence and large-scale displacement. The coronavirus (Covid-19) pandemic has led to prolonged school closures and affected students, teachers and parents; policy changes, notably the free primary education policy in the DRC, have led to momentous changes in primary and secondary education, to which teachers and school staff have had to adapt. Despite these challenges, school staff in both countries have continued to carry out their work to the best of their abilities, often at the cost of their wellbeing. The current study focuses on these educational actors and their central role in the resilience of education in times of acute crisis.

Over the past four years, the European Union's Directorate-General for International Partnerships has funded Building Resilience in Crisis through Education (BRiCE), its flagship project on education in contexts of crises. The project combined education interventions to support teachers, students and school communities in crisis-affected contexts, with research projects aimed at better understanding the challenges they face. Four different consortia were funded between 2018 and 2022.¹ The current report is part of the research component of the consortium led by Save the Children Norway, in partnership with Save the Children UK, Save the Children International and the Education Ministries of Niger and the Democratic Republic of the Congo. The Institute of Development Studies (IDS) and the Institut Supérieur Pédagogique de Bukavu (ISP Bukavu) led the research component. For the Niger component, the research team of International de la Communication et de l'Accompagnement Professionnel (ICOMAP) also supported the project.

The research component of the BRiCE project had two overarching objectives. First, to understand how the primary and secondary education sectors operate in fragile and conflict-affected contexts, with a particular focus on the role of teachers. Second, to analyse the impact of two central educational interventions of the BRiCE programme – Teacher Professional Development (TPD) and Improving Learning Environments Together (ILET) – with the objective of

¹ These include the Columbia University Consortium led by Mary Mendenhall, the University of Sussex Consortium led by Yusuf Sayed, and the University of Notre Dame Consortium led by Neil Boothby.

informing the design of the interventions, as well as programming and policy on education in fragile and conflict-affected contexts more broadly. The BRiCE research project sought to answer four central research questions, which the consortium partners co-designed and agreed on at the onset of the project.

Table 1.1 Overview of research questions

Research question (RQ)	Endline Report sections
RQ1. Investigate whether, and how, exposure to and experience of violence influence teaching quality and teacher wellbeing in fragile and conflict-affected contexts.	5
RQ2. Examine the impact of TPD and ILET on teaching quality and teacher wellbeing in fragile contexts.	6 and 7
RQ3. Examine how teaching quality and teacher wellbeing influence children's cognitive and non-cognitive outcomes in fragile and conflict-affected contexts.	7
RQ4. Explore how knowledge developed by teachers in fragile and conflict-affected contexts can be used effectively in policy and programming.	8

While being guided by these research questions, the research project adopted an open, inductive approach, incorporating themes and issues that came up during discussions with educational actors in Niger and the DRC, and paying attention to the considerable changes that occurred over the period of the project in both countries.

The study uses an inter-disciplinary and mixed-methods approach. The research team is composed of scholars of education, violent conflict and governance, and spans several disciplines, including economics, political science and linguistics. The team's interdisciplinarity and collaborative ethos has been the greatest asset of the project, allowing it to approach the question of education in violent conflict from several perspectives. ISP Bukavu's expertise on education and violent conflict in eastern DRC has also been a key component of the project. Unfortunately, the Niger component of the study did not benefit from such expertise.²

² In Niger, the initial research partner withdrew from the project in the first year. Efforts to find a replacement institution were unsuccessful. Thanks to the support of Save the Children Niger, however, the quantitative component of the study was carried out. ICOMAP also collected qualitative data in the midline and endline phases of the project, although there were significant problems in the endline data collection, which led to much more limited data on

The quantitative component relied on three surveys carried out in both countries at baseline, midline and endline. The qualitative component relied on several rounds of interviews and data collection in both countries (baseline, midline and endline, and a Covid-19 study between the midline and endline), as well as project documents and secondary sources. These successive waves of data collection give the study a longitudinal perspective, allowing us to study key changes to schools, teachers and students over time, and to assess the effects of the interventions.

The partnership between ISP Bukavu and IDS also involved a range of methodological discussions, collaborations and trainings, as well as the development of a teaching module on education in conflict-affected contexts for the training of teachers in the DRC, which we aim to incorporate in the curriculum of the DRC's teacher training institutes (ISPs). The module is presented in Annexe A.1 of the current document, and the entire module will be published on the project website.

1.2 Focus and objectives of the Endline Report

The Endline Report is the third and final report of the BRiCE project. It follows the Baseline and Midline Reports. Its objective is to provide a comprehensive answer to the research project's four central research questions, presented above. As noted before, the research project paid particular attention to the evolving context in the DRC and Niger, and adapted its thematic focus to issues and priorities put forward by the teachers and education actors we were in touch with throughout the project. As a result, the research project covered issues and themes that were not originally included in the thematic orientation of the project.

To provide a roadmap to the current report, as well as the overall study, we summarise how the different reports contributed to answering the four central research questions, as well as the additional themes that were covered (see Table 1.2 for an overview). While the current report does not repeat analyses and results presented in the Baseline and Midline Reports, we provide summaries of these, specifying where they can be found and which aspects the current report revisits or analyses in more depth.

RQ1. Investigate whether, and how, exposure to and experience of violence influence teaching quality and teacher wellbeing in fragile and conflict-affected contexts

that front. Together, these challenges have meant that the Niger component of the project is less developed than the DRC one. These are challenges that are inherent to such international research projects.

One of the central objectives of the BRiCE study is to understand the causes of violence against teachers and its effects on teachers' wellbeing and their capacity to teach, as well as its effects on schools more broadly. The Baseline and Midline Reports dedicated significant attention to the analysis of teachers' exposure to violence, following an inductive approach, and widened the focus to broader engagement with the causes of violence against teachers, as well as teachers' entanglements with violent dynamics. In the Baseline Report, section 4.8 analysed some of the key factors that drive violence against teachers in Uvira and Fizi, DRC. These include: (1) targeting of teachers for kidnap and ransom activities; (2) the role of ethnicity and teachers' identities; (3) the relationship between school fees, student attainment and violence; and (4) teacher governance.

The Midline Report pursued this line of inquiry (section 6), looking at: student and parent violence against teachers (6.1.2); teachers' active role in violence (6.1.3); and the militarisation of school governance and the school environment (6.1.4). The data collected throughout the study showed that in the DRC, BRiCE schools and teachers were subjected to higher levels of direct violence than BRiCE schools in Niger. Schools in Niger, however, experience indirect effects of violent conflict, which the Midline Report analysed (6.2), focusing on effects on the education system (6.2.1) and psychological effects on teachers (6.2.2). In both countries, we found negative impacts of violence on teachers' wellbeing and their capacity to teach.

In the Endline Report, we synthesise the findings of the previous reports and finalise the study's response to RQ1 (Endline Report, section 5). Using the quantitative data collected through the baseline, midline and endline surveys, we provide a consolidated picture of violence against teachers in BRiCE schools in Niger and the DRC. We extend the analysis of violence against teachers in the DRC, notably by adding information on types of violence and factors correlated to teachers' exposure to violence. We also present the preliminary results of a statistical analysis of the impact of violence on teacher wellbeing and teaching quality. The results show that teachers exposed to violence display higher symptoms of post-traumatic stress disorder (PTSD), yet they display similar levels of teaching quality to other teachers.

RQ2. Examine the impact of TPD and ILET on teaching quality and teacher wellbeing in fragile contexts

Another key objective of the BRiCE study is to explore the factors that influence teacher wellbeing and teaching quality in crisis-affected contexts and assess the effects of two key components of the BRiCE project – TPD and ILET – on these outcomes. To foreground the analysis, the study provided background statistics on teachers in the DRC and Niger. The Baseline Report presented baseline

characteristics of the sampled teachers (Baseline Report, section 4), namely their socioeconomic background, their qualifications and experience, their teaching practices and their perceived levels of job satisfaction. The Midline Report reflected on the definition and measurement of teacher wellbeing and teaching quality (Midline Report, section 3), and looked at the role of gender (3.3). The study then sought to explore some of the key factors affecting both teacher wellbeing and teaching quality in Niger and the DRC, focusing on those that the teachers identified as important factors. The Midline Report analyses the effects of several of these factors on teacher wellbeing and teaching quality, notably violence (see section above), employment status (Midline Report, section 4), social position of teachers (Midline Report, section 5), impact of school closures and a new nationwide policy of free primary education (the *Gratuité* policy) on student-teacher relations (5.1, 5.2), gender (5.3) and ethnicity (5.4).

Together, these descriptive statistics and analyses of some of the key factors affecting teacher wellbeing provide a crucial background to understanding the potential effects of TPD and ILET on teacher wellbeing and teaching quality. In the Midline Report, a preliminary analysis of the impact of these two components, using the data collected during the baseline and midline surveys, was carried out (Midline Report, section 7.3).

In this report, we provide a consolidated analysis of the effects of TPD and ILET on teacher wellbeing and teaching quality (Endline Report, section 7). We first discuss the concepts of teaching quality and teacher wellbeing, and how they were operationalised in the study (Endline Report, section 4). We also return to present key teacher characteristics, using the baseline, midline and endline data collections to provide a longitudinal view of how they evolved over the project period (Endline Report, sections 3 and 4). We then present the TPD and ILET components of the BRiCE project, discuss their theories of change, and analyse how they were implemented in the DRC and in Niger in contexts of severe crises (Endline Report, section 6). Finally, we quantitatively assess the impact of TPD and ILET on teaching quality and teacher wellbeing (Endline Report, section 7).

We find that TPD and ILET affected teaching quality differently between countries. In Niger, we found positive and significant effects on three indices: interaction between teachers, lesson delivery and literacy activities. These effects appear to be reinforced over time and are mostly driven by women teachers. In the DRC, the only visible effect is on physical punishment. The delay in implementing some TPD modules may explain the lack of effects on related teaching quality indices. Regarding teacher wellbeing, we find evidence that TPD and ILET improved overall teacher wellbeing in Niger but not in the DRC, mostly through an improvement of the perception of the school's built

environment, and job security. The latter also holds in the DRC, but it is the only variable affected.

RQ3. Examine how teaching quality and teacher wellbeing influence children's cognitive and non-cognitive outcomes in fragile and conflict-affected countries

The third focus of the BriCE study concerns the effects of teaching quality and teacher wellbeing on students' cognitive and non-cognitive educational capacities in fragile and conflict-affected contexts. We analyse the effects of the TPD and ILET interventions on students' cognitive and non-cognitive learning, as well as their learning environment. TPD is designed for teachers; its effect on students is therefore considered to be indirect, the idea being that enhanced teacher wellbeing and teaching quality will have positive effects on student outcomes. ILET, however, is a school environment intervention, which includes parent participation, and is considered to have both direct and indirect effects on students' outcomes.

To investigate this question, we collected comprehensive information on students, their household and their entourage – including their family and wider social circle – to understand the social context in which they learn. In the Baseline Report, we presented baseline statistics on students' socioeconomic characteristics, participation in education, learning assessments, non-cognitive skills and perception of safety at school (Baseline Report, section 5). In the Midline Report, we carried out a preliminary analysis of the effects of the TPD and ILET interventions on students' literacy, numeracy³ and wellbeing (Midline Report, section 7.4).

In the current report, we consolidate the analysis using the baseline, midline and endline data, to provide a comprehensive response to the research question. We provide descriptive statistics on key student and household variables, using the longitudinal perspective enabled by the use of the baseline, midline and endline surveys (Endline Report, section 3). We analyse the effects of the changes to the learning environment caused by the *Gratuité* policy and school closures (Endline Report, section 3). Using the baseline, midline and endline data, we quantify the impact of the TPD and ILET interventions on students' learning and learning environment (Endline Report, section 7). We did not detect any TPD and ILET effects on students' cognitive learning in the DRC. We find positive effects on boys' literacy and girls' numeracy in Niger. We believe that the lack of effect in the DRC is not surprising given the schools' closure during the intervention and the effects of the *Gratuité* policy, but also because of

³ While numeracy is not considered to be part of the skills that the TPD or ILET are purported to have an impact on, we measured it to capture students' overall progression.

the long and indirect possible channel linking TPD and ILET to cognitive learning. We also find very limited evidence of positive effects of TPD and ILET on socioemotional learning and on students' learning environment.

RQ4. Explore how knowledge developed by teachers in conflict-affected contexts can be used effectively in policy and programming

Teachers in the DRC and Niger face extreme challenges due to crises and protracted armed conflicts. Yet teachers have agency and develop crucial knowledge and competencies to address and partially mitigate these adverse working conditions. A central challenge for building resilience through education in such settings is to ensure that knowledge developed by teachers is built on and made available for future crises. This research question resonates with Save the Children's desire to connect project-based impact with system-level impact through the BRiCE project. Save the Children set out to 'understand how the programme's interventions can be durably and effectively translated into policy changes at the local, regional and national level' (BRiCE Annexe A.1 – Full application final). With RQ 4, we explore different types of knowledge and competencies developed by teachers in such contexts, and how these can be incorporated into policy and programming. The Baseline and Midline Reports did not explicitly address this question.

In this report, we explore key domains in which teachers develop knowledge and competencies, relying mainly on information gathered through key informant interviews. These include knowledge relating to discrimination in schools, teaching about armed conflict, addressing the effects of armed conflict in the classroom, positive discipline, teaching in multilingual settings and teaching in overcrowded classrooms. We find, however, that our results are not saturated regarding this question, partially as a result of the limitations of interview-based methodologies, and that further research is warranted on this question.

In the final section of this report (Endline Report, section 9), we reflect on the project's ambitious objective to build resilience in crises through education, and formulate policy recommendations.

Table 1.2 Thematic coverage of the Baseline, Midline and Endline Reports

	Report sections		
	Baseline	Midline	Endline
Context			
School characteristics	3.1		3
Background statistics on teachers	4		3 and 4
Background statistics on students and their households	5.1		3
RQ1: Violence against teachers	4	6	5
Causes of violence against teachers in the DRC	4.8	6.1	5
Kidnapping and ransom	4.8.1		
Identity and ethnicity	4.8.2		
Student and parent violence against teachers	4.8.3	6.1.1	
Teacher governance and violence	4.8.4		
Teachers' active role in violence		6.1.3	
Militarisation of the school environment		6.1.4	
Indirect effects of violence in schools in Niger		6.2	
Effect of violence on the Niger education system		6.2.1	
Psychological effect of violence on teachers		6.2.2	5
Effects of violence on teacher wellbeing and teaching quality		6	5.3.4
RQ2: ILET and TPD impact on teacher wellbeing and teaching quality			
Definition and measurement: teacher wellbeing and teaching quality		3	4
Analysis: teachers' employment status		4	
Analysis: social positioning		5	
Analysis: gender		3.3 and 5.3	4.3

Analysis: ethnicity		5.4	
Analysis: TPD implementation			6
Analysis: impact of TPD and ILET on teacher wellbeing		7.3	7.2.2
Analysis: impact of TPD and ILET on teaching quality		7.3	7.2.1
RQ3: Impact on student outcomes			
Descriptive: education participation	5.2		
Descriptive: learning assessments	5.3		
Descriptive: non-cognitive skills	5.4		
Descriptive: safe learning environment	5.5		
Analysis: impact of TPD and ILET on student learning		7.4	7.3
Analysis: impact of TPD and ILET on student learning environment		7.4	7.4
RQ4: Teachers' knowledge developed in crisis contexts			
Rationale and definitions			8
Teacher knowledge to address conflict-related challenges			8
Transmission and obstacles to teacher knowledge			6 and 8

Source: Authors' own.

2. Methodology

2.1 Quantitative component methodology

2.1.1 Overview of surveys sampling

The quantitative component of the BRiCE study is based on a total of six surveys carried out between 2019 and 2021. Three surveys were carried out in the DRC and three in Niger over the project period. In the DRC, the baseline survey was carried out in May 2019, the midline survey in October–November 2020, and the endline survey in June 2021. In Niger, the baseline survey was carried out in November 2019, the midline survey in November–December 2020, and the endline survey in November 2021. The surveys were carried out in the BRiCE project schools, which are schools selected for the BRiCE education programme led by Save the Children. The schools were selected by Save the Children staff and educational authorities of Niger and the DRC on the basis of the criteria listed in Figure 2.1.

Figure 2.1 Save the Children BRiCE project school selection criteria

–	Viable school
–	School is situated in a secure area
–	Accessibility
–	Proximity of school for teacher training
–	Equity between management regime in the area
–	Not a private school
–	Area has mobile (cellular) phone coverage
–	School grounds and buildings have infrastructure and access to water
–	Supportive community structures and dynamic school leaders (e.g. existence of parental committee and management committee)
–	School is located in an area where Save the Children International implements other interventions.

Source: Authors' own.

They were therefore not randomly selected, nor were they selected to be nationally representative. In both Niger and the DRC, the schools were divided

into three groups – Cohort 1 (Pilot), Cohort 2, and Cohort 3 – to allow for the phased-in randomisation evaluation approach, explained in section 7 of this report. In the DRC, the three surveys were carried out in the 55 BRiCE project schools in the territories of Uvira and Fizi, in South Kivu province. In Niger, a total of 71 schools (Cohorts 2 and 3)⁴ were surveyed in Diffa and Zinder regions. Table 2.1 shows the distribution of schools per cohort in Niger and the DRC.

Table 2.1 Schools in Niger and the DRC by cohort

	DRC cohorts				Niger cohorts		
	Pilot	2	3		Pilot	2	3
Fizi	3	10	16	Zinder	10	21	30
Uvira	3	14	9	Diffa	0	14	6
Total	6	24	25	Total	10	35	36

Source: Authors' own.

Note: School 220 (Yelwa) was dropped in Niger. Data collections were not conducted in the pilot schools in Niger.

Each of the six surveys comprised three components: a school survey (or head teacher survey), a teacher survey, and a student and caregiver survey. The school survey was carried out in all surveyed schools at the baseline, midline and endline (55 schools in the DRC, 71 schools in Niger). The teacher survey and the student surveys were also carried out in all surveyed schools at baseline, midline and endline. In each school in the DRC and Niger, an average of 15 and ten teachers, respectively, were surveyed during the baseline in 2019. Teachers were randomly selected and stratified by gender. In schools with less than the targeted number of teachers to survey, all teachers in the school were interviewed. Similarly, in each surveyed school in the DRC, 13 grade 3 students were randomly selected for the baseline survey in 2019; and in Niger, ten grade 4 students.

For the midline and endline data collection, we aimed to survey the same teachers and students who had been surveyed during the baseline, to create a longitudinal dataset of teachers and students. When these teachers and students were no longer in the surveyed schools, we replaced them with teachers of the same gender and academic progression as those we could not track from our baseline sample. The section below gives a detailed overview of the teacher and student samples in Niger and the DRC. Annexes 1a and 1b

⁴ Given timing issues for the baseline study, the pilot schools were dropped from the study to ensure that the Cohort 2 and Cohort 3 schools were all surveyed before the end of the school year. School 220 (Yelwa) was dropped from the interventions. This explains the discrepancy between the number of schools reported at baseline and here.

detail the survey instruments employed in the DRC and Niger, respectively. Annexe 2 provides a detailed overview of the data collection and quality assurance processes followed.

Quantitative analysis of this project has been carried out with the data gathered through these six surveys and their respective school, teacher and student/caregiver components. In this report, this data is what we refer to as the quantitative data. The evaluation component of the quantitative analysis and the phased-in randomisation approach are detailed in section 7 of this report. The quantitative data is used to provide descriptive and summary statistics, as well as quantitative analyses throughout the report.

2.1.2 The data collection process in the DRC and Niger

The collection of quantitative data on education in crisis-affected contexts is a complex, time-intensive and risky process. The surveys carried out at baseline, midline and endline were lengthy and contained a range of complex methodologies – from the administration of educational proficiency tests to recall methods to socioemotional assessments. These require expertise and experience, which the BRiCE research project is extremely grateful to have found in the quantitative survey research teams in Niger and the DRC. Carrying these out in the remote and conflict-affected regions of both Niger and the DRC came with significant logistical, security and other challenges. These challenges were overcome thanks to the exceptional dedication of all those involved.

In the DRC, the quantitative data collection was led jointly by ISP Bukavu and IDS. Half of the team of quantitative researchers were ISP Bukavu research staff, and the other half were recruited by IDS for their experience in quantitative data collection, while ensuring the gender representativeness of the research team. Trainings were carried out in Bukavu, led by Samuel Matabishi, Gauthier Marchais, Pierre Marion, Paulin Bazuzi and Issa Kiemtoré. The research teams then travelled to Uvira and Baraka, from where they visited the schools in Uvira and Fizi, respectively. Paulin Bazuzi supervised the deployment and data collection in the field, liaising with Pierre Marion and Gauthier Marchais. Pierre Marion and Issa Kiemtoré carried out constant data quality checks and made adjustments to the surveys.

Before starting the surveys, the survey team, led by Paulin Bazuzi, met with the Save the Children BRiCE staff, as well as state and educational authorities, to explain and discuss the nature of the research and the protocols involved. A similar presentation was carried out in schools before the start of the survey, to explain the nature and purpose of the research. Travel to certain schools involved cars, buses, local transport, motorbikes and even boats, as certain parts of Fizi were not accessible by land. A system was set up to check up on

every team each day. During the midline study, one of the researchers was held up at gunpoint during an armed hold-up of public transport.⁵

Despite these extremely challenging working circumstances, the research team built a good rapport with the research subjects. Many among them are or have been teachers, with direct experience of the difficult circumstances that the school communities face. Surveys were carried out with appropriate privacy measures and breaks – including for food and drinks – and specific measures were implemented for sensitive questions, which we detail in section 5. For the midline and endline data collections, national Covid-19 safety guidelines as well as guidelines specifically developed by ISP Bukavu and IDS for interviews were followed during the survey trainings and throughout the data collections.

In Niger, the withdrawal of the national research partner from the project generated some initial challenges for the data collection. Following discussions with Save the Children, an arrangement was found whereby the Save the Children Monitoring, Evaluation, Accountability and Learning (MEAL) and BRiCE teams provided in-country logistical and operational support, while IDS oversaw the baseline, midline and endline data collections. At Save the Children Niger, Abdou Harouna, Abdoul Aziz Moutari, Yacoudima Boucar, Omar Harouna, Housseini Oumarou, Issoufou Seyni Bassirou and Moussa Haboubacar provided crucial help.

Researchers were recruited for the data collection following an open recruitment procedure and were selected by IDS on the basis of expertise and qualifications, while ensuring gender representativeness of the research team. Trainings were carried out in Niamey led by Souleymane Tahirou, Pierre Marion, Sweta Gupta, Issa Kiemtoré, Paulin Bazuzi and Gauthier Marchais. The research teams then travelled to Zinder and Diffa, from where they visited the BRiCE schools in each region. Souleymane Tahirou supervised the deployment and data collection in the field, liaising with Pierre Marion, Issa Kiemtoré and Sweta Gupta. Pierre Marion and Issa Kiemtoré carried out regular data quality checks and made adjustments to the surveys.

Before starting the surveys, the survey team, led by Souleymane Tahirou and supported by Save the Children MEAL and BRiCE staff, met with state and educational authorities to explain and discuss the nature of the research and the protocols involved. A similar presentation was carried out in schools before the start of the survey, to explain the nature and purpose of the research. Travel to certain schools was by car or on foot when schools were situated in larger urban centres. During the midline data collection, one of the researchers

⁵ The researcher was not harmed physically. He was compensated for his lost property and was given leave and psychological support by ISP Bukavu.

experienced an accident during a motorcycle ride that took place out of office hours and broke his arm.⁶

Despite challenging working circumstances, the research team built a good rapport with the research subjects. Surveys were carried out with appropriate privacy measures and breaks – including for food and drinks, and specific measures were implemented for sensitive questions, which we detail in section 5. For the midline and endline data collections, national Covid-19 safety guidelines were followed during the survey trainings and throughout the data collections.

2.1.3 DRC sample distribution

In Uvira and Fizi, the school, teacher and child/caregiver questionnaires were administered in 55 schools, successively in 2019, 2020 and 2021. Those surveyed were chosen following principles of randomisation for a total of 637 students and 704 teachers (Table 2.2).

As can be observed in Table 2.2, there was considerable attrition in the samples of teachers and students over the three data collections. Attrition was particularly pronounced between the baseline and midline surveys (18 per cent for teachers and 44 per cent for students), and less so between the midline and endline surveys (7 per cent for teachers and 10 per cent for students). Between the baseline and the endline surveys, attrition was 18 per cent for teachers and 48 per cent for students. The lower attrition rate observed between the midline and endline surveys is due in part to the midline and endline survey taking place at the beginning and end of the same school year, while the baseline and midline survey took place over two successive school years. However, it is also likely to be due to other factors, notably the severe disruptions caused by the school closures and the *Gratuité* policy. We carry out an analysis of attrition in the sample in section 3.3.

⁶ Although the accident happened during the researcher's personal time, IDS and Save the Children provided medical support and compensation.

**Table 2.2 Tracking schools, teachers and children in the DRC
 (sample statistics)**

	Sample size at endline	% of the midline tracked at endline	% of the baseline tracked at midline
Schools			
Total number of schools	49	100.0	100.0
Students			
Sample of female students	307	89.2	50.6
Sample of male students	330	91.1	61.4
Total students	637	90.1	55.6
Teachers			
Sample of female teachers	197	94	80.6
Sample of male teachers	507	92.7	83.7
Total teachers	704	93.1	82.8

Source: Authors' own.

Notes: Cohort 1 (pilot) schools were dropped from the main analysis presented in section 7. This table provides the total number of students and teachers surveyed in the last sweep and the fraction that are tracked in each subsequent sweep.

Table 2.3 provides additional information on teachers' and children's functional limitation (as defined by the Washington Group Short Set on Functioning),⁷ as well as the sample distribution of teachers and students by cohort and by region in the DRC. In both the teachers' and children's samples, a little more than 10 per cent of respondents faced a functional limitation. The sample was almost equally distributed across the two cohorts and the two territories.

⁷ The Washington Group Short Set on Functioning was used to identify children with functional limitations. Children were asked the questions directly. Each question had four response categories: 'no difficulty', 'some difficulty', 'a lot of difficulty' 'cannot do it at all'. For a discussion of the measure of functional limitation, see Baseline Report, section 2.1.2.)

Table 2.3 Sample information of teachers' and children's functional limitation and distribution by cohort and region in the DRC (sample statistics, %)

	Sample					
	Teachers			Children		
	Baseline	Midline	Endline	Baseline	Midline	Endline
Cohort 2 schools	56.23	55.84	55.82	48.97	48.97	48.82
Cohort 3 schools	43.75	44.15	44.17	51.02	51.02	51.17
Uvira schools	53.46	54.47	53.69	46.94	47.10	46.78
Fizi schools	46.54	45.53	46.3	53.06	52.90	53.22
<i>Disability prevalence</i>						
Teachers/children who have a disability	12.36	14.03	13.49	6.43	11.77	11.93

Source: Authors' own.

Notes: Cohort 1 (pilot) schools were dropped. Information on disability was not collected for teachers surveyed in previous rounds of the data collection. For these teachers, it was considered that their disability remained constant over time. The number of teachers was 752 in the baseline survey, 727 in the midline and 704 in the endline. For children, the number of observations was 637 in each of the three rounds of data collections (baseline, midline and endline).

2.1.4 Niger sample distribution

In Diffa and Zinder, the school, teacher and child/caregiver questionnaires were administered in 71 schools, successively in 2019, 2020 and 2021. Two-thirds of the teachers and students surveyed were located in Zinder. As can be observed in Table 2.4, there was considerable attrition in the samples of teachers and students over the three data collections. Between the baseline and midline surveys, the attrition rate was 26 per cent for teachers and 19 per cent for students. It was lower between the midline and endline surveys (23 per cent for teachers and 11 per cent for students). Between the baseline and the endline surveys, attrition was 42 per cent for teachers and 28 per cent for students.

**Table 2.4 Tracking schools, teachers and children in Niger
(sample statistics)**

	Sample size at endline	% of midline tracked at endline	% of baseline tracked at midline
Schools			
Total number of schools	71	100.0	100.0
Students			
Sample of female students	319	89.9	82.0
Sample of male students	375	87.8	78.6
Total students	694	88.9	80.4
Teachers			
Sample of female teachers	537	77.8	73.0
Sample of male teachers	72	71.0	76.6
Total teachers	609	76.8	73.8

Source: Authors' own.

Notes: Cohort 1 (pilot) schools and school 220 (Yelwa) were dropped. This table provides the total number of students and teachers surveyed in the last sweep and the percentage tracked in each subsequent sweep.

Table 2.5 provides additional information on teachers' and children's functional limitation, as well as the sample distribution of teachers and students by cohort and by region. In both the teachers' and children's samples, less than 5 per cent of respondents had a functional limitation. The sample was almost equally distributed across the two cohorts. For both teachers and students, the prevalence of disability is much lower in Niger (less than 4 per cent of teachers and less than 3 per cent of students; see Table 2.5) than in the DRC (10–15 per cent of teachers and almost 12 per cent of students in the endline survey; see Table 2.3).⁸

⁸ One possible explanation for the difference observed in functional limitation is that there are special schools and classes for children with functional limitations in Niger.

Table 2.5 Sample information of teachers' and children's functional limitation and distribution by cohort and by region in Niger (sample statistics, %)

	Sample					
	Teachers			Children		
	Baseline	Midline	Endline	Baseline	Midline	Endline
Cohort 2 schools	49.25	49.57	49.91	49.07	48.82	49.27
Cohort 3 schools	50.74	50.42	50.08	50.92	51.17	50.72
Diffa schools	32.00	32.53	33.82	29.04	29.17	29.10
Zinder schools	67.99	67.46	66.17	70.85	70.82	70.89
<i>Disability prevalence</i>						
Teachers/children who have a disability	3.15	2.55	1.97	0.57	2.05	2.16

Source: Authors' own.

Notes: Cohort 1 (Pilot) schools and school 220 (Yelwa) were dropped. Information on disability was not collected for teachers surveyed in previous rounds of the data collection. For these teachers, it was considered that their disability remained constant over time. The number of teachers was 603 in the baseline survey, 587 in the midline and 609 in the endline. For children, the number of observations was 699 students in the baseline survey, 682 in the midline survey and 694 in the endline survey.

2.2 Qualitative component methodology

The qualitative data collection in the DRC was carried out by the ISP Bukavu and IDS research teams. Pacifique Nyagabaza and Dieudonné Kanyerhera carried out the baseline data collection between 18 October and 16 November 2019, and the midline data collection between 18 March and 14 April 2020. Pacifique Nyagabaza and Christian Mutulani Bijavu carried out the endline data collection in July and August 2021. Over the baseline, midline and endline data collections, researchers conducted a total of 211 semi-structured interviews (59 in the baseline survey, 36 in the Covid-19 short study, 62 in the midline and 54 in the endline (see Annexe A.2 for a list of endline interviews) in Fizi and Uvira. The main respondents were teachers (114), head teachers (39) and parents (26). Other respondents included government and administrators of faith-based organisations, students, chiefs, teachers' union members and officers of the national military, including colonels in the Armed Forces of the Democratic Republic of Congo (FARDC).

In Niger, following the withdrawal of the research partner during the first year of the project, the baseline qualitative data collection was cancelled. A partnership was then developed with International de la Communication et de l'Accompagnement Professionnel (ICOMAP) Niger for the midline and endline qualitative data collections, which were carried out by Kadey Magi Mamadou and Amoukou Saadou, under the supervision of Weifane Ibrahim. A total of 129 interviews were carried out, 80 during the midline data collection in February and March 2021, and a further 49 during the endline data collection in November and December 2021. However, there were significant delays and problems during the endline data collection, which led to significant gaps in the endline qualitative data for Niger. The interviews were carried out with teachers, head teachers and representatives of the education ministry, as well as local authorities in Zinder and Diffa.

Regarding the semi-structured interview guides for the endline study, we made several changes compared with the midline. We removed questions about exposure to violence, as the question was sufficiently covered in the baseline and midline studies. We added questions on teacher knowledge (RQ4) and focused more closely on the TPD and ILET interventions, with particular attention dedicated to positive discipline and conflict-sensitive education (RQ3). We also targeted BRiCE teacher trainers (for RQ4) and ISP Bukavu teaching staff (for the teaching module). Also, in relation to RQ4 we conducted 11 additional online interviews with BRiCE key informants, mainly Save the Children staff (Save the Children Norway, Save the Children UK and Save the Children International), but also with Nigerien and Congolese government staff who have worked in cooperation with BRiCE. Furthermore, following a literature review, we identified questions on gender as very relevant for the case of female teachers in Niger for the midline study. As this created a gap between Niger and the DRC, we added questions on gender and teachers in the DRC endline study.

We translated (where necessary), transcribed and coded the interviews. We applied focused and open coding in our data analysis. Regarding focused coding, we followed the idea of 'sensitising concepts' (Bowen 2006), which means that theory and hypotheses guided coding and analysis. We then connected these findings to the wider literature. Open coding implied that we were alert to emerging and unexpected findings. Triangulation was used by comparing the different respondents' narratives about these themes or specific events (Burawoy 1998: 15). We connect our findings to wider dynamics of political economy and patterns of contested public authority at subprovincial, provincial and national levels. For a more detailed description of the qualitative approach, see the Baseline and Midline Reports.

Regarding RQ4, we contend that due to its context-specific, unstructured, non-formal and often tacit nature, studying teacher competencies and knowledge is challenging. Our methodological approach – semi-structured interviews – has not allowed us to explore this dimension in all possible depth, as we feel that our findings are not saturated. Alternative methods – in particular, classroom observations and follow-up in-depth interviews with the same teachers – could have yielded further insights on these practices. With regards to classroom observations, there have been several rounds of discussions between IDS and Save the Children, and IDS and ISP Bukavu, regarding their feasibility and relative value for the study. High-quality classroom observations require training by specialists and extensive work to make them context relevant. The travel restrictions resulting from the Covid-19 pandemic, as well as repeated challenges to the research project, unfortunately prevented the research team from implementing these.

2.3 Ethics review

This research project has undergone three full research ethics reviews. The first review was done by the IDS Research Ethics Committee, which combines the UK's Economic and Social Research Council's Research Ethics Framework and the University of Sussex's Research Ethics Committee procedures. The second review was done by the board of ISP Bukavu, following ISP Bukavu's Research Ethics Review procedures. The third review was done by the Comité National d'Éthique pour la Recherche en Santé, of the Public Health Ministry of Niger.⁹ Moreover, for all the quantitative data collections, the research teams in both Niger and the DRC were trained on Save the Children's child safeguarding protocols and procedures. These trainings were delivered by the Save the Children child safeguarding focal points in Niger and the DRC.

In addition, for the midline data collection in the DRC and Niger, the IDS research team worked with Dr Natalie Edelman, a Principal Research Fellow at the School of Health Sciences of the University of Brighton, UK. Dr Edelman has been developing trauma and resilience-informed research principles and practice (Edelman 2021), a new approach to working with populations potentially subjected to trauma. While this approach has been developed for health research in the context of the UK, the IDS team worked with Natalie Edelman to adapt them to contexts of ongoing violent conflict, where research subjects endure significant levels of trauma. These have been incorporated into the research instruments for the midline and endline data collections.

⁹ All three ethics authorisations and application documents can be provided on request.

3. BRiCE schools in shifting contexts

In this section, we present some of the key features of the BRiCE schools and the contexts in which the BRiCE project took place. In both Niger and the DRC, the period between 2018 and 2022 – during which the project took place – was marked by severe crises and disruptions in the education sector. They led to profound changes in the BRiCE schools. We present these disruptions and the effects they had on schools, taking advantage of the longitudinal outlook provided by the three successive phases of data collection. Overall, we find that these external circumstances have negatively affected teachers' capacity to attend teacher learning circles (TLCs), engage in reflective learning in the classroom and, more broadly, do their job as they would have liked. We start with a brief description of the context in each country.

3.1 Contextual changes in Niger and the DRC

3.1.1 Niger

Over the duration of the BRiCE project, Niger has experienced significant challenges caused by insecurity in the Sahel region and a food crisis, among other things. With the 2020/21 democratic elections, the country had its first peaceful transition of power since independence, displaying more political stability than neighbouring Mali and Burkina Faso, which have both experienced coups over the same period. The country was not, however, spared from the escalation of violent conflict in the tri-border area with Burkina Faso and Mali (Raleigh, Nsaibia and Dowd 2021). On Niger's side of the tri-border area, in Tilaberi region, a sharp increase in violence has been recorded. It includes politically motivated direct attacks against students and teachers, and schools (GCPEA 2020), and recruitment of young people into armed groups. Violence also led to repeated school closures, which increased fourfold in Niger, Mali and Burkina Faso between 2017 and 2020, leaving thousands of children out of school (Save the Children 2021).

The Insecurity also led to substantial population displacements – of both internally displaced persons (IDPs) and refugees – to other regions of the country, some of which, like Diffa and Maradi, were already affected by longstanding violence and insecurity. Moreover, Niger is currently experiencing a severe food crisis: in 2021, 1.2 million people across the country were already in a situation of acute food insecurity; in 2022, that number more than doubled

to 2.5 million. The Covid-19 pandemic created additional challenges in the education sector, as all schools in the country were closed between 20 March and 1 June 2020. Although this was a relatively short interruption compared with other countries, including the DRC, teachers and parents nevertheless faced significant challenges on professional, financial and personal levels (analysed in section 4.3 of the Midline Report).

The bRiCE project took place in Diffa and Zinder, which have distinct histories.

The Zinder region, which borders Nigeria and has an estimated population of over 3 million (INS 2020), has not been directly affected by violence in the way other regions of Niger have. Nevertheless, the city of Zinder has experienced urban violence, often tied to the mobilisation of young people for political reasons (Mueller 2016), and the region as a whole has hosted many refugees and IDPs fleeing violence in neighbouring regions. Substantial droughts have also affected the region, pushing people to leave.

Diffa borders Nigeria, Lake Chad and Chad, and is sparsely populated, with an estimated population of 591,000 or around 4 per cent of the national population (International Crisis Group 2017). As Diffa borders Nigeria's Borno state, it has been directly and indirectly affected by the violent conflict between Islamist insurgent group Boko Haram and Nigerien government forces that started in 2009. The first attack on Nigerien territory took place on 6 February 2015, and Diffa has served as a rear base, and site of fundraising and recruitment, for armed groups tied to Boko Haram (*ibid.*). The government declared a state of emergency in Diffa, with the goal of curtailing Boko Haram's funding. On the ground, the situation further deteriorated in 2018 and 2019, with an escalation of violence and the abductions of girls (GCPEA 2020) that led to an increase in forced displacement (IDMC 2020). According to government figures, on 31 August 2021, Diffa was hosting 235,211 Nigerien refugees and 67,817 IDPs.¹⁰ In 2021, a relative reduction in insecurity in the area was accompanied by efforts to facilitate the return home of IDPs. Diffa faces severe challenges beyond the violence and its effects: the United Nations Office for the Coordination of Humanitarian Affairs estimated that 24 per cent of the population was living in food insecurity in March 2022.

Overall, the situation in the regions where BRiCE took place in Niger is one of political and economic fragility. Even before the Covid-19 pandemic, violence – especially in Diffa – but also food insecurity and the forced displacement of populations were already disrupting school and the education system in general.

¹⁰ Reported by **UNHRC Niger Factsheet: Diffa Region, August 2021** (accessed 25 October 2022).

3.1.2 DRC

In the DRC, the BRiCE project also took place in difficult circumstances. As in Niger, armed conflict and Covid-19-related disruptions did not spare the areas where the project took place. The Covid-19 school closures were comparatively longer in the DRC than in Niger, lasting 4.5 months in 2020 and 1.5 months in 2021. The schools in the project were also affected by a new poorly implemented nationwide policy of free primary education (the *Gratuité* policy), related teacher strikes and floods (see timeline in Annexe A.6 in this report).

The *Gratuité* policy was implemented in September 2019 by the government of President Félix Tshisekedi. It aimed to eliminate a wide range of school fees that prevented primary education from being genuinely accessible to all in the DRC (and were the product of decades of underfunding of the sector). On the ground, however, the reform has often stalled and failed to live up to its promises. Across the country, teachers voiced several complaints about the reform. They demanded the immediate payment of the new teachers (*nouvelles unités*) and a sizeable number of teachers who had been on the payroll for years but had not been paid by the state (*unités non-payées*), as agreed with the government in the Accords de Bibwa. They also asked for the teachers' health insurance scheme to become operational beyond the large cities of Lubumbashi and the capital Kinshasa. Finally, teachers outside of cities contested salary zones that financially privilege urban teachers. In our sample, 66.5 per cent of teachers declared they had participated in a strike and, in South Kivu an average of nearly eight weeks of schooling were lost as a result of strikes between October 2020 and November 2021. The intensity and duration of the strikes differed between educational networks and geographic areas. They ended between 9 and 29 November 2021. Strikes underline the importance of teacher salaries, the agency teachers have in fighting for their rights, and the complex and fragmented teachers' union landscape in the DRC.

The BRiCE project took place in the territories of Fizi and Uvira. The context of these two areas bordering Lake Tanganyika has already been described in the Midline and Baseline Reports. Unfortunately, insecurity and violence have not diminished since those reports. The situation remains extremely volatile and insecurity is widespread.

Adding to an already complicated situation, floods devastated large parts of Uvira and Fizi in April 2020. The Ruzizi plain (Plaine de la Ruzizi) in Uvira, where several BRiCE schools are located, was most severely hit, with 31 out of 62 primary schools destroyed. In total, 200 classrooms were affected, including latrines and water points, and roughly 9,000 children were at risk of dropping out of school (UNOCHA 2020). Of the schools still standing, 29 were used to host affected community members, including schools that were part of the BRiCE

project.¹¹ In addition to education, complementary services providing shelter, food and healthcare were also affected. Around 18 December 2020, the same area was hit by another, less damaging, flood, whose effects were not systematically documented.

The Midline Report analysed key effects of the *Gratuité* policy and Covid-19 on the BRiCE schools, including their effects on teachers' contractual status, salary, teaching capacity and wellbeing, and on student-teacher relations (Midline Report, sections 4.2, 5.1 and 5.2).¹² In the following section, we identify key trends in the BRiCE schools over the project period, with the objective of informing our analysis. We focus on the student and staff bodies and how they changed over time as they were affected by the disruptions mentioned above.

3.1.3 Changes in the staff and student body

The longitudinal nature of the data collected in the BRiCE schools in Niger and the DRC allows us to compare the schools in both countries, as well as track key changes in the composition of the staff and student body over time. Here, we present salient characteristics of the schools in both countries, looking at the number of students and the gender ratios in the staff and student body. Figures on school characteristics additional to those presented in the main report can be found in Annexe 4 (Figures A4.51 and A4.52).

3.1.4 Number of students

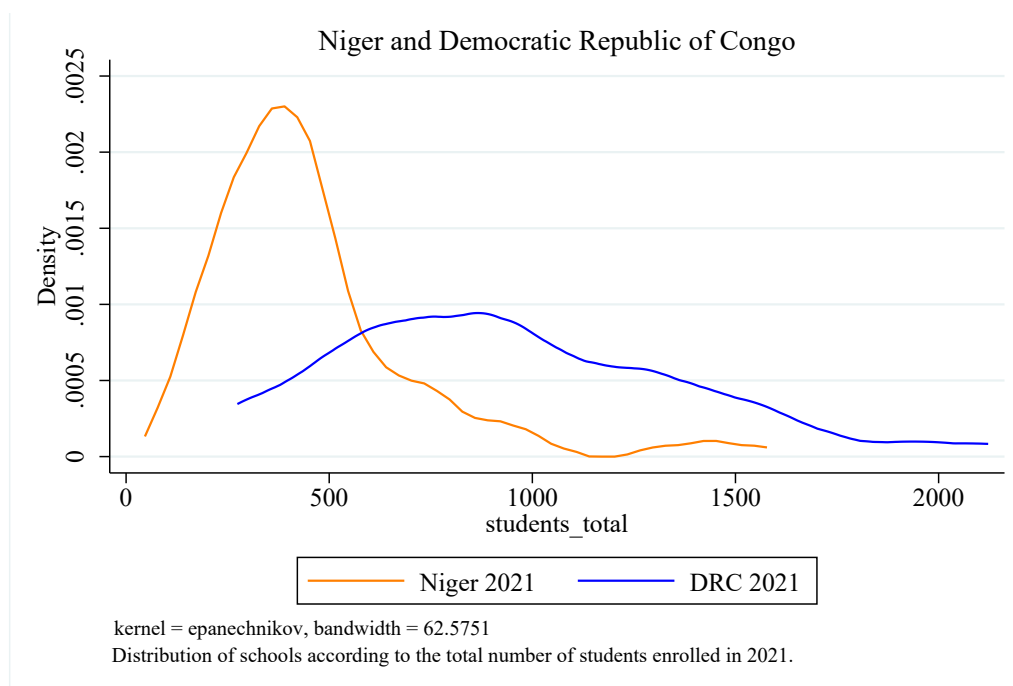
One notable difference in the general characteristics of the schools is the total number of enrolled students. In Figure 3.1, we can see that the BRiCE schools in the DRC are much larger on average than those in Niger.

When looking at the distribution of schools according to the number of students relative to the number of teachers in each school (student to teacher ratio) in Figure 3.2, we can also see that, on average, there is a larger number of students per teacher in the DRC schools than in the Niger schools.

¹¹ BRiCE schools were not directly destroyed by the floods, but eight schools (EP Action Kusaïdia, Munanira, Tanganika, Espoir, Kanvimvira, Masuza and Ezio Meloni) served as a transitional shelter for people affected in Uvira.

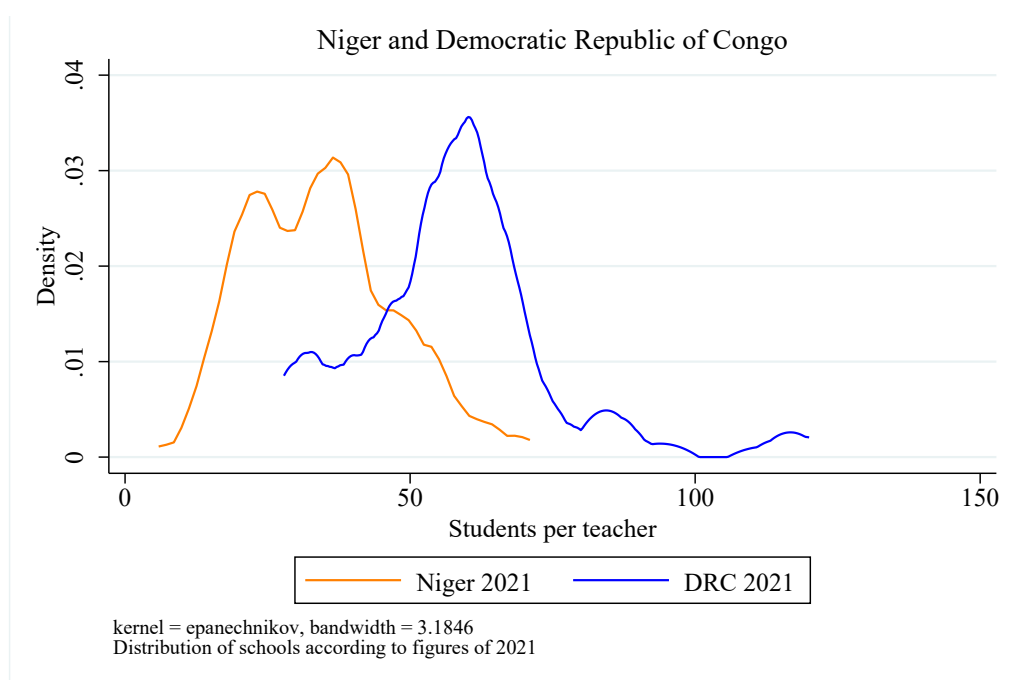
¹² A detailed analysis of the combined effects of school closures and the *Gratuité* policy was carried out for an academic paper that forms part of the BRiCE study (Falisse *et al.* 2022). The article is currently under review and is accessible online as a pre-print.

Figure 3.1 Distribution of schools by number of students in the DRC and Niger in 2021



Source: Authors' own, based on the survey data.

Figure 3.2 Distribution of schools by student-teacher ratio in the DRC and Niger in 2021

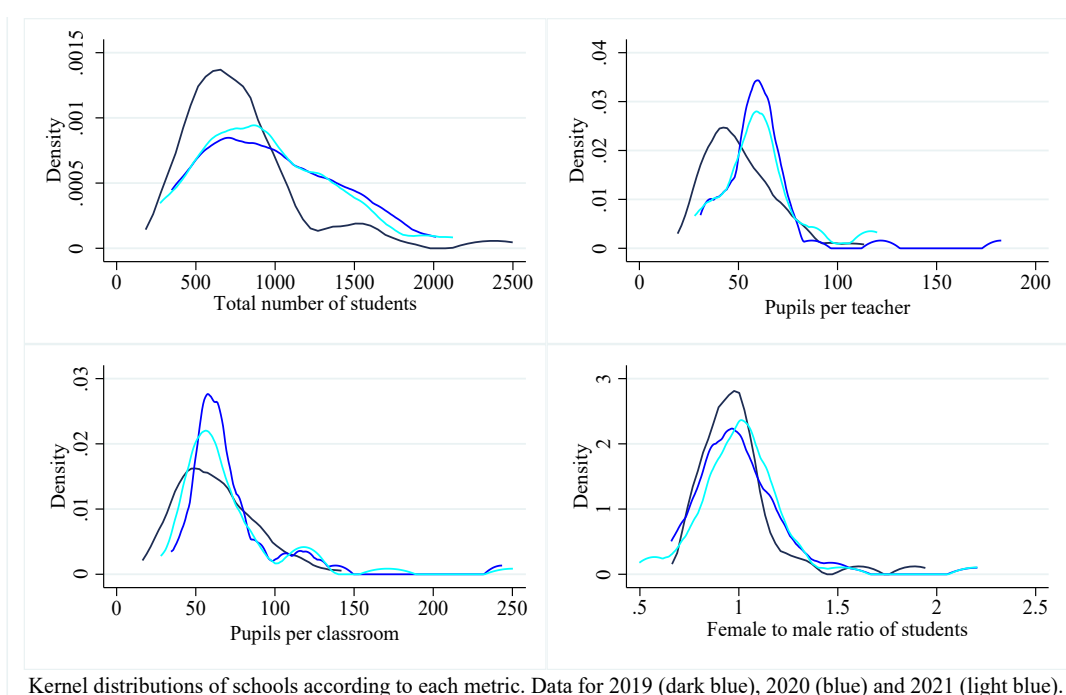


Source: Authors' own, based on the survey data.

Notes: Cohort 1 (pilot) schools were dropped. This figure is based on the school survey using data from the last point of the data collection.

A closer look at the temporal patterns of school characteristics over the period of the project shows us that the BRiCE schools in the DRC have experienced significant changes over the period of the project (Figure 3.3) whereas the BRiCE schools in Niger have displayed relative stability over time (Figure 3.4). Indeed, between 2019 and 2020/21, there was a sharp increase in the number of students in the BRiCE schools in the DRC, which was not accompanied by an increase in numbers of school staff or school infrastructure.

Figure 3.3 Distribution of schools by school characteristics in the DRC over time

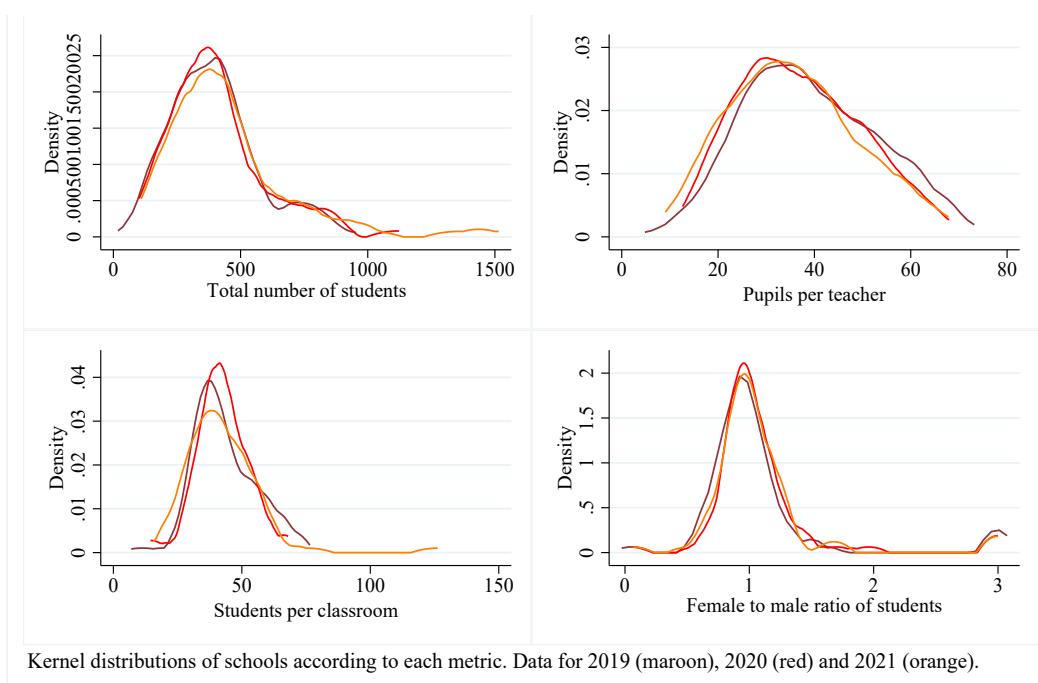


Source: Authors' own, based on the survey data.

Notes: Cohort 1 (pilot) schools were dropped. This figure is based on the school survey in all three rounds of data collection.

As argued in the Midline Report and in the previously mentioned academic article (Falisse *et al.* 2022), this is mainly due to the *Gratuité* policy and the fact that it partially removed the significant economic barriers to primary education access (without, however, sufficiently investing in school staff and infrastructure). This means that teachers have suddenly faced much larger classrooms, which has evidently made their working conditions more challenging (see section 8.6). This is visible in Figure 3.3, based on the school surveys, which presents the distribution of schools according to the number of students relative to the number of teachers in each school (student to teacher ratio). This increase in the student to teacher ratio is mirrored in the parallel increase observed in the students to classrooms ratio in the DRC (Figure 3. 3). This contrasts with the BRiCE schools in Niger, where, as can be seen in Figure 3.4, student numbers, student to teacher ratios and student to classroom ratios have remained relatively constant over time.

Figure 3.4 Distribution of schools by school characteristics in Niger over time



Source: Authors' own, based on the survey data.

Notes: Cohort 1 (pilot) schools were dropped. This figure is based on the school survey in all three rounds of data collection.

The sharp increase in the number of students in the DRC schools provoked by the *Gratuité* policy represents a complex challenge for schools and teachers, which is not solely one of numbers. Indeed, the *Gratuité* policy likely changed the composition of the student body, as new students might have different socioeconomic profiles (they are, in all likelihood, poorer); and, given that they were not previously enrolled in school, are likely to have lower levels of literacy and numeracy.

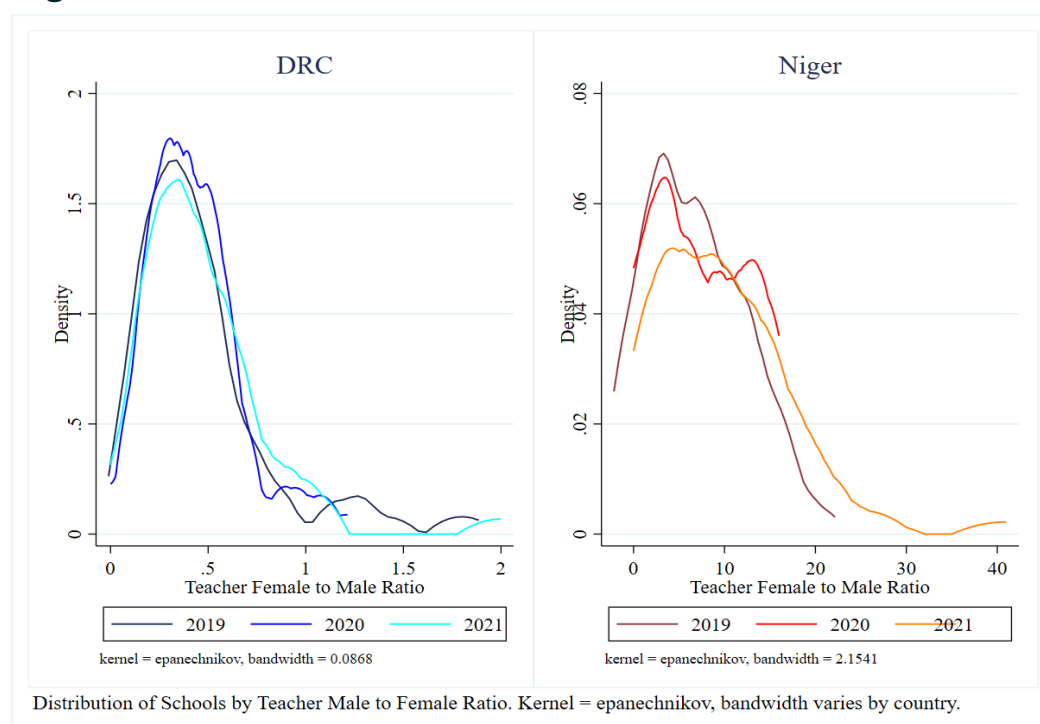
3.1.5 Gender in the staff and student body

Over the project period, the gender composition of the staff and student body does not change drastically in the BRiCE schools of Niger and the DRC. As noted in the Baseline and Midline Reports, one of the stark differences between the BRiCE schools in the DRC and those in Niger is the gender composition of the teaching body. While in Niger, the great majority of teachers are female (between 85.2 per cent and 88.3 per cent, depending on the year of the sample), in the DRC the majority (70 per cent to 71.1 per cent) are male.¹³ This can be seen in Figure 3.5, which plots the female to male ratio of the sample of

¹³ This is estimated using the surveys administered to the heads of school between 2019 and 2021.

teachers in both Niger and the DRC. We can also see a relative stability of the distribution over the three data collection rounds – baseline, midline and endline – in both countries.

Figure 3.5 Female to male ratio for teachers in the DRC and Niger



Source: Authors' own, based on the survey data.

Notes: Cohort 1 (pilot) schools were dropped. This figure is based on the school surveys in all three rounds of data collection.

This contrasts with the female to male ratio in the sample of students. In Niger, there is relative stability over the period of the project, as can be seen in Figure 3.4, Panel 4. In the DRC however, there is a change over the period of the project, as can be seen in Figure 3.3, Panel 4.¹⁴ The slight shift towards the right of the endline distribution suggests a slight increase in the ratio of female to male. A plausible hypothesis is that the increase in the proportion of girls in schools is an effect of the *Gratuité* policy on intra-household decisions about investment in education: in a society such as South Kivu's, where gender norms favour men, households under financial stress may choose to invest in boys rather than girls. The *Gratuité* policy lifts (some of) these financial barriers to education, making it easier to send girls to schools (without, however, affecting gender norms, or at least not in the short run).

¹⁴ Student gender ratio: 51.8 per cent male.

3.2 Evolution of the students' characteristics over time

The difficult context of schools in Niger and the DRC pushes students (and their parents) to make hard decisions about whether they want to stay in school. Some are also forced to repeat years. Our data collection strategy sought to provide a representative sample of students for three consecutive years. Looking at our sample over time, we understand how profiles change and, thereby, get to observe some of the key dynamics in schools.

Our datasets provide information on primary school students as they are in grade 3 (baseline), and then, one year later, in grade 4 (midline), and finally in grade 5 (endline) in the DRC. The same goes for Niger, except that progression is from grade 4 to grade 6. It is useful to bear in mind that, after baseline, our samples include those from the baseline who made it to the next grade, those who joined from the outside, and those repeated that next grade (for instance, in the DRC, the sample for grade 4 comprises those in grade 3 who made it to grade 4, as well as the newcomers in grade 4 and those who repeated grade 4). Differences between years give us a sense of how the student body evolves over time.

Gender dynamics are the most obvious from Table 3.1. Boys gradually make up a higher ratio of the student population: in the DRC, they represented 46.3 per cent of the sample in the baseline but 51.8 per cent in the endline. The increase in Niger is similar, increasing from 48.2 per cent to 54 per cent. In other terms, what we observe is a clear widening of the gender gap over time and school years. The education gender gap that we observe in our data – in which, for instance, the disparity is quite visible between fathers and mothers having not gone to school or not knowing how to read and write – is unlikely to be closed in the next generation.¹⁵ Our data does not, however, suggest that such a gender gap is passed on within families: students whose parents did not go to school are not significantly more likely to be less well represented after the first year.

Similarly, we do not find clear evidence that poorer students are less likely to be represented in subsequent years (e.g. when considering number of rooms, assets, etc.). This observation is valid in the DRC, as well as in Niger,

¹⁵ In Niger, between 65.5 and 66.8 per cent of mothers had zero schooling, more than the 54.2–55.1 per cent of fathers. In the DRC, the general level of this statistic is lower, but the disparity is larger than in Niger, with a 2.4 ratio (33.7–34.3 per cent of mothers had not accessed formal education, compared with 14–16.6 per cent of fathers). Similarly, we can see a gap in literacy, with a high proportion of parents, especially women, who do not know how to read nor write. Another gender disparity is in employment, with 6.6–7.7 per cent and 12.1–12.6 per cent of mothers likely to be working outside the household in the DRC and Niger, respectively.

suggesting that it may not only be a by-product of the *Gratuité* policy. It is also important to note that the gender dynamics we mention do not necessarily run counter to the overall improvement in the gender ratio we observed for entire schools in the previous subsection (e.g. Figure 3.3): it is possible that, overall, there are more girls in school; yet at the same time, the proportion of girls keeps declining as they access the next grade.

Table 3.1 Characteristics of the background and the sociodemographic composition of the student body over time

	DRC			Niger		
	Baseline	Midline	Endline	Baseline	Midline	Endline
% of male students	46.3	46.0	51.8	48.2	47.9	54.0
Age of new children	9.4	10.9	11.8	10.2	11.2	12.2
% of students belonging to less prevalent ethnic group	29.67	27.83	30.03	34.05	40.47	43.19
Number of brothers in children's household	2.8	2.7	2.8	3.1	3.2	3.1
Number of sisters in children's household	2.8	2.5	2.5	2.6	2.4	2.5
Number of rooms in children's household	2.9	3.2	3.7	2.5	2.8	3.1
Number of members living in household	8.4	8.2	8.6	9.4	9.5	9.6
Number of rooms to household size ratio	3.6	3.1	2.8	4.8	4.4	4.0
Number of communication assets (max. 5)	1.3	1.6	1.7	2.1	2.0	2.0
Number of transport and agricultural assets (max. 5)	0.4	0.6	0.6	1.2	1.1	1.1
Number of household durable assets (max. 5)	2.7	2.8	2.6	2.7	2.5	2.6

% of students' households with electricity	12.7	34.7	38.3	43.3	46.2	46.8
Number of livestock in children's household	2.5	2.2	2.6	5.7	5.7	5.7
Mother's education (in years)	4.6	4.6	4.6	2.3	2.4	2.4
% of mothers who did not go to school	34.3	33.8	33.7	66.8	65.6	65.5
Father's education (in years)	8.2	8.3	8.2	3.9	4.0	4.0
% of fathers who did not go to school	14.6	14.0	14.6	55.1	54.2	54.4
% mothers who work outside of the household	7.7	6.6	6.6	12.1	12.8	12.6
% fathers who work outside of the household	35.8	37.3	35.8	41.9	44.5	42.5
% mothers who can read and write	57.9	57.6	58.4	28.8	29.5	29.3
% fathers who can read and write	77.1	78.8	79.5	40.7	41.4	41.2
% of students who have a disability	6.4	11.8	11.9	0.6	2.1	2.2
% students who paid school fees	87.1	21.4	9.4			
School fees in local currency				6,098	7,254	9,282

Source: Authors' own, based on the survey data.

Notes: Cohort 1 (pilot) schools and school 220 (Yelwa) in Niger were dropped. Statistics estimated from the full sample of children in Cohorts 2 and 3. Estimates represent sample averages. Information and assets represent the number of assets owned by the children's household. Communication assets: electricity, telephone, radio, television and mobile phone. Transport and agricultural assets: table, chair, bench/stool, fridge and bed. Household durable assets: bicycle, animal-drawn cart, car/truck, motorcycle/scooter and water pump. Number of livestock animals owned is the sum of cows, donkeys/horses, sheep, pigs, poultry/birds and rabbits. Information on disability was not collected for teachers surveyed in previous rounds of the data collection; it was considered that this disability was to remain constant over time. Less-prevalent ethnic groups are those other than Babembe, Bafuliro, Bashi and Bavira in the DRC, and other than Hausa in Niger. The number of observations was 699 students in the baseline survey, 682 in the midline and 694 in the endline in Niger and 637 in the three rounds of data collections (baseline, midline and endline) in the DRC.

3.3 Exploring attrition and its causes

The difficult context of schools in Niger and the DRC is perhaps best reflected in the very high attrition rate between our baseline and endline studies. In the DRC, only 55.6 per cent of students and 82.8 per cent of teachers could be tracked from baseline to endline. The situation is equally problematic in Niger, where only 80.4 per cent of students and 73.8 per cent of teachers could be found. In many instances, and despite the enumerators' best efforts, it was not possible to re-interview children and teachers. In this section, we try to understand 'who was lost and why' to further cast light on the dynamics of the 'shifting context' we have described. A key difference from the previous section is that the data in this case does not provide a representative picture of who is in which year, but rather a clear sense of who it is possible to re-identify; in other words, who has not dropped out, repeated the class, or is absent from school for another reason (typically, violence, illness, or the need to supplement one's family income).

Table 3.2 shows that socioeconomic factors are key to understanding students' attrition in schools. In Niger, children who are observed for two periods live in households that have higher ownership rates of information and communication, transport, agricultural and durable household assets. These are also children whose households have a higher number of rooms, and in which the father has more years of schooling on average. The picture in the DRC is generally similar when it comes to socioeconomic factors but the gender dynamics are different: boys who were surveyed in the baseline survey are statistically more likely to have been found in the same schools and surveyed again for the midline and endline surveys, a finding that is not statistically significant in Niger. Also, children only present in the baseline are more likely to be part of less-prevalent ethnic groups and to be older than children present in two rounds of data in the DRC (the differences are not statistically significant in Niger). In summary, this table provides some indications on the likely factors affecting students' attrition: gender, age, ethnicity, wealth (measured with asset ownership), household size and education background of their parents.

Table 3.2 Attrition of children: socioeconomic characteristics of children's households in the DRC and Niger

	Present: baseline	Present: baseline midline	Difference to baseline only		Present: baseline endline	Difference to baseline only	
DRC							
% of male students	40.28	51.13	10.85	***	51.51	11.22	***
% students with a disability	7.42	5.65	-1.77		6.02	-1.40	
% of students from less-prevalent ethnic groups	33.22	26.84	-6.38	*	26.20	-7.01	*
Age of students in years	9.50	9.24	-0.26	**	9.22	-0.28	**
People living in children's household	8.09	8.65	0.56	**	8.64	0.55	**
Brothers in children's household	2.65	2.95	0.30	**	2.96	0.31	**
Sisters in children's household	2.62	2.88	0.27	*	2.83	0.21	
Rooms in children's household	2.79	3.04	0.25	**	3.08	0.29	**
Information and communication assets (max. 5)	1.25	1.41	0.16	*	1.39	0.14	
Transport and agricultural assets (max. 5)	0.34	0.42	0.08		0.43	0.09	*
Household durable assets (max. 5)	2.66	2.81	0.15		2.84	0.18	*
Livestock owned by children's household	2.47	2.47	0.00		2.55	0.07	
Mother's education (in years)	4.62	4.66	0.04		4.70	0.08	
Father's education (in years)	8.06	8.34	0.28		8.36	0.30	
Niger							
% of male students	52.55	47.15	-5.40		46.71	-5.85	
% of students with a disability	0.00	0.71	0.71		0.60	0.60	
% of students from less-prevalent ethnic groups	37.23	33.27	-3.95		33.13	-4.09	

Age of students in years	10.23	10.11	-0.12		10.05	-0.19	
People living in children's household	9.06	9.43	0.37		9.60	0.54	
Brothers in children's household	2.82	3.14	0.31		3.21	0.38	*
Sisters in children's household	2.39	2.69	0.30		2.73	0.35	*
Rooms in children's household	2.31	2.59	0.28	**	2.62	0.30	**
Information and communication assets (max. 5)	1.88	2.15	0.26	**	2.18	0.29	**
Transport and agricultural assets (max. 5)	0.91	1.22	0.32	***	1.25	0.34	***
Household durable assets (max. 5)	2.39	2.78	0.39	***	2.83	0.43	***
Livestock owned by children's household	5.88	5.63	-0.25		5.59	-0.28	
Mother's education (in years)	1.89	2.39	0.50		2.40	0.51	
Father's education (in years)	3.13	4.14	1.01	**	4.13	1.00	**

Source: Authors' own, based on the survey data.

Notes: The asterisks present the significance levels for the t-test of the equality of means. If a p-value is less than 0.10, it is flagged with one star (*). If a p-value is less than 0.05, it is flagged with 2 stars (**). If a p-value is less than 0.01, it is flagged with three stars (***).

In the DRC: present in baseline and endline surveys: 332 children; present in baseline and midline: 354; only present in baseline: 283. In Niger: present in baseline and endline surveys: 501 children; present in baseline and midline: 562; only present in baseline: 137. Cohort 1 (Pilot) schools were dropped. Information and communication assets: electricity, telephone, radio, television and mobile phone. Transport and agricultural assets: table, chair, bench/stool, fridge and bed. Household durable assets: bicycle, animal-drawn cart, car/truck, motorcycle/scooter and water pump. Number of livestock animals owned is the sum of cows, donkeys/horses, sheep, pigs, poultry/birds and rabbits. Less-prevalent ethnic groups are those other than Babembe, Bafuliro, Bashi and Bavira in the DRC; and other than Hausa in Niger. Parent variables do not vary over time and were collected when the children were surveyed the first time. There are missing observations for parents' variables as some mothers or fathers were no longer alive.

A view of children and attrition from the perspective of experience of violence and readiness to respond to violence casts no meaningful differences between children who remain in the sample for the whole duration relative to children who are only present during the baseline. For neither the DRC nor Niger do we find meaningful statistical differences between groups in any of the measures presented in the table. However, the table shows important differences in the experience of armed conflict between countries, with student households in the DRC being much more likely to have experienced an attack by an armed group or been threatened one. At the same time, children in the DRC appear to be less likely to know who to report to when experiencing or seeing violence.

Table 3.3 Attrition of children: violence and responses to violence in the DRC and Niger

	Present : baseline	Present: baseline midline	Difference to baseline only	Present: baseline endline	Difference to baseline only
DRC					
% know who to report to when they experience or see violence	60.17	57.60	2.57	57.60	3.55
% aware of risks associated with armed conflict	52.26	50.88	1.38	50.88	2.13
% know what to do when there are attacks in school	59.04	56.89	2.15	56.89	3.65
% of teachers taught how to behave in emergency situations	53.39	53.00	0.39	53.00	0.61
% attacked by an armed group (1990–2018)	24.11	22.95	-1.17	22.96	-1.15
% threatened by an armed group (1990–2018)	9.19	9.04	-0.15	9.34	0.15
% has a relative in an armed group (1990–2018)	3.18	1.41	-1.77	1.51	-1.67
Niger					
% know who to report to when they experience or see violence	85.41	80.29	5.12	80.29	5.14
% aware of risks associated with armed conflict	44.48	41.61	2.88	41.61	3.30
% know what to do when there are attacks in school	58.01	54.01	3.99	54.01	3.87
% of teachers taught how to behave in emergency situations	54.98	48.18	6.81	48.18	6.12

% attacked by armed group (1990–2018)	6.06	4.37	-1.69	4.51	-1.55
% threatened by an armed group (1990–2018)	2.19	1.25	-0.94	1.40	-0.79

Source: Authors' own, based on the survey data.

Notes: In the DRC: present in baseline and endline surveys: 332 children; present in baseline and midline: 354; only present in baseline: 283. In Niger: present in baseline and endline surveys: 501 children; present in baseline and midline: 562; only present in baseline: 137. Children only present in baseline indicates that they were only surveyed in the baseline round of data. Experiences of violence (attack or threat) are at household level.

Finally, turning to teachers, it is useful to first note that while students' attrition is higher in the DRC than Niger, the opposite is true for teachers (as explained at the beginning of this section). We do not have a definitive explanation for this situation. Previous reports (e.g. Midline Report) have highlighted Nigerien teachers' poor conditions but the ratio of female teachers may be a more plausible explanation: research suggests that women are more likely to stop working than men when they have children, or when they move because of their husband's employment. Interestingly, albeit not significantly, the ratio of female teachers decreases over time in both countries.

Table 3.4 shows how teachers only present in the baseline survey differ from those present in two rounds of the data collection (baseline and midline or baseline and endline). Across both countries, teachers only present in the baseline tend to be younger (about five years younger in the DRC and two years younger in Niger), are less likely to have a favourable contract (22 per cent less likely in the DRC and 10 per cent in Niger) and have lower salaries. In the DRC, teachers who are present beyond the baseline are also more likely to be married and own more assets on average. In Niger, teachers observed in the baseline and later have on average a higher education level than other teachers in our sample (more than 0.5 years of education). These differences clearly suggest that better working conditions matter for teacher retention. Less favourable contract types and lower salaries most likely discourage teachers from remaining in the profession.¹⁶

¹⁶ Between 2019 and 2020 (i.e. between the baseline and the midline data collections), the outbreak of Covid-19 resulted in closures of schools and *nouvelles unités* teachers in the DRC not being paid for several months.

Table 3.4 Attrition of teachers: socioeconomic characteristics of teachers and their households in the DRC and Niger

	Present: baseline	Present: baseline and midline	Difference to baseline only		Present: baseline endline	Difference to baseline only	
DRC							
% of male teachers	67.65	72.14	4.49		71.82	4.18	
% of teachers who are married	63.73	81.32	17.59	***	80.94	17.22	***
People living in the teachers' households (aged < 14)	3.49	3.76	0.27		3.78	0.29	
People living in the teachers' households (aged > 60)	0.90	0.95	0.05		0.95	0.05	
Number of people living in the household	8.41	8.44	0.03		8.47	0.06	
Age in years	34.91	40.41	5.50	***	40.10	5.18	***
Mother's education (in years)	2.93	2.77	-0.16		2.77	-0.16	
Father's education (in years)	7.44	6.86	-0.58		6.93	-0.51	
% of teachers on favourable contract	65.69	87.92	22.24	***	87.46	21.77	***
% of teachers with secondary occupation	14.71	14.01	-0.70		13.68	-1.03	
Rooms in teacher's household	3.23	3.40	0.17		3.41	0.19	
% of teachers with a functional limitation	13.73	12.40	-1.33		11.56	-2.16	
Number of years of education	12.04	11.84	-0.20		11.85	-0.19	
Monthly salary (US\$)	89.37	128.14	38.77	*	127.44	38.07	*
Teacher's PTSD score	32.47	32.25	-0.22		32.09	-0.38	
Information and communication assets (max. 5)	1.60	1.95	0.35	***	1.94	0.34	***

Transport and agricultural assets (max. 5)	0.46	0.42	-0.04		0.43	-0.03	
Household durable assets (max. 5)	3.32	3.41	0.08		3.40	0.07	
Niger							
% of male teachers	11.39	13.26	1.87		11.33	-0.06	
% of teachers who are married	91.14	91.69	0.55		92.07	0.93	
People living in the teachers' households (aged < 14)	3.18	2.98	-0.19		2.91	-0.26	
People living in the teachers' households (aged > 60)	0.17	0.18	0.01		0.19	0.02	
Number of people living in the household	6.16	6.30	0.13		6.31	0.15	
Age in years	34.11	36.22	2.10	***	36.54	2.43	***
Mother's education (in years)	3.26	2.96	-0.30		2.89	-0.37	
Father's education (in years)	6.50	5.65	-0.84		5.56	-0.94	
% of teachers who have a favourable contract	31.01	40.67	9.66	**	40.23	9.21	**
% of teachers who have a secondary occupation	4.43	6.97	2.54		6.23	1.80	
Rooms in teacher's household	3.31	3.26	-0.05		3.22	-0.09	
% of teachers with a functional limitation	1.90	3.60	1.70		3.40	1.50	
Number of years of education	9.97	10.55	0.58	**	10.62	0.65	***
Monthly salary (US\$)	162.55	175.33	12.78	*	175.55	13.00	*
Teacher's PTSD score	23.72	24.25	0.53		23.95	0.24	
Information and communication assets (max. 5)	3.25	3.33	0.08		3.37	0.12	
Transport and agricultural assets (max. 5)	2.03	2.14	0.11		2.14	0.11	

Household durable assets (max. 5)	3.96	4.04	0.09		4.07	0.12	
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Source: Authors' own, based on the survey data.

Notes: The asterisks present the significance levels for the t-test of the equality of means. If a p-value is less than 0.10, it is flagged with one star (*). If a p-value is less than 0.05, it is flagged with 2 stars (**). If a p-value is less than 0.01, it is flagged with three stars (***).

In the DRC: present in baseline and endline surveys: 614 teachers; present in baseline and midline: 621; only present in baseline: 102. In Niger: present in baseline and endline surveys: 353 teachers; present in baseline and midline: 445; only present in baseline: 157. Cohort 1 (pilot) schools were dropped. Information and communication assets: electricity, telephone, radio, television and mobile phone. Transport and agricultural assets: table, chair, bench/stool, fridge and bed. Household durable assets: bicycle, animal-drawn cart, car/truck, motorcycle/scooter and water pump. Number of livestock animals owned is the sum of cows, donkeys/horses, sheep, pigs, poultry/birds and rabbits. Less-prevalent ethnic groups are those other than Babembe, Bafuliro, Bashi and Bavira in the DRC, and other than Hausa in Niger. In the DRC, we categorise *mecanisé et payé* teachers as holding favourable teaching contracts, and teachers who are *non-payées, nouvelles unités, 'omis'*, volunteers or trainees as holding unfavourable contracts. In Niger, we categorise teachers with civil servant status as holding favourable teaching contracts, and teachers on full- or part-time temporary contracts as holding unfavourable contracts.

In this section, we briefly sketched out the context in which students and teachers have tried to learn and teach during the past three years. Over the period of our studies, they have often faced incredible challenges ranging from widespread violence to natural disasters and social unrest. In the DRC, that period was also marked by the implementation of a new free education policy that led to an increase in the student population and an improvement of the overall student girl to boy ratio, but also to significant difficulties for teachers. Overall, though, long-term gender disparities remain as students go through the years. Finally, we connected the high attrition rate of our longitudinal study to the difficult contexts of Niger and the DRC, indicating the key role played by socioeconomic factors that diminish resilience to the many shocks we documented on why some students and teachers went missing. There is no question that this overall background likely negatively affects reflective learning in the classroom, and teachers' capacity to do their work and attend TLCs, which were core to BRiCE's approach through the TPD and ILET interventions.

4. Teacher wellbeing and teaching quality in the DRC and Niger

In this section, we discuss two of the central concepts mobilised in the research project: teacher wellbeing and teaching quality. Using both the qualitative and quantitative data collected across the baseline, midline and endline research phases, we seek to provide an analysis of how teacher wellbeing and quality are experienced and evolve over time. We start with teacher wellbeing before discussing teaching quality. At the end of the section, we explore the entanglement of gender, wellbeing and teaching quality.

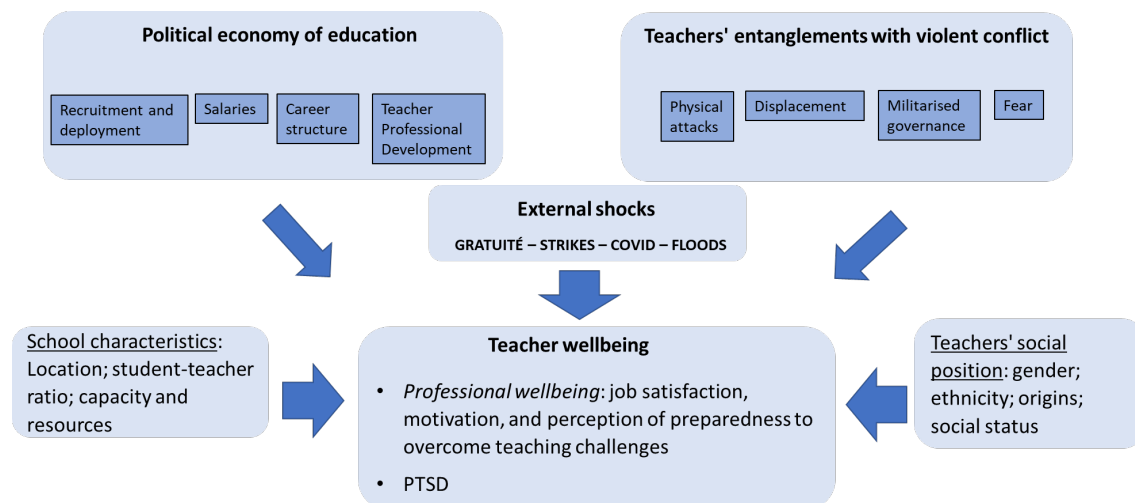
4.1 Teacher wellbeing

Definitions of teacher wellbeing routinely highlight the multidimensional character of wellbeing, which encompasses a wide range of aspects of teachers' professional, social and personal lives, themselves influenced by a wide range of structural and proximate factors (Viac and Fraser 2020; Brandt and Lopes Cardozo 2022). Researchers and practitioners alike have highlighted the cultural sensitivity of the notion of wellbeing, as well as the fact that dominant conceptions of wellbeing rest on Western-centric epistemologies and might therefore have limited relevance in non-Western contexts.

Taking these considerations into account, we adopted a two-pronged approach to measuring and understanding wellbeing. On the one hand, the quantitative analysis built on relatively standard and widely used ways of measuring wellbeing. On the other hand, the qualitative analysis followed an inductive approach informed by a thorough literature review, which led us to pay attention to political economy and conflict-related factors.

Our empirical analysis, which let the data speak for itself in terms of which themes should be most prominent, led us to refine our conceptualisation of teacher wellbeing in the BRiCE schools of Niger and the DRC. This is summarised in Figure 4.1. The framework is not abstract or theoretical, but an applied and context-specific framework; at its core is the idea that wellbeing has both professional and mental health dimensions, which are connected but not identical.

Figure 4.1 Conceptualisation of teacher wellbeing



Source: Authors' own.

The key contextual factors that matter relate to school characteristics and locally experienced violent conflict, but also macro-level features such as what is afforded to teachers by the political economy of education (such as pay, progression, etc.) and social dynamics independent from the profession, such as gender and ethnicity.

Following the sociological distinction between the 'structure' that individuals typically have almost no influence on and their 'agency' – their capacity to shape their own lives – our framework clearly errs on the side of describing structures. These are the elements that came out in interviews; but, of course, we do not suggest that teachers have no agency in shaping their wellbeing. This section needs to be read in dialogue with section 8 where we explore teachers' knowledge developed in crisis contexts, which is fundamentally about agency.

4.1.1 Describing teacher wellbeing

Quantitative component

In the quantitative component of the study, we focus on (1) professional wellbeing and (2) trauma.

Regarding professional wellbeing, we focus centrally on three commonly measured components of teacher professional wellbeing: job satisfaction, motivation and perception of capacity to overcome teaching challenges (Bennell and Akyeampong 2007; Wolf *et al.* 2015; Acton and Glasgow 2015; Falk *et al.* 2019; Viac and Fraser 2020). The perception of having the capacity to overcome teaching challenges (referred to hereafter as 'teaching challenges') combines two questions: (1) whether teachers perceive that a specific challenge

affects their work;¹⁷ and (2) whether they feel they have been able to manage this challenge. It is therefore a measure of the prevalence of specific challenges and a measure of teachers' perception of self-efficacy regarding these challenges. Several of the questions used to measure these three components also allow us to detect levels of stress at work. Moreover, following discussions with teachers as well as psychologists, we added measures of extreme stress and burnout to the endline survey, and tailored their adaptation to the cultural contexts of Niger and the DRC.

Additionally, we sought to measure the prevalence of trauma among teachers. Despite having precise medical definitions, notions such as trauma and mental health are subject to wide-ranging variations in interpretations and cultural sensitivity (Ventevogel *et al.* 2013). Therefore, we decided to use both a standard 'medical' tool, the PTSD checklist,¹⁸ and a wide range of indicators that reflect the localised conceptual framework we described earlier, which range from socioeconomic positioning to salary, employment status and job security, to teacher-student ratio and exposure to violence. The PTSD checklist that we used was developed by Weathers *et al.* (1993) and has been frequently applied in conflict-affected contexts (Ibrahim *et al.* 2018). It is important to bear in mind that such a checklist provides a very rough idea of the situation. It cannot, and is not meant to, provide a full assessment of trauma, which would require clinical observation by trained psychiatrists. The detailed statistics on teachers' PTSD scores can be found in Annexe 3, Figure A3.5.

¹⁷ These challenges are: (1) students with special needs (e.g. hearing, vision, speech impairment, physical disabilities); (2) students with other difficulties in learning, shown by low marks in tests and homework; (3) students lacking prerequisite knowledge or skills; (4) too many students in the class for one teacher; (5) children from different grades in the class; (6) disruptive children in the class; (7) uninterested children in the class; (8) students' irregular attendance; (9) other teachers often absent; (10) problems with students' parents; (11) parents not being able to afford required materials; and (12) students having difficulties understanding the language of instruction.

¹⁸ The PTSD checklist is scored out of a total of 68 and comprises 17 questions that correspond to diagnostic criteria B (re-experiencing symptoms); C (avoidance symptoms); and D (hyperarousal and reactivity symptoms) as delineated in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. In these 17 questions, respondents answer using a rating scale from 0 to 4: 'not at all', 'a little bit', 'moderately', 'quite a bit' and 'extremely'. The sum of these scores across the 17 questions provides an indication of the individual's level of trauma as a result of violence and shock. The higher the score, the worse the individual's symptoms of trauma (for more details, see section 4.7 of the Baseline Report and **the National Center for PTSD's Checklist for DSM-5 (PCL-5)**).

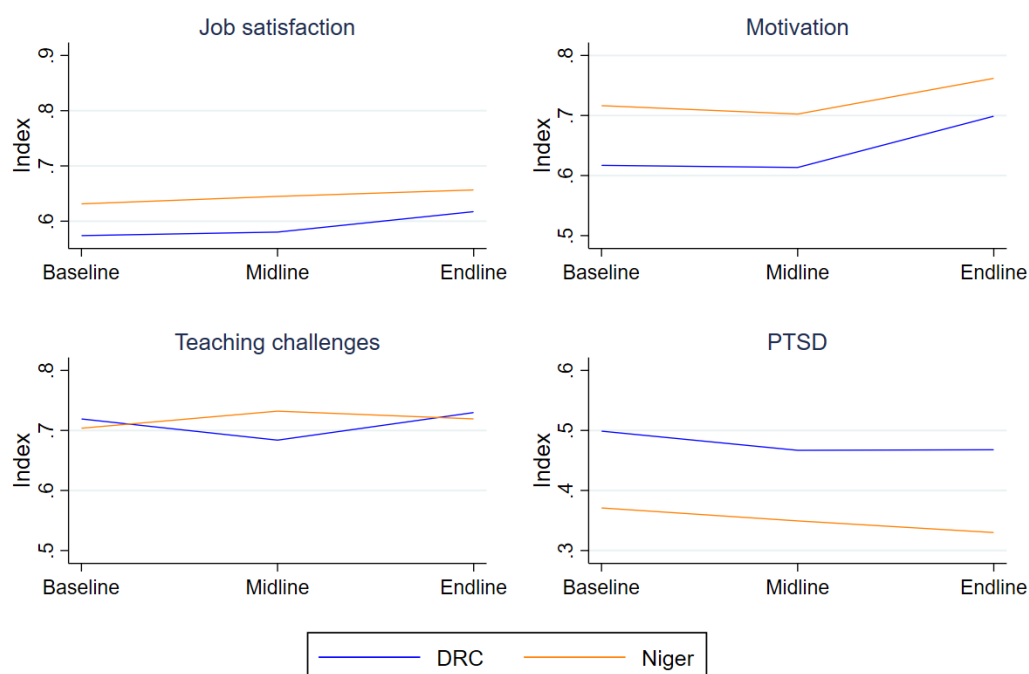
Qualitative component

The qualitative study drew from prior work on teachers' wellbeing in conflict-affected areas/protracted socioeconomic crises (e.g. Brandt and Lopes Cardozo 2022; Falk *et al.* 2019) and further applied an inductive approach to broaden the understanding of factors that affect teacher wellbeing.

4.1.2 Overview of teacher wellbeing in the DRC and Niger

Figure 4.2 represents the average score on each of three teacher professional wellbeing indices (job satisfaction, motivation and perception of manageability of teaching challenges) at the baseline, midline and endline in the BRiCE schools in the DRC and Niger.¹⁹ The job satisfaction and motivation indices have remained fairly constant throughout the three periods, with a slight increase in job satisfaction in the endline, and a more pronounced increase in motivation in the endline.

Figure 4.2 Evolution of teacher wellbeing over time in the DRC and Niger



Source: Authors' own, based on the survey data.

Note: This figure is based on all teachers surveyed at the baseline (752 in the DRC and 603 in Niger), midline (727 and 587) and endline (704 and 609).

¹⁹ The detailed breakdown of each index and corresponding items are presented in Annexe 3. For comparability across teacher wellbeing outcomes, we scaled the indices for them to range between 0 and 1. For example, the rescaled job satisfaction index can take values between 0 and 1, where a value of 0.6 would indicate that the teacher was satisfied with 60 per cent of the items under this index (or responded 'Yes' to 4 out of 7 statements).

The teaching challenges index shows a dip at the midline in the DRC, which had already been detected and reported in our midline analysis (Midline Report: 30). A breakdown of the indicators for this index shows that this dip is driven by a decline in the percentage of teachers reporting that they felt able to manage larger classrooms: from 84 per cent of teachers at the baseline to 56 per cent at the midline, and 70 per cent at the endline. This is evidently due to the *Gratuité* policy, which has considerably increased the number of students and created significant challenges for teachers.

Similarly, the percentage of teachers reporting that they felt able to manage children from different grades in the classroom went from 82 per cent at the baseline to 73 per cent at the midline and 78 per cent at the endline. Perception of manageability of teaching challenges, however, seems to recover at the endline. While this could potentially be due to Save the Children introducing a module titled 'Large Classroom Management' as part of the TPD in the DRC, we cannot establish this for sure, as this module was not part of the initial randomisation strategy and the TPD implementation timeline did not allow us to evaluate this module with our methodology.²⁰ The recovery might be because teachers and schools have progressively adapted to the new reality, and the TPD module might have played an important role in that. We analyse these effects of the *Gratuité* policy in detail in a separate article on the issue (Falisse *et al.* 2022).

In Niger, the level of the teaching challenges index increased during the midline. Looking at the indicators comprising this index, we find improvements in most of these indicators at the midline relative to the baseline. Notably, we see an increase in the percentage of teachers who feel supported to manage uninterested children (75 per cent at the baseline and 86 per cent at the midline). Similarly, a larger percentage of teachers feel capable of dealing with large class size (72 per cent at the baseline and 78 per cent at the midline). However, we notice a small decline in the index at the endline relative to the midline. Section 7 will return to the potential influence of the TPD and ILET interventions on the indicators.

For the PTSD index, the level is higher in the DRC than in Niger, which is explained by the greater prevalence of violent events in the South Kivu. In both countries, little changes over time, which is not surprising given the context we

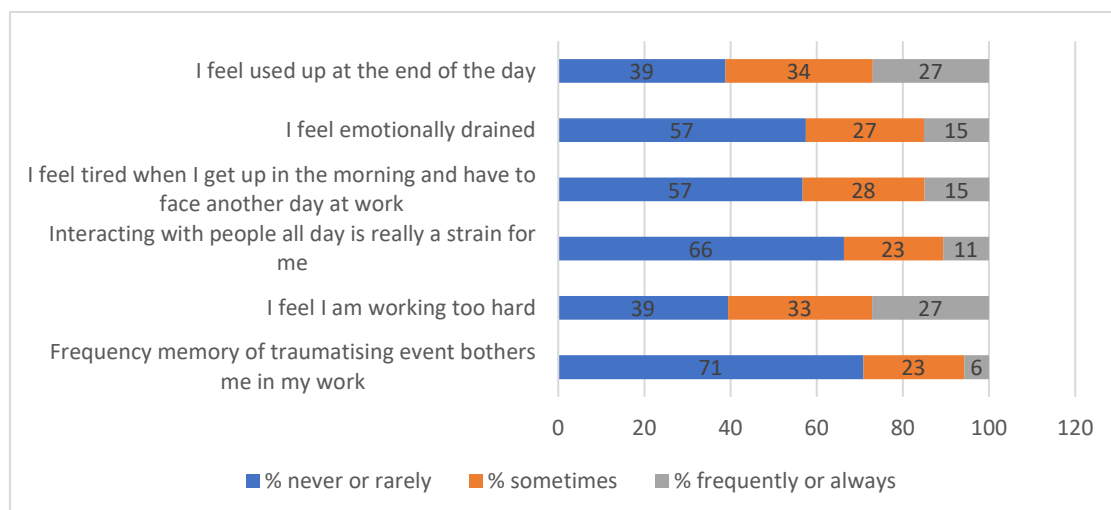
²⁰ Had the implementation of the large class management TPD module followed the Cohort 2–Cohort 3 distribution and timeline of implementation, it would have been possible to retroactively add it to the evaluation. However, given the urgency of the matter, the module was implemented in all BRICE schools in a way that does not allow us to include it in this evaluation.

described in section 3. A breakdown of the change in the components of these different indices is available in Annexe 3.

Figures 4.3 and 4.4 show the percentages of teachers expressing states of emotional distress by three levels of frequency (never or a few times a year equivalent to 'never or rarely' in the graphs below; a few times a month equivalent to 'sometimes'; and a few times a week or always equivalent to 'frequently or always'). For all these feelings in both Niger and the DRC, more than 10 per cent of teachers experienced them a few times a week or always. Interestingly, despite the school closures being longer in the DRC and DRC schools being destabilised by the *Gratuité* policy, we find comparable levels of emotional distress in both countries. The majority of teachers felt 'used up at the end of day' and felt as if they were working too hard at least a few times a month.²¹

²¹ In the DRC, the two additional modules that Save the Children added to the large class management and Covid-19 TPD modules contained relaxation strategies for teachers to manage their stress.

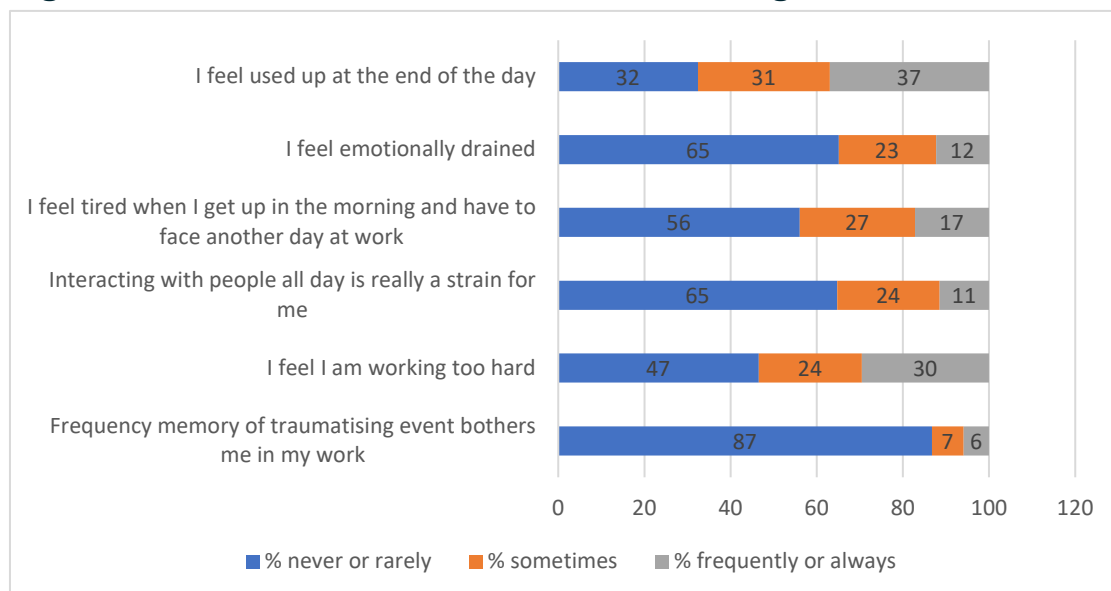
Figure 4.3 Teachers' emotional distress in the DRC



Source: Authors' own, based on the survey data.

Notes: The figure is based on the 703 teachers surveyed in 2021. One teacher did not answer these questions. 'Rarely' corresponds to a few times a year, 'sometimes' to a few times a month and 'frequently' to a few times a week. The last row is based on those teachers who reported that they faced traumatic events that continue to preoccupy them and trouble them in their work (312 teachers = 45 per cent).

Figure 4.4 Teachers' emotional distress in Niger



Source: Authors' own, based on the survey data.

Notes: This figure is based on the 576 teachers surveyed in 2021; 33 teachers did not answer these questions. 'Rarely' corresponds to a few times a year, 'sometimes' to a few times a month and 'frequently' to a few times a week. The last row is based on those teachers who reported that they faced traumatic events that continue to preoccupy them and trouble them in their work (68 teachers = 11 per cent).

4.2 Teaching quality

Defining teaching quality can be difficult, if only because it necessarily means proposing a definition of what teaching or education are for. As discussed in the Midline Report, standard conceptions of teaching quality can be problematic in that they rely on Western-centric conceptions of education. As a result, standard assessments of quality are not always transferable in different cultural contexts (Jang, Cho and Wiens 2019). In this section, however, we stick to a set of measures that map onto the TPD interventions. We return to the conceptual question of defining teaching quality in the conclusion of this report, in section 9.

4.2.1 Describing teaching quality

The quantitative component of the BRiCE study measures teaching quality through a range of questions on teachers' self-reported practices, which were administered in the teacher survey, with additional measures inserted in the household and child surveys. The measures were designed to map onto the competencies and activities of the different modules of the TPD and were discussed with the Save the Children BRiCE team. They include seven indices of teaching quality, most of which correspond to a competency in BRiCE's Teacher Competency Framework (see Annexe A.3):

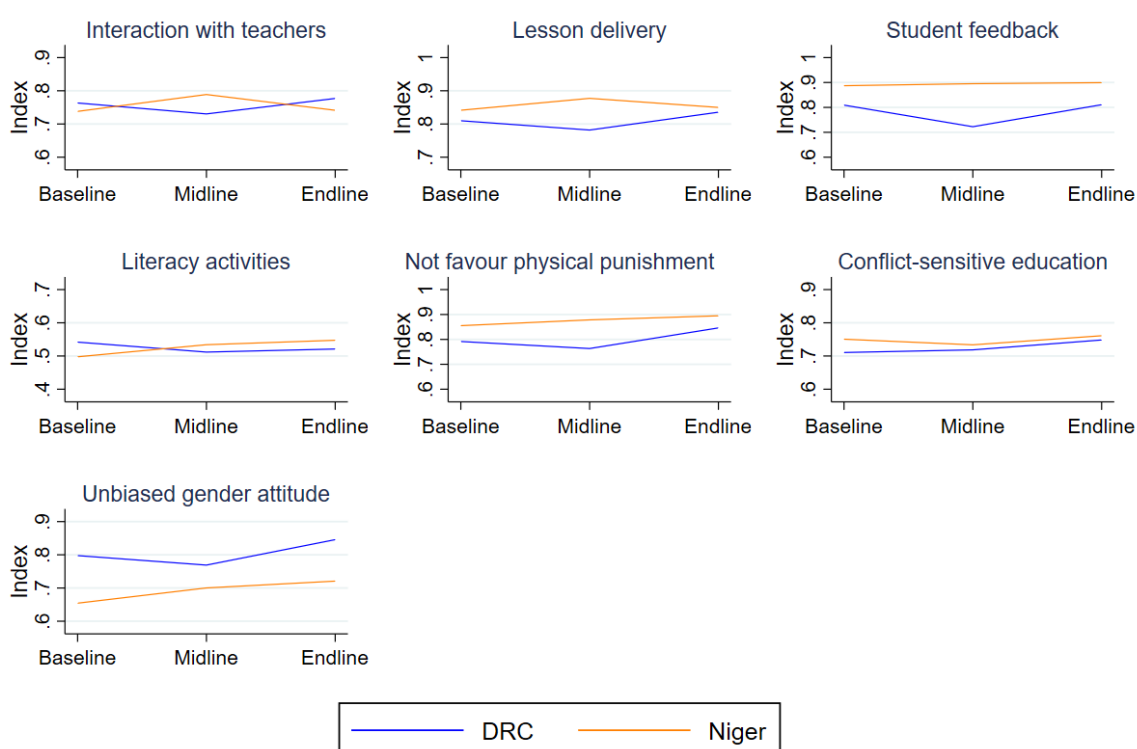
- Teachers' interactions with other teachers;
- Lesson delivery (competencies number 1–9);
- Providing feedback to students;
- Use of high-quality literacy practices in the classroom (competencies number 1–9);
- Use of physical punishment (competency number 11);
- Conflict-sensitive education (competencies number 16–18);
- Unbiased gender attitudes (competencies number 13–15).

Similar measures have been used in other studies to capture teaching quality, but they usually relied on classroom observations by trained third parties, or video observations coded by trained pedagogists (e.g. CLASS tool in Araujo *et al.* 2016; TEACH tool by Molina *et al.* 2018; TIPPS tool by Wolf *et al.* 2018). In contrast, the current study relies on self-reported measures by teachers. This has limitations, notably around those related to social desirability bias. Studies, however, have shown that such bias is limited when people are asked about specific and brief practices (Koziol Jr. and Burns 1986), as done in this survey.

4.2.2 Overview of teaching quality in the DRC and Niger

Figure 4.5 presents the average score on each of the seven teaching quality indices at the baseline, midline and endline for Niger and the DRC.²² For comparability across teaching quality outcomes, we scaled the indices so that they lie between 0 and 1. For example, the rescaled interaction with teachers index can take values between 0 and 1, where a value of 0.5 would indicate that the teacher was conducting 50 per cent of the activities recorded as part of this index (or responded 'Yes' to two out of four statements).

Figure 4.5 Evolution of teaching quality over time in the DRC and Niger



Source: Authors' own, based on the survey data.

Note: This figure is based on all teachers surveyed at both the baseline (752 in the DRC and 603 in Niger), the midline (727 in the DRC and 587 in Niger) and the endline (704 in the DRC and 609 in Niger).

For all teaching quality indices except providing conflict-sensitive education, a dip can be observed at the midline in the DRC, with a 'recovery' at the endline data collection. This decrease from baseline to midline was reported in the Midline Report and is also likely to be due to the combined effect of the *Gratuité* policy and the sharp increase in students, as well as the effects of the school closures resulting from Covid-19.

22 The detailed breakdown of each index and corresponding items are presented in Annexe 5, Table A5.4.

All indices increase in the endline survey and most of them are higher than in the baseline survey, except for literacy. The greatest increases occur in not favour physical punishment (5 per cent increase), conflict-sensitive education (4 per cent increase) and unbiased gender attitude (5 per cent). These increases in the endline are noteworthy; as we have seen, the increase in student numbers and effects of the schools closure meant that teachers faced more difficult working conditions at the end of the project than at the start. Notably, for the unbiased gender attitude index, the percentage of teachers who disagreed with the statement that 'woman's most important role is to take care of her home' was 17 per cent higher at the endline relative to percentage of teachers at the baseline.

In Niger, we distinguish an increase during the midline in all indices except providing conflict-sensitive education. For interaction with teachers, lesson delivery and conflict-sensitive education, we notice a slight decline in the endline. However, all indices are higher at the endline relative to the baseline. The other indices continue to rise at the endline, but at a slower rate than between the baseline and midline. In section 7, we explore whether these effects may be due to the TPD and ILET interventions of the BRICE project.

A gender breakdown, not reported here, shows that the percentage change of these indices from the baseline to the endline is similar for male and female teachers in both countries, except for literacy. In the DRC, the literacy index rose by 1 per cent for women and declined by 16 per cent for men. In Niger, the literacy index rose by 5 per cent for women and by 11 per cent for men. Descriptive statistics of the teaching quality indices can be found in Annexe 3.

Tables 4.1 (DRC) and 4.2 (Niger) provide additional information on the evolution of teachers' activities in and out of the classroom over the project period, based on the teacher survey. Teachers in both countries indicated preparing lessons and correcting students' work for a similar number of hours, but Nigerian teachers had one more hour of teaching per day on average.

In both countries, the average amount of time spent on teaching and preparing lessons before class did not vary much across time. However, in the DRC, engagement with parents or guardians and students outside of the classroom substantially dropped. The average number of hours communicating with parents or guardians decreased from 3.46 hours at the baseline to 1.84 hours at midline, and declined further to 1.54 hours at the endline. By the time of the midline, the *Gratuité* policy was in place, and teachers were therefore no longer receiving a significant percentage of their salary from parents. Teachers therefore had a weaker incentive to engage with parents outside of the classroom. In addition, the midline data collection took place soon after the end

of the Covid-19 pandemic. Teachers may have been more reluctant to interact outside of the classroom in the context of Covid-19.

Similarly, the amount of time providing free remedial help to students outside of the classroom declined from 0.60 hours at the baseline to 0.30 hours at the endline. In Niger, the average number of hours per week on these aspects also declined in a significant way. The average time spent providing free remedial help to students out of class dropped by half from 0.47 hours per week at the baseline to 0.21 hours per week at the endline. We see a similar decrease for paid private tutoring. The number of hours per week spent on communication with parents or guardians in Niger also declined according to the surveyed teachers from 0.76 hours per week at the baseline to 0.70 hours per week at the endline. Time spent providing free remedial help and for paid private tutoring was similar in both countries. However, even after the *Gratuité* policy was introduced, teachers in the DRC reported allocating significantly more time to communicating with parents and guardians (on average 1.54 hours per week) than teachers in Niger (0.70 hours).

Table 4.1 Teachers' activities in and out of the classroom in the DRC

	Full sample		
	Baseline	Midline	Endline
Average number of hours per day spent:			
Teaching	4.91	5.08	5.21
Preparing lessons before the class	2.06	1.83	1.78
Correcting students' work		0.95	0.77
Average number of hours per week spent:			
Providing free remedial help to students out of class	0.60	0.50	0.30
Providing private tutoring for pay	0.15	0.23	0.16
Communicating with parents or guardians	3.46	1.84	1.54

Source: Authors' own, based on the survey data.

Notes: Cohort 1 (pilot) schools were dropped. The number of teachers was 752 in the baseline survey, 727 in the midline and 704 in the endline. The variable 'Number of hours per day spent correcting students' work' was not collected in the baseline data collection.

Table 4.2 Teachers' activities in and out of the classroom in the Niger

	Full sample		
	Baseline	Midline	Endline
Average number of hours per day spent:			
Teaching	6.11	6.04	6.09
Preparing lessons before the class	1.99	1.95	2.19
Correcting students' work	1.25	1.22	0.95
Average number of hours per week spent:			
Providing free remedial help to students out of class	0.47	0.42	0.21
Providing private tutoring for pay	0.19	0.20	0.08
Communicating with parents or guardians	0.76	1.79	0.70

Source: Authors' own, based on the survey data.

4.3 Gender, wellbeing and teaching quality

4.3.1 Synthesis of midline findings

Throughout the BRiCE study, we have paid particular attention to gender and its role in relation to teacher wellbeing and teaching quality. As noted in the Midline Report and in section 3.1.5 of this report, Niger and the DRC have significantly different profiles in terms of the gender composition of their respective teaching bodies. Whereas in the Niger BRiCE schools, there is a large majority of female teachers, male teachers form the majority of the teaching body in the BRiCE schools of the DRC. The high proportion of female teachers in Niger, and the fact that gender was repeatedly mentioned as an important factor of the wellbeing of teachers in the Niger interviews, led us to analyse the role of gender in the Midline Report, with a particular focus on Niger (Midline Report, section 5.3).

We showed that the 'feminisation' of the teaching profession in Niger was closely linked to the increasing casualisation, with lower salaries and few prospects for career progression driving men away from the profession. We also showed that the teaching profession represented a site of professional and

economic emancipation of women in Niger, but that female teachers faced severe gendered professional and social restrictions in the education sector. In the current report, we come back to some of these aspects and present additional data from the endline survey. We also add a short qualitative analysis of gender in the Congolese education sector.

4.3.2 New findings from the endline study

The endline data collection presents a similar picture of gender differences in both teacher wellbeing and teaching quality to the midline data collection in the DRC and in Niger. As in the midline study (Midline Report, section 3.3), there are only slight differences between male and female teachers with regards to wellbeing indicators, as can be seen in Figure 4.6. In the DRC, job satisfaction index levels are similar for both genders. Male teachers report slightly higher levels of support for teaching challenges (not statistically significant difference) and female teachers report higher levels of motivation than male teachers (statistically significant difference); whereas in Niger, female teachers have higher levels than male teachers in these three indices, but these differences are not statistically significant.

Figure 4.6 Teacher wellbeing and gender

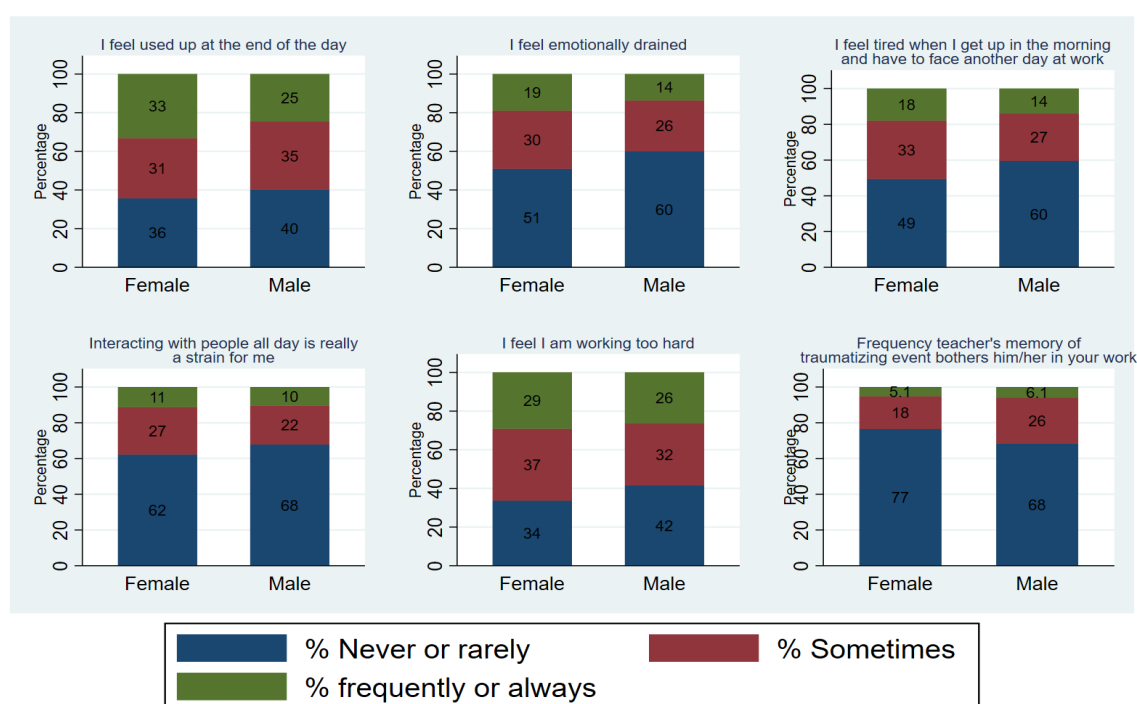


Source: Authors' own, based on the survey data.

Note: This figure is based on all teachers surveyed at the endline (704 in the DRC and 609 in Niger). The figure reports average outcomes; red lines denote the 95 per cent confidence interval.

Looking at indicators of distress, the picture is slightly different: in the DRC, female teachers report higher levels of PTSD symptoms on average than male teachers but this difference is not statistically significant (at a 5 per cent significance level), as can be seen in Figure 4.7. However, a higher percentage of Nigerien men than women teachers reported that they experienced emotional distress frequently or always, as measured with the indicators shown in Figure 4.8 (except for 'Interacting with people all day is really a strain for me'). In the DRC, it is the opposite, a higher percentage of women teachers reported that they experienced these signs of emotional distress frequently or always, and more than men (except for 'Frequency teacher's memory of traumatising event bothers him/her in work').

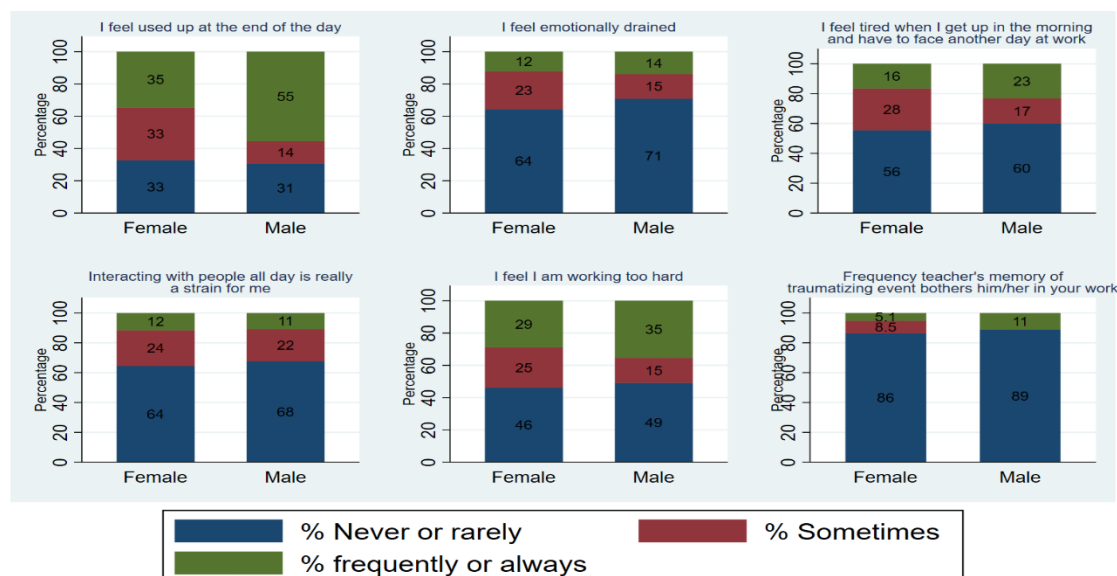
Figure 4.7 Teachers' emotional distress in the DRC by gender



Source: Authors' own, based on the survey data.

Notes: The figure is based on the 196 female teachers and 507 male teachers surveyed in 2021. One female teacher did not answer these questions. 'Rarely' corresponds to a few times a year, 'sometimes' to a few times a month and 'frequently' to a few times a week. The last panel is based on the teachers who reported that they faced traumatic events that continue to preoccupy them and trouble them at work (98 female teachers = 50 per cent; 214 male teachers = 42 per cent).

Figure 4.8 Teachers' emotional distress in Niger by gender



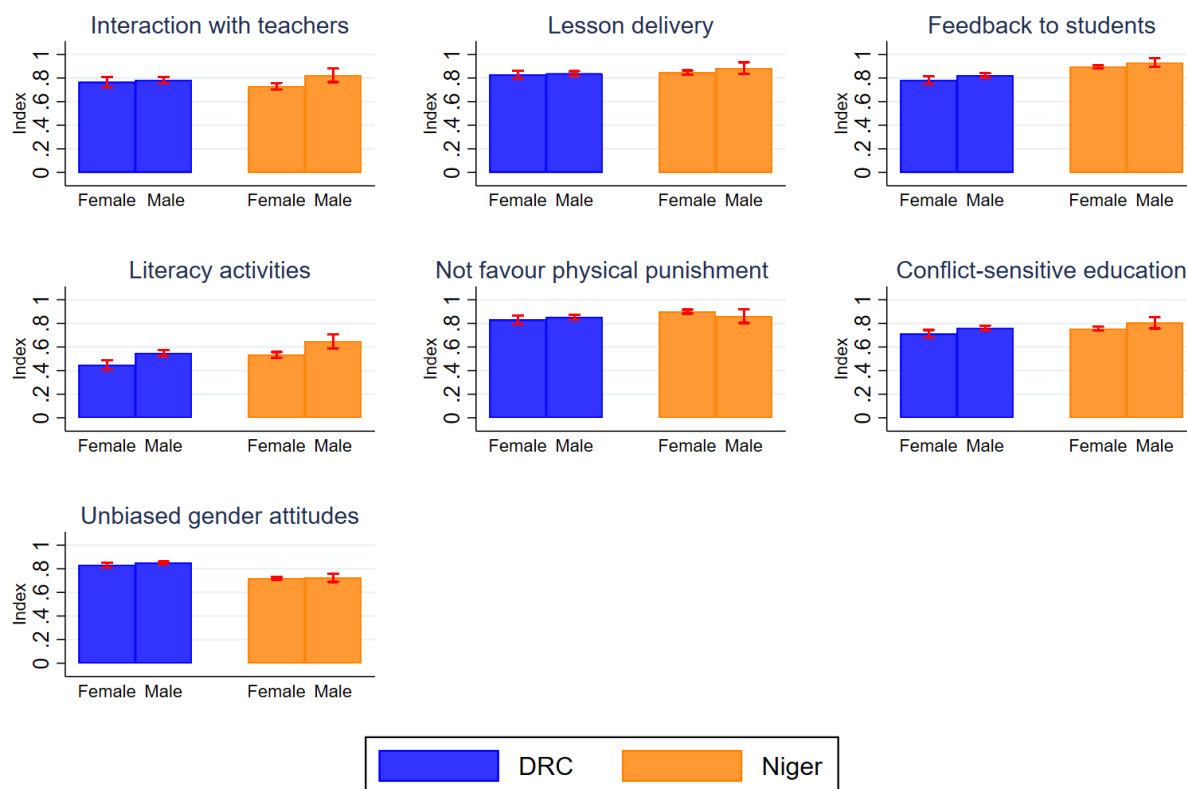
Source: Authors' own, based on the survey data.

Notes: This figure is based on the 511 female teachers and 65 male teachers surveyed in 2021; 26 female teachers and 7 male teachers did not answer these questions. 'Rarely' corresponds to a few times a year, 'sometimes' to a few times a month and 'frequently' to a few times a week. The last panel is based on the teachers who reported that they faced traumatic events that continue to preoccupy them and trouble them in their work (59 female teachers = 12 per cent; 9 male teachers = 14 per cent).

Concerning teaching quality, the endline data collection also presents a similar picture to the midline, with male teachers scoring higher than female teachers on all indices of teaching quality, as can be seen in Figure 4.9,²³ except for the not favour physical punishment index in Niger where female teachers have on average higher scores than male teachers; but this difference is not statistically significant. As noted before, these indices need to be interpreted cautiously, as they are based on self-reported measures. Internalised gender norms mean that female teachers might have a lower assessment of their teaching practices, in which case the differences observed might be due to internalised biases rather than objective differences in teaching practices. Although that possibility cannot be ruled out, we turn to the qualitative data for insights into possible explanations for these gendered differences in teaching practices.

²³ In the DRC, the differences are statistically significant at a 5 per cent significance level for the student feedback index (on average, 0.82 for male teachers and 0.78 for female teachers), the literacy index (on average, 0.55 for male teachers and 0.45 for female teachers) and conflict-sensitive education index (on average, 0.76 for male teachers and 0.71 for female teachers). In Niger, the differences are statistically significant at a 5 per cent significance level for the interaction with teachers index (on average, 0.82 for male teachers and 0.73 for female teachers), the literacy index (on average 0.65 for male teachers and 0.53 for female teachers) and conflict-sensitive education index (on average 0.81 for male teachers and 0.76 for female teachers).

Figure 4.9 Teaching quality and gender



Source: Authors' own, based on the survey data.

Note: This figure is based on all teachers surveyed at the endline (704 in the DRC and 609 in Niger). The figure reports average outcomes; red lines denote the 95 per cent confidence interval.

Before doing this, it is also important to note that in the DRC and in Niger male teachers reported spending a higher average number of hours on teaching activities than female teachers. In the DRC, male teachers said they spent more time preparing lessons before the class at the midline and at the endline (on average, 0.38 and 0.36 hours per day more, respectively) than female teachers. Similarly, they spent more time correcting students' work than female teachers at the endline (on average, 0.28 hours per day more) and giving paid private tutoring than female teachers at the endline survey (0.22 hours per week more). Also in Niger, female teachers spend more time preparing lessons before class and correcting students' work, but the difference is not statistically significant. At the endline survey, male teachers spent more time providing free remedial help to students out of class (on average, 0.4 hours per week more) and communicating with parents or guardians (on average, 0.65 hours per week more).

Table 4.3 Teachers' activities by gender in the DRC

	Baseline			Midline			Endline		
	Female	Male	Difference significance	Female	Male	Difference significance	Female	Male	Difference significance
Average number of hours per day spent:									
Teaching	4.88	4.92		5.14	5.06		5.23	5.20	
Preparing lessons before class	1.96	2.10		1.56	1.94	***	1.52	1.88	***
Correcting students' work				0.97	0.94		0.57	0.85	***
Average number of hours per week spent:									
Providing free remedial help to students out of class	0.28	0.73	***	0.49	0.51		0.16	0.35	
Providing private tutoring for pay	0.07	0.19		0.09	0.28		0.01	0.23	**
Communicating with parents or guardians	3.16	3.59		1.61	1.93		1.89	1.40	

Source: Authors' own, based on the survey data.

Notes: Cohort 1 (pilot) schools were dropped. The number of teachers was 752 in the baseline survey, 727 in the midline and 704 in the endline. The variable 'Number of hours per day spent correcting students' work' was not collected in the baseline data collection; t-test p-value * <0.1 ** <0.05 ***<0.01.

Table 4.4 Teachers' activities by gender in Niger

	Baseline			Midline			Endline		
	Female	Male	Difference significance	Female	Male	Difference significance	Female	Male	Difference significance
Average number of hours per day spent:									
Teaching	6.13	5.97		6.05	5.99		6.10	6.01	
Preparing lessons before the class	1.98	2.13		1.93	2.07		2.19	2.22	
Correcting students' work	1.25	1.24		1.21	1.32		0.94	1.04	
Average number of hours per week spent:									
Providing free remedial help to students out of class	0.34	1.42	***	0.38	0.67		0.17	0.57	***
Providing private tutoring for pay	0.21	0.16		0.21	0.13		0.07	0.14	
Communicating with parents or guardians	0.70	1.22	**	1.76	2.04		0.63	1.28	***

Source: Authors' own, based on the survey data.

Notes: Cohort 1 (pilot) schools and school Yelwa (220) were dropped. The number of teachers was 603 in the baseline survey, 587 in the midline, and 609 in the endline. t-test p-value * <0.1 ** <0.05 ***<0.01

4.3.3 Qualitative findings on gender in the Congolese education sector

As previously noted, our sample of schools and teachers is not necessarily representative of all schools in Uvira and Fizi, let alone South Kivu and the DRC. However, the higher proportion of male teachers evidenced through the data collection was confirmed by a senior educational administrator (EL Int. 41). As in Niger, gender also seems to be a key structuring factor in professional hierarchies in the Congolese education sector, with men dominating higher

echelons. Although we did encounter female head teachers during data collection, 93 per cent of head teachers and educational administrators in our sample are men. Asked why there were more male than female teachers and head teachers, a senior education administrator pointed to the fact that gendered norms within the profession and within society played a key role in explaining these differences:

According to our experience in this region, a girl is in a challenging situation already in her own family. In turn, society also mistreats her because she can never be considered an heir nor can she speak in public, which is dominated by men. Also, in her family girls are prepared to do kitchen chores and agricultural work, unlike their brothers, whom the parents direct towards school from the start. Moreover, within the family itself, the girl is esteemed when she does domestic work: washing dishes, washing her younger brothers and sisters, cleaning the dishes, fetching water and firewood. Many families in this region still believe that a girl is better off in the kitchen than at school and that a girl's diploma is useless. This is the reason why there are more male teachers than female teachers in this region where we work (EL Int. 41).

The role of gender norms in marginalisation from education has been discussed in the literature (see, for example, Marchais *et al.* 2021). Yet, despite such realities, most – not all – male and female teachers in the interviews carried out for BRiCE stated that there are no discernible gender differences regarding voice and participation in school governance. Although we do not question our respondent's statements, it is important not to take them at face value, as they took place in the context of the BRiCE project and could therefore have been somewhat influenced by social desirability. Some of the interviewees, however, did point to the role of gender in voice and participation, and noted the positive effect of non-governmental organisations (NGOs) in this regard: 'Culturally speaking, women ought not to speak in society nor even in school. For almost a year we've begun to tolerate women in our meetings, due to various trainings from NGOs such as Save the Children' (EL Int. 24).

As in Niger (Midline Report, section 5.3), male respondents said that biological differences and different care work responsibilities explained differences between male and female teachers' capacity to teach, particularly with regards to absenteeism and its impact on teaching (EL Int. 9, 10, 24, 39). Pregnancies, the postnatal period, periods, taking care of sick family members and household chores were said to be the main reasons why female teachers have higher levels of absenteeism and, reportedly, less time for tasks such as correcting

exams (EL Int. 21), a reason why they are often 'threatened [with being] thrown out' (EL Int. 24).

These statements seem to indicate that, as in Niger, female teachers face gender-specific challenges in their profession, which result in part from gendered household responsibilities. This might partly explain the differences in teaching quality that were reported in the quantitative study, though as noted before these should be considered with ample critical distance. Some female teachers also reported facing challenges within the classroom, notably with 'physically strong' boys (EL Int. 24, 32). Such gendered differences in the handling of specific groups of students were also reported in Niger (see Midline Report, section 5.3).

Although not widely shared among the interviewees, some negative stereotypes about female teachers were also detected in the interviews, such as statements about their alleged 'incompetence', that they 'only think about marriage' (EL Int. 31) and their allegedly low levels of knowledge (EL Int. 38). Additionally, there were some comments about female teachers reportedly being entitled to one month of maternal leave prior to giving birth and two months postpartum, unlike male teachers who become fathers (EL Int. 10, 35).

Another concerning issue that came up in interviews was reports of sexual favours and sexual abuse in schools, concerning both students and teachers. The practice of PST (*points sexuellement transmissible*), whereby professors or teachers obtain sexual favours from students in exchange for better grades has been reported in universities in the DRC (Bakumanya and Nginamau 2011; Pidika Mukawa 2014), though they are of course not restricted to the DRC. Our research experience also points to such practices in secondary schools and the data suggests they also take place in primary schools: '*Gratuité* increased immorality in schools. Some head teachers impose on students to sleep with them before they make results public' (EL Int. 34).

Our endline data collection suggests that similar practices can also occur in the relationship between head teachers and female teachers:

Yes, some head teachers force women to have sex with them. In our school, with a young head teacher, we're always unsure. He is secretly making advances on us. (EL Int. 32)

Yes, in general, women are victims of sexual abuse in the workplace. Here, we live as brothers and sisters, we can court each other but not in a forced or imposed way. Sometimes we refused the director's proposals. The director always asks me to

have sex with him. I never accepted. I don't like him. May he get rid of me? I can accuse him in church. (EL Int. 36)

Everywhere, they are solicited for romantic relationships, or they give money to men to be hired. (EL Int. 38)

Our data is only indicative of these practices, as the questionnaires were not specifically designed to explore these issues, but they nevertheless suggest that such practices might occur in some schools.

Finally, our previous quantitative findings suggested that between 2019 and 2020 the perception of female teachers grew increasingly negative. Beyond documenting a few assumptions, our endline qualitative data does not help to explain this phenomenon.

In this section, we explored the notion of teacher wellbeing and teaching quality. The overall picture is one of teachers who do not appear to be in good shape when it comes to wellbeing, with many of them exhibiting what may be forms of trauma related to their experiences of violence. The situation does not appear to improve over time – if anything it is the opposite. In terms of teaching quality, the overall picture is slightly more encouraging, with improvements between baseline and endline surveys in both countries (after a clear dip for the DRC, probably due to the *Gratuité* policy). There is no suggestion in our data that such improvement is driven by an increase in working hours. Section 7 will return to the potential role played by the TPD intervention.

5. Violence in the school environment

One of the central objectives of the BRiCE research project has been to understand the causes and manifestations of violence in the school environment, and the consequences of violence on teacher wellbeing and teaching quality (RQ1). The objective of this section is to finalise the analysis of the causes and consequences of violence against teachers, which have been extensively covered in the Baseline and Midline Reports. The section uses data from both the qualitative and quantitative data collections, and focuses mostly on the DRC, where there are comparatively higher levels of violence against schools and teachers than in Niger. The section starts with a presentation of the approach we adopted to study violence, and then provides an overview of violence against schools and teachers in Niger and the DRC. Section 5.3 then focuses on the DRC and analyses the causes and consequences of violence against teachers.

The section starts with an overview of violence against teachers over time, and then provides an analysis of the factors that are associated with teachers' exposure to violence. It then summarises the key dynamics of violence against teachers that have been presented in the Baseline Report (section 4.8) and the Midline Report (section 6), complementing these with the data collected in the endline phase of the project. Finally, section 5.3.4 analyses the effects of violence on teacher wellbeing and teaching quality, and presents the preliminary results of a quantitative analysis of this question.

5.1 Approach to studying exposure to violence

Understanding the effects of violence on schools, teachers and students requires collecting valid and accurate data on violence, an endeavour that comes with significant methodological, logistical and ethical challenges. Collecting data on violent events is notoriously difficult, as they are prone to under-reporting and political manipulation, and their reporting is conditional on data collection infrastructure and methods of reporting (Dowd *et al.* 2020; Roberts and Marchais 2018). This is also the case with attacks on education, which for a long time have received little attention in humanitarian and development policy.

Recent efforts to raise international awareness about attacks against education, most prominently the Global Coalition to Protect Education from Attacks (GCPEA), have highlighted the scale of the under-reporting of violence against schools, school staff and students (GCPEA 2014, 2020). Monitoring attacks against schools, however, is time and resource intensive, and dependent on the

coordination of actors working in and around education (Bennouna *et al.* 2018). Studies on violence against education often rely on regional proxies to estimate exposure to violence, considering all schools within a particular area as conflict-affected. While violent conflict undoubtedly affects schools in a wide radius, it does not affect them in a uniform manner as patterns of violence are differentiated and dynamic.

In this study, we have sought to collect disaggregated data on violence against schools, teachers and students to capture the significant geographical and social variations in exposure to violence and carry out precise estimations of their impact. For the quantitative component of the study, the three surveys, each carried out over three rounds, have allowed us to collect the information from those who have experienced violence – head teachers, teachers and parents – in the BRiCE schools. Recent studies have shown that the most accurate knowledge of violence against schools in conflict-affected contexts is embedded within education and child protection networks (Bennouna *et al.* 2016, 2018). This resonates with contributions highlighting the importance of triangulation by specialist sources 'on the ground' to establish the validity and accuracy of reports of violence, notably the Kivu Security Tracker (KST 2017).

To reconstruct the history of individual exposure to violence, we use recall methods that have been developed through previous projects on violent conflict in the DRC. Bennouna *et al.* (2016) carried out a sensitivity analysis of recall methods for collecting data on attacks against schools in South Kivu and found that they are reliable overall for short recall periods. We have sought to address common issues related to recall bias²⁴ by triangulating the data reported through the teacher survey with the data reported through the school survey, which reduces measurement error (Marchais *et al.* 2021; Marchais 2016; Sanchez de la Sierra 2020).

Collecting data on violence also raises very important ethical questions, as discussing past experiences of violence can trigger traumatic memories in research subjects. Beyond the provisions made as a result of the project's ethical review²⁵ and the child safeguarding guidelines of Save the Children, which all researchers involved in the project were required to follow, the project set up measures to mitigate the risks to respondents.

²⁴ These include reporting bias, whereby people will report certain violent events and not others; and telescoping bias, whereby several past events are conflated in the recollection of those events, leading to errors in dates and characteristics of the events.

²⁵ The project underwent three ethics reviews: (1) IDS Sussex Research Ethics Committee; (2) ISP Bukavu Research Ethics Committee; and (3) the Comité National D'Éthique pour la Recherche en Santé, of the Public Health Ministry of Niger.

First, we implemented the trauma and resilience-informed research principles and practice approach developed by Dr Natalie Edelman of the University of Brighton (Edelman 2021), which were tailored to the project and contexts. Second, the research team systematically explained the nature and content of the survey to respondents before conducting the survey, informing them that one section of the survey contained sensitive questions on violence. Third, in addition to the procedure of informed consent that preceded all interviews, the surveys had a built-in second consent form preceding the section on violence, explaining the content of the section and reiterating that respondents were entirely free to not respond to some or all the questions within the section. Fourth, the research team conducting the interviews had considerable experience of discussing issues related to violence, and their expertise in this regard was crucial to ensuring that respondents felt safe and supported discussing these issues.

5.2 Overall violence in BRiCE schools in the DRC and Niger

Table 5.1 provides an overview of recent violence against teachers and schools in the BRiCE schools in Niger and the DRC. In our sample of teachers in both countries, the percentage of teachers who reported having experienced an attack since 2009 is very close to the percentage of teachers who reported having experienced an attack since 2014, suggesting that the majority of violence had taken place since 2014.

Table 5.1 Violence against teachers and schools in Niger and the DRC

	DRC				Niger			
	Fizi		Uvira		Zinder		Diffa	
	N	%	N	%	N	%	N	%
Teacher level								
Attacks since 2009	147	45.23	99	26.54	19	4.71	13	6.31
Attacks since 2014	134	41.23	91	24.07	16	3.97	12	5.83
Attacks in 2019	31	9.37	22	5.47	1	0.24	4	2.07
Attacks in 2020	31	9.37	28	7.07	2	0.51	0	0

Attacks in 2021	16	4.91	26	6.88	4	0.99	9	4.37
School level								
Attacks on school since 2014	14	53.85	3	13.04	3	5.88	7	35
Village level								
Attacks on village since 2014	6	75	3	25	2	10.53	3	50

Source: Authors' own, based on the survey data.

Notes: Cohort 1 (Pilot) schools were dropped. This table is based on the data collected in the rounds of the data collection. The percentages in this table refer to the percentages of teachers, schools or villages targeted by attacks in the sample (total number of surveyed teachers who consented to answer questions on violence was 649 in the baseline survey, 718 in the midline and 698 in the endline in the DRC; and 603 in the baseline survey, 581 in the midline and 599 in the endline in Niger). Teacher-level information was based on the teacher survey. School- and village-level information was based on the school survey (in the DRC, number of schools was 49 and number of villages 20; and in Niger 71 and 25 respectively). In the DRC, there are 26 schools in Fizi and 23 in Uvira. In Niger, there are 51 schools in Zinder and 20 in Diffa.

We can see that there are considerable levels of violence against teachers and schools in Uvira and Fizi. Teachers from BRiCE schools face more violence in Fizi than in Uvira; 45 per cent of teachers had faced attacks since 2009 and around 41 per cent since 2014 in Fizi, whereas in Uvira this was less than 27 per cent, which is still a significant amount. Focusing on violent attacks in 2019, 2020 and 2021 – which correspond to the period of the project and the years of the surveys – teachers were more likely to face violence in Fizi than in Uvira in 2019 and 2020, but interestingly, a higher percentage of teachers reported cases of violence in Uvira than in Fizi in 2021.

We also collected data on violence against schools through the head teacher survey, and violence against the villages or towns where the schools are located. These are also reported in Table 5.1, where we see that in Fizi more than half of the sampled schools and 75 per cent of the villages or towns where the schools are located reported violent attacks since 2014. In Uvira, around 13 per cent of the sampled schools and 25 per cent of the sampled villages/towns indicated that they had faced violence since 2014. These are considerable levels of violence, which we analyse in section 5.3.

In Niger, the levels of violence against schools and teachers in our sample are lower than in the DRC, but they remain significant. Overall, the levels of violence are higher in Diffa than Zinder, but the figures are not drastically different. Seven schools in Diffa reported having experienced an attack since 2014 and three in Zinder. Around 6 per cent of teachers in the region of Diffa reported having experienced violence since 2014 and around 4 per cent of teachers in Zinder (importantly, the number of schools in Zinder and Diffa are different, so these percentages should be interpreted with caution).

Teachers in Diffa were also more likely to report cases of violence than in Zinder in 2019 and 2021, but not in 2020, when no teacher of our sample in Diffa reported having experienced a violent attack. Given what we know of the violent conflict in Niger, which has directly affected Diffa but not Zinder, the fact that differences in exposure to violence between the two regions are not more pronounced is noteworthy. It points to the fact that, even in regions that are not considered conflict-affected, there are nevertheless significant levels of violence in schools.

5.3 Violence against schools and teachers in the DRC

In this section, we focus on the BRiCE schools in the DRC, which have experienced higher levels of violence than those in Niger. Given the problems with the qualitative data collection in Niger explained in section 2.2, our qualitative data is also less detailed for Niger than for the DRC. The section looks at historical exposure to violence, the causes of violence against teachers and the characteristics of those teachers most exposed to violence. It then analyses whether and how exposure to and experience of violence influence teaching quality and wellbeing in the BRiCE schools in Fizi and Uvira.

5.3.1 Schools' and teachers' exposure to violence

Using the recall methods built into the survey instruments, the study provides a detailed picture of the recent history of violence against schools and teachers in the BRiCE schools in Uvira and Fizi. As previously noted, it is important to bear in mind that, while the sampling strategy for teachers and students ensures a representativeness of the population of teachers and students within those schools, the purposive sampling of BRiCE schools means that they are not necessarily representative of all teachers and schools in Fizi and Uvira. Indeed, as noted in section 2.1.1, the BRiCE schools were selected according to criteria set by Save the Children, which include viability and security.

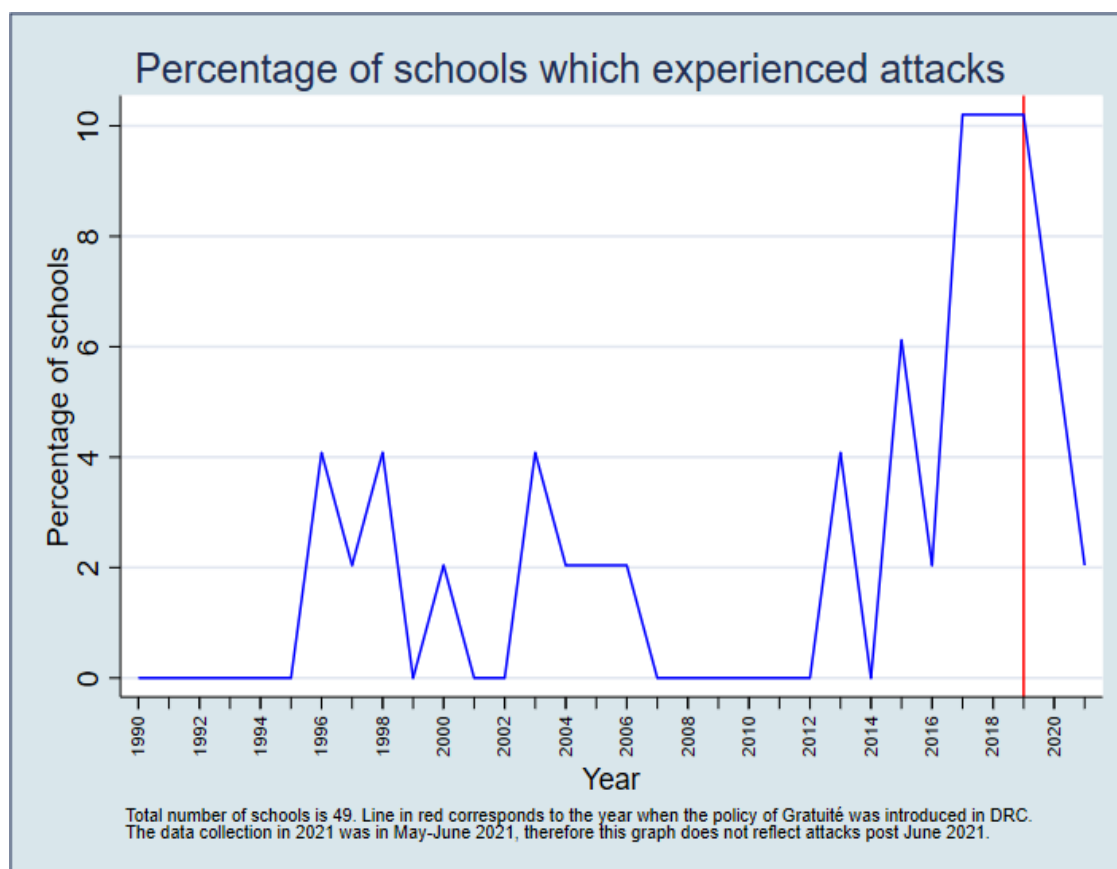
The schools are generally concentrated in and around major urban centres, in particular Uvira and Baraka, as well as along the main provincial roads. Given the geographical dynamics of violent conflict, this means that the BRiCE schools are likely to be exposed to relatively less insecurity and violence than schools situated in conflict hotspots, such as Hauts-Plateaux ('Highlands') in Uvira and Fizi. The qualitative research component provides confirmation of this; educational and security actors interviewed said that the schools most exposed to violence in Fizi and Uvira were not BRiCE schools.

Our study nevertheless provides substantial evidence of the BRiCE schools' considerable exposure to violence in Fizi and Uvira.²⁶ Figures 5.2 and 5.3 show the percentage of schools and teachers who experience violent attacks over time, respectively. These figures are based on the data collected in the school and teacher surveys in the midline and endline surveys. In the midline survey, we asked the head teachers to reconstruct the history of violent attacks against their school since 1990, and teachers to reconstruct their personal history of violent attacks since 1990, as well as collecting more detailed data on exposure to violence in 2019 and 2020. We did not re-collect this data during the endline survey, which focused on attacks against BRiCE schools and teachers during the 2020/21 school year.

In Figure 5.2, we can see that the percentage of schools reporting attacks within a year rose sharply in 2017 (from 2 per cent to 10 per cent) and remained at this level until 2020. As discussed in the Midline Report, the sharp rise in 2017 is likely to have been caused by several interrelated events. First, the escalation of violence in Hauts-Plateaux in 2017–18 (Verweijen *et al.* 2021). Second, the armed rebellion in 2017 of the Coalition National du Peuple pour la Souveraineté du Congo, a coalition of armed groups led by warlord William Yakutumba, which attacked Uvira town. And third, ongoing violence in the Ruzizi plain, which has flared up on multiple occasions in recent years (Verweijen *et al.* 2020). The red line on the graph represents the *Gratuité* policy, which was introduced in September 2019. The decline observed in 2021 is mostly explained by the fact that the data collection in the endline took place in June 2021; therefore, we do not have information on attacks which occurred after June.

²⁶ As a comparison, the GCPEA identified around 15 reported attacks targeting or directly harming students, teachers and education personnel between 2017 and 2019 in the DRC (GCPEA 2020: 132).

Figure 5.2 Schools' exposure to violence over time



Source: Authors' own, based on the data.

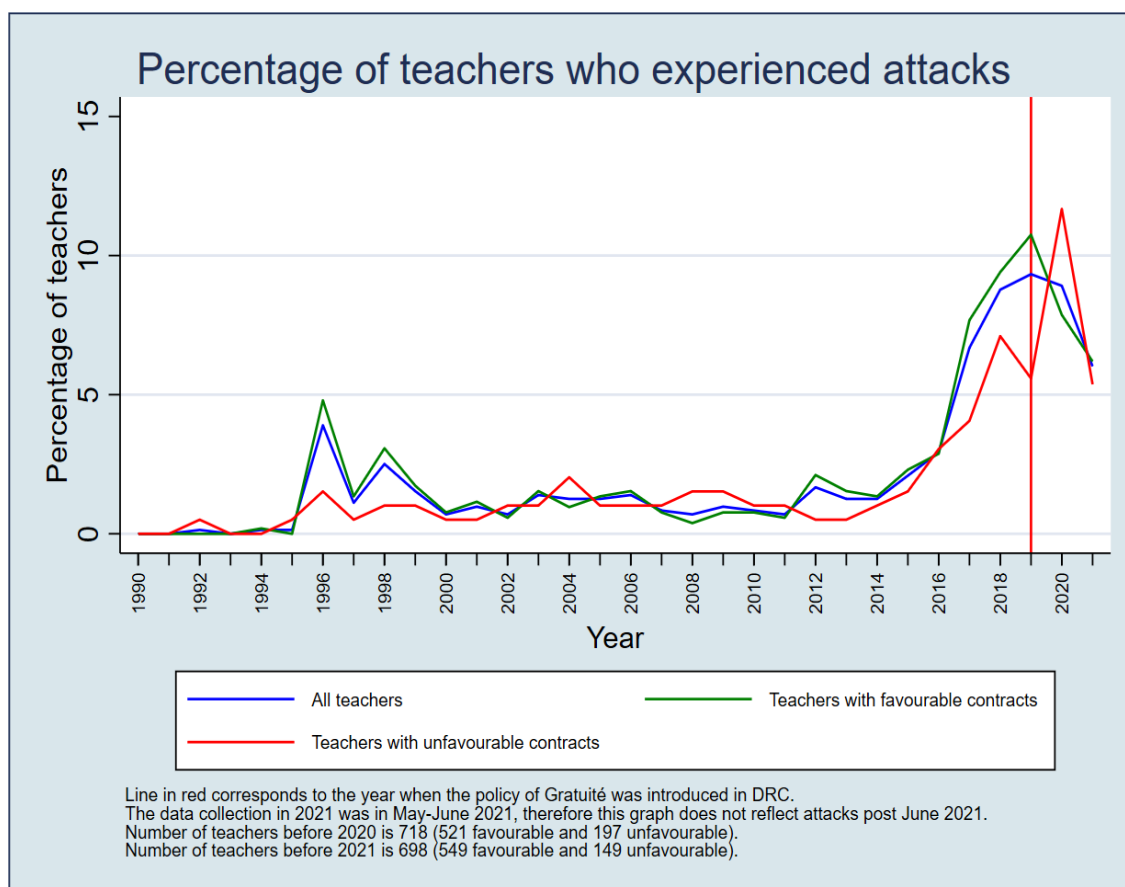
Note: This figure is based on all 49 schools in the sample.

Figure 5.3 displays a similar rise in teachers' exposure to violence since 2017. We find around 38 per cent of all the teachers surveyed in Fizi and Uvira reported having experienced at least one attack between 1990 and June 2021.²⁷ Figure 5.3 also shows how exposure to violence over time differs for teachers on temporary contracts versus teachers with permanent contracts.²⁸

²⁷ This percentage corresponds to the percentage of teachers who had experienced at least one violent attack since 1990 in the full sample of BRiCE school teachers in the DRC (i.e. all teachers including those only surveyed once either at baseline, midline and endline). Due to a coding error, data on the history of individual exposure in the baseline survey was not considered. The historical data of violence was re-collected in the midline survey in the DRC, and the discrepancies between the figures reported in the Baseline and Endline Reports result from the coding error. Historical exposure to violence was not re-collected during the endline survey.

²⁸ As in the Midline Report, we categorise *mecanisé et payé* teachers as holding a permanent contract, whereas teachers who are *unités non-payées*, *nouvelles unités*, *omis*, volunteers and trainees are classified as teachers on temporary contracts.

Figure 5.3 Teachers' exposure to violence over time



Source: Authors' own, based on the survey data.

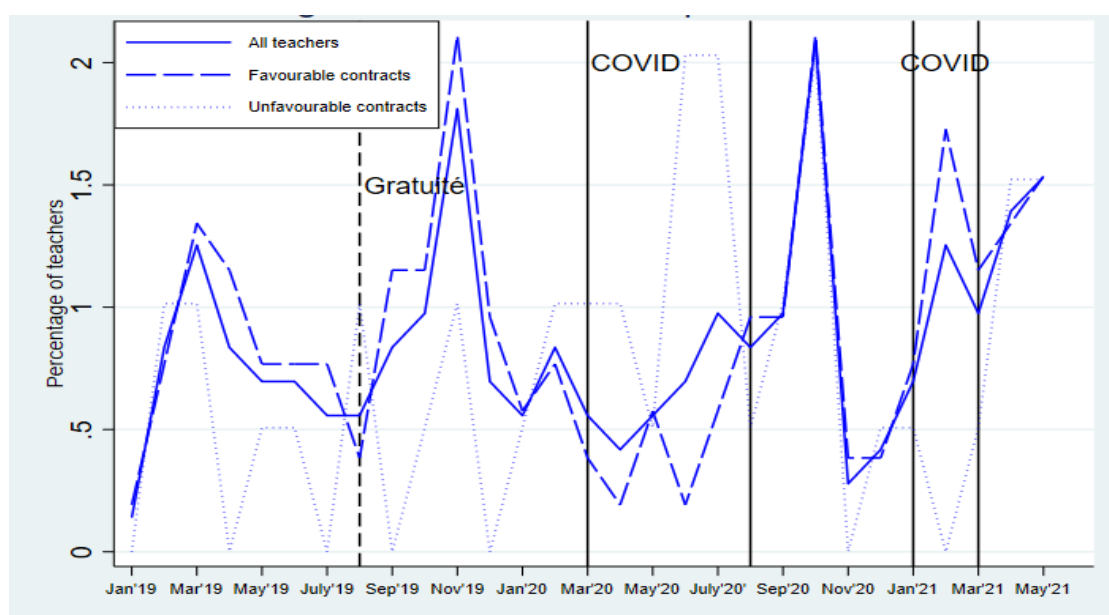
Note: This figure is based on all teachers surveyed in the midline (727 teachers) and the endline (705 teachers). 1.44 per cent of teachers in the DRC declined to answer questions related to personal experiences of violence in the midline and 0.86 per cent in the endline.

In the Midline Report, we carried out a detailed investigation of the role of teachers' contractual status and its relationship to teacher wellbeing, as well as the differentiated effects of the *Gratuité* policy and school closures on teachers with different contractual statuses (Midline Report, section 4). We showed that contractual status has significant effects on teachers' employment conditions, income, capacity to teach and relations with peers and parents.

As we can see in Figure 5.3, however, the relationship between employment status and exposure to violence is not straightforward. A higher percentage of teachers on permanent contracts experienced attacks after 2016. As we explain in the following section, this might reflect the fact that teachers with a higher and more stable income are more likely to be targeted for violent extortion, as we also find a statistically significant association between having a favourable contract status and exposure to violence. We can see, however, that after the implementation of the *Gratuité* policy, a higher percentage of teachers on temporary contracts experienced attacks than teachers on permanent contracts.

In Figure 5.4, we look at the percentage of teachers who experienced attacks on a monthly basis from 2019 to May 2021 (the time of the endline data collection), disaggregated by teachers' contract status. Using the data from the endline survey, this figure was updated to reflect the attacks reported during the school year 2020/21 (October 2020–May 2021).

Figure 5.4 Teachers' exposure to violence in 2019–21



Source: Authors' own, based on the survey data.

Note: This figure is based on all teachers surveyed in the midline (727 teachers) and the endline (705 teachers); 1.44 per cent of teachers in the DRC declined to answer questions related to personal experiences of violence in the midline and 0.86 per cent in the endline.

As highlighted in the Midline Report (Figure 11 in the Midline Report), attacks on all teachers increased from September 2019 to November 2019, following the implementation of the *Gratuité* policy. While the attacks reduced as the academic year 2019/20 progressed, teachers on unfavourable contracts – *unités non-payées*, *nouvelles unités* and *omis* – experienced a spike in violence again during the first Covid-19-related closures in 2020 (March–August 2020).

We do not have a definitive explanation for this, but it might be linked to the tension resulting from the *Gratuité* policy itself, or because teachers on temporary contracts who experienced a severe income shock as a result of the *Gratuité* policy and school closures had to look for alternative sources of income, which exposed them to more risks. In September 2020, there was an increase in attacks, possibly due to widespread strike action during that period, in which 66.5 per cent of the teachers in our sample reported taking part. In January and February 2021, schools were closed again in response to Covid-19. Again, the percentage of teachers reporting having experienced attacks substantially rose during those months. In contrast to the previous school closures due to Covid-19, those teachers on favourable contracts reported

facing violence; teachers on unfavourable contracts did not report cases of violence during these two months.

To understand the dynamics of violence against teachers, we also collected information on the types of attacks against teachers in the BRiCE schools in the DRC which are reported in Table 5.1. It is important to bear in mind that categorisations of violent events have limitations, as violent events are social processes that do not fit neatly into distinct categories. Most violent events span different categories and have several intertwined motivations, which are not always clear to the person reporting them, given the secrecy, rumours and manipulations around such events.

As can be seen from Table 5.2, the most prevalent types of attacks reported against teachers since 1990 are those: related to ethnic identity;²⁹ involving threats against the population; related to fighting between the national army and armed groups; related to pillage and extortion of teachers; and related to debt. Each of these types of violent events represents more than 20 per cent of all events. More than a third (35.6 per cent) of attacks experienced by teachers were related to pillage or debt. We come back to the dynamics that underpin these attacks in the following subsection.

Table 5.2 Types of attacks against teachers in the DRC

Type of attack	% of violent events
Related to land disputes	13
Related to ethnic identity	26
Related to customary authority conflicts	6
Political violence	6.17
Kidnappings	3.91
Related to recruitment into armed groups	2.26
Involving threats against the population	27.16
Related to fighting between armed groups	10.08
Related to fighting between national army and armed groups	22.43
Related to pillage or extortion	35.6
Related to debt	35.6

²⁹ Here again, it is important to reiterate the caveats related to the use of the term ethnicity in relation to violence, which were discussed in the Midline Report. Ethnicity does not in and of itself cause violent conflict, but rather violent conflict tied to economic and political factors can be pitted along ethnic lines.

Related to settling scores	6.38
Related to taxes	0.41
Related to mining	0.21
Punitive	1.44
Related to land dispossessions	4.53
Against teacher or state representative	1.23
Related to school	0.62

Source: Authors' own, based on the survey data.

Notes: The total number of violent events reported by teachers in the midline survey was 486 between 1990 and 2020. Number of teachers who were targeted by violence between 1990 and 2020: 298 out of 718 who gave their consent to answer questions on violence in the midline survey (727 surveyed teachers in the midline survey). Data on violence was collected in the endline survey, but the type of violence was not asked and is therefore not considered. This explains the difference in the number of teachers targeted by violence in the table above. Teachers could classify a violent event as of more than one type. This explains why the sum of percentages is greater than 100 per cent.

5.3.2 Teachers' entanglements with dynamics of violent conflict

The causes of violence against teachers in Uvira and Fizi are numerous and cannot be reduced to a single overarching cause. In this section, we summarise the main causes and factors that we believe explain the particularly high levels of exposure to violence of the schools, teachers and students of the BRICE schools in the DRC. We summarise results from the Baseline and Midline Reports, which contained detailed investigations of several of these factors, and add new insights based on the data collected in the endline survey.

A regional history of violent conflict

Our previous reports emphasised the historical roots of contemporary violence in eastern DRC: the implantation of political economies of violent resource extraction that date back to the nineteenth century (notably linked to the expansion of the east African slave trade and imposition of colonial rule in the region), the role of racial ideologies, the ethno-territorial organisation of the state, and the role of violent resistance movements and rebellions.

Contemporary eastern DRC is marked by the implantation of war economies and non-state armed groups, and the entanglement of local, national and international conflicts around identity, territory and authority, which can sustain dynamics of violence (Vlassenroot 2013; Verweijen and Vlassenroot 2015).

The societies of Fizi and Uvira have become militarised (Verweijen 2016), with armed groups having extensive networks among civilian populations and exerting multifaceted forms of power over rural societies (Hoffmann and Verweijen 2018). This background is crucial to understanding the penetration of

dynamics of violence into the school environment. It helps to take a step back from perceiving teachers solely through educational, pedagogic or peacebuilding lenses, to understanding their role as historical and social agents.

Kidnapping and ransom

Schools and teachers in Uvira and Fizi are targets of rackets, kidnappings, extortion and threats; for example, by local militia known as the Mai-Mai, as we have documented (see Baseline Report, section 4.8 and Midline Report, section 6.1). Armed groups in Fizi and Uvira deploy techniques of influence, control and governance over schools, including through taxation (Bandula-Irwin *et al.* 2021). These are part of larger 'threat' economies (Verweijen 2016) and other modes of coercive extortion, such as roadblocks (Schouten 2022; Muzalia *et al.* 2021). Schools and teachers are targeted as part of these broader taxation and extortion strategies.

In addition to these general dynamics, certain factors nonetheless differentiate educational institutions and staff from other institutions with regards to extortion and taxation. From the point of view of an extortion, schools are a reliable and recurrent source of income. Teachers constitute the largest body of civil servants and receive monthly salaries; as a result, they are reliable targets for extortion. Two major public policies – *Gratuité* and *bancarisation*³⁰ – have reshaped teachers' exposure to extortion. *Bancarisation* has made it easier for armed actors to know when teachers are paid and to rob them on their way home. *Gratuité* entailed increased salaries that attract more attention from armed groups or other actors in the extortion economy.

Identity

Ethnocultural fault lines, being *originnaire* (i.e. a local) versus *non-originnaire*, and religion, were the most cited reasons why teachers felt threatened in the qualitative interviews carried out for this project. In general, being considered as an *originnaire* from a certain area was said to reduce risk of exposure to violence. Such identity dynamics need to be understood as part of the social polarisation resulting from the violent conflict in eastern DRC. In the Midline Report, we analysed how the social positioning of teachers, and notably their perceived ethnicity, influences the way they navigate the school and social environments and is linked to governance dynamics within the schools.

As we showed, the (real or perceived) ethnocultural identity of teachers can play a role in their career progression, deployment and relations with other teachers (Midline Report, section 5.4). In a polarised and militarised context, where

³⁰ *Bancarisation* refers to major public sector reform launched by the Congolese government in 2011, whereby civil servants (including teachers) were assigned bank accounts and paid through bank transfers.

conflicts within the school or in the wider school community can be linked to dynamics of violence, a teachers' real or perceived ethnocultural identity can therefore expose them to violence.

Status

Teachers' social status can also play a role in their exposure to violence. First, because teachers, as many other 'notables' (public figures in the community) and civilians in conflict-affected contexts, can become intermediaries or mediators in dynamics of violence because of their social status as 'intellectuals'. They can, for example, pass on information related to armed groups or attacks against schools, or function as intermediaries in cases of school-related extortion. This can expose them to threats as well as violence. Second, as Brandt (2021) has argued, teachers can be attacked due to their association with the state, not so much for the generic link but because they are perceived to be associated with state security forces, particularly the police and military, making them 'reluctant representatives of the state'. Third, their perceived social status can foment various forms of envy or grievances, which in a militarised context can lead to violence.

Although teachers' social status has changed in recent decades, with many teachers complaining about the degradation of their 'consideration' in Congolese society, teachers, and particularly head teachers, are still often considered as elites in rural areas. During a workshop carried out with teachers from Fizi and Uvira in January 2022, they identified 'jealousy' as the central explanation for violence against teachers. Although our data did not allow us to explore this explanation in much depth, resentment against teachers' social status, and their image as intellectuals who speak French and have access to state salaries, is a plausible factor in their exposure to violence.

School-related conflicts and violence

In militarised contexts, quotidian and interpersonal conflicts can turn violent, as has been shown in the case of the Ruzizi plain in Uvira (Verweijen *et al.* 2020). This is also the case for school-related conflicts, which do not usually involve violence but can turn violent as a result of the militarisation of social relations. As shown in Midline Report section 6.1.3, many teachers and parents have relatives and social acquaintances in armed groups, who can be solicited to exert threats and pressure in school-related disputes. A student failing an exam or getting a low grade, perceived injustices within the school environment or the imposition of excessive school fees can all lead to threats or violence against teachers.

The midline study found that 6.3 per cent of teachers had been threatened by students in 2019/20. Several teachers noted that threats are psychologically harmful, even when they do not materialise. In addition, forms of collective

trauma appear to exist among the teaching profession, due to particularly shocking past events of student violence against teachers. We also noted rare cases where former students who had joined militia helped their teachers; and, in some cases, having students whose parents belong to the Mai-Mai at one's school could add to the school's protection.

Teacher and school governance

Armed groups can influence teacher and school governance. In general, what happens within schools is in many cases communicated to the national army and armed groups or militia such as the Mai-Mai as a result of their social relations with students and school staff.

- First, few teachers willingly accept deployment to schools situated in high-risk areas, preferring transfers or even abandoning the profession.
- Second, the qualitative interviews provided hints that, in some cases, non-paid teachers might turn to armed groups to seek revenge against their paid colleagues or to make money, although we do not have confirmatory evidence of this. *Gratuité* may have reinforced these dynamics by drastically reducing non-paid teachers' income.
- Third, armed actors, particularly militias, can try to intervene in teacher deployment and payment. Militias can attempt to get one of their acquaintances onto the payroll, intervene in conflicts around positions in schools, demand that school fees are paid, or even demand that schools remove school fees for some or all students.
- Fourth, head teachers find it challenging to manage teachers who have been members of armed groups or who have a relationship with armed groups.
- Fifth, militias can demand that all students in a given school pass their final exams.
- Sixth, and finally, respondents noted some positive traits of the FARDC and Mai-Mai regarding education. The FARDC was said to not harass children in school uniforms and to help secure the *examen d'état* (for which they are paid). Some Mai-Mai groups reportedly let inspectors, teachers and students travel to an exam centre and reportedly did not interrupt educational activities in some areas. Some schools are said to be 'protected', especially when associated with one particular armed group. While these findings are not necessarily representative of all schools, armed groups are therefore not always perceived as having a solely negative role with regard to the education system.

Teachers' active role in violence

Teachers can also join armed groups as a protection strategy, or to gain advantages and influence, which is characteristic of militarised environments (Verweijen 2013). Stability of employment, and income, might play a role in explaining teacher participation in armed groups.³¹ As previously noted, while a low number of teachers declare having ever belonged to a non-state armed group, many teachers reportedly have ties with armed groups (e.g. through family members or social acquaintances). Finally, belonging to an ethnocultural group can imply that teachers directly or indirectly support an armed group that claims to defend the rights of the group. This is particularly the case for teachers in Hauts-Plateaux, where in some cases teachers participate in armed community mobilisations.

5.3.3 Background factors affecting teachers' exposure to violence

Our quantitative data allows us to analyse factors that are associated with exposure to violence in our sample of teachers. We carry out a comparative statistical analysis, comparing the sample of teachers who have been victims of violence to the sample of teachers who have not. The results are presented in Table 5.3.

We tested alternative temporalities in exposure to violence, testing for each of the sampled years. The results of this analysis show that the teachers most likely to have experienced an attack are: (1) male teachers; (2) teachers who identify as Babembe and Bafuliro (see Table 5.3); (3) teachers with functional limitations; (4) teachers on higher salaries and more favourable teaching contracts; (5) teachers with stronger ties to local authorities and associations (proxied by whether a teacher knows an authority figure in the village or is part of the teachers' association); (6) teachers who are part of larger households; and (7) teachers who are part of households with a higher number of information and communication assets.

The differences in these metrics are statistically significant, and therefore describe factors that meaningfully differentiate the groups of teachers (affected and unaffected by violence). Importantly, however, these results do not allow us to assess causality. The BRiCE research team is currently working on an advanced analysis of violence against teachers, which will be presented in a dedicated academic article on the issue.

³¹ It is important, however, not to overstate the role of economic factors in explaining participation in armed groups (see Marchais *et al.* 2021).

Table 5.3 Factors associated with violence against teachers

	2019				2020				2021			
	Targeted				Targeted				Targeted			
	Yes	No	$x_y - x_n$	p	Yes	No	$x_y - x_n$	p	Yes	No	$x_y - x_n$	p
% of male teachers	78.05	69.69	8.36	0.04	77.38	70.62	6.75	0.06	79.11	69.34	9.77	0.01
% of teachers who are married	79.88	80.82	-0.95	0.79	85.07	85.71	-0.65	0.82	86.22	85.20	1.02	0.72
Age in years	39.99	40.28	-0.29	0.80	39.52	40.01	-0.49	0.65	40.54	40.86	-0.31	0.77
Has a functional limitation	11.59	12.37	-0.79	0.79	19.91	11.27	8.64	0.00	17.78	11.42	6.36	0.02
% Babembe ethnic group	57.93	37.53	20.40	0.00	54.30	35.61	18.68	0.00	54.67	37.84	16.82	0.00
% Bafuliro ethnic group	17.07	35.88	-18.80	0.00	22.62	39.24	-16.61	0.00	22.22	37.42	-15.2	0.00
% Bashi ethnic group	3.66	4.95	-1.29	0.50	3.17	5.43	-2.27	0.19	3.11	5.29	-2.17	0.20
% Bavira ethnic group	6.10	7.84	-1.74	0.46	5.43	7.65	-2.22	0.28	5.33	7.82	-2.49	0.23
% belong to less-prevalent ethnic group	15.24	13.81	1.43	0.65	14.48	12.07	2.41	0.37	14.67	11.63	3.04	0.26
% Protestant l'Église du Christ au Congo	59.76	55.67	4.09	0.36	53.85	51.51	2.34	0.56	56.44	50.74	5.70	0.16
% belong to less-prevalent religions	40.24	44.33	-4.09	0.36	46.15	48.49	-2.34	0.56	43.56	49.26	-5.70	0.16
Years of education	11.82	11.85	-0.04	0.77	11.86	11.89	-0.03	0.80	11.85	11.91	-0.06	0.58
People in teachers' household (<14 years)	4.29	3.56	0.73	0.00	4.18	3.62	0.56	0.00	4.23	3.56	0.67	0.00
People in teachers' household (>60 years)	1.04	0.92	0.12	0.46	0.30	0.27	0.04	0.40	0.30	0.26	0.04	0.39
People in the household	8.93	8.25	0.68	0.02	7.69	6.95	0.74	0.00	7.74	7.16	0.58	0.02
Average mother's education (in years)	2.74	2.80	-0.05	0.89	2.88	2.74	0.14	0.68	2.89	2.77	0.13	0.71
Average father's education (in years)	7.00	6.92	0.08	0.87	7.05	6.95	0.10	0.81	7.04	7.14	-0.10	0.81
Rooms in teacher's household	3.43	3.41	0.02	0.89	3.29	3.21	0.08	0.49	3.59	3.67	-0.07	0.53
# info. and communication assets (max. 5)	1.86	1.98	-0.12	0.19	1.95	2.13	-0.18	0.05	2.03	2.18	-0.16	0.07

# transport and agricultural assets (max. 5)	0.39	0.44	-0.05	0.36	0.30	0.36	-0.06	0.16	0.32	0.32	0.00	0.93
# durable assets owned (max. 5)	3.41	3.40	0.01	0.93	3.24	3.29	-0.04	0.55	3.08	3.21	-0.12	0.08
% favourable contract	85.98	87.63	-1.65	0.58	75.11	71.43	3.68	0.31	84.89	75.69	9.20	0.01
% have a secondary occupation	15.24	13.40	1.84	0.56	32.13	29.98	2.15	0.57	18.22	20.51	-2.29	0.48
Average monthly salary (US\$)	120.83	129.82	-8.99	0.61	237.24	107.73	129.51	0.00	96.06	89.62	6.45	0.07
% >3 non co-resident relatives in the village	76.83	75.46	1.37	0.72	61.54	59.56	1.98	0.62	64.44	61.73	2.71	0.49
% >3 friends in the village	63.41	60.21	3.21	0.47	55.20	49.30	5.91	0.14	56.89	52.22	4.67	0.25
% who know at least 1 authority figure	49.39	53.40	-4.01	0.37	66.52	53.52	12.99	0.00	72.44	63.85	8.60	0.02
% members of at least 2 village groups	0.00	0.00	0.00		27.60	22.74	4.87	0.16	32.44	27.48	4.96	0.18
% members of a teachers' association	36.59	31.96	4.63	0.28	46.61	41.05	5.56	0.16	47.11	37.42	9.69	0.01

Source: Authors' own, based on the data.

Notes: The shaded cells indicate those factors for which the difference in means between the two samples (targeted and not targeted) is statistically significant at the 5% level based on a t-test (p-value is less than 0.05).

Group 1 schools were dropped; p stands for p-value; $x_y - x_n$ reflects the difference in means between groups. Teachers are considered to have been targeted by violence if they reported experiencing violence after 2014. Teachers targeted by violence: 164 in the baseline survey (2019), 221 in the midline (2020) and 225 in the endline (2021). Teachers not targeted by violence: 485 in the baseline survey (2019), 497 in the midline (2020) and 473 in the endline (2021). The reported number of observations does not include teachers who did not consent to answer questions on violence. Less-prevalent ethnic groups in the teacher surveys are ethnic groups other than Babembe, Bafuliro, Bashi and Bavira. Less-prevalent religions in the teacher surveys are religions other than Protestant l'Église du Christ au Congo. Information and communication assets: electricity, telephone, radio, television and mobile phone. Transport and agricultural assets: table, chair, bench/stool, fridge and bed. Household durable assets: bicycle, animal-drawn cart, car/truck, motorcycle/scooter and water pump. Number of livestock animals owned is the sum of cows, donkeys/horses, sheep, pigs, poultry/birds and rabbits. We categorise *mecanisé et payé* teachers as holding a favourable teaching contract, while teachers who are *unités non-payées*, *nouvelles unités*, *omis*, volunteers, and trainees are classified as teachers on an unfavourable contract.

5.3.4 Effects of violence on teaching quality and teacher wellbeing

As previously noted, 43 per cent of the teachers in the BRiCE schools in the DRC experienced at least one attack between 1990 and 2021. Using the data from the endline survey, we updated the figures on the relationship between violence and teacher wellbeing, and violence and teaching quality that were presented in section 6.1.1 of the Midline Report. Figure 5.5 shows the association between exposure to violence and teacher wellbeing in the DRC,

using the wellbeing measures discussed in section 4. These figures present unconditional averages, which show that teachers who experienced an attack between 1990 and 2021 report slightly lower levels of job satisfaction and motivation, though these differences are not statistically significant.

Figure 5.5 Teacher wellbeing and violence in the DRC

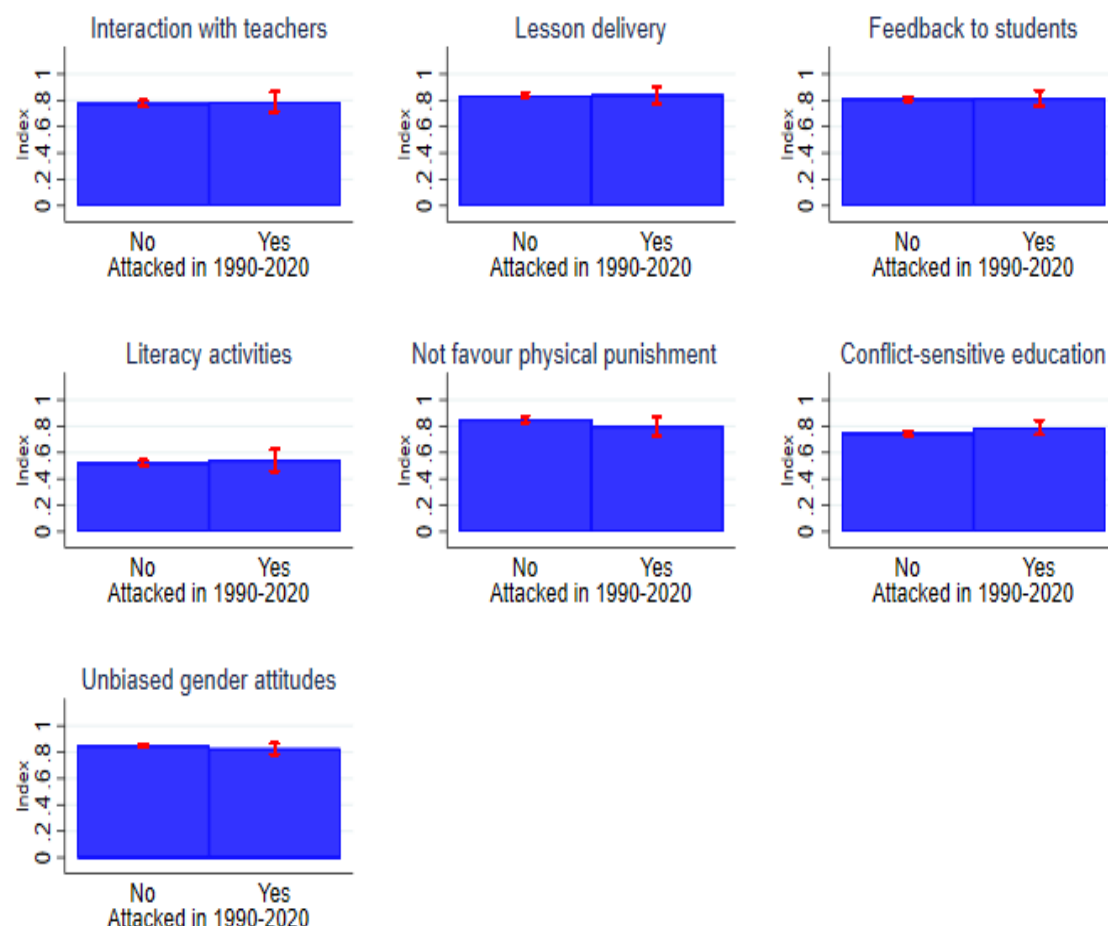


Source: Authors' own, based on the survey data.

Note: This figure is based on surveyed teachers in the endline survey (704 teachers); 0.86 per cent of teachers in the DRC declined to answer questions related to personal experiences of violence. The figure reports the average outcomes; red lines denote the 95 per cent confidence interval.

This is in line with the results presented in Figure 6.4 of the Midline Report. Only the difference in the PTSD index score between teachers who experienced a violent attack (average index value: 0.27) and those who did not (average index value: 0.19) is statistically significant. Figure 5.6 shows the association between teaching quality indices and violence in the DRC. From the perspective of an unconditional sample average, there is not a great difference between teachers who have been exposed to direct violence and those who have not – less so than in the results presented in Figure 6.3 of the Midline Report, where the teaching quality indices were almost all lower for teachers who had been exposed to violence, though few of them were statistically significant. To investigate the relationship between exposure to violence and teacher wellbeing and teaching quality, we carry out a more precise quantitative analysis below.

Figure 5.6 Teaching quality and violence in the DRC



Source: Authors' own, based on the survey data.

Note: This figure is based on surveyed teachers in the endline survey (704 teachers); 0.86 per cent of teachers in the DRC declined to answer questions related to personal experiences of violence. The figure reports the average outcomes; red lines denote the 95 per cent confidence interval.

Assessing the effect of violence on teacher wellbeing and teaching quality

Our longitudinal data allows us to carry out a more rigorous assessment of the effect of exposure to violence on teacher wellbeing and teaching quality. We use an econometric model that explores whether 'recent' exposure to violence has an effect on teacher wellbeing and teaching quality.³² A note of caution is warranted with regards to causality and interpreting the results. If we assume that violence is exogenous to the outcomes of interest, we can in principle infer that the effects identified are causal. However, given that we are still developing

³² As explained in section 4, teaching quality is assessed through seven indices: attitudes towards physical punishment; teachers' interactions with other teachers; unbiased gender attitudes; conflict-sensitive education; lesson delivery; feedback to students; and the use of recommended literacy practices in the classroom. Teacher wellbeing, on the other hand, is assessed through three core indices of teachers' professional wellbeing: job satisfaction, teachers' professional motivation, and teachers' perception of how manageable their work is. We also look at PTSD, using the PTSD checklist.

this analysis, we prefer to remain cautious and ask that the results presented are not interpreted as definitive, but still being developed and subject to revision and validation. We are still working on alternative specifications and robustness tests and will present the consolidated results in a dedicated academic article.

Model

The main explanatory variable is whether a teacher reported having been a victim of violence from 2015 onwards, with a variable (*violence_t*) that takes a unitary value if the teacher experienced an episode of violence and zero otherwise. We chose this timeframe as it captures recent exposure to violence, close to the time of the surveys but still capturing attacks that occurred before the project. Different specifications of this variable were tested (including attacks since 1990) and the results are similar, showing that these are robust in relation to how we define this variable. The model controls for location and time effects, gender and age of teacher, school size and the effects of ILET and TPD. Hence, we measure the conditional effects of violence (conditional on the controls). The model is summarised in the equation below, where we focus in particular on the value and statistical significance of α_1 :

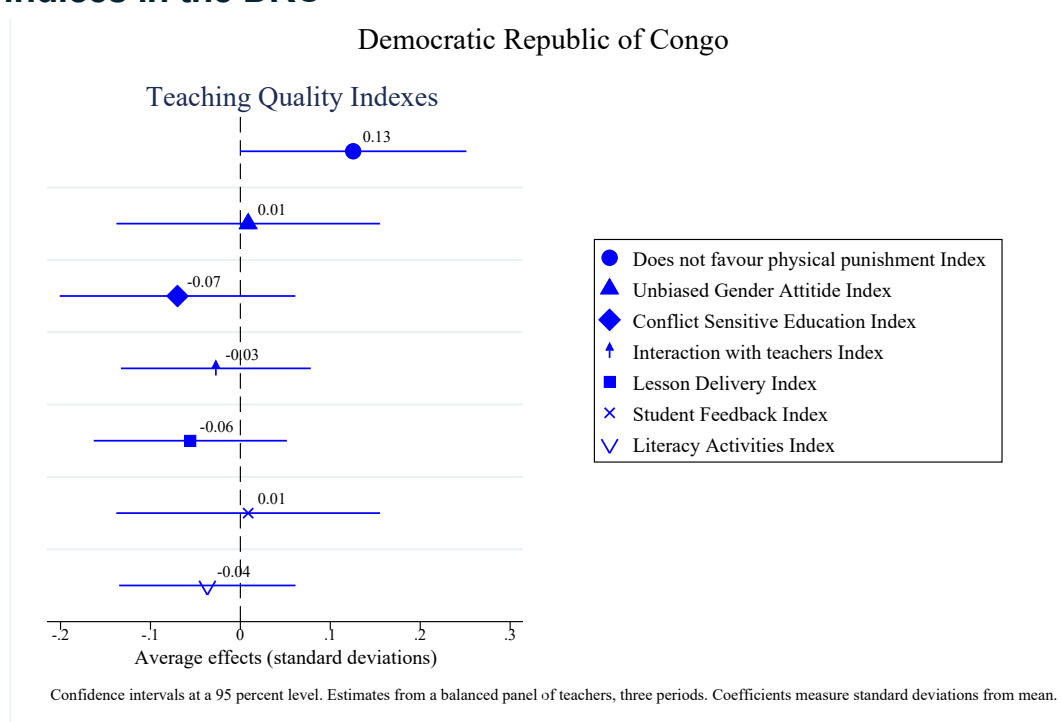
$$Outcome_{i,t} = \alpha + \alpha_1 * violence_t + \Lambda * X_{i,t} + \varepsilon_{i,t}$$

When the dependent variable (*Outcome_{i,t}*) is an index, it is normalised around zero, so that the coefficient measures the expected effect (standard deviations change) of exposure to violence. However, when the focus is on each item of a given index, the dependent variable is reformatted into a binary variable. In such cases, the estimate measures an expected likelihood change.

Results

Using this model, our results paint a slightly different picture than that presented in Figures 5.5 and 5.6,³³ as we find that violence has two main effects on our indices. First, a positive effect on attitudes toward physical punishment, which can be observed in Figure 5.7: teachers who have experienced recent violence seem less likely to be in favour of physical punishment of students.³⁴ This is an interesting result, but one for which we do not yet have a definitive explanation, and prefer to remain cautious until we verify the results with additional robustness tests. Most of the other teaching quality indices are negative, but none are statistically significant.

Figure 5.7 Effects of exposure to violence on teaching quality indices in the DRC



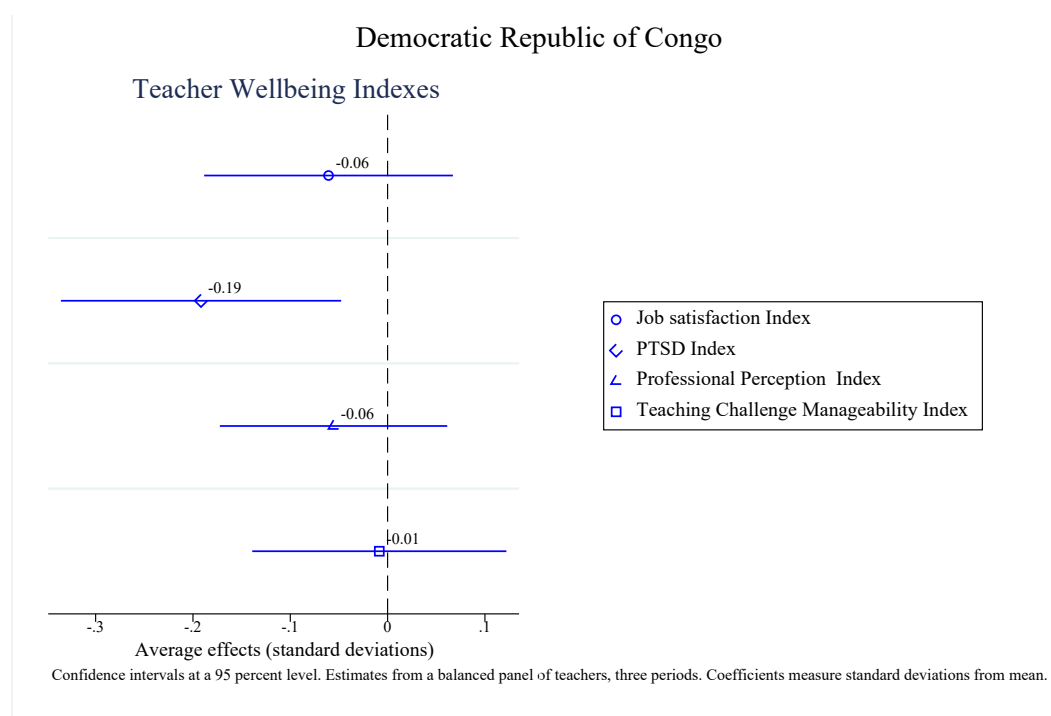
Source: Authors' own, based on the survey data.

³³ The estimates differ from those presented in Figures 5.5 and 5.6 in more ways than just the temporality of the violence variable used. Here, the estimates measure the conditional expected effect of violence (conditional on the controls used), whereas in Figures 5.5 and 5.6 we present unconditional sample means. If one considers that the effects of violence depend on factors such as teachers' gender, age, location and so on, the conditional effects provide a more accurate depiction of the effects of violence.

³⁴ When we study the effect of violence on the index subcomponents, we find that the statistical significance on each punishment component is null at a 5 per cent level and only significant at a 10 per cent level for teachers who thought it was acceptable to use a cane or other object to punish children.

Second, we find a strong negative and statistically significant effect of teachers' exposure to violence on our PTSD index, displayed in Figure 5.8.

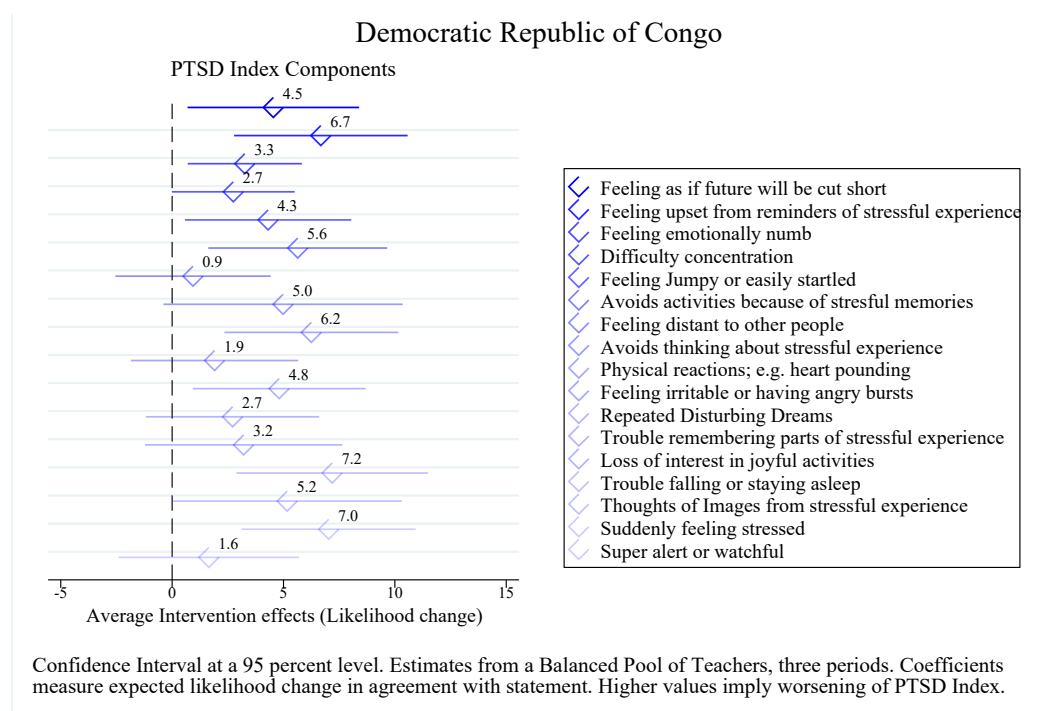
Figure 5.8 Effects of exposure to violence on teacher wellbeing indices in the DRC



Source: Authors' own, based on the survey data.

When we disaggregate the 17 subcomponents of the PTSD checklist in Figure 5.9, we find negative and statistically significant effects on 11 of them, showing that the overall effect is strong. Although unsurprising, given what we know from the considerable body of literature on the psychological effects of violence, this provides further evidence that teachers affected by violence often experience symptoms of trauma. Moreover, the professional wellbeing indices are negative, but none are statistically significant.

Figure 5.9 Effects of exposure to violence on PTSD checklist components



Source: Authors' own, based on the survey data.

While these results should be taken with caution as these are not final, what they seem to depict is a story of the resilience of those teachers who have experienced violence. Teachers who are victims of violence are more likely to have difficulties concentrating; to feel emotionally numb; to feel stressed and have difficulty sleeping; to avoid certain types of activities because of stressful memories; and so on. But they continue to teach and their teaching quality is on a par with that of teachers who have not experienced violence.

Together, these results provide further evidence of the negative effect of violence on teachers' wellbeing and their capacity to teach. The qualitative interviews presented in the Baseline and Midline Reports show that violence can lead to reduced or very fragile wellbeing, as well as high turnover of teachers, prolonged absences and transfers away from conflict-affected areas. Head teachers also said that it is particularly challenging to manage teachers who have been members of armed groups or who have a relationship with armed groups (e.g. via family members). Head teachers are very hesitant to call out or criticise such teachers and are often not equipped to support teachers who have experienced severely traumatic events. Improving teacher wellbeing and teaching quality in such circumstances appears to be particularly challenging. In section 8, we return to how teachers and school staff have been dealing with violence in the school environment.

5.4 Violence and threats against teachers in Niger

Levels of violence against schools and teachers in Niger are comparatively lower than in the DRC, as presented in the Midline Report, but they are nevertheless significant. Around 4 per cent of the teachers we surveyed in the BRiCE schools in Niger, and 14 percent of the schools, have experienced a direct attack since 1990.³⁵ It is important to bear in mind that the BRiCE schools in the region of Diffa (Zinder is not directly affected by violent conflict) are well-established schools that are generally situated in larger urban centres and along main roads, and are therefore likely to be less exposed to violence than schools that are more remote and difficult to access. Levels of exposure to violence and threats are therefore likely to be higher in other areas of Diffa.

Moreover, despite being exposed to lower levels of violence than the BRiCE schools of the DRC, we see that the BRiCE schools in Niger experience a range of direct and indirect effects of violence. Notably, these include individual and collective forms of fear, panic and anxiety that are tied to insecurity, exacerbated in particular by high-profile attacks against teachers and schools, some of which have created forms of collective trauma within the teaching profession.

Our endline qualitative data unfortunately does not add particularly noteworthy insights or results to the Midline Report results. This is in part because there was less of an emphasis on violence against schools and teachers in the endline data collection (as the theme had been covered extensively in the Midline Report), but also because of the problems encountered during the endline qualitative data collection, which severely limited the amount of qualitative data available for the endline analysis.

One noteworthy change, however, was a reported reduction in insecurity in Diffa over the last phase of the project. Indeed, according to government authorities and teachers, insecurity has partially reduced in Diffa since April 2021. Populations, including teachers, have returned to eastern Diffa. Many respondents stated that the feeling of panic and fear (*psychose* in French – see Midline Report) was not as prevalent as in 2020. While fear of kidnapping persists, people were reported to be less afraid of direct attacks by Boko Haram, and teachers were reportedly not particularly concerned about being singled out and targeted.

³⁵ This percentage corresponds to the percentage of teachers who reported having experienced at least one violent attack since 1990 in the full sample of BRiCE school teachers in Niger (i.e. all teachers including those only surveyed once either at baseline, midline and endline). The figure for exposure of schools to violence is based on the school survey.

However, the significant violence taking place in the regions of Tillabéri and Tahoua in western Niger was reported as a major concern for teachers in both Zinder and Diffa: first, because the violence in those areas affected friends and families of teachers based in Zinder and Diffa; and second, because of the deliberate attacks on schools, students and teachers that have taken place in those regions (Save the Children 2021), often politically and ideologically motivated. This has generated fear that such attacks will extend to the rest of the country. Generally, the significant escalation of the violent conflict in the Sahel is a major cause for concern. Indeed, it could lead to the militarisation of society and penetration of violence into the school environment as we have documented in the DRC.

6. The TPD and ILET interventions

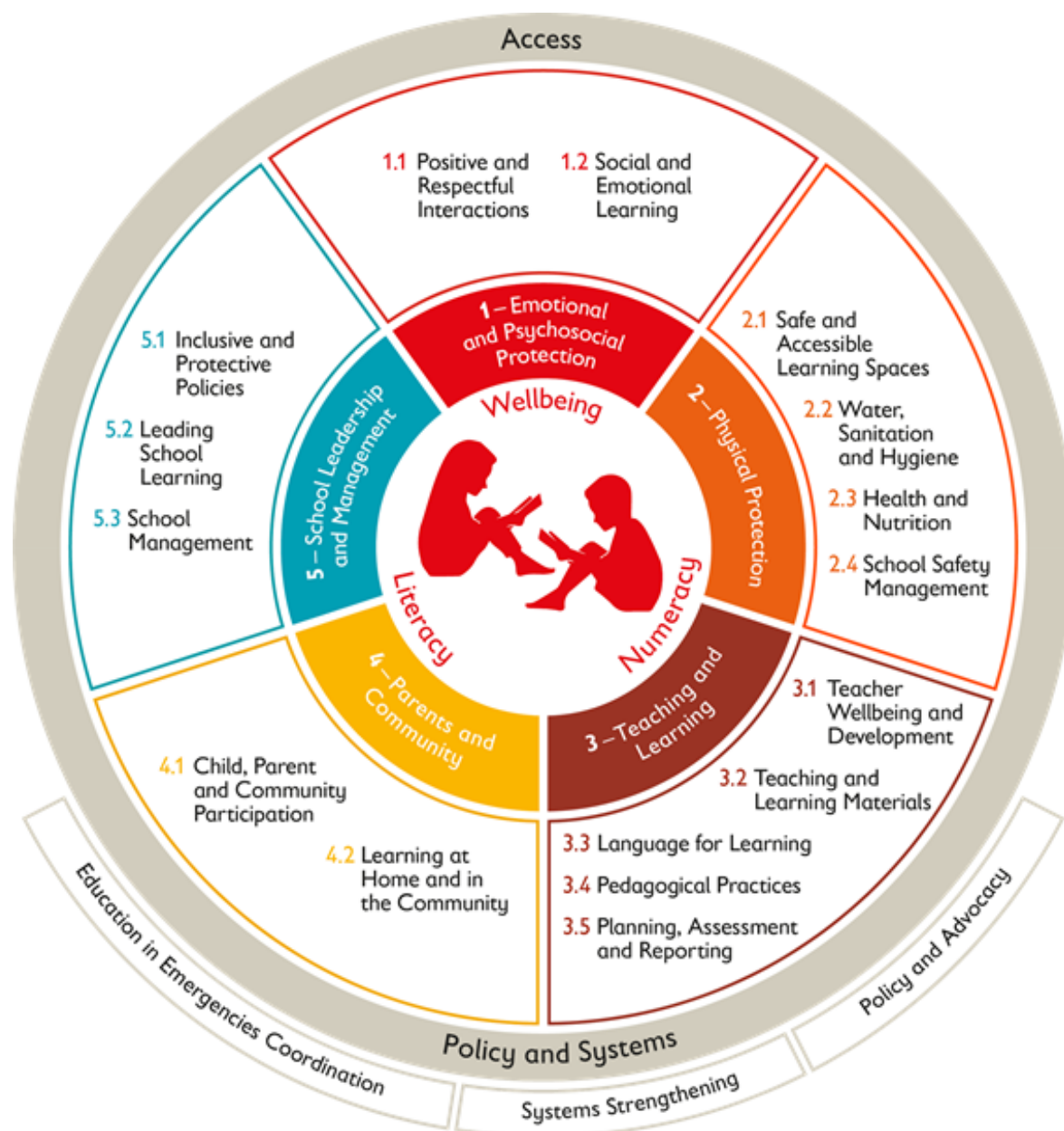
In this section, we present and discuss the TPD and ILET interventions, their theories of change and their implementation in the DRC and Niger. The section partially addresses research question 2, which seeks to analyse the effects of the TPD and ILET interventions on teaching quality and teacher wellbeing. Section 7 then carries out a quantitative assessment of their impact on teachers and students in the DRC. The analysis carried out in this section uses the quantitative and qualitative data collected for this project, as well as Save the Children's internal documents, reports, and presentations.

6.1 Teacher Professional Development

6.1.1 TPD theory of change – principles and components

Both the TPD and ILET components' theories of change are underpinned by Save the Children's Quality Learning Framework, which is the overarching theory of change of Save the Children's education programmes. The Quality Learning Framework (QLF) describes Save the Children's best understanding of what makes a quality basic education. The concept of the Quality Learning Environment was born in 2009, led by a desire for a common articulation of quality in education programming across Save the Children, with a focus on development programmes. Since 2009, it has transformed into the QLF, which outlines five foundations that provide a basis for wellbeing and learning for all children: emotional and psychosocial protection; physical protection; teaching and learning; parents and community; and school leadership and management. Figure 6.1 describes the QLF.

Figure 6.1 Save the Children's Quality Learning Framework



Source: Save the Children (2017). Reproduced with permission.

The QLF recognises that teaching quality is one of the most important determining factors of students' learning and wellbeing. The TPD approach therefore addresses the 'Teaching and Learning' components of the QLF, in particular three subcomponents:

- 3.1: Teacher wellbeing and development
- 3.3: Language for learning
- 3.4: Pedagogical practices.

The TPD approach centres on two key aspects. First, a professional development course that seeks to improve teaching quality, teachers' motivation and wellbeing. The course aims to develop a set of agreed teacher competencies: knowledge, skills and attitudes, in addition to increasing teachers' sense of ownership to develop their own work. Second, the TPD component pursues the strengthening of national education systems. Strengthening systems means building capacities of school leaders, reinforcing government and faith-based pedagogic supervision mechanisms, and striving for meaningful policy change. Through this system-level focus, the TPD component aims to durably implant an environment conducive to the continuous development of teachers' professional competencies. In the following paragraphs we outline how the TPD component aims to achieve the output of improved teaching quality and learning outcomes.

TPD principles

The TPD component in BRiCE is structured around five principles:

1. Individual needs and context
2. Measured competence
3. Long-term multi-modal learning
4. Embedding interventions into existing support mechanisms
5. Policy improvement and systems strengthening.

Together, these five aspects underpin the TPD component, which we now outline as prescribed in Save the Children's programme documents, before discussing implementation in the DRC and Niger.

First, the implementation of TPD is guided by a recognition of the importance of adapting learning strategies to the challenges teachers face in specific contexts, and involves educational actors, pedagogies and know-how that exist in the contexts in which the project has been implemented. To ensure context-specific coherence and relevance, Save the Children has therefore prescribed a situational analysis, which assesses the existing training/TPD systems, priorities with regards to TPD and wider teacher-related policy, as well as schools' and teachers' specific experiences and challenges. The TPD programme should then incorporate national teaching standards, and involve national ministries of education and subnational government bodies and staff, as well as teacher training institutes in the countries where TPD is implemented.

Second, TPD typically starts with a short school-based workshop that introduces and explores a small set of foundational teaching competencies (see Annexe A.3) after a training of trainers on the subsequent competencies. The Teacher Competency Framework is then used as a framework for teachers to assess themselves with a set of tools for teachers' self-assessment, head teachers' assessments of teachers and classroom observations through inspectors. This process follows the insight that teachers who are involved in assessing their own competencies feel motivated, confident, empowered and valued to lead their own learning and develop self-reflection, a critical skill for professional development. Importantly, competencies are not limited to teaching reading and writing (literacy boost), but also take into account context-specific needs such as the competence to create positive and inclusive classroom environments (Competencies 11 and 12), or knowledge about psychosocial supports (PSS) (Competency 17). Thereby, the TPD component goes beyond a common – and well-founded – critique of the learning crisis (Bold *et al.* 2017).

Third, learning is long-term and multi-modal, which means that it is not limited to a one-off workshop format but embedded in longer processes of workshops with an expert (usually, a provincial education official), peer-learning circles, and learning and supervision on the job. This multi-modal learning process should be delivered on six core modules: (1) introduction to the core components of the literacy boost; (2) vocabulary; (3) reading for comprehension; (4) code of conduct; (5) conflict-sensitive education; and (6) girls' education. Training on each module is planned to last for six weeks. Research has shown that practical, experiential learning on the job is the most effective form of learning, and that peer learning and support by experienced tutors or mentors can significantly improve practical learning. Peer learning has additional benefits, as networks of support for teachers can improve their wellbeing, create a sense of community, develop more effective ways of working, and build collective voice and agency in the school environment. These interlinked processes will help teachers to identify personal teaching goals.

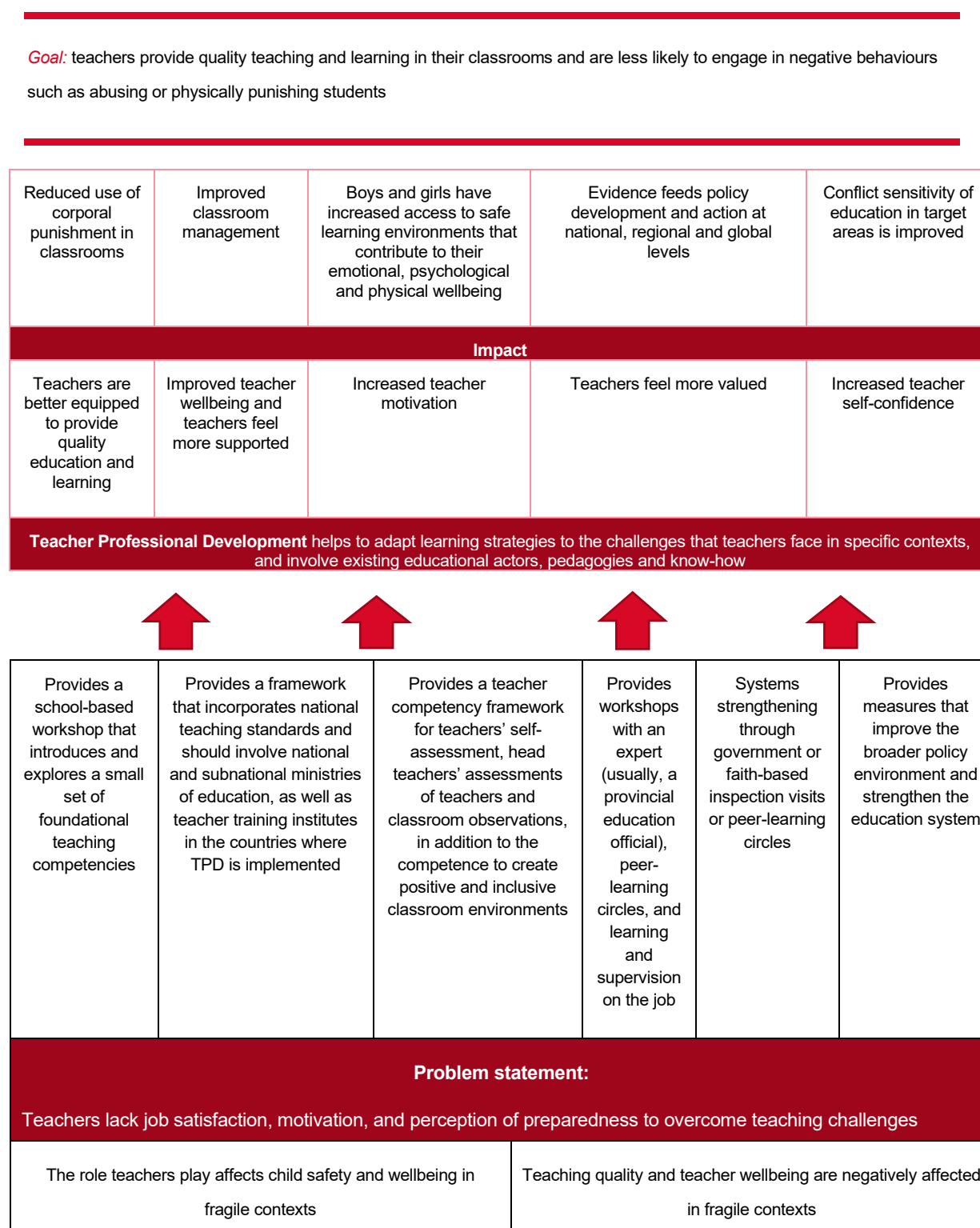
Fourth, the multi-modal learning approach should be embedded in existing support mechanisms, such as government or faith-based organisations, inspection visits or school-based peer-learning circles. These institutions were identified through a situational analysis in the first step of the TPD component. Teachers are more motivated and more likely to deliver quality learning when they feel that school leadership and management are supportive. This pursued embeddedness of the intervention is also a bridge to the fifth step ('systems strengthening'), as collective and mentor-driven teacher learning can become sustainable if a policy and culture of support, constructive feedback and mentorship is built into the education system by involving education actors and the school leadership.

Fifth, the TPD intervention attempts to improve the broader policy environment and strengthen the education system through a range of measures.

Finally, a cross-cutting theme and intermittent objective is the enhancement of teacher motivation and teacher wellbeing. Indeed, the theory of change is underpinned by the (evidentially informed) fact that teachers who go through multi-modal professional development feel more valued, better equipped and more motivated to provide quality teaching and learning in their classrooms. Teacher motivation and wellbeing enhance teaching quality (see section 4). Teachers who feel more motivated and supported are more likely to be present in school and provide quality teaching, and less likely to engage in negative behaviours such as abusing or physically punishing students.

Teacher wellbeing is also supported through the Community Action Cycle (CAC) and ILET components (see section 6.2), as teachers are more motivated and more likely to deliver quality learning when they feel that the community in which they teach is engaged and committed to improving the teaching and learning environment. In Table 6.1, we summarise our interpretation of the TPD theory of change, based on our analysis of the TPD documents of Save the Children and the underlying principles of the TPD. This should not, however, be considered as the definitive theory of change of Save the Children's TPD. Save the Children is currently developing a new theory of change for its Enabling Teachers approach, which encompasses the TPD and will inform future projects.

Table 6.1 TPD theory of change



Source: Authors' own, elaborated on the basis of documents provided by Save the Children.

6.1.2 TPD in the DRC

Although there is a national policy of continuous primary school teacher teaching in the DRC (*Politique Nationale de Formation Continue des Enseignants du Primaire*), it is barely functional. Pre-service education for primary school teachers takes place in secondary schools. As secondary schools struggle to provide quality education, initial teacher training is locked in a vicious cycle: insufficiently trained secondary school teachers train new teachers, who then become insufficiently trained primary school teachers, and so on.

While most (primary school) teachers meet formal requirements of having finished the pedagogic stream in secondary school (Meysonnat and Torrano 2020), teachers' skills are on average insufficient when set against standard benchmarks: in an Early Grade Reading Assessment (EGRA) carried out in 2012, only 50 per cent of primary school teachers passed the reading comprehension portion, and only 36 per cent passed the written portion (*ibid.*).

In-service TPD also has severe limitations in the DRC. Structured teacher guides that are aligned with the curriculum and textbooks are unavailable to the majority of teachers. The Service National de Formation (SERNAFOR), the teacher training department created in 1984, 'has not functioned properly since 1990' (Mokonzi Bambanota and Kadongo 2010). Since then, to our knowledge, no systemic approach to reforming or reinvigorating SERNAFOR has been undertaken. The inspectorate does work, and inspectors visit teachers in classrooms and provide feedback, but both the frequency and value of these visits are unclear.

It is in this context that the TPD component of the BRiCE education programme has been implemented in the BRiCE schools in Fizi and Uvira. As we will see, implementation of TPD – like the other components of the BRiCE project – encountered severe challenges resulting from the changing context, but was met with strong support and approval among partners, teachers and stakeholders.

Implementation overview

Table A.6.1 in Annexe A.6 summarises the TPD implementation timeline in the DRC, based on the information provided by Save the Children BRiCE programme staff. The timeline also shows the significant disruptions to schools that have occurred during the period of the project, including school closures resulting from the government's Covid-19 policy, flooding in Uvira and the school strikes related to implementation of the *Gratuité* policy.

While these have evidently created delays in the implementation of the TPD modules, all modules had been completed in all the BRiCE project schools in Uvira and Fizi by the end of February 2022, the end date of the BRiCE programme's activities in the DRC. However, the delays meant that the modules were not always implemented during the time period agreed for the quantitative evaluation methodology. Notably, three modules – girls' education, code of conduct, and conflict-sensitive education – that were due to be implemented before the midline data collection in the 24 Cohort 2 schools were implemented after the midline data collection. We discuss the implications for the quantitative evaluation in section 7.

Table 6.2 presents the average number of male teachers, female teachers and teachers overall per school who participated in the TPD module in the BRiCE schools in Uvira and Fizi, based on the school surveys. In this table, the average number of teachers per school and cohort are also provided. It is clear that, according to the head teachers, almost all teachers (male and female) in the BRiCE schools participated in the TPD. This is consistent with the data reported by teachers in table 6.4.

Table 6.2 Participation in TPD in the DRC

	Cohort 2 schools		Cohort 3 schools	
Average number of teachers per school who participated in TPD	Midline	Endline	Midline	Endline
Male	14.10 (14.25)	14.79	–	9.36*** (9.48)
Female	5.25 (5.3)	5.12	–	4.2 (4.4)
Overall	19.35 (19.41)	19.91	–	13.56*** (13.88)

Source: Authors' own, based on the survey data.

Notes: t-test p-value * <0.1 ** <0.05 ***<0.01. Endline school survey. Numbers in parentheses are the average number of teachers in the schools. Cohort 3 schools were due to receive the TPD after the midline data collection, which is why that column is empty.

Table 6.4 also presents teachers' participation in the different TPD modules in both cohorts, among the teachers who did participate in TPD, according to our endline survey. It is important to note that, at the time of the endline data collection, the number of teachers who had participated in the TPD was quite different between Cohort 2 and Cohort 3. This was also due to the delays in the implementation of the modules, and the fact that the endline data collection could not be further delayed due to project deadlines.

It is also important to note that the TPD was initially composed of the six core modules described in section 6.1.1, but that an additional module, large class management, was added after the *Gratuité* policy was introduced. Two additional modules on Covid-19 were then added. The addition of these modules is likely to have created further delays in the implementation.

Teachers' perceptions of modules

By and large, the TPD component of the BRiCE project has been well received, as we pointed out in the Midline Report, and as senior Save the Children staff have also reported. All teachers and head teachers (100 per cent) reported that they had found the BRiCE TPD component useful. This is encouraging, but it is hard to totally rule out a social desirability bias.

It is important to bear in mind that Save the Children compensated travel and accommodation costs. It is hard to accurately assess how much of an incentive these compensations may have been (50 per cent of teachers said they were enough to cover travel, but only 5 per cent said they were enough to cover accommodation). However, there is ample anecdotal evidence to suggest that such compensations do not have a neutral effect on participation and satisfaction, and are often a *de facto* source of income – in fact, 50 per cent of the teachers agreed that compensations should be high enough to allow workers to save money.

Table 6.3 Perceptions of TPD in the DRC

	Teachers	Head teachers
% who considered it useful	100	100
% who expected school to continue to provide training through pedagogic circles in the future	97.21	100

Source: Authors' own, based on the survey data.

Notes: Teacher and school endline surveys. 2.70 per cent of teachers (out of 685 teachers = 18 teachers) indicated that they did not participate in TPD and 1 did not know whether he/she had participated in TPD. All 49 indicated that teachers in their school participate in TPD.

Table 6.4 provides information on teachers' completion of the different TPD modules and their perceptions of the length of the modules. Overall, only 2.56 per cent of teachers surveyed (2.36 per cent in Cohort 2 and 2.75 per cent in Cohort 3) declared not having taken part in the training at all, mostly because they were on leave or travelling. However, this does not mean that the majority of teachers had completed all seven modules by the time of the endline. On average, teachers in Cohort 2 had completed 6.1 of the seven modules (the six core modules and the large class management module), whereas teachers in

Cohort 3 had only completed five modules (difference significant at $p < 0.001$, even after adjusting for clusters).

Table 6.4 Participation in and perceptions of TPD in the DRC

	% of teachers who completed this module in 2021			Perceptions of teachers on length of module		
TPD modules	Total	C2	C3	Correct length (% of teachers)	Too short (% of teachers)	Too long (% of teachers)
Introduction to writing and reading	94	94	93	55	42	5
Reading	97	96	97	53	43	4
Vocabulary	95	95	94	52	45	3
Large class management	95	96	93	57	39	4
Conflict-sensitive education	71	94	42	56	41	3
Girls' education	59	82	30	56	41	3
Code of conduct	51	69	28	57	39	4

Source: Authors' own, based on the survey data.

Notes: This table is based on all teachers who have participated in the TPD (685 teachers out of 704).

As Table 6.4 shows, the conflict-sensitive education, code of conduct, and girls' education modules were less likely to have been completed by Cohort 3 teachers. This was due to strike-related delays, Covid-19 and because a no-cost extension was not possible for programming in the DRC and so the endline could not be postponed. The bottom three modules were not completed in Cohort 3 schools when endline data collection was carried out. The majority of teachers reported that the length was appropriate. Only 3–5 per cent of teachers considered them too long, while a large share of teachers desired longer modules.

Analysing the TPD in the DRC according to its principles

To explore RQ2 – how TPD affected teaching quality and wellbeing – we discuss the TPD implementation in the DRC along the lines of TPD's five key principles introduced above, namely: (1) individual needs and context; (2) measured competence; (3) long-term multi-modal learning; (4) linkage to existing support mechanisms; and (5) policy improvement and systems strengthening. The analysis is based on the qualitative data collected through the project, as well as Save the Children's internal documents, reports and presentations.

– **Principle 1: individual needs and context**

'Contextualise the TPD programme to local and individual needs.'

Overall, the TPD component was contextualised to the Congolese education system. While a situation analysis was not carried out in written form as prescribed,³⁶ it is very likely that a significant part of the situation analysis was carried out implicitly, given the extensive experience of leading BRiCE staff in the DRC and Save the Children's prior engagement with the Congolese education system; for example, through the REALISE project.

Furthermore, in the inception phase of the BRiCE project, a workshop was held with education experts in Uvira and Fizi to contextualise the Save the Children TPD guidelines to the existing National Policy for In-service Teacher Training. TPD activities were adapted to comply with the different types of pedagogical exchange forums as foreseen by that policy. Literacy boost modules were adapted to the national curriculum of literacy in French language and Opportunities for Equitable Access to Quality Basic Education (OPEQ) modules, which had already been approved by the Ministry of Education. TPD modules drew from the Foreign, Commonwealth & Development Office-funded REALISE girls' education programme and other programmes, such as OPEQ and the Project for the Improvement of Education Quality (PAQUED), which was funded by the United States Agency for International Development.

Moreover, the BRiCE project team at Save the Children has responded to teachers' changing circumstances and challenges, leading to changes in the TPD component. Following the implementation of the *Gratuité* policy in September 2019 in the DRC, an additional TPD module was offered to teachers on large class management (based on a module that was used in the REALISE programme), on the basis of a request made by BRiCE staff

³⁶ The document 'TPD DRC course curriculum design and delivery. Incorporating situation analysis' does not appear to have been finalised. The BRiCE project document 'Annexe 7: Additional Context Analysis' is a relevant analysis but does not contain a TPD link.

in the field, itself reflecting discussions with school staff in BRiCE schools. Additionally, as a result of the Covid-19 pandemic, two modules on education during Covid-19³⁷ were added in the BRiCE schools in the DRC. In Niger, these additional modules were not added to the TPD, but a 15-minute reminder of protective measures against Covid-19 was added before each training session, based on national guidelines.

The repeated disruptions to schools, as well as the emergency context in Fizi and Uvira, which was marked by high levels of violence (see section 5), made it difficult for Save the Children staff to carry out some of the other standard procedures of the TPD approach, such as reviewing the theory of change after three months, which usually takes place based on insights from the Baseline Report (and again after the Midline Report). As reports took over six months to produce, and the *Gratuité* policy and Covid-19 created additional challenges, different priorities emerged in the programme, which required rapid reactions and adaptations.

'Pay consideration to teacher wellbeing, motivation and safety.'

BRiCE set out to improve teacher motivation and wellbeing through non-monetary incentives, and notably by reinforcing teachers' competencies and strengthening teacher support networks. BRiCE did not, however, target teacher salaries; as discussed in the Midline Report, these are one of the major factors in teachers' motivation and wellbeing. While it is impossible for a single project to sustainably address this complex issue, it is nonetheless important to acknowledge the effects of teachers' low salaries on teacher motivation, wellbeing and turnover, which are significant.

In the Baseline Report we noted that almost all teachers cited higher salaries as their number one concern. Most notably, numerous *nouvelles unités* teachers abandoned the teaching profession as a result of the *Gratuité* policy (Midline Report, section 4.4). Teacher wellbeing is always affected by political and economic dynamics (Brandt and Lopes Cardozo 2022). In terms of the socioecology of teacher wellbeing, the TPD programme involves individual, school and community levels, but pays limited attention to national or structural factors (Falk *et al.* 2019), in particular teachers' insufficient pay, which is arguably an enormous challenge for anyone operating in the Congolese education system. While this cannot be said to constitute a limitation of the intervention as it was not part of its objectives, it nevertheless constitutes a significant impediment and challenge to any project that focuses on teacher wellbeing.

³⁷ One module specifically for teachers and one on safe return to school after lockdown.

This does not mean, however, that the BRiCE staff and the activities carried out in the TPD did not consider teachers' concerns about salaries. Indeed, Save the Children staff frequently hear about teachers' complaints over low salaries, late payments and *non-mécanisé* teacher employment status. Save the Children has accountability systems in place in all its beneficiary communities. Complaints can be made via a free call line; according to national Save the Children staff, any complaint received in relation to teachers' salaries was referred to the provincial education authorities (PROVED), which promised to contact the Teachers' Inspection and Pay Service (SECOPE) – the service in charge of teachers' pay – while recognising that there is no quick solution. The *Gratuité* policy, and associated policy decisions such as salary zones, have changed the landscape but have not resolved the underlying problem.

Other large education programmes in the DRC have also been reluctant to engage directly with teachers' salaries, yet it remains a pressing concern. One possible way forward is to better take into account the link between teacher salaries, motivation and learning quality in education interventions focused on wellbeing. In that regard, one aspect that needs to be explored in more depth is how much time underpaid teachers are spending on secondary income-generating activities. During workshops in Uvira in January 2022, teachers emphasised that often they are not able to work on school-related issues in the afternoon as they have to tend to other activities.

An open-ended experimental programme could open up school improvement plans to include monetary teacher incentives. This would give the school community more leeway to spend the school improvement grant according to their priorities. Some communities might also consider that, for education interventions focused on teacher wellbeing, the best value for money in the allocation of project funds is to increase teachers' salaries. Teachers would then have to sign a contract to institutionalise their commitment to spend more time on school-related issues in the mornings and afternoons. Such a programme component could be inspired by the principles of performance-based financing (Falisse *et al.* 2012; Renmans *et al.* 2016). It would, however, raise issues with regards to sustainability and scalability.

'Where applicable, provide crisis-specific professional development.'

The TPD programme contains one module on conflict-sensitive education. It mainly focuses on child protection: how violent conflict affects students; how this affects their learning; how children affected can be supported (e.g. referrals); and how to apply the psychological first aid heuristic 'listen, protect, connect'. Further material provides in-classroom activities and input

for self- and peer-learning, also including a critical analysis of education in conflict-affected contexts (using the idea of the 'two faces of education'). Project staff and inspectors developed a technical note to contextualise the module, which is also participatory and enables teachers to reflect on these aspects by drawing from their own experience.

We note three possible improvements. First, it would have been helpful to make the links between the module and existing courses and practices in the Congolese education system more explicit (see section 8).³⁸ Second, the module does not refer to any particular example in the DRC (apart from once, alongside other countries), let alone the eastern Congolese context. Our research on the multiple entanglements between education and the dynamics of violent conflict could be helpful to add more concrete examples and to develop pedagogies to deal with these. Third, the conflict-sensitive education module contains little information on the effects of violent conflict on the teachers themselves – a question that this research project has focused on significantly. The teaching module developed as part of the BRiCE research project, which is presented in Annexe A.1 and will be incorporated into the curriculum at ISP Bukavu, addresses these points. It could be used as a resource to develop these aspects in TPD programming.

– **Principle 2: measured competencies**

Measuring competencies is an important part of the TPD approach. Eighteen competencies were agreed upon (see Annexe A.3) at the onset of the project, with the underlying principle that teachers need to be involved in their own assessments to develop reflective approaches to teaching. Our qualitative interviews did not yield meaningful results about the extent to which teachers' self-assessment empowers them and increases their motivation. Save the Children's internal evaluations of teacher competencies (per cohort) contain meaningful insights about teachers' progression between different competence levels, but do not speak about the underlying theory of change.

The main point we can note is an ongoing challenge regarding assessment of teachers' skills: 'How do you do that in a way that's practical and realistic other than self-reporting by teachers and kind of anecdotally by coaches?' (Senior Save the Children Advisor). This problem is relevant for both the monitoring of projects through MEAL tools and, in our case, the IDS/ISP Bukavu evaluation of BRiCE. Indeed, as specified in the methodology, the

³⁸ Many teachers highlighted the civic and moral education course as the space where they address questions surrounding armed violence.

quantitative component of this evaluation has also relied on self-reported measures for assessing teacher practices and teaching quality.

Some evaluations, such as the PAQUED programme carried out by the Education Development Center, have relied on classroom observations.³⁹ Such methods, however, require intensive training of classroom observers, which has been a challenge for this research project, as noted in the methodology section, and can put teachers in an uncomfortable situation, as the BRiCE TPD Implementation Guide also reflects upon.

– Principle 3: long-term multi-modal learning

One attempted government reform was to establish cross-school and peer-learning spaces, comprising the *unité pédagogique* (pedagogical unit) across two grade levels, with the school as a *cellule de base* (base entity), and a *126 réseau de proximité* (proximity network) across a handful of neighbouring schools (USAID 2021a).⁴⁰ Although, in practice, exchanges among teachers were limited to the school level, this institutional set up created an entry point for Save the Children's education interventions:

Obviously, there's been quite a lot of different teacher interventions we found in the DRC. Most of them had been face-to-face trainings... But actually, in the policy, as we looked at it, there was provision for professional development for teachers and it included space for pedagogy at the base, at the school and at the cluster level.
 (Save the Children staff member)

Drawing on wider research insights, BRiCE sought to shift the focus from face-to-face workshops towards continuous multi-modal learning, expecting better results and reduced cost. The formula 20-30-50 was used: 20 per cent of the time spent in workshops, 30 per cent in peer-learning circles and 50 per cent on self-directed learning 'through trying out new ideas in the classroom or through self-study' (TPD Implementation Guide). The majority of the 50 per cent is related to practice in school during lessons on the strategies and techniques teachers are learning, rather than additional study or activities outside of school hours.

³⁹ The evaluation assessed teachers' use of the literacy-building practices introduced by the reading programme. Changes in teachers' practices were evaluated with the help of a quantitative observation tool in a demonstration lesson, where teachers were asked to introduce a new letter or letter-sound relationship (Education Development Center 2014).

⁴⁰ Translations are the authors' own.

Pre-BriCE there has been very little to no teacher training in circles, e.g. forums d'échange pédagogique were not operational, especially not across schools due to a lack of transport budget. Experienced teachers tended to be very old.

(Save the Children staff member)

Along similar lines, the ACCELERE! project implemented a multi-tiered model to support teachers at classroom, school and cluster levels (USAID 2021b). Teacher learning circles, in particular, have received some attention in projects and research (Frisoli 2013; Lund 2020; USAID 2021a). Using data from our surveys, among the TPD modules implemented in the DRC, the activity that teachers preferred was 'face-to-face training' and the least favourite activity was 'peer circles' (Endline Report analysis). Secondary data from ACCELERE!, which was operational in several provinces, mirrors this finding. When school head teachers and teachers were asked 'to identify project activities that they found made a significant contribution to improving students' reading and writing skills (USAID 2021a: 53) only a quarter of directors and teachers positively assessed peer support networks.

Distribution of teaching and learning materials and face-to-face teacher training were clearly the most appreciated elements. We do not know whether teachers received a 'transport allowance' for trainings, which might have been one particular reason why they valued face-to-face training.

Save the Children field staff also noted that teachers used peer-learning circles to discuss issues they would usually not discuss. These circles therefore have intrinsic value as they created a safe space, less subject to the hierarchies and the pressures of the profession.

Finally, the fact that teachers are often busy with secondary income-generating activities in the mornings or afternoons might impinge on their ability to 'self-study', though the majority of TPD self-directed activities were embedded within existing classroom activities. As Wolf *et al.* (2015: 33) note: 'TPD programs that add to teachers' workloads without adding support or that fail to meet teachers' needs may result in teacher burnout and demotivation'. This sentiment was echoed in two workshops organised in Uvira in January 2022 with teachers and partners from the BRiCE schools in Fizi and Uvira, who repeatedly pointed out that teachers were rarely able to carry out the self-directed activities of the TPD, if at all.

Nonetheless, in our endline survey, 100 per cent of head teachers said they would continue to provide training through the peer-learning circles.

– Principle 4: link to existing support mechanisms

As noted in the preceding section, the support network for teachers is insufficiently equipped and struggles to function because of heavy constraints: 'inspectors are poorly trained, while information from their reports is often incomplete, and is not integrated into a single national report that could be effectively used by education policymakers – or published at all' (Mokonzi Bambanota and Kadongo 2010).

One study finds indications of a functioning support network: 'teachers' descriptions of the support they receive indicated that educational leaders regularly visit their classrooms and provide them with feedback about their teaching. School leaders report visiting classrooms and providing feedback to teachers under their watch regularly' (IBTCI 2020). The main 'support' element in the Congolese education system are inspectors visiting schools and providing feedback based on classroom observation. At the same time, the ambivalent relationship between schools and inspectors is well known, as schools usually need to pay for the inspectors' travel, food and accommodation expenses. ISP Bukavu trained inspectors on didactics, pedagogy, and information and communication technology. According to Save the Children staff, the 'provincial principal inspector recognised that Save the Children has enormously contributed to the training of inspectors and that they hadn't ever received such support'.

Although parents are not explicitly mentioned in the TPD implementation guide, engagement of parents and communities – through the CAC and ILET components – sits at the nexus between TPD and ILET, as teachers are assumed to be more motivated and more likely to deliver quality learning when they feel that the community in which they teach is engaged. In the case of BRiCE, parents also have a voice with regard to school improvement plans.

– Principle 5: policy improvements and systems strengthening

The core objective of BRiCE is to build quality learning environments and education systems in crisis-affected contexts. The focus on policy development is anchored in output 1.3 of BRiCE's logical framework,⁴¹ and in the fifth principle of the BRiCE TPD component.⁴² Although there is no specific theory of change for the 'policy improvement' component of BRiCE,

⁴¹ 'An evidence base is developed on education needs, access and quality, providing sound basis for policy development and action at national, regional and global level.' (BRiCE Annexe C – Full application final)

⁴² 'Strengthen teacher-education systems and advocate for policy improvement' (BRiCE Full application final).

the goal to strengthen systems is a cross-cutting topic across all activities. Indeed, the reinforcement of capacities of educational inspectors, administrators and institutions (e.g. teacher learning circles) has positive effects after the project has finished. For example, some teachers whose schools were not targeted by BRiCE visited BRiCE schools to learn informally from trained teachers.

Conversations between teachers and exchanges in *forums d'échange pédagogique* (pedagogical exchange forums) are channels through which TPD insights are shared and disseminated: 'We as pedagogic counsellors ask teachers in non-TPD schools to also take up these insights, while teachers demand to get access to the materials' (pedagogic counsellor). A workshop was held in August 2021 with all education authorities in the educational province of South Kivu II to scale up the project interventions. Each education district conceived a dissemination plan to extend TPD activities to other schools and to maintain regular follow-up in beneficiary schools to increase sustainability.

Generally, the TPD component of the BRiCE project has sought to include educational inspectors in its approach, as a way to both strengthen existing support systems and train inspectors on TPD approaches. Inspectors have played an important role in the implementation of TPD approaches, by contributing to the adaptation of the different modules through trainers' workshops, conducting the face-to-face sessions with teachers and their head teachers at school level, and organising pedagogical visits to support and accompany teachers in implementing the competencies of each module. The project also included existing teacher training institutions, and notably ISP Bukavu, the largest teacher training university in eastern DRC. Despite significant delays in the involvement of ISP Bukavu, it eventually led a workshop in July 2021 and a refresher workshop in April 2022 for educational inspectors in Fizi and Uvira.

Evidence and policy improvement

Output 1.3 of the logframe connects policy improvement with the development of an evidence base of education needs, access and quality. The reports, policy briefs, blogs and online events produced and organised by IDS address this output and will be used to inform policymaking (see Annexe A.5 for a list of outputs). Furthermore, TPD and ILET MEAL data collection has yielded significant amounts of data about educational needs. Indeed, TPD and ILET collect different types of data:⁴³ (1) TPD: teacher competency survey; (2) TPD:

⁴³ Although this section focuses on TPD, TPD and ILET MEAL cannot be disentangled when it comes to developing an evidence base to achieve policy impact.

classroom observations; (3) ILET: structured questionnaires; and (4) ILET: focus groups. MEAL teams collect considerable amounts of data but it remains unclear what happens to it at a higher level than ILET. The following quote illustrates the objective to use this data beyond project-specific goals:

The idea is that we use the data also at higher levels, not only for SIP [the school improvement plan]. We're planning for a larger ILET evaluation in Redd Barna ... At the local/national level there is a close collaboration with officials, so the final question is how can this be leveraged to government level?' (Senior Save the Children Advisor)

Advocacy

Save the Children is currently the co-lead of the national education cluster and in different provincial clusters. At the same time, a Senior Save the Children Advisor pointed out that:

BRiCE was not conceived as a huge project in Kinshasa, there is no BRiCE team member in Kinshasa, in contrast to REALISE⁴⁴... The DRC national office understandably tried to minimise its influencing agenda and communication agenda because there always is so much that needs to be raised and addressed.

Nonetheless, evidence developed through BRiCE was passed on to Congolese authorities. BRiCE staff also attended the Assises de Promotion Scolaire (Promo-Scolaire) workshop organised in Baraka by the PROVED. Promo-Scolaire workshops reflect on and plan educational matters, organised annually at subprovincial, provincial and national levels, where each education partner can present their activities. At this workshop, BRiCE presented its activities and challenges, including problems encountered with regard to teachers' motivation and pay. Reportedly, the PROVED presented these challenges at the national Promotion-Scolaire workshop in Kinshasa.

In a learning workshop on the BRiCE project carried out in May 2022, the Save the Children MEAL team noted, however, that the limited advocacy of BRiCE at the national level was an obstacle to the diffusion of the ILET and TPD approaches beyond the schools targeted by BRiCE. Indeed, while teachers, head teachers and inspectors who participated in BRiCE were keen to diffuse the approach, the fact that there was no corresponding 'top-down' push made things more difficult.

⁴⁴ A Girls' Education Challenge project funded by the Foreign, Commonwealth & Development Office.

Key obstacles to systems strengthening

Several obstacles to strengthening the Congolese education system exist. First, formal channels of upward mobility of knowledge have hardly been operational. The case of the annual national, provincial and subprovincial Promo-Scolaire meetings to evaluate, discuss and plan matters of educational governance underlines this dynamic. While the Promo-Scolaire workshops are usually operational at subprovincial and provincial levels, and reports are produced, the knowledge generated through these workshops is not centralised and discussed at national level. Instead, key decisions – for example, regarding opening new schools (Brandt 2017) or teacher registration (Midline Report) – are taken via administrative and political brokers. As a result, bottom-up evidence is insufficiently integrated into policies.

The fact that key policies, such as *Gratuité* or *bancarisation*, have been designed and implemented without much consultation of teachers or educational administrators also underlines this dynamic (Brandt and De Herdt 2020). Second, teachers' unions are normally key actors in strengthening education systems. However, Congolese teachers' unions are fragmented, poorly represented in rural areas and often obstructed by political manipulation. Unions collect and disseminate evidence on certain aspects, but the impact of their activities remains unclear. Third, as explained in section 3.1.2, various shocks have affected the Congolese education system and the BRiCE project over the past four years. Strengthening systems becomes a very ambitious goal when project staff and government authorities are handling the impacts of the *Gratuité* policy, the Covid-19 crisis, teacher strikes and flooding.

6.1.3 TPD in Niger

Implementation overview

Table A.6.2 in Annexe A.6 summarises the timeline of implementing TPD in Niger, based on the information provided by Save the Children BRiCE programme staff. As can be seen, there were fewer overall disruptions to the education system in Niger than in the DRC over the period of the project, with school closures caused by Covid-19 shorter than in the DRC. Following a consultation with the Ministry of Education, it was decided that six modules per year were too many, and it was agreed that four would be implemented, with the remaining two implemented in the following year. This explains in part why, as in the DRC, the implementation of three modules – girls' education, code of conduct and conflict-sensitive education – partially overlapped with the midline data collection. However, there were some delays in Niger, particularly in Diffa where insecurity meant that not all four modules were completed in year two in Cohort 2 schools. However, the delays were less severe than in the DRC. All

the modules were nevertheless completed in all schools by the end of the project.

Table 6.5 shows the average number of teachers who participated in the TPD per school in Niger, according to the head teacher survey. As can be seen, the average number of teachers per school who participated is smaller than in the DRC; but it is important to bear in mind that the BRiCE project was implemented in more schools in Niger than in the DRC, and also that the average number of teachers per school is lower in Niger than in the DRC. As in the DRC, almost all teachers (male and female) in the BRiCE schools participated in TPD.

Table 6.5 Participation in TPD in Niger

Niger	Cohort 2 schools		Cohort 3 schools	
Average number of teachers per school who participated in TPD	Midline	Endline	Midline	Endline
Male	2.71 (2.74)	1.38	–	2.36* (2.5)
Female	9.57 (9.6)	9.97	–	8.11 (10.44)
Overall	12.25 (12.31)	11.02	–	10.47 (13)

Source: Authors' own, based on the survey data.

Notes: t-test p-value * <0.1 ** <0.05 *** <0.01. Endline school survey. Numbers in parentheses are the average number of teachers in the schools. TPD was implemented in Cohort 3 schools after the midline data collection, which is why that column is empty.

This is consistent with the data reported by teachers in Table 6.7. The gender balance of participation in the TPD reflects the gender balance among the teaching staff in Niger, which is marked by a much higher proportion of female teachers.

Teachers' perceptions of modules

As can be seen in Table 6.6, the vast majority of head teachers and teachers who participated in TPD in the BRiCE schools in Niger found the programme useful, and the vast majority of them also said that the schools would continue to provide trainings to teachers in the future. As in the DRC, social desirability bias cannot be ruled out and such numbers need to be taken with a measure of critical analysis, but they nevertheless point to a resolve in the BRiCE schools in Niger to pursue the work beyond the end of the BRiCE project.

Table 6.6 Perceptions of TPD in Niger

	Teachers	Head teachers
% who considered it useful	99.81	98.57
% who expected school to continue to provide training through pedagogic circles in the future	96.41	100

Source: Authors' own, based on the survey data.

Notes: 12.65 per cent of teachers (out of 532 teachers = 77 teachers) indicated that they did not participate in TPD; 1.14 per cent or one head teacher out of 71 indicated that teachers in their school did not participate in TPD.

As can be seen in Table 6.7, the majority of teachers also reported that the length of the modules was appropriate. Only 2–3 per cent of teachers considered them too long, while a large share of teachers indicated that the modules were too short. As in the DRC, this might be explained by the TPD following a 20-30-50 model, with 50 per cent of the training being done through self-directed activities. As in the DRC, teachers generally prefer the face-to-face trainings with Save the Children or partner staff, and the self-directed component is generally less appreciated, given the limited time and resources that teachers have to devote to self-directed activities.

Table 6.7 Participation in and perceptions of TPD in Niger

Niger	% of teachers who completed this module in 2021			Perceptions of teachers on length of module		
TPD modules	Total	Cohort 2	Cohort 3	Correct length (% of teachers)	Too short (% of teachers)	Too long (% of teachers)
Introduction to writing and reading	80	72	89	57	40	3
Reading	93	88	97	57	40	3
Vocabulary	93	90	96	58	39	3
Conflict-sensitive education	48	82	16	54	43	3

Girls' education	76	80	72	55	43	2
Code of conduct	82	82	81	56	42	2

Source: Authors' own, based on the survey data.

Notes: This table is based on all teachers who have participated in the TPD (532 teachers out of 609); two teachers did not know whether they had participated in TPD.

As discussed in the Midline Report, an underlying issue regarding TPD and teacher training more broadly is the potentially counter-productive effects of the intense contractualisation of the teaching profession in Niger: teachers on temporary contracts face severe limitations in their career prospects. However, this does not seem to mean that teachers on temporary contracts are less interested in TPD, nor that they are less motivated. Indeed, as the Midline Report has shown, as well as other analyses (Yenikoye Ismael and Tanko 2018), teachers on temporary contracts are no less motivated, nor are they less efficient than teachers on permanent contracts.

Analysing the TPD according to its principles

We now analyse the TPD implementation in Niger according to the five underlying principles presented previously, namely: (1) individual needs and context; (2) measured competence; (3) long-term multi-modal learning; (4) linkage to existing support mechanisms; and (5) policy improvement and systems strengthening. We specify when the analysis carried out for the DRC is relevant for Niger and when there are no additional points to be made specifically about Niger. Given the difficulties experienced during the last phase of the qualitative data collection in Niger, as well as the overall difficulties related to research in Niger resulting from the lack of a research counterpart in Niger, our qualitative empirical data is thinner for Niger than for the DRC. When relevant, we complement our analysis with Save the Children's presentations and reports.

– Principle 1: individual needs and context:

At the start of the BRiCE project in October 2018, an eight-day workshop involving national and provincial Ministry of Education staff and Save the Children staff took place in Niamey to adapt the TPD content to the Nigerien context. The main objective of this workshop was to ensure that the TPD approach was consistent with the Nigerien Ministry of Education's strategy and contextualised. Adjustments were made to the TPD approach, notably around language and wording to ensure consistency with the ministry's strategy. The notions of teachers' '*savoir*', '*savoir-faire*' and '*savoir-être*', which are part of Niger's education strategy, were added to the TPD. A

second workshop was held in June 2020 in Maradi to discuss the technical aspects of the TPD, which led to more adaptations, notably a change in the definition of teacher competencies and competence thresholds, as some of the competencies the TPD targeted were defined as subcomponents of larger competencies by Niger's education strategy.

Another key point of discussion was the timeframe, as Nigerien experts thought that six modules per year was too much. They considered it more realistic to implement four modules annually, which is what eventually happened. As a result, certain indicators (e.g. number of trained teachers per year) were adapted. Despite the efforts to adapt the TPD to the national education context, however, several teachers interviewed during the endline qualitative data collection said that they had found it somewhat complicated that the TPD had different modules, strategies and notions to the existing general government learning strategy (e.g. the *Stratégie de Planification de l'Enseignement-apprentissage*) and other policy documents such as the *Référentiel des Compétences au Niger*, which includes six competencies. Even small differences in wording can create confusion among trainers and teachers, which provides further justification to ensure that such approaches are consistent with national approaches.

Regarding implementation of TPD, among the major challenges BRiCE staff reported were teachers' rates of turnover, dropout and absenteeism.⁴⁵ Indeed, many teachers enrolled in the TPD trainings did not complete them or were absent for significant parts of the training. Given the importance of the face-to-face trainings in enabling other components of the TPD approach, these can create major setbacks to interventions. According to Save the Children staff, the most important factor explaining absenteeism and dropout from TPD was insecurity, particularly in Diffa. As BRiCE staff noted, a single attack is sufficient to cause an exodus of teachers from an area, causing them to drop out from TPD trainings.

Another factor mentioned by BRiCE staff is tied to the gender composition of the teaching profession, which is composed of a large majority of female teachers. A number of female teachers left the TPD trainings before completion because they moved to follow their husband's professional appointments. There have also been numerous absences resulting from pregnancies among the teachers in the BRiCE schools, meaning that many teachers have not completed the TPD training. As the factors that cause these departures and absences are realities in Niger that cannot be circumvented, TPD approaches eventually need to adapt to them. Further

⁴⁵ These insights are based on presentations by Save the Children BRiCE staff during an external learning event on the 24 May 2022.

thinking on TPD could focus on developing flexible approaches that allow for prolonged absences related to pregnancies or for teachers moving to different regions.

Regarding feedback from teachers on the TPD approach, as in the DRC many pointed out that the financial compensation for the trainings was insufficient. This has been discussed previously in the case of the DRC and also highlighted in the Midline Report.

Qualitative interviews have also underscored that teachers and head teachers appreciated the PSS training. This has been relevant not only for teachers in Diffa, where Boko Haram has been most active and insecurity is higher than in Zinder, but also in Zinder. In Zinder, teachers realised that PSS is not solely about armed violence and armed conflict, but also addresses other forms of conflict and challenges to teachers' wellbeing. They said that the content of the training was very relevant to their experience and circumstances.

Moreover, the endline interviews underlined that students and many teachers generally appreciated the trainings on positive discipline, but that such notions require some time for school staff to adopt them. The challenges around implementing positive discipline became particularly apparent when teachers who had participated in TPD shared their insights with teachers from other schools. These latter teachers were at times fervently opposed to abandoning corporal punishment, fearing that it would undermine their authority. We return to the discussion of positive discipline in section 8.3.

– **Principle 2: measured competence**

See Principle 2 in the DRC section (6.1.2) – there are no significant additional elements regarding Niger.

– **Principle 3: long-term multi-modal learning**

Nigerien teachers appreciated TLCs, which did not exist prior to the BRiCE project, although there were Ministry of Education *Cellules d'Animation Pédagogique* (pedagogical animation units). While these allowed experienced teachers to share their insights with less experienced ones, according to our interviewees there was no emphasis on peer knowledge exchange among teachers. The TLCs established as part of the TPD, in contrast, motivated teachers to speak up and discuss their challenges, exchanging ideas and best practices. Some interviewees noted that TLCs are particularly helpful for shy teachers, as it motivates them to speak up in a safe space; and also for teachers who have not fully understood the content of in-person workshops, as they can learn from other teachers' insights and interpretations of the content.

Practical examples of teaching practices which were shared with other teachers during the TLC that came up in interviews included: having visual representations of letters in classrooms to show how they are written; focusing efforts on teaching high-frequency words; developing play activities around reading; and encouraging students to work in pairs through various activities. One interviewee said that he had shared teaching approaches learned during the TPD programme with a group of teachers working in a *Certificat d'Aptitude à la Profession* (Certificate of Professional Aptitude), notably the strategy of having students work in small groups before sharing their insights in larger groups. Overall, teachers said that TLCs and *Cellules d'Animation Pédagogique* are complementary.

In terms of complaints expressed in interviews, some teachers said that they did not receive handouts after workshops. Moreover, as our quantitative midline data had already suggested, several teachers said that they did not appreciate classroom observation. The main explanation for this sentiment in our qualitative interviews was that teachers felt that they were being assessed and judged in the classroom observations, and that this placed an additional burden on their work. It is important to stress that these observations are not designed to criticise, judge or rank teachers, but are rather opportunities for professional development.

– **Principle 4: link to existing support mechanisms**

As pointed out above, TLCs can be complementary to the *Cellules d'Animation Pédagogique*.

– **Principle 5: policy improvement and systems strengthening**

As in the DRC, systems strengthening has been a cross-cutting objective of the BRiCE project, which in Niger has worked closely with a Norad-funded project on education in fragile contexts. Together, these projects advocate for national-level thinking on a strategy for education in emergencies, as Niger's education strategy does not currently include one. As noted by a Save the Children staff member, the BRiCE project 'gave us the opportunity – also in collaboration with UNICEF – to advocate and work on such a document. BRiCE played a key role in leveraging the topic of education in emergencies, also at national level.

Moreover, the BRiCE project team has sought to diffuse the TPD approach and results beyond the BRiCE schools at a regional and national level: notably by organising *Ateliers de Capitalisation* (strengthening workshops) in Zinder and Diffa, to which provincial educational inspectors were invited, as well as national level where a team of five staff from the ministry and from the regional directorates were in charge of incorporating the approach.

Although it is too early to say whether this has led to lasting changes, the approach appears to have been well received.

One of the limitations with regards to systems strengthening that Save the Children staff have noted, however, has been the limited dissemination of the approach and results in teacher training colleges of Niger, despite some of the supervisors and inspectors having been trained on the approach. Given the importance of these teacher training colleges, a more integrated approach could allow for a more lasting implantation of the approach in the Nigerien education sector.

6.2 Improving Learning Environments Together (ILET)

6.2.1 ILET theory of change – principles and components

Following the development of the initial QLF package, the need for a similar tool for emergency contexts was recognised – one that was adaptable and flexible enough to use in different phases of a crisis. With the desire to better respond to the need for more and better evidence of what works in education in emergencies (EiE) programming, and a recommendation for localisation of humanitarian responses, the ILET component was launched in June 2016 with funds from the Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO) and the Norwegian Ministry of Foreign Affairs. Developed by Save the Children Norway, ILET is a package using assessments for improving learning environments in humanitarian contexts through community participation.

Objectives

The ILET intervention aims to improve the learning environment of children in contexts of humanitarian crises by increasing its physical safety, supporting children's wellbeing, promoting active learning, and encouraging children, parents and school communities to develop a shared understanding of the nature and purpose of quality education.

ILET seeks to address a key limitation of education interventions in humanitarian contexts: the lack of a shared understanding among children, teachers and education stakeholders about the nature and purpose of quality education. This often results from their lack of participation in school decision-making processes, as well as educational assessments, which too often have narrowly defined and externally determined outcomes and measures. To address this key problem, ILET aims to foster the development of a common

framework of understanding of quality learning environments by developing participatory and reflective information-sharing and decision-making processes that involve children, parents and teachers and reflect their priorities.

Process

Through ILET, grouped with local authorities under the CAC teams, parents' committees and SMCs were trained on their roles and responsibilities in SIPs, the development of the improvement plans, good school governance and financial management of the SIPs. Priorities for the improvement plans were defined according to the needs of the schools and, most importantly, Save the Children ensured children's participation in developing and analysing school needs. This participatory process aims to foster better understanding of school-related data and information, and allows students, parents and teachers to hold duty bearers and educational actors to account. It also ensures that decision-making is more effective in bringing about safer and better learning environments for children.

Based on Save the Children's QLF, this participatory needs assessment examines school environments across five criteria related to emotional and psychosocial protection, physical protection, teaching and learning, parent and community participation, and school leadership and management. It allows school community members to gain a deeper understanding of the problems in their schools, beyond the physical aspect. The main result of this exercise is to highlight the needs of schools grouped according to the above criteria.

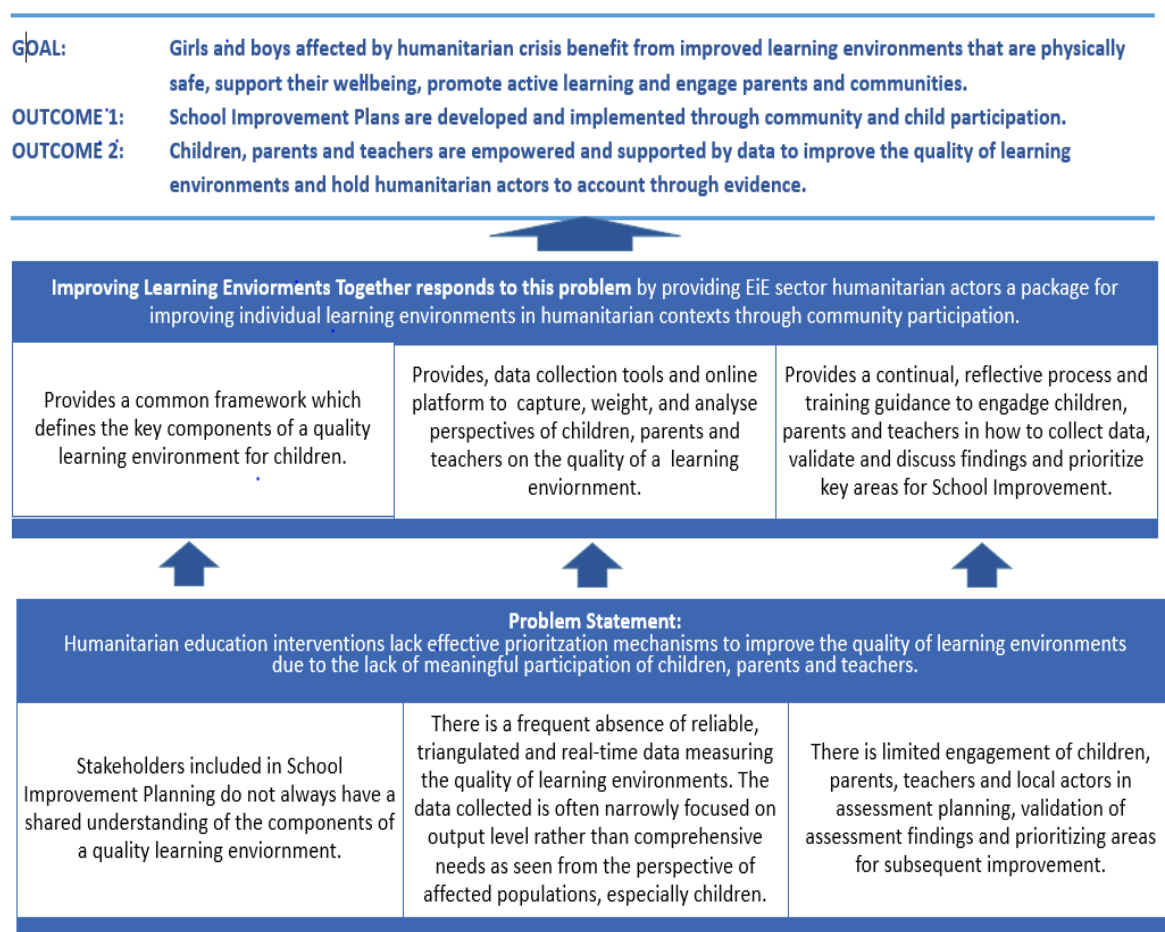
ILET relies on a straightforward and ready-to-use toolkit, which includes school checklists, structured interviews with the school head teacher and teachers, teacher and parent focus group discussions, consultations with students, and classroom observations to take into account different perspectives and priorities and ensure alignment with the Inter-agency Network for Education in Emergencies' (INEE) minimum standards in education quality. Questionnaires exist in different formats (rapid light, rapid, standard, standard plus) to fit different circumstances. The country team decides which format to use, based on time and access. Questionnaires contain space for additional comments from respondents.

The information gathered is presented as a report card to the school head teacher and the SMC, who are then supported to develop an SIP. Save the Children provides technical and capacity-building support to SMCs to lead on SIP development, ensuring that teachers and students are in effect consulted. These results are presented in the schools during feedback sessions and each school has the opportunity to compare them with the situation on the ground to determine whether the report cards present an accurate depiction of the

situation of the school. In either case, community members can adjust the report card and prioritise needs.

After completing the SIPs, Save the Children provides SMCs with small grants (US\$2,000), spread over a three-month period, to implement priority improvement activities they have identified. Examples of improvement activities funded as part of ILET are recreational support for students, improving the safety at school by installing appropriate fencing, and improving school infrastructure such as access to clean drinking water. The report card system is designed to be adopted by the schools to provide a sustainable tool to ensure the continuation of participatory practices beyond the formal end of the project. Figure 6.2, which was developed by Save the Children, provides a summary of the ILET theory of change.

Figure 6.2 ILET theory of change



Source: Save the Children (2018). Reproduced with permission.

6.2.2 ILET in the DRC

Overall, there were many difficulties and delays with the ILET data collection (Key Informant Interview 1). In the DRC, the standard ILET questionnaire was initially used in the BRICE schools. Save the Children senior staff described it as

'labour intensive'. ILET data collection was conducted per cohorts. As data collection in the DRC was lagging behind due to teacher strikes, the team changed the format. Cohorts 1 and 2 (30 schools) used the standard version, whereas Cohort 3 (25 schools) used the rapid version. During strikes it was impossible to use the standard version, as it requires classroom observations.

The BRiCE teams sought to include education authorities in the implementation of ILET. Inspectors from the Ministry of Education (MEPST) were trained on ILET and data collection methods, and involved in supervising the SIPs. They also played a role in diffusing the approach beyond the BRiCE schools.

Table 6.8 considers the ILET intervention in the DRC, according to the data reported by Save the Children. Distinguishing between Cohorts 2 and 3 schools, it shows when Save the Children funded an SIP, when school improvement was completed, and what the funds were spent on. All schools received an equal amount. Cohort 3 schools received and invested the funds a year later than Cohort 2 schools. Schools used these funds to make several types of improvements (e.g. building or rehabilitating classrooms, purchasing classroom supplies, building school fences or toilets, and connecting potable water to the school). Across the two cohorts, there is no statistical difference in the choices schools made. According to the school survey, all schools participated in the ILET intervention, and all reported that the intervention had been useful.

Table 6.8 School investments under ILET (as reported by Save the Children)

	All schools	Cohort 2 schools (n=24)	Cohort 3 schools (n=25)
Month when Save the Children provided SIP bursary		April–May 2020	May–June 2021
Amount of Save the Children bursary to SIP		US\$2,000	US\$2,000
Month when school improvement was completed		Aug. 2020	Aug. 2021
ILET Improvements	% of schools		
Built classroom	14.29	16.67	12.00
Rehabilitated classroom	26.53	29.17	24.00
Purchased class supplies (desks, books)	26.53	16.67	36.00
Built school fence	12.24	12.50	12.00

Built latrines	30.61	37.50	24.00
Established potable water connection	4.08	0.00	8.00

Source: Authors' own, based on the data provided by Save the Children on 17 March 2022.

Note: Total number of schools in Cohorts 2 and 3 is 49 (24 in Cohort 2 and 25 in Cohort 3). Some schools made improvements in several categories.

Table 6.9 shows the answers of head teachers regarding the ILET intervention in the school survey. This data was collected in June 2021, and only covers the schools that had received ILET funds at the time of the endline data collection – namely 27 out of 49 BRiCE schools in Uvira and Fizi. While this means that our information concerning the implementation and effects of ILET is incomplete, it was unavoidable given the delays.⁴⁶ This is also one reason for possible discrepancies between this table and the previous one based on data Save the Children provided, which was collected at a later stage than the endline data collection. The other possible reason is that teachers in Cohort 3 might have had a different understanding of the intervention from what Save the Children reported (Table 6.8).

Table 6.9 School investments under ILET (as reported by teachers and head teachers surveyed)

ILET	All schools	Cohort 2 schools	Cohort 3 schools
Number of schools that received money from Save the Children for ILET (out of 49)	27	21	6
Average amount received (Congolese francs)	3,678,519	3,662,857	3,733,333
	% of schools		
No improvements	7.41	4.76	16.67
Classroom rehabilitated	37.04	42.86	16.67
Built new roof	11.11	14.29	0.00*
Built school fence	18.52	19.05	16.67
Built latrines	29.63	33.33	16.67

⁴⁶ Given that the schools in the DRC were on strike throughout the autumn (fall) of 2021, the decision to carry out the midline in June 2021 was the correct one, otherwise it would not have been possible to carry out the endline data collection within the timeline of the project.

Added borehole	0.00	0.00	0.00
Built classrooms	22.22	19.05	33.33
Hired new teachers	3.70	4.76	0.00
Hired support staff	0.00	0.00	0.00
Cleaned school	33.33	38.10	16.67
Purchased class supplies	40.74	42.86	33.33
Did other things	18.52	19.05	16.67

Source: Authors' own, based on the endline school survey.

Note: Cohort 1 (Pilot) schools were dropped. 'Average amount received' only considers schools that received money under ILET. Similarly, percentages of schools making specific improvements were based on the number of schools that received money. Multiple types of improvements were possible in the schools. Difference tested with a simple regression model (with the group binary as a control), clustering errors at the school level; p-value * <0.1 ** <0.05 ***<0.01.

Funds were transferred in May–June 2021 to these schools. The amount the schools received was the same, with slight differences in reporting between Cohort 2 and Cohort 3 schools resulting from changes in the exchange rate. In terms of improvements made by the schools, Table 6.9 shows that construction and rehabilitation of classrooms and construction of toilets were the most common improvements made. There are no statistically significant differences between the two cohorts (with the exception of hiring support staff, which is too low a ratio of schools to be meaningful).

Overall, the qualitative and quantitative data provide strong evidence that teachers, head teachers and educational actors in the BRiCE schools in the DRC appreciated the ILET intervention. As part of the first phase of the ILET protocol, and before they had elaborated their SIPs, schools received report cards that described the situation in their schools and priorities in terms of improvements. As can be seen in Table 6.10, the vast majority of teachers and head teachers in the BRiCE schools in the DRC found the report card useful, particularly as it allowed them to understand weaknesses regarding teaching quality, as well as to assess problems and priorities regarding school buildings and school infrastructure.

Table 6.10 Perceptions of ILET in the DRC (as reported by teachers and head teachers surveyed)

	%	
	Teachers	Head teachers
Considered useful by:	89*	79.59
Reasons why it was useful:		
– to understand weaknesses in teaching quality	79.91	72.5
– to assess issues with buildings and infrastructure	62.85	85
– to assess human resource issues (e.g. staff attitude, absenteeism, etc.)	44.86	57.5
– opportunity for discussion with key parties	21.5	25
– opportunity to take long overdue action	22.9	27.5

Source: Authors' own, based on the endline teacher survey and school survey.

Note: Number of teacher observations is 428; 18.47 per cent of teachers indicated that the school did not receive report card; 20.74 per cent of teachers did not know whether the school received report card (total number of teachers in endline = 609); 18.36 per cent of head teachers (9 out of 49) indicated that the school did not receive report card.

* Six teachers did not know whether it was useful or not.

6.2.3 ILET in Niger

At the start of the BRiCE project, efforts were made to adapt the ILET protocol to the Nigerien context, notably to national education norms in Niger, such as quality and equity norms for Nigerien elementary schools. Moreover, in Niger, the ILET intervention was integrated with the CAC component of the BRiCE project, following discussions about complementarities of the two approaches and the need to harmonise the interventions in BRiCE schools. Integration entailed adapting both modules: while the ILET protocol was developed for emergency situations, the CAC was not, and the adaptations were required to ensure that certain segments of the population, such as refugees, were incorporated into the approach.⁴⁷ This led to differences in implementation modalities of ILET in Niger; notably that Save the Children did not finance SIPs in Cohort 2 schools, but rather that communities mobilised funds as part of the CAC. In Niger, the standard ILET questionnaire was used for all cohorts.

⁴⁷ ILET presentation by Save the Children at learning event 24 May 2022.

Table 6.11 provides information about the disbursement of funds for SIPs, according to Save the Children data, as well as information on investment choices schools made.

Table 6.11 School investments under ILET (as reported by Save the Children)

	All schools	Cohort 2 schools (n=35)	Cohort 3 schools (n=36)
Month when Save the Children provided SIP bursary		[Information not provided]	Sept.–Dec. 2021
Amount of Save the Children bursary to SIP (CFA francs)		[Information not provided]	980,890
Month when school improvements were completed		Mar. 2021	Not completed by Mar. 2022
ILET Improvements	% of schools		
Improvements in school environment	60.56	40.00	80.56
Hired non-teaching staff	5.63	0.00	11.11
Rehabilitated classroom	33.80	60.00	8.33

Source: Authors' own, based on the survey data.

Notes: This information was provided by Save the Children on 21 March 2022; total number of schools in Cohorts 2 and 3 is 71 (35 in Cohort 2 and 36 in Cohort 3); some schools conducted several improvements.

Table 6.12 is based on the data collected through the school surveys. As in the DRC, the endline data collection happened before all schools had received ILET funds; only 31 of the 71 schools had received the funds at the time of the endline data collection. For the Cohort 2 schools in Niger, around 40 per cent of the schools did not receive the SIP funds from Save the Children in 2020 because of delays. Many of these schools, however, relied on funds mobilised by the community to start their SIPs. All schools have now received the Save the Children funds.

Table 6.12 School investments under ILET (as reported by teachers and head teachers surveyed)

ILET	All schools	Cohort 2 schools	Cohort 3 schools
Number of schools that received money from Save the Children for ILET (out of 71)	31	6	25
Average amount received (CFA francs)	651,512.30	60,833.33	793,275.20
	% of schools		
No improvements	25.81	0.00	32.00***
Classroom rehabilitated	32.26	50.00	28.00
Built new roof	0.00	0.00	0.00
Built school fence	12.90	0.00	16.00**
Built latrines	6.45	0.00	8.00
Added borehole	6.45	0.00	8.00
Built classrooms	29.03	16.67	32.00
Hired new teachers	9.68	16.67	8.00
Hired support staff	3.23	0.00	4.00
Cleaned school	32.26	33.33	32.00
Purchased class supplies	22.58	50.00	16.00*
Did other things	0.00	0.00	0.00

Source: Authors' own based on the endline school survey.

Note: Cohort 1 (Pilot) schools were dropped. 'Average amount received' only considers schools that received money under ILET. Similarly, percentages of schools making specific improvements were based on the number of schools that received money for ILET. Multiple types of improvements are possible in the schools which received money under ILET. Difference tested with a simple regression model (with the group binary as a control), clustering errors at the school level; p-value * <0.1 ** <0.05 ***<0.01.

Overall, the qualitative and quantitative data collected, as well as the feedback collected by Save the Children BRiCE staff, provide evidence that the ILET protocol was appreciated in the BRiCE schools of Zinder and Diffa in Niger. As can be seen in Table 6.13 below, the vast majority of teachers and head teachers found the report card provided to BRiCE schools before elaborating their SIPs useful, particularly with regards to assessing capacities in teaching quality, and priorities in terms of infrastructure and buildings, as well as assessing strengths and weaknesses in terms of human resources. Further feedback presented by Save the Children⁴⁸ shows that head teachers particularly appreciated the fact that the assessment concerned not only tangible aspects of schooling such as the school infrastructure, but also intangible aspects such as the learning environment.

Among the positive aspects noted during a BRiCE external learning workshop where feedback on ILET was presented, efforts to create common understanding and ownership over education were noted. ILET partners reported that in several villages people went from perceiving the school to be '*in* the village' to perceiving it as being '*of* the village'. The qualitative interviews also noted that activities that were set up around the schools as part of the '*école animée*' were an appreciated aspect of ILET; for example, text displayed on the walls improved children's passion for learning (head teacher).

Moreover, as noted by a representative of one of the partner organisations, one of the strengths of ILET was to foster 'conscientisation' about the importance of education that went beyond the BRiCE schools, to mayors, inspectors and other state officials through the Équipe de Mobilisation Communautaire. The same representative noted that there was a collective will to pursue such forms of collective action and conscientisation beyond the end of the project.

Among the difficulties reported in the same workshop, however, was that it was often difficult to achieve the levels of participation recommended in the ILET approach, particularly in terms of children's participation. Indeed, children's participation in making decisions about the schools was at times curtailed by cultural conceptions of the role of children.

⁴⁸ Presented by Save the Children at the BRiCE external learning event on 24 May 2022.

Table 6.13 Perceptions of ILET in Niger (as reported by teachers and head teachers surveyed)

	%	
	Teachers	Head teachers
Considered useful by:	81*	100
Reasons why it was useful:		
– to understand weaknesses in teaching quality	71.43	82.54
– to assess issues with buildings and infrastructure	43.84	66.67
– to assess human resource issues (e.g. staff attitude, absenteeism, etc.)	33.99	55.56
– opportunity for discussion with key parties	7.39	14.29
– opportunity to take long overdue action	22.17	47.62

Source: Authors' own, based on the endline teacher survey and school survey.

Note: Number of teacher observations is 203; 31.20 per cent of teachers indicated that the school did not receive report card; 35.47 per cent of teachers did not know whether the school received report card (total number of teachers in endline = 609); 11.27 per cent of head teachers (8 out of 71) indicated that the school did not receive report card.

* Nineteen teachers did not know whether it was useful or not.

7. Measuring the impact of TPD and ILET on teachers and students

This section explores the impact of the TPD and ILET interventions on teachers and students. After explaining the evaluation approach in section 7.1, we analyse the joint effects of the interventions on teaching quality and teacher wellbeing in section 7.2, on students' learning outcome in section 7.3, and on students' learning environment in section 7.4.

7.1 Evaluation approach

7.1.1 Research design

Most evaluation frameworks are based on a simple idea: comparing observations that benefited from an intervention – often referred to as treatment group – with a control group of counterfactual observations (i.e. observations that did not benefit from the intervention but are otherwise observationally equivalent to the intervention group). Finding or creating a credible control group is often challenging.

In this research, we take advantage of the phased-in implementation of the TPD and ILET interventions: 24 schools in the DRC and 35 schools in Niger were randomly selected to benefit from the interventions in 2019/20. This group is known as Cohort 2. The remaining group of 25 schools in the DRC and 36 schools in Niger that were selected to benefit from the interventions in the academic year 2020/21 is known as Cohort 3. Please note that: (1) as we explain later, the Covid-19-related school closures delayed the intervention implementation schedule; and (2) Cohort 1 is not part of the present evaluation – it consists of six schools in the DRC and ten schools in Niger where the interventions were piloted and fine-tuned.

Table 7.1 Distribution of schools by cohorts

	DRC cohorts				Niger cohorts		
	1 (pilot)	2	3		1 (pilot)	2	3
Fizi	3	10	16	Zinder	10	21	30
Uvira	3	14	9	Diffa	0	14	6
Total	6	24	25	Total	10	35	36

Source: Authors' own, based on the data.

Note: School 220 (Yelwa) was dropped in Niger; data collections were not conducted in the pilot schools in Niger.

The present evaluation is a randomised controlled trial. The core idea of such an approach is that the random allocation between groups maximises the odds that the cohorts are comparable and the counterfactual credible: there was no reason why a given school ended up in one group rather than another. When we run a balance test on a comprehensive set of school and teacher characteristics observed at baseline, we find groups that are similar in almost all respects (see Table A3.9 in Annexe 3). Given the relatively small size of our samples of schools, finding differences between cohorts on a few variables is not unlikely; indeed, we find a lower number of students enrolled and teachers in control group schools.

Our analysis controls for this imbalance, as we explain in the next section. In theory, the phased-in implementation offers the possibility to compare schools, teachers and students at three different stages: (1) no implementation at all; (2) immediately after implementation; and (3) one year after the end of the interventions. Such a design should allow us to estimate both 'baseline treatment effects' – the expected initial effect of the interventions – and subsequent 'lagged effects' that manifest longer after the initial interventions are completed. Studying the dynamics of interventions is often very useful as it helps shed light on the paths that changes take, and indicates whether external reinforcements are needed to maintain the initial effect or if self-enforcing processes occur.⁴⁹

In practice, though, our situation is slightly more complicated due to the implementation delays explained in section 6. Our baseline effects – the difference between midline and baseline – capture the effects of a bundle of interventions that include: (1) most TPD modules except conflict-sensitive education, code of conduct, and (partly) girls' education; and (2) ILET, but having only disbursed ILET funds in 40 per cent of Cohort 2 schools in Niger. Because the initial interventions were not completed by the time of the midline, we call our lagged effects – the difference between endline and midline – 'delayed treatment effects'. They include both a proper lagged effect – the effect of having had this bundle for six (DRC) or nine (Niger) months – and the effect of having freshly received the rest of the interventions (the conflict-sensitive education, code of conduct and girls' education modules).

Finally before we present our data, it is important to note that other interventions were implemented as part of BRiCE to improve the quality of learning environments, such as CAC and conflict mapping, but those were rolled out in all the BRiCE schools at the same time. The BRiCE logframe reports on the

⁴⁹ For a detailed presentation of the evaluation research design, see the Research Design (Justino *et al.* 2019) and Baseline Report (Marchais *et al.* 2020).

progression and effects of these interventions, but they are not the subject of the IDS research evaluation, which focuses on TPD and ILET.

7.1.2 Data

The data comes from the three rounds of surveys – baseline, midline and endline – that study multiple aspects of the lives of teachers and children, as well as the environment in which they develop. For teachers, the central outcomes of the evaluation are teacher wellbeing and teaching quality (see sections 4.1 and 4.2). For students, the central outcomes of the evaluation are student learning and wellbeing. Student learning focused on literacy, using the Early Grade Reading Assessment (EGRA). Although numeracy was not a core target area of the interventions, we measured it using the Early Grade Maths Assessment (EGMA) to provide an indication of students' overall progression.

As with the rest of the outcome variables, we have information on these learning assessments at all evaluation points. For student wellbeing, Save the Children's International Social and Emotional Learning Assessment (ISELA) was adapted to measure three components: self-motivation, social awareness and empathy, and nurturing environment. Since we look at each outcome from multiple angles, there is a total of 65 indicators for teachers and 33 for students. The number of indicators encapsulates the aim to provide a comprehensive assessment of the impact that these interventions together had on teachers and pupils.

The indicators are used to construct a series of indices, which synthesise information on a number of related aspects. For these, each outcome variable index is the standardised mean of its (also standardised) components (see Kling, Liebman and Katz 2007), calculated by subtracting the control group mean and dividing by the control group standard deviation. Thus, the index has a mean of zero and standard deviation of one for the control group, and no item is given unreasonable weight in the index. Interpretation of the impact on the index is therefore based on standard deviations.

Observing the variables that make up each index, as we do in sections 7.2, 7.3 and 7.4, helps explain how the indices are constructed. The indices are built using indicators that are scaled so that higher values indicate that the statements that compose them have values considered to be 'more positive'. So, for example, for the gender attitudes index for teachers – which encompasses information about their views on gender roles at home and in the classroom, as well as perceptions of children's future development – higher values indicate more neutral views of gender. As each index is unpacked and its components analysed separately, we provide insights on the drivers of the

effect of the intervention on the indices. As the study progresses, the analysis is replicated to study differentiated effects by gender.

The sample consists of teachers and children who are randomly chosen within each of the 49 schools located in 20 villages situated in Uvira and Fizi in the DRC, and 71 schools in Diffa and Zinder in Niger. For close to three years (see section 2.1.1), 637 young pupils were tracked in the DRC and 694 in Niger (with a mean age of 9.42 years in the baseline survey and 11.95 years in the endline for the DRC; and 10.15 and 12.74, respectively, in Niger). For teachers, 704 were tracked in the DRC and 609 in Niger.⁵⁰ We expect the sample to be representative of the population of children and teachers of these schools. For further information on the dataset, including the sampling frame, see the Research Design (Justino *et al.* 2019), Baseline Report (Marchais *et al.* 2020) and Midline Report (Gupta *et al.* 2022).

As explained above, our approach focuses on standardised effects that imply rescaling all indicators. This is necessary to deal with as many outcome variables as we do, but also increases the risk of losing track of non-standardised values before intervention (at baseline for the baseline treatment effect and at midline for the delayed treatment effect). The non-standardised values can help us understand whether an indicator was high or low to begin with; any good impact evaluation needs to consider them seriously (e.g. it is not quite the same to improve on an indicator that was already low as it is to improve, by the same magnitude, on an indicator whose score was already closer to being perfect). In our analysis, we therefore frequently refer to Annexe 3, which contains the descriptive statistics and presents the values of the outcome variables at baseline, midline and endline.

Finally, while this section is mostly about the impact measured by our surveys, we have included qualitative material when it helps to explain or nuance some of the findings.

7.1.3 Evaluation model

This section provides technical details on the evaluation model. For non-technical readers, the most important point to bear in mind is that the evaluation relies on a difference-in-difference model: we assess whether the two groups – control and treatment – perform differently on a set of key indicators over time. Because these two groups were similar in almost all respects before the TPD and ILET interventions, and because there was no particular reason why a school would have benefited from either intervention earlier or later than another

⁵⁰ The age dispersion of teachers is much larger because they are adults.

school, differences between the two groups are very likely to have been triggered by the interventions.

Formally, our empirical approach consists in the estimation of the parameters of the model (1), β_1 and β_2 , as these parameters will provide the average effect of the intervention over the layout of the programme. There are multiple indicators for the outcome variable ($y_{i,t}$), and two main parameters (β 's) are estimated for each outcome.

$$y_{i,t} = \alpha + \beta_1 T_{i,t}^F + \beta_2 T_{i,t}^S + \Gamma X_{i,t} + A_t + \epsilon_{i,t} \dots (1)$$

That is, the empirical objective is to estimate the β coefficients to recover the causal effect of the intervention. This is done with ordinary least squares and exploiting the exogenous variation in the intervention brought by randomisation. The parameters of interest measure the impact of the intervention on the outcomes ($y_{i,t}$) studied over the two periods.

First, the variable $T_{i,t}^F$ advances on the nature of a dichotomous variable, taking the value of zero for untreated schools (i.e. schools that did not receive the intervention) and a positive value upon treatment (i.e. on receiving the intervention). This means that for the treatment group (Cohort 2 schools) the variable takes a positive value from 2020 and for the control group (Cohort 3 schools) only in the 2021 sweep.⁵¹ The second variable, $T_{i,t}^S$, follows a similar logic, taking a positive value insofar as the project has been implemented for more than one period (only for Cohort 3 in 2021) and zero otherwise. It can be shown that the treatment variable $T_{i,t}^S$ is equivalent to an interaction term between the first treatment $T_{i,t}^F$ and a binary variable measuring time of exposure to treatment. As such, $T_{i,t}^S$ can be thought of as equivalent to $(T_{i,t}^F * \text{Time})$, where Time is binary in the post-intervention period (Twisk *et al.* 2018).

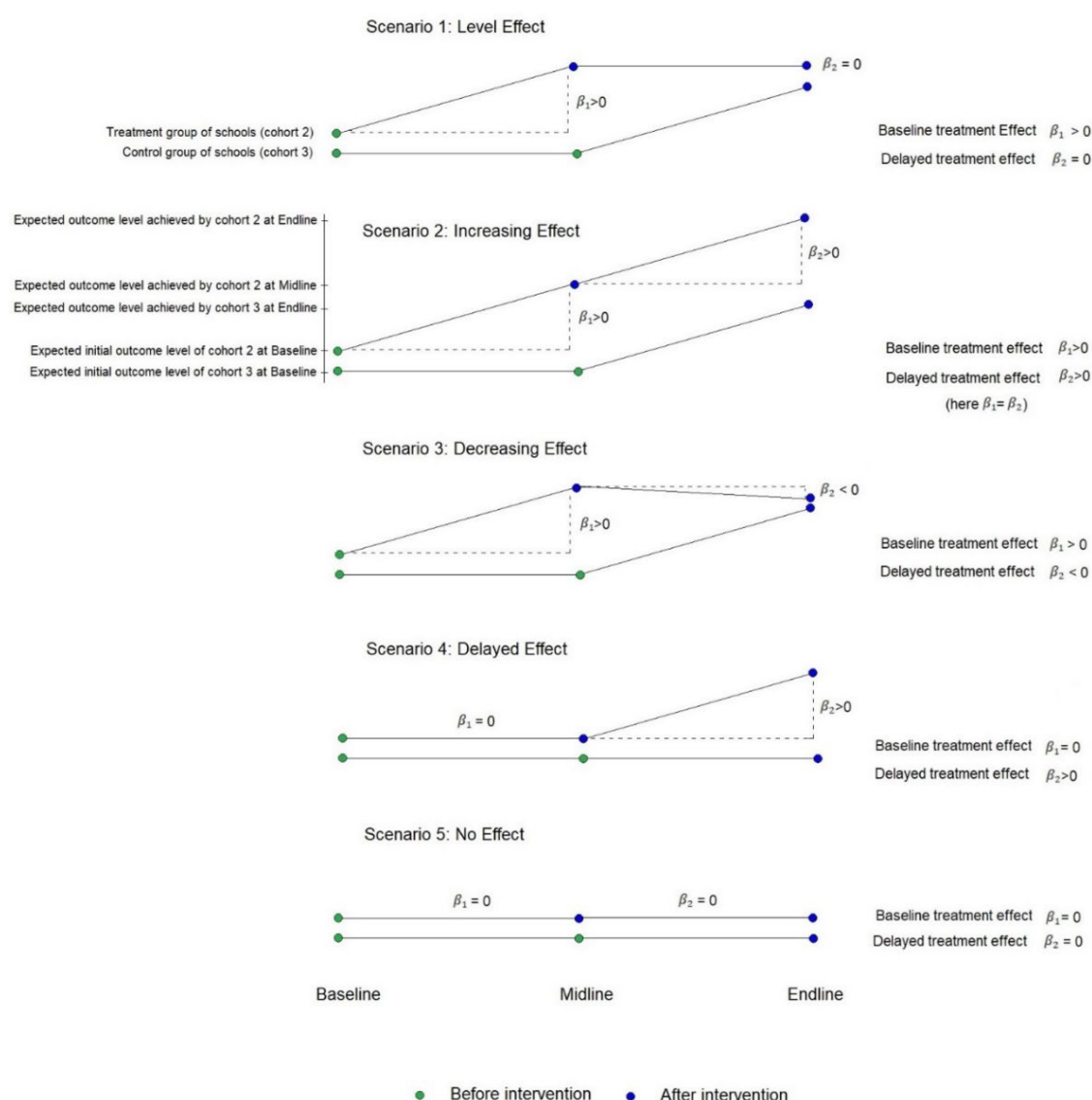
In some of our specifications, the treatment variables, $T_{i,t}^F$ and $T_{i,t}^S$, are scaled to reflect resources per student given to each school as part of the ILET intervention. The underpinning reasoning is that such a measure of resources per student constitutes a measure of the intensity of the treatment received, since the schools differ in size but are expected to have received similar resources.⁵² Adjusting the variables in this way, rather than using binary variables indicating treatment, yields very similar results to the binary treatment variables model, but they are slightly more precise.

⁵¹ This means that it not only captures the effect on Cohort 2 but also on Cohort 3 (in which case the control is also Cohort 3 but in a different time period). We checked these results using a simpler, more conservative model in which the baseline treatment effect is only for Cohort 2 and our results are very similar.

⁵² It is useful to bear in mind that the effect of the resources may not be linear, especially if invested in infrastructure whose utility is not perfectly correlated to the number of users.

Figure 7.1 aids with a depiction of alternative paths of impacts and hence of the parameters we estimate. We observe schools, teachers and children over three periods: one before the implementation of the programme (green); another, in which around half of those followed have begun the programme (blue), with the remaining half (green) only surveyed; and a third period in which all schools have become part of the programme.

Figure 7.1 Hypothetical scenarios displaying dynamics of treatment effects



Source: Authors' own, based on the data.

Therefore, we seek to estimate the effect of the intervention in such a way that we estimate two separate effects. The first is the effect of having benefited from some of the interventions relative to not having had any intervention. Section 6 goes back to what exactly was implemented by the time of the midline, which is what we refer to as 'some of the interventions'. The second is the effect of

having had 'some of the interventions' for some time (i.e. **exposure** to some of the interventions) and receiving the final part of the interventions versus beginning to receive or having recently received the interventions (again, in part only; section 6 explains what interventions Cohort 3 had received by the time of the endline surveys).

The diagrams of the figure are an attempt to visualise the meaning of the parameters estimated. For example, the first diagram identifies a 'level effect', which is the effect that is detected after the implementation of the programme and which is sustained for at least one more period. Second is an 'increasing effect', a trajectory of impact that increases with length of exposure. Third is a 'decreasing effect', shown in this diagram as an initial positive effect that gradually decreases over time. Fourth is a 'delayed effect', shown as an impact that is not observed immediately after taking part in the intervention, but with a lag. The final diagram characterises a scenario in which there are no detectable effects in either period. The alternative impact trajectories displayed are not exhaustive, since only non-negative effects are shown. However, the diagrams exhibit effects in a stylised way to show that multiple structures of impact may arise, and also that because of this, the effect of the interventions on different indicators need not be equal.

The first parameter in the equation, β_1 , which captures the main and initial effect of the interventions, is the effect evaluated less than a year after their implementation. In other words, β_1 is the midline vs baseline difference-in-difference between Cohort 2 and Cohort 3, with Cohort 3 unaffected by the intervention. The estimate is typical of impact evaluations and should be regarded, from an evaluation perspective, as a strong causal claim (regardless of the value it takes); in this report, we refer to it as the baseline treatment effect.

In our panel model with three periods of time, the inclusion of what we refer to as a delayed treatment effect ($T_{i,t}^S$) is important to ensure β_1 remains unbiased (another approach would be to only consider the baseline and midline). For instance, if increasing lagged effects are present and not accounted for, the estimate of β_1 would be biased upwards.

The second estimate, β_2 , is labelled as the delayed treatment effect of the interventions, which is additional to β_1 , because it is the expected difference between (a) those who benefited from the interventions since before the midline survey, and thus have been exposed for more modules and have had time to use or reflect on it for an additional period, and (b) those who have received the programme for one period only (relatively similar to that of Cohort 2, during the midline). This parameter captures differences in outcomes between groups with different degrees of exposure.

Compared to β_1 , extra assumptions are required for β_2 to be an unbiased estimator of lagged effects. Before examining them, it is useful to note two elements. First, we are not looking at long-term effects in a conventional sense: the difference we consider here is not between (a) Cohort 2 between endline and midline, relative to the control group, and (b) the same Cohort 2 between midline and baseline, and still relative to the control group.⁵³ Rather, we are concerned with the differences between cohorts with different degrees of exposure. The comparison is therefore between midline and endline, between (a) Cohort 2, which benefited from the intervention in the earlier period, and (b) Cohort 3, which newly benefited from the intervention. Second, our evaluation design does not allow us to directly assess the effects of the interventions on Cohort 3, as there is no suitable control group left between midline and endline.

The main assumption for this approach to capture delayed treatment effects is that the effect of the intervention on both groups is the same (β_1). If this assumption holds true, then it is possible to attribute a potential difference in outcomes between the two groups in the third period of analysis to a delayed treatment effect of the intervention. This is not an excessively unreasonable hypothesis, given that the two groups were randomly generated from schools in the same region, were largely comparable at baseline, and were subjected to the same interventions.

Two other untestable related restrictions that need to be satisfied to ensure there is no bias are that (1) had neither of the two groups benefited from the interventions, these would still be balanced if considered at midline (i.e. they will have followed parallel trends), and (2) the interventions would have been deployed in the same way for both groups, and the same contextual variables would interact with the intervention the same way (if at all) in 2021 as they did in 2020. That is, if these assumptions were to be violated, the estimate of β_2 would capture the delayed treatment effects of the interventions in conjunction with the effects that the time-varying circumstances have when interacting with the intervention.

In an uneventful context, the odds that these assumptions would not hold true would be low, but South Kivu is a turbulent region, marked by violence, political instability and, over the course of our study, the *Gratuité* policy and the Covid-19 pandemic (see below). This is why we add time controls to the model (to account for time-varying factors that might affect the comparability between groups) and why we perform our estimations for each country separately. Section 8.2 will show that challenges to the second restriction may exist

⁵³ This would be the typical way of looking at lagged effects (i.e. comparing the effects of the intervention one period of time after the intervention as well as two periods of time after interventions, both relative to a control group that did not benefit from the interventions).

because of a heterogeneous implementation of the ILET and TPD interventions between Cohorts 2 and 3 at the time of the midline and endline, respectively.

Two key contextual changes took place during our study: first, the *Gratuité* policy, which altered the education system significantly, leading to a sharp increase in student enrolment and changes in contractual terms for teachers; and second, the Covid-19 pandemic, which among other things affected schools directly through school closures. It is possible to isolate the effects of the *Gratuité* policy and the Covid-19 pandemic from our estimates on the condition that these events affected schools in both cohorts in a similar way. The year fixed effects allow us to control for external factors during the year (not including the interventions), which will include Covid-19 and the *Gratuité* policy, but also for all sorts of other things that might have happened during those years. Time effects, however, do not make it possible to control for the fact that elements of the context can directly interact with the implementation of the ILET and TPD interventions.

There is also a risk that these contextual factors affected different schools and individuals (teachers and children) in a systematically distinct manner because of differences in endowments (broadly speaking), which would then bias our impact evaluation. We test this in robustness specifications, which include unit fixed effects as controls, which we do first at a village level, and then narrow to school level and down to individual level.⁵⁴ The results from these three models are similar and are also in line with the model that only controls for time and general demographic variables of the individuals studied. Including 'tighter' unit-level controls reveals no systematic differences, showing that the panel of schools is balanced, and that the effects identified are not driven by differences that are constant across time (either in individuals, villages or schools).⁵⁵

The results are shown separately for teachers (section 7.2) and students (section 7.3 and 7.4). For teachers, the large number of variables are used to create indices that are similar to those we used in the Midline Report.⁵⁶ Later,

⁵⁴ Unless the model includes unit fixed effects, it controls for gender, age and household size.

⁵⁵ To assess how sensitive the results are to the environments in which the programme took place, we also estimate a specification of the model that includes the time-varying variables of teacher salary and students per school, with the intention of accounting for two of the main changes resulting directly from the *Gratuité* policy. This is a less strong set of controls than those of the baseline specification, which includes year fixed effects. In equation (1), the controls for the model are represented by $X_{i,t}$. The results show that the estimations of this model are even stronger than those we present as the main results, which shows that controlling for these two variables alone is not sufficient to account for all the changes occurring over this period.

⁵⁶ Indices are normalised around the mean and standardised – a unit in the index is equivalent to one standard deviation away from the mean. See Midline Report for references and a detailed exposition.

each of these indices is unpacked to examine the anatomy of the effects of the intervention on each of the indices. Then, the results for students are presented. Since many of the outcomes observed for children are test scores, these effects are not grouped into indices but presented separately.

7.1.4 Limitations

A few elements are worth bearing in mind and invite caution when examining some of our findings:

1. The delayed treatment effects seek to tell the story of the causal dynamics of the intervention. One necessary condition to obtain unbiased estimates of this effect is to expect the same treatment effects across cohorts. There are limitations regarding what the design allows us to do (see above). Perhaps one main concern is that the timing of the intervention package received by Cohort 2 differs from Cohort 3's (see section 6), particularly in the DRC.
2. The adjustments made to reflect the 'level of intervention' partly reflect differential exposure to the treatment between schools. It uses the only meaningful metric that we have available: funding per student. This measure is, however, imperfect for two main reasons. First, we do not have theoretical or empirical insights suggesting a linear relationship between additional resources and 'level of implementation' (the level of implementation may as well be seen as a matter of thresholds or diminishing returns). Alternative models could be tested, but they would also have limitations and choosing one over the other would remain a judgement call. Second, our measure of the 'level of intervention' does not reflect the TPD component. It is possible to create a metric for the TPD level of implementation, but given that the TPD components are qualitatively different, these do not easily add up to convey meaningful information (e.g. missing the conflict-sensitive education module is obviously not the same as missing the introduction to reading and writing module).
3. When the indices are constructed, we use the entire variation in the variables provided by the Likert scale. On the other hand, when we estimate the components of the indices separately, the approach reduces them to binary variables, which brings a more natural interpretation to the results, at the cost of losing some information from the Likert scale. Using Likert indicators instead of binary variables slightly improves the positivity of some of the results, but it does not change them fundamentally: signs are unaffected and statistical significance is relatively close.

7.1.5 Final notes on the interpretation of results

In the analysis that follows, we use three main sources of data to provide an interpretation of the results.

1. **Baseline and delayed treatment effects.** As noted in section 7.1.3, the two main coefficients to interpret are the baseline and the delayed treatment effect, which capture the combined effect of the TPD and ILET interventions on the outcomes of interest over time. The delayed treatment effect takes advantage of our third data collection point at endline and provides useful additional information, for two reasons. First, severe delays in the implementation of the programme (due in particular to school closures) meant that some TPD modules were not carried out before the midline data collection in the Cohort 2 schools, which means that the baseline treatment effect does not capture their effects. Second, the delayed treatment effect provides information on the temporal dynamics of the interventions' effects. While it needs to be interpreted with caution, given the limitations highlighted, it provides information on a potential reinforcement effect of the interventions.
2. **Descriptive statistics of the outcomes of interest and 'logframe' indicators.** In addition to the estimation coefficients, we use descriptive statistics of the outcome indices and their constitutive variables (see Annexe 3) to refine the interpretation. These are useful for several reasons. For example, if the baseline values of an outcome are high on average, they might already have reached a high threshold, which the interventions might not be able to significantly alter. We therefore incorporate an interpretation of these baseline values to situate and nuance the results of the evaluation that we present.
3. **Qualitative data.** The third source of data that we use to interpret our results are the qualitative interviews carried out in the DRC and Niger. While these do not always match the results of the evaluation, they provide important insights into some of the key results.

7.2 Impact of the TPD and ILET interventions on teachers

Key findings

- The interventions affected teaching quality differently between countries. In Niger, the indices on teacher interactions, lesson delivery and literacy activities are all positively affected. These effects appear to be reinforced over time. They are mostly driven by women teachers. In the DRC, the only visible effect is on physical punishment. Different baseline levels may

explain the difference between countries. The delay in implementing some of the TPD modules may explain the lack of effects on related teaching quality indices.

- The interventions improved overall teacher wellbeing in Niger but not in the DRC, mostly through a perceived improvement of the teaching environment and built environment, and job security. (Improved job security also holds in the DRC, but it is the only variable affected.)

We start by presenting our evaluation of the effects of the TPD and ILET interventions on teachers. We present the findings for the DRC and Niger side by side rather than in aggregate. This is to account for the significant differences between the two countries (see earlier sections) and because the baseline effects and the delayed treatment effects encompass a slightly different bundle of ILET and TPD modules in each case, as sections 6 and 7.1.1 explain.

We start by presenting our evaluation of the overall effects of the TPD and ILET interventions on teachers in the BRiCE schools of Niger and the DRC. For teachers, the central outcomes we evaluate are teaching quality and teacher wellbeing. As discussed in section 4.2, teaching quality is assessed through seven indices: attitudes towards physical punishment; unbiased gender attitudes; conflict-sensitive education; teachers' interactions with other teachers; lesson delivery; feedback to students; and the use of recommended literacy practices in the classroom.

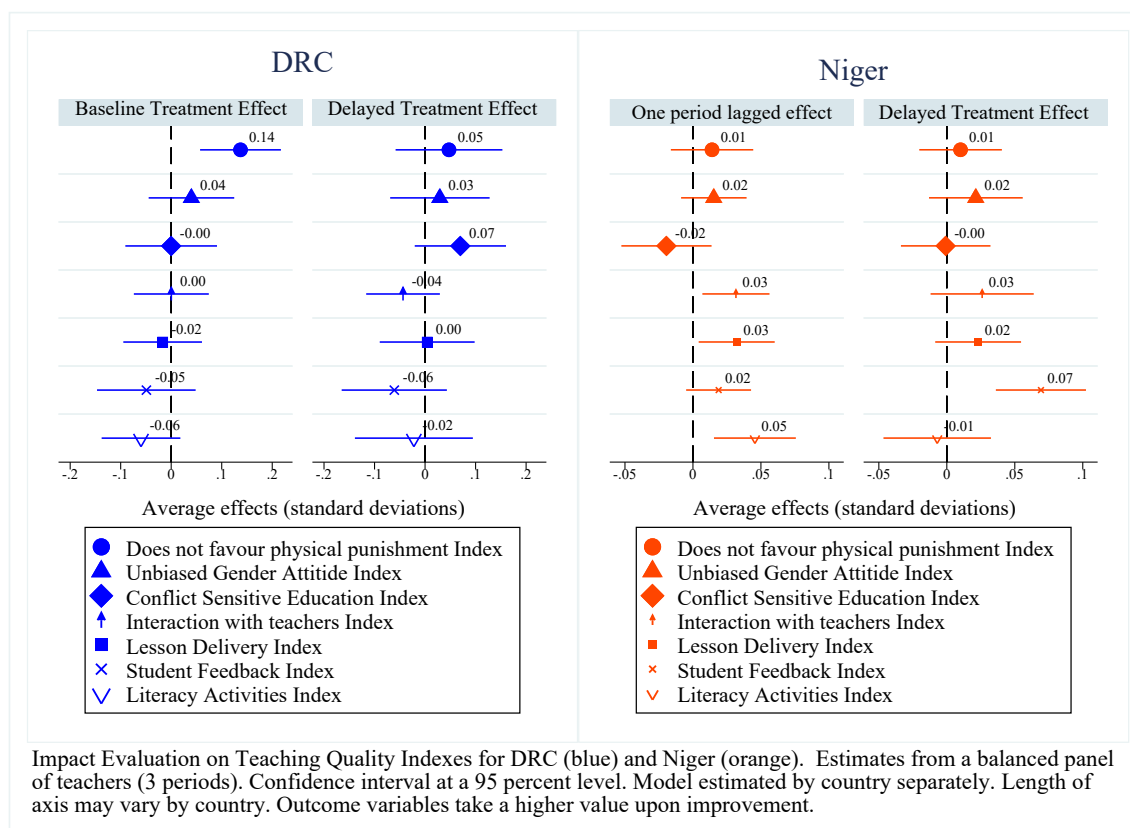
Teacher wellbeing, however, is assessed through three core indices of teacher professional wellbeing: job satisfaction, teacher professional motivation, and teachers' perception of how manageable their work is. A measure for PTSD is added to these components of teachers' professional wellbeing, using the PTSD checklist.

As we present the results, we also provide an interpretation of gender-specific estimates when there are significant gender differences. As will be shown, overall teacher effects are often driven by one of the genders. On other occasions, we find that effects that are statistically significant when both genders are included are no longer significant when we separate the sample by gender, which is indicative of how increasing the sample size improves the precision of the estimates. The results are, logically, largely consistent with those from the Midline Report. The descriptive statistics for our outcome variables on teaching quality and teacher wellbeing can be found in Annexe 3.

7.2.1 Teaching quality

Figure 7.2 presents the overall effect on the components that form the teaching quality outcome by country.

Figure 7.2 Evaluation of indices on teaching quality in the DRC and Niger



Source: Authors' own, based on the data.

Note: Higher index values indicate better outcomes: less support for physically punishing students; higher interaction with other teachers; neutral views on gender roles; higher engagement with conflict-sensitive education teaching practices; higher use of recommended techniques for lesson delivery; higher feedback to students and reinforcement of the teacher-student relationship; and higher use of quality literacy methods in teaching.

The only positive and statistically significant effect of the interventions on teaching quality in the DRC is on attitudes toward physical punishment. In contrast, in Niger attitudes towards the physical punishment component, while positive, are not statistically significant. We will return to the question of physical punishment later in this section and will look at the indicators that make up this index to better understand the dynamics at play.

In Niger, three indices are positive and statistically significant when looking at the baseline treatment effect: the interaction with teachers index, the lesson delivery index and the literacy activities index. When looking at the delayed treatment effect, the student feedback index is also positive and statistically significant, suggesting there might be time-reinforcing effects.

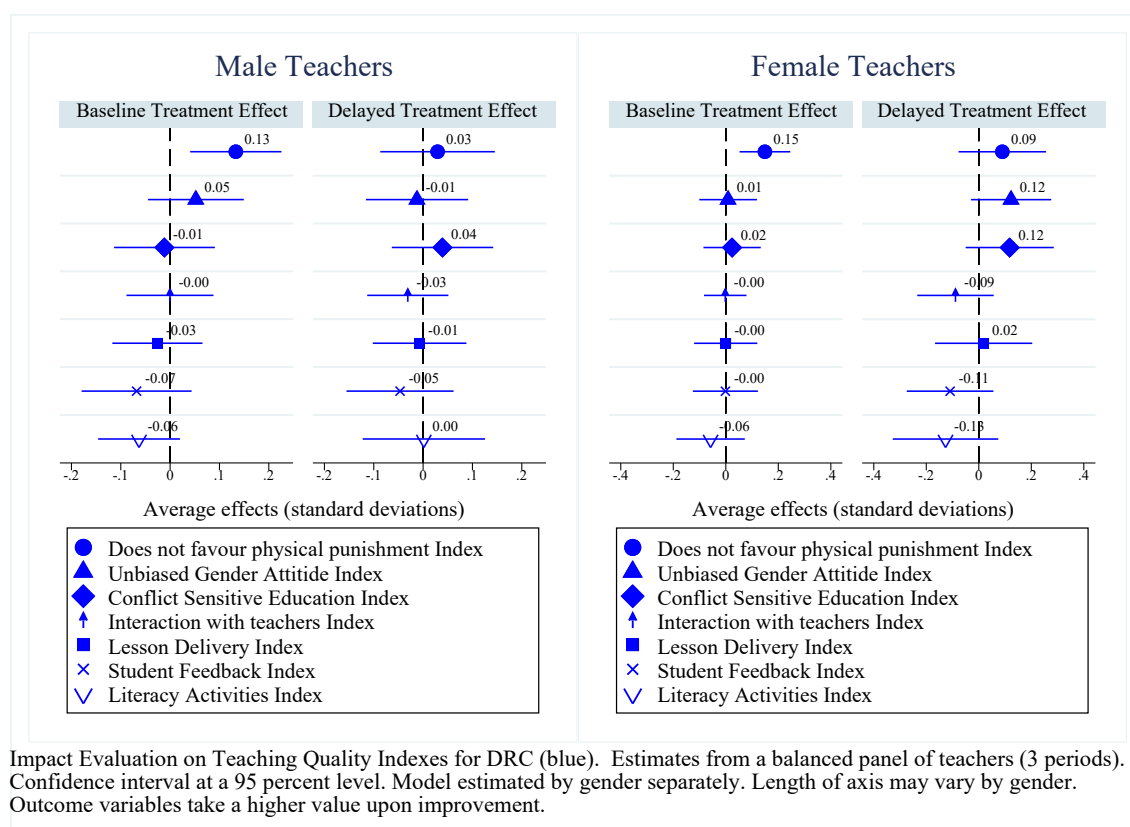
The general positive effects on teaching quality in Niger all seem to relate closely to the TPD approach and TPD modules. The positive effect on interaction between teachers is very likely to be a direct effect of the TPD approach; indeed, as explained in section 6, the TPD approach is based on the idea of peer learning and peer support, principles which were put in practice through the peer-learning circles and constant encouragement for teachers to build on each other's work and support. The lesson delivery and literacy activities indices correspond to teacher competencies and teaching practices that are directly targeted by three of the TPD modules on reading and writing, fluency of understanding and vocabulary. The positive effects detected in Niger on these teaching quality outcomes can therefore be considered to be direct effects of these modules.

Among the three modules that were delivered in part or fully after the midline, as expected, conflict-sensitive education takes a higher – but still non-significant – value in the delayed treatment effect estimates for both countries.

Gender dynamics

Figures 7.3 and 7.4 allow us to ascertain whether gender might produce differentiated effects of the interventions. Overall, gender differences are not pronounced for the majority of the indices comprising teaching quality. For the DRC, the positive effect on the attitude towards physical punishment index holds for both male and female teachers, with a slightly stronger and more statistically significant effect on female teachers. On all other indices in the DRC, the effects are not statistically significant for either male or female teachers.

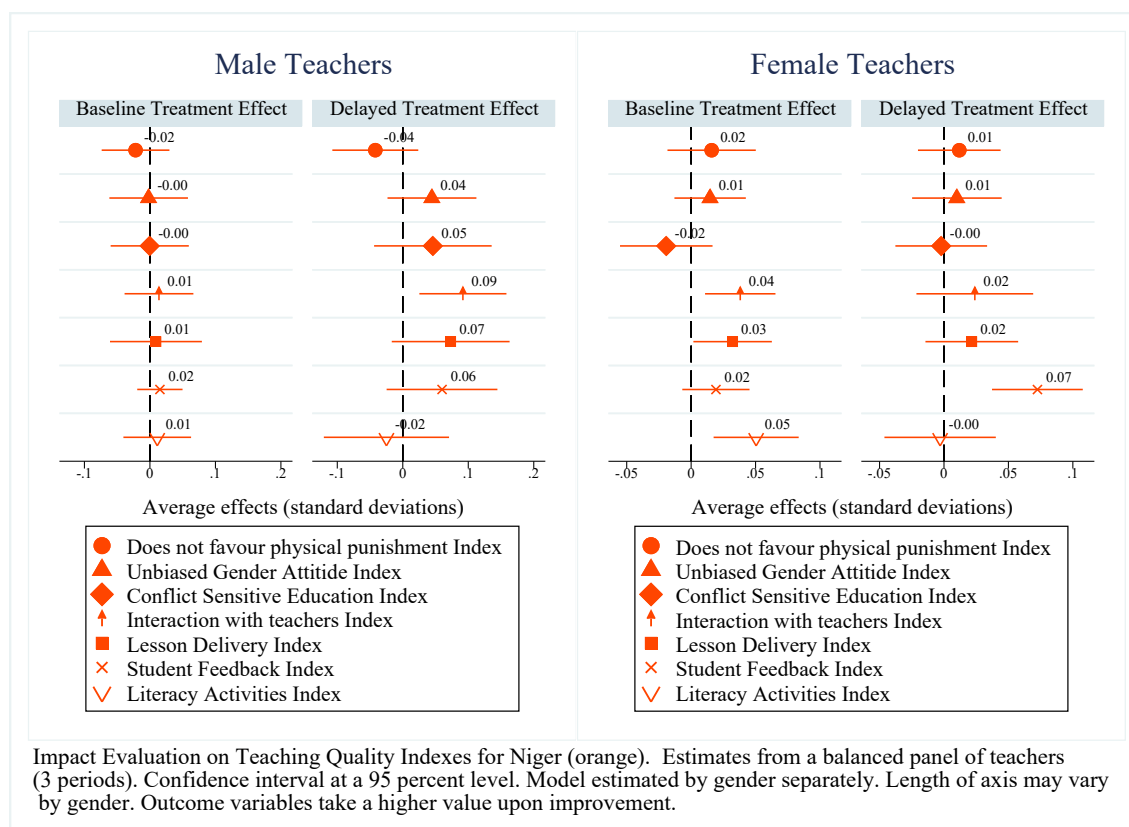
Figure 7.3 Intervention effects on teaching quality by gender in the DRC



Source: Authors' own, based on the data.

In Niger, however, the results show some gender differences. Indeed, for the interaction with teachers, lesson delivery and literacy activities indices, the positive and statistically significant overall effects are driven by female teachers, for whom the effects are positive and statistically significant, while they are not statistically significant for male teachers (except for the interaction with teachers index, where a delayed treatment effect is found for male teachers). The positive overall delayed treatment effect for the student feedback index is also driven by female teachers, for whom it is positive and statistically significant, whereas for male teachers it is positive but not statistically significant.

Figure 7.4 Intervention effects on teaching quality by gender in Niger



Source: Authors' own, based on the data.

Together, these results provide evidence that, despite the particularly difficult environments in which they were implemented, and the severe disruptions that have occurred over the period of the project, the interventions had positive effects on teaching quality in Niger and the DRC. These effects are stronger and more significant in Niger than they are in the DRC.

A clear explanation for this country difference, in addition to differences in context, is that, as explained throughout this report, the DRC experienced significantly more disruptions over the project period than Niger – notably as a result of the longer school closures and the implementation of the *Gratuité* policy. We conducted an additional analysis to evaluate the impact of these disruptions and we find a clear and statistically significant negative effect on the DRC outcomes (see Figure A4.18 in Annexe 4). We used an extension of the main model, including both the Niger and DRC data, with a *Gratuité* treatment variable. The analysis, whose main results are presented in Annexe 4, provides estimates of negative effects of the policy, which are statistically significant, on four of the seven teaching quality indices (lesson delivery, interaction with

teachers, student feedback and unbiased gender attitudes).⁵⁷ Thus, it is likely that the potential positive effects in the DRC have been 'countered' by these negative opposing effects, and that the interventions would have been more successful had there been fewer disruptions.

Another notable result that stems from this first set of results is that, in Niger, the positive effects on teaching quality seem to be driven by female teachers. This gender difference in results suggests that female teachers – despite the difficulties that they face in Niger as a result of their more precarious employment conditions (see section 5.3 of the Midline Report) – who constitute the majority of the teaching workforce, seem to be more 'reactive' to the interventions.

Unpacking teaching quality

To deepen our analysis of the effects of the interventions on teaching quality, we break down the teaching quality indices that are noteworthy: namely attitude towards physical punishment, student feedback, unbiased gender attitude and literacy activities. Disaggregation of the other teaching quality indices can be found in Annexe 4.

– **Teachers' attitude towards physical punishment**

Adopting a positive attitude towards students constitutes one of the core tenets of Save the Children's approach to teaching, as discussed previously in relation to the QLF. Positive discipline includes, at its core, a rejection of all forms of corporal and physical punishment of students. Such practices, however, persist in domestic and educational spheres in numerous countries.

The baseline values regarding attitudes toward physical punishment, however, show that in both Niger and the DRC, the large majority of teachers in the BRiCE schools declare themselves to be against physical punishment. Close to 80 per cent of teachers in the DRC and 77 per cent of teachers in Niger agree that physical punishment is not appropriate for children who did not complete their homework; and 82 per cent in the DRC and 92 per cent in Niger state that more extreme forms of physical punishment (using a cane or other object to hit students) is not appropriate.

⁵⁷ This estimation requires that the parallel trends condition holds between countries for it to provide accurate estimates of the effects of the *Gratuité* policy. While randomisation strengthens the validity of this assumption, there is no way of testing whether schools and teachers in these two countries indeed follow mirroring trends. Taking a cautious approach, this is the main reason why the estimation of the main effects of the intervention are done to each country separately (rather than with pooled country data).

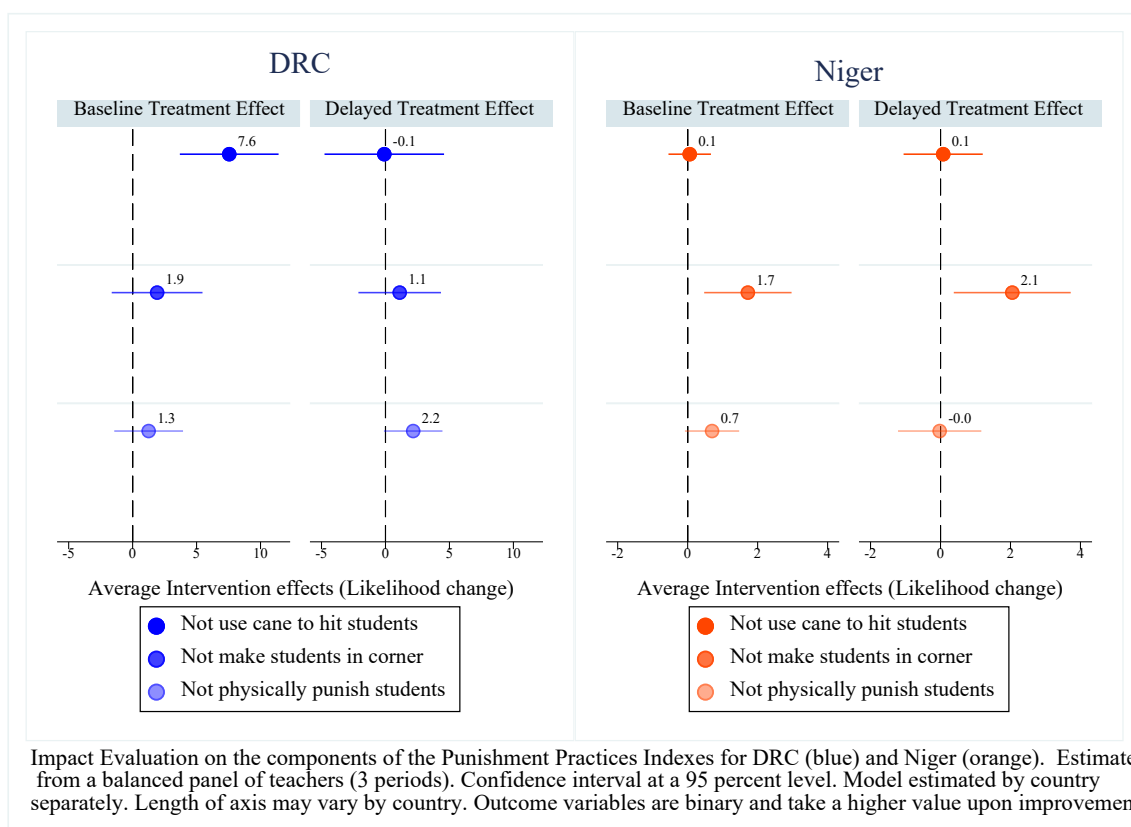
The baseline effect on attitudes towards physical punishment provides strong evidence that the interventions led to changes in teachers' self-reported attitudes towards the physical punishment of students in the DRC, and to a lesser extent in Niger. A possible explanation for this difference is that the situation in Niger was already better to begin with and the few remaining 'hardcore' teachers will not easily change their minds. The statistics mentioned above, which are self-reported and need to be treated carefully, suggest that physical punishment concerns a larger minority of teachers in the DRC than in Niger.

Focusing on the DRC, the core question is: what exactly was it that was effective in the TPD and ILET interventions? The main element that suggests itself is the TPD code of conduct module, referred to as the 'positive discipline' module in the Midline Report. It contains pedagogic material directly related to physical punishment, explaining its negative consequences on students. However, the main impact on the index in the DRC occurred before the midline and the code of conduct module was only implemented a month after the midline data collection, in November–December 2020; in Niger, the code of conduct module was being implemented during the midline.

The most likely explanation is that the general approach of the BRiCE project is driving the effect, as the ILET and TPD interventions, as well as Save the Children's safeguarding policies, all contain references to the harmful effects of physical punishment on students. All in all, these results, with an overall null 'delayed treatment effect', suggest that the code of conduct module may not be very impactful and that its effects manifest relatively soon after the intervention (when they do), following a 'level effect' path, as portrayed in Figure 7.1.

If we break down the punishment index in Figure 7.5, we can see that one indicator is clearly driving the effect in the DRC: whether the use of a cane or stick to punish students is considered to be acceptable or not. It is the most extreme of the three propositions, with the other two not affected in a substantial way by the interventions. In Niger, we also find a positive effect of the interventions, but on what is possibly the least extreme of the three propositions: teachers were 1.7 per cent more likely to disapprove the practice of sending students to the corner of the classroom soon after the interventions were implemented (compared with schools that had not received the interventions). A year after the interventions were implemented, the cohort of teachers were a further 2.1 per cent more likely to disapprove this practice, relative to teachers who had received the first part of the interventions shortly before the survey.

Figure 7.5 Intervention effects on attitudes towards physical punishment



Source: Authors' own, based on the data.

Overall, the positive estimates indicate that the intervention is generally working towards eliminating attitudes in favour of physical punishment in these schools. Given that the large majority of BRICE teachers already reported being opposed to the physical punishment of students at the baseline data collection, it is likely that the interventions nudged a significant number of the remaining 'reluctant' teachers in the same direction. Similarly, it is important to bear in mind that the index covers self-reported perceptions of what a teacher should or should not be doing – it is not a measure of actual punishment practices.

– Student feedback and positive discipline

Beyond opposing the physical punishment of students, the positive discipline approach encourages teaching practices that are supportive, participatory, inclusive and positive towards students. These principles are cross-cutting in the TPD and ILET approaches and are not embodied in one module in particular. At a general level, we did not find substantial evidence that feedback to students had improved: the index barely changed in the DRC, and in Niger we only find delayed treatment effects that suggest that changing the feedback and rewards system may take some time – which

would not be surprising, given that it may require tweaks in the curriculum. Looking at the breakdown of the student feedback index, the effect in Niger seems to be guided by a general improvement in the different indicators, with 'specific feedback' the only significantly affected indicator. It is important to note that this set of indicators are similar and self-reported.

– **Teachers' attitudes towards gender equality**

Gender is another cross-cutting theme of the BRiCE education programme. Encouraging the education of girls and building positive attitudes towards gender equality in education and beyond is the purpose of the girls' education TPD module, and is also part of the theory of change of the TPD and ILET interventions, as well as the QLF that underpins the BRiCE project (see section 6).

As can be seen in Figure 7.2, we did not detect a positive and statistically significant baseline effect of the interventions on the unbiased gender attitude index in either country. It is worth noting that, for both Niger and the DRC, the TPD module on girls' education was implemented between the midline and endline data collections (see implementation timeline in Annexe A.6), thereby limiting the potential channel for impact at the 'baseline effect' stage to the general cross-cutting gender-aware approach. The TPD module does not seem to make much of an impact, though: the delayed treatment effects are equally null. Figures 7.3 and 7.4 show that there are no overall gender differences in this result in both countries.

Considering the subcomponents of the index, the picture is very similar for Niger (see Figure A4.5 in Annexe 4). However, in the DRC, the delayed treatment effect is positive in a few cases, with teachers more likely to support these statements: 'Men do not have the final word at home' (6.6 per cent); 'Men are not more likely to be doctor' (3.8 per cent); and 'Fathers should cook and clean' (4.4 per cent). There is also a positive baseline treatment effect for 'Teaching is more suitable for women' (rather than men), which is somewhat surprising in the DRC where the majority of the teaching workforce are men. The effects in the DRC suggest that positive shifts in attitude might be ongoing, albeit slowly. It is worth bearing in mind that the TPD training was closer to the endline for teachers in the DRC than it was for those in Niger.

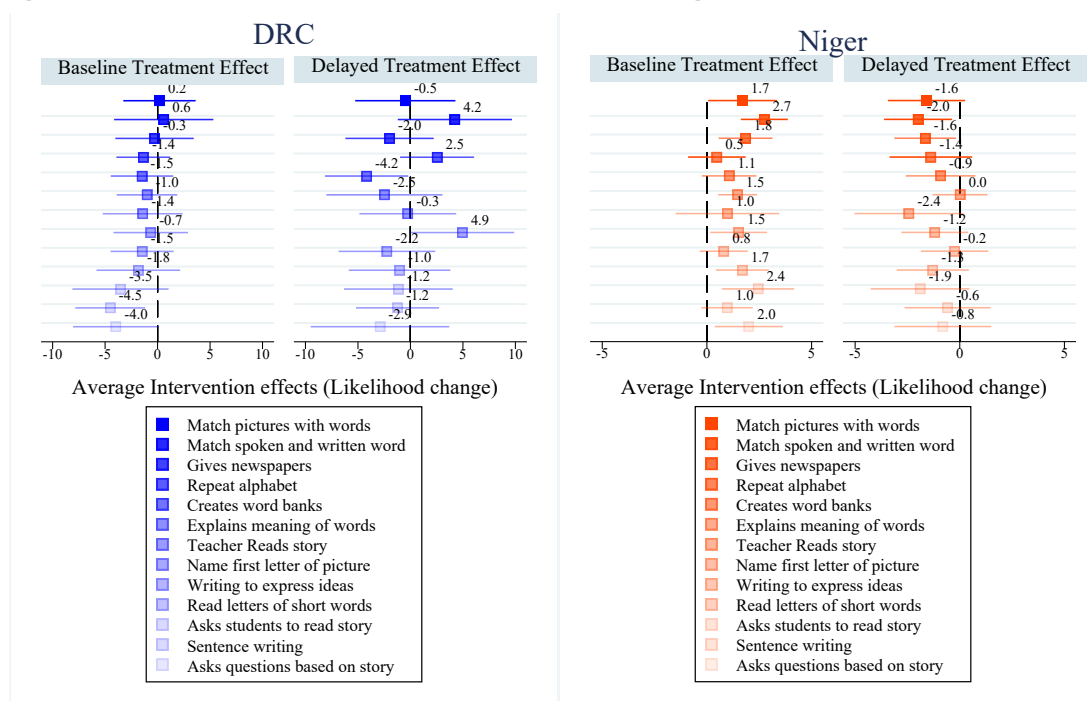
– **Literacy activities (practices)**

With regards to teachers' literacy activities, we find a positive and statistically significant effect of the interventions in Niger, but not in the DRC. This effect, which is shown first in Figure 7.2, is mostly driven by female teachers, as can be seen in Figure 7.4. As previously noted, this is a teacher competence that was directly targeted by three of the TPD

modules. Moreover, the implementation timeline shows us that, in both Niger and the DRC, the literacy-related activities were carried out between the baseline and the midline, which provides confidence that our estimates are indeed measuring the effects of these interventions.

To better understand this result, a further breakdown of the estimates is shown in Figure 7.6. As can be seen, 13 components of the index are studied separately and, as before, the estimates measure the expected likelihood points change in the use of each teaching practice. One takeaway from the results is that in Niger the effect is driven by a large number of practices (seven), showing that the intervention had a significant effect on general teaching practices.

Figure 7.6 Intervention effects on teaching practices



Impact Evaluation on the components of the Literacy Index for DRC (blue) and Niger (orange). Estimates from a balanced panel of teachers (3 periods). Confidence interval at a 95 percent level. Model estimated by country separately. Length of axis may vary by country. Outcome variables are binary and take a higher value upon higher practice.

Source: Authors' own, based on the data.

The results indicate that a series of positive and significant effects happen after the intervention, with evidence that some of the effects may decrease over time, and for two components the impact trajectory is decreasing, as in Scenario 3 in Figure 7.1. Contrary to Niger, the effects in the DRC are mostly statistically zero, with mixed effects on the two statistically significant subcomponents.

7.2.2 Teacher wellbeing

We now turn to the effect of the TPD and ILET interventions on teacher wellbeing. Enhancing teacher wellbeing, as with enhancing teaching quality, is one of the core objectives of the BRiCE project, and particularly the TPD intervention. Teacher wellbeing can be hard to conceptualise and operationalise, as discussed in section 4.1. For this evaluation, we measure it through three core indices of teachers' professional wellbeing: job satisfaction, teacher professional motivation, and teachers' perception of how manageable their work is. A measure for PTSD is added to these components of teachers' professional wellbeing, using the PTSD checklist (see section 4.1 for a description of this index). All these indicators are self-reported and self-assessed, which invites caution as the analysis rests on the key assumption that individuals will self-assess and self-report in a consistent manner over time.

As discussed in section 4.1, teacher wellbeing is influenced by a wide range of structural, proximate, contextual and personal factors, many of which are beyond the reach of educational interventions such as BRiCE. The effects of the TPD and ILET interventions on teacher wellbeing can therefore largely be considered as indirect effects, which have to do with changes to the teaching and school environment more than specific components of the interventions.

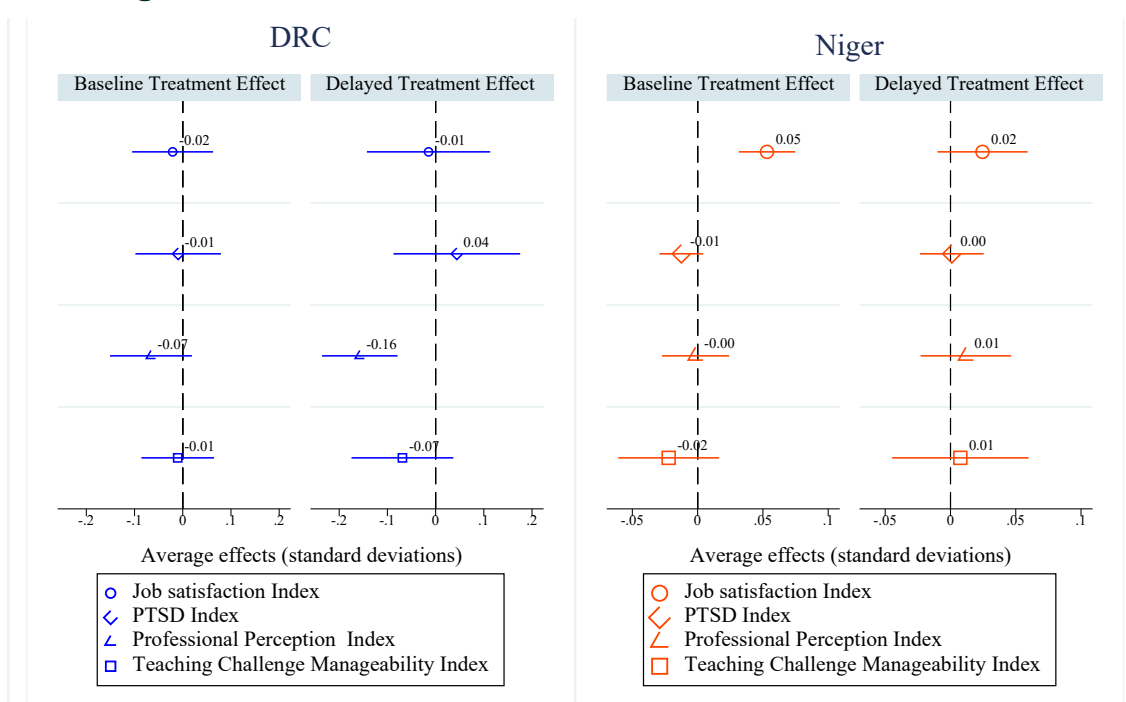
Figure 7.7 displays results for the four indices in the DRC and in Niger. Two significant results stand out in this figure. First, a negative delayed treatment effect in the professional perception index in the DRC. This index encompasses views about the teachers' desire to change school, their perception of their own influence over children and whether they have regrets about becoming a teacher. When studying the components that make up the index, we observe that this negative effect is mainly driven by teachers' perception of their influence over children. We do not currently have an explanation for this effect.

Indeed, while an overall decrease in this index over the period of the project can be explained by the increase in student numbers resulting from the *Gratuité* policy and discussed previously, this does not explain why this would be more the case in schools that had received the TPD and ILET interventions compared with schools that have not. A potential explanation, however, lies in an increased awareness of teaching challenges brought about by the project interventions. Another potential explanation is related to positive discipline. As teachers were encouraged to put an end to corporal punishment practices and move to positive discipline, they might have felt that their authority over students decreased as it takes time for new practices to bear results.

The other significant index result is a positive and statistically significant baseline treatment effect of the intervention on the job satisfaction index in Niger. This index aggregates information on seven aspects of teachers'

professional lives, including whether teachers are satisfied with the level of job security they have, the infrastructure of the school, their salary, working hours, the degree of cooperation with the parents, and the school's learning materials. In Figures 7.8 and 7.9 we break down the sample and obtain a separate set of results for female and male teachers. This shows relative consistency within both countries, particularly for the DRC; while for Niger it also shows that the effect captured in the job satisfaction index is driven by female teachers.

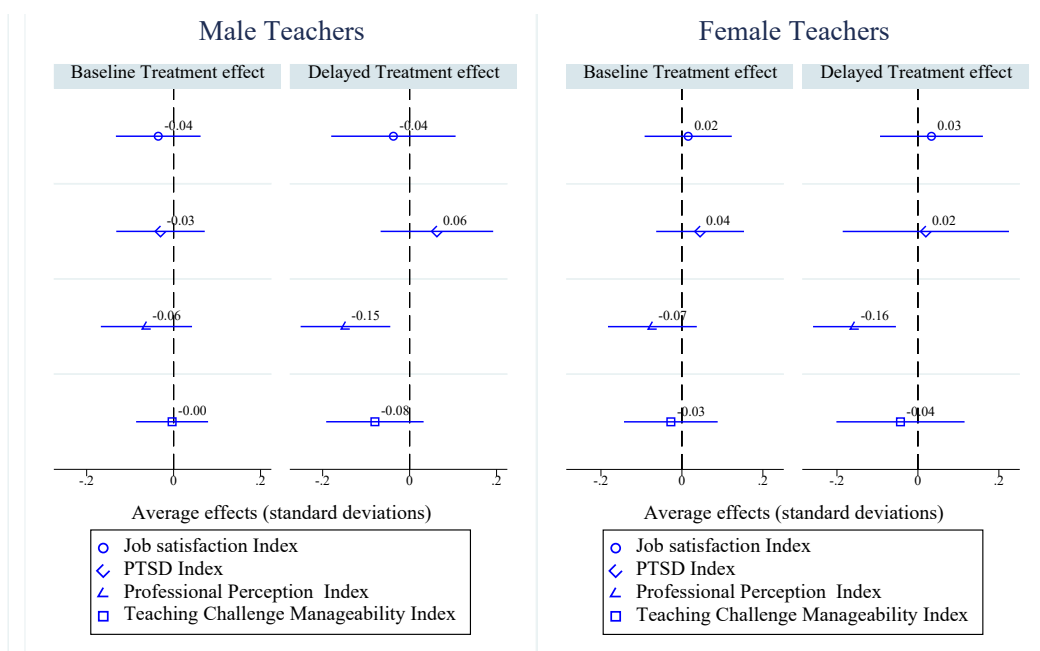
Figure 7.7 Impact evaluation on teacher wellbeing in the DRC and Niger



Impact Evaluation on Teaching Wellbeing Indexes for DRC (blue) and Niger (orange). Estimates from a balanced panel of teachers (3 periods). Confidence interval at a 95 percent level. Model estimated by country separately. Length of axis may vary by country. Outcome variables take a higher value upon improvement.

Source: Authors' own, based on the data.

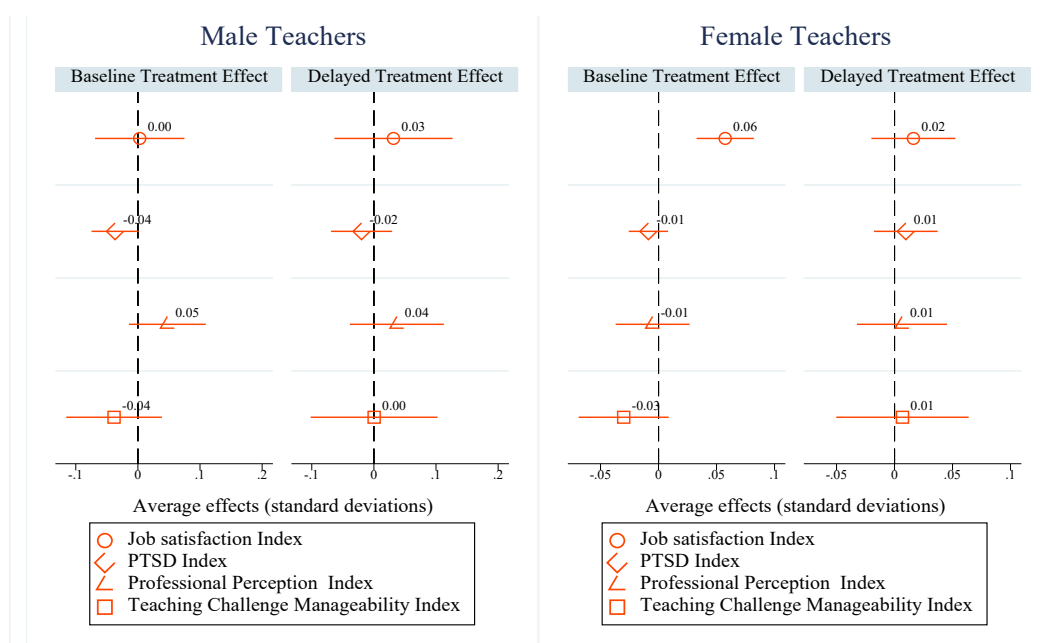
Figure 7.8 Impact evaluation on teacher wellbeing in the DRC by gender



Impact Evaluation on Wellbeing Indexes for DRC (blue). Estimates from a balanced panel of teachers (3 periods). Confidence interval at a 95percent level. Model estimated by gender separately. Length of axis may vary by gender. "Outcome variables take a higher value upon improvement."

Source: Authors' own, based on the data.

Figure 7.9 Impact evaluation on teacher wellbeing in Niger by gender



Impact Evaluation on Wellbeing Indexes for Niger (orange). Estimates from a balanced panel of teachers (3 periods). Confidence interval at a 95percent level. Model estimated by gender separately. Length of axis may vary by gender. "Outcome variables take a higher value upon improvement."

Source: Authors' own, based on the data.

– Job satisfaction disaggregated

The significant baseline treatment effect of the intervention on the job satisfaction index in Niger warrants more investigation and we do this in Figure 7.10 by looking at how the different components were affected by the intervention. All components take a positive value in Niger (the situation in the DRC is a lot more mixed). Two components, in particular, seem to be driving the results: job security and school infrastructure (satisfaction with the built environment).

The effect on job security holds in both Niger and the DRC, with teachers 2.1 per cent more likely to be satisfied with their level of job security in Niger and 4.6 per cent more likely in the DRC compared to the control group. In Niger, though not in the DRC, this effect keeps building over time (although not statistically significantly so), as seen from the delayed treatment effect for these variables. It is hard to pinpoint exactly what could have driven this effect in the TPD or ILET components. Based on the rest of the data (including the qualitative data), we see two main, non-mutually exclusive, possible channels.

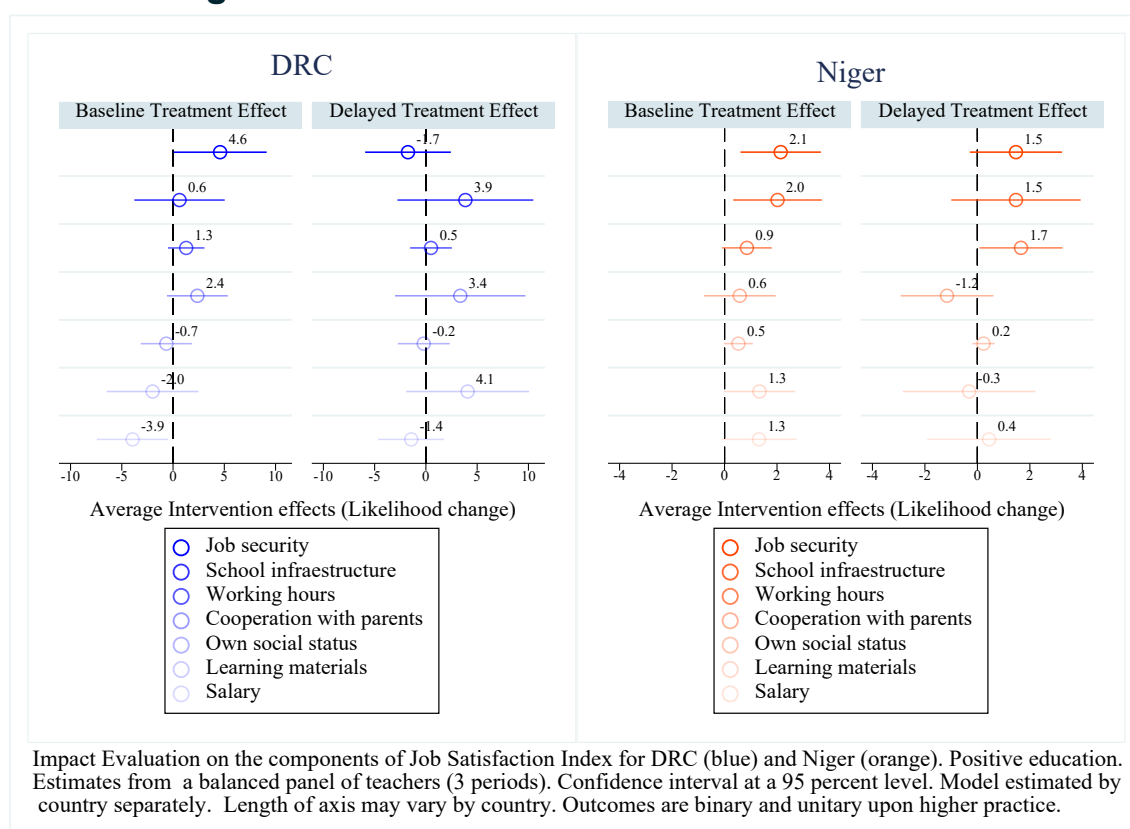
One possibility is that the intervention meant that the teachers felt supported by an external party and therefore were more confident about their medium-run job security: they would at least keep that job until the end of the BRiCE project. A second possibility is that TPD modules promoted better teaching practices, making teachers more capable of improving children's literacy (as we saw in Figure 7.6), interacting in a better way with children and so on. Therefore, teachers probably perceived that simply participating in the TPD modules was an indication that they were valued as teachers, thereby affecting their perceptions of job security.

The effect on infrastructure is mostly visible in Niger. The effect could be explained by the ILET intervention, for many ILET investments were allocated towards improvements in school infrastructure. Equally, an argument can be made for learning materials, which were also positively affected by the intervention in Niger. A possible explanation for the diverging results between Niger and the DRC is the difference in the baseline survey, with the Congolese situation slightly better at baseline.⁵⁸

⁵⁸ Comparing schools in the DRC to schools in Niger in the baseline survey, we find that BRiCE schools in the DRC on average had (1) a higher number of classrooms in use (significant difference), and (2) a higher school infrastructure index score (significant difference). This index combines school-level information on access to toilets, electricity, access to soap, access to drinking water, access to a sports area, and number of classrooms in use. However, schools in Niger were more likely to have access to clean drinking water than in the DRC (significant difference).

It is interesting to see that the interventions were also associated with a decline in teachers' satisfaction regarding salary in the DRC. As indicated above, teachers most likely became aware of improvements in their teaching practices. Some teachers may therefore have expected greater compensation for this higher quality of teaching, particularly given that the *Gratuité* policy was implemented simultaneously in the period between the baseline and midline periods, bringing in larger groups of students, which could also be reinforcing this effect.

Figure 7.10 Impact evaluation on job satisfaction index in the DRC and Niger



Source: Authors' own, based on the data.

7.3 Impact of the TPD and ILET interventions on student learning

Key findings

- We could not detect any TPD and ILET effects on students' cognitive learning in the DRC. We find positive effects on boys' literacy and girls' numeracy in Niger. These limited effects on student learning, particularly in the DRC, are not surprising given (a) the schools' closure during the intervention, and (b) the long and indirect possible channel linking the TPD and ILET interventions and cognitive learning.
- The same explanation probably applies to the overall lack of effects of the interventions on socioemotional learning. Here we find some slight effects on boys in the DRC only.

We now turn to the evaluation of the TPD and ILET interventions on students. First, we assess whether effects can be detected on students' cognitive learning – in relation both to literacy and numeracy and to mathematical skills – using the EGRA and EGMA tests. We then look at two elements of students' socioemotional learning: their perseverance and empathy towards other students. We study the intervention's impact on children through 39 indicators that cover different aspects of learning, socioemotional skills and perceptions of the learning environment. Each of these indicators is studied separately by country, and within country by gender when relevant.

As we analyse children's outcomes, we relate them to the teachers' outcomes studied in the previous section. Although the TPD intervention was aimed at teachers, the desired improvements in the pedagogic practices and wellbeing of teachers are expected to affect children, as reflected in the intervention's theory of change. The ILET intervention aimed to enhance children's learning environment, and the ILET activities and resources were expected to affect learning, security and the related built environment (e.g. through building a new classroom, rehabilitating old classrooms, purchasing books, building latrines and building a fence around the school).

The results presented below follow the same regression model as in section 7.1.3. One very important difference between the analysis of the Endline Report and that of the Midline Report is that for this endline analysis we are following a panel of students, longitudinally. Thus, we are analysing the effects of the interventions on the same students over time as has been done for the teachers. This was not the approach followed for the Midline Report, where we used a replacement strategy. Both approaches have advantages and limitations: the Midline Report's approach allows us to achieve higher statistical power as a result of having a larger sample; whereas the approach we follow in

the present Endline Report allows for greater precision in the assessment of the effects on students.

Results are disaggregated by gender and are presented in Annexe 4 (starting at Figure A4.19). We highlight notable differences in effects by gender when relevant. Results are not disaggregated by disability status due to the insufficient number of students with disabilities in both countries in the panel of students (41 students in the DRC and 13 in Niger). The descriptive statistics for our outcome variables on teaching quality and teacher wellbeing can be found in Annexe 3.

7.3.1 Cognitive learning: literacy and numeracy

As previously noted, neither the TPD nor the ILET intervention was expected to have 'direct' effects on students' cognitive and non-cognitive learning. TPD, which focuses on teachers, is purported to have an indirect effect on students' learning, by enhancing teaching quality. ILET, which focuses on the school environment and community as a whole, is purported to have an effect on students' learning environment, and through that an indirect effect on their cognitive and non-cognitive learning.

To measure students' cognitive learning, at baseline, midline and endline we administered the EGRA and EGMA, which are widely used in education research and policy. The detailed instruments can be found in Annexes 1a and 1b; a detailed explanation was provided in sections 5.3 and 5.4 of the Baseline Report. The following subtasks were implemented:

Literacy

- EGRA subtask 1: Letter sound identification (50 letters timed);
- EGRA subtask 2: Familiar word reading (50 words timed);
- EGRA subtask 3: Invented word reading (50 words timed);
- EGRA subtask 4: Oral passage reading (60 words timed);
- EGRA subtask 5: Reading comprehension (5 questions).

Numeracy

- EGMA subtask 1: Number identification (25 numbers timed);
- EGMA subtask 2: Quantity discrimination (5 tasks timed);
- EGMA subtask 3: Missing number (5 tasks timed);
- EGMA subtask 4: Addition (levels 1 and 2 – 10 tasks timed);
- EGMA subtask 5: Subtraction (levels 1 and 2 – 10 tasks timed).

For each EGRA and EGMA subtask, we estimated the share of correct answers for each student, so that the coefficients measure the improvement in the percentage of items answered correctly in each of the subtasks that can be attributed to the joint effect of the ILET and TPD interventions. Additionally, for comparability with the logframe, we calculate if the student meets minimum reading proficiency levels.

Proficiency thresholds were set using the national education competency frameworks in the DRC and Niger for grade 4 students. Since the students in our sample would have completed a year in grade 4 before the midline survey, it is an appropriate benchmark to measure their literacy outcomes.

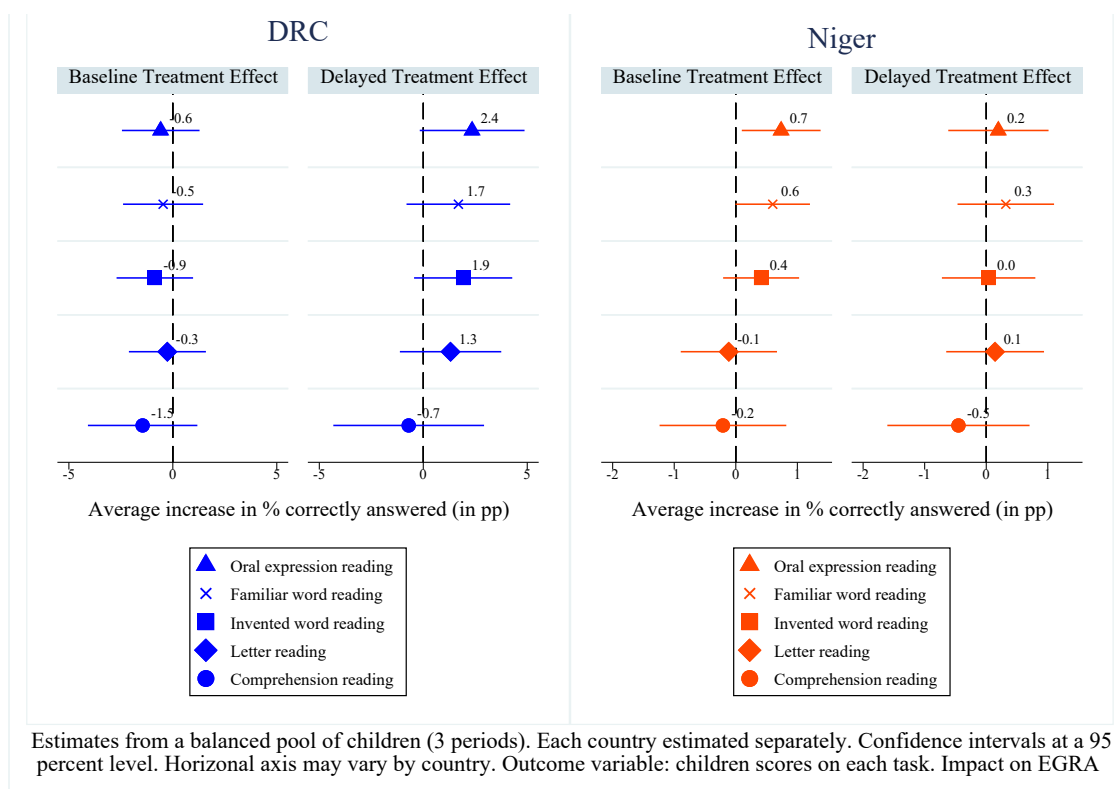
Reading proficiency levels

- Level 1: answering at least 50 per cent (or at least 30 words) of the oral expression reading correctly in the DRC and answering at least 60 per cent (or at least 36 words) of the oral expression reading correctly in Niger;
- Level 2: answering at least three out of five questions correctly in the reading comprehension subtask in the DRC and Niger;
- Level 3 (used in the logframe): 'passing' the proficiency levels for both Levels 1 and 2.

Results

As can be seen in Figure 7.11, we find no evidence of either a statistically significant baseline treatment effect or a delayed treatment on EGRA scores in the DRC, but two positive effects in Niger. In the DRC, for all EGRA subtasks, the baseline treatment effects are slightly negative, but not statistically significant; the delayed treatment effects are slightly positive, but still not statistically significant.

Figure 7.11 Impact evaluation on EGRA in the DRC and Niger

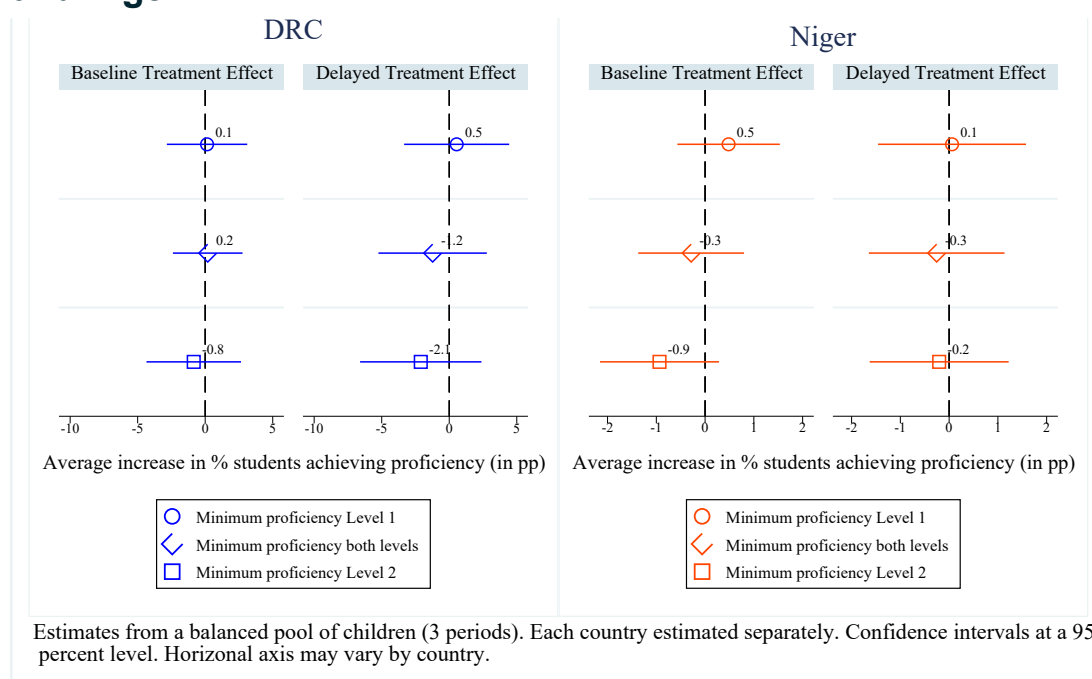


Source: Authors' own, based on the data.

Note: pp: percentage points.

For Niger, the subtasks 'oral expression reading' and 'familiar word reading' are both positive and statistically significant for the baseline treatment effect, although the effects are small (less than a 1 per cent change), and not statistically significant for all other subtasks. As can be seen in Figure 7.12, we do not find any statistically significant effects of the combined interventions on students' reading proficiency levels in either Niger or the DRC. Finally, turning to the EGMA in Figure 7.15, we find statistically significant effects of the interventions on two subtasks in Niger and no effect in the DRC.

Figure 7.12 Impact evaluation on reading proficiency in the DRC and Niger

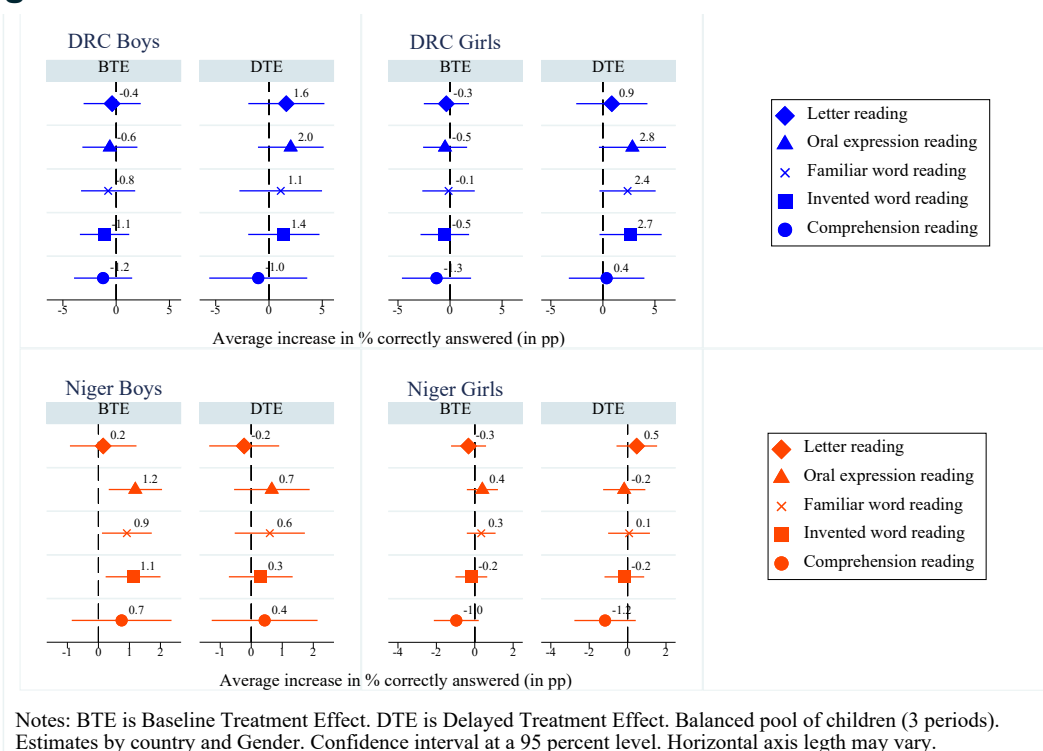


Source: Authors' own, based on the data.

Note: pp: percentage points.

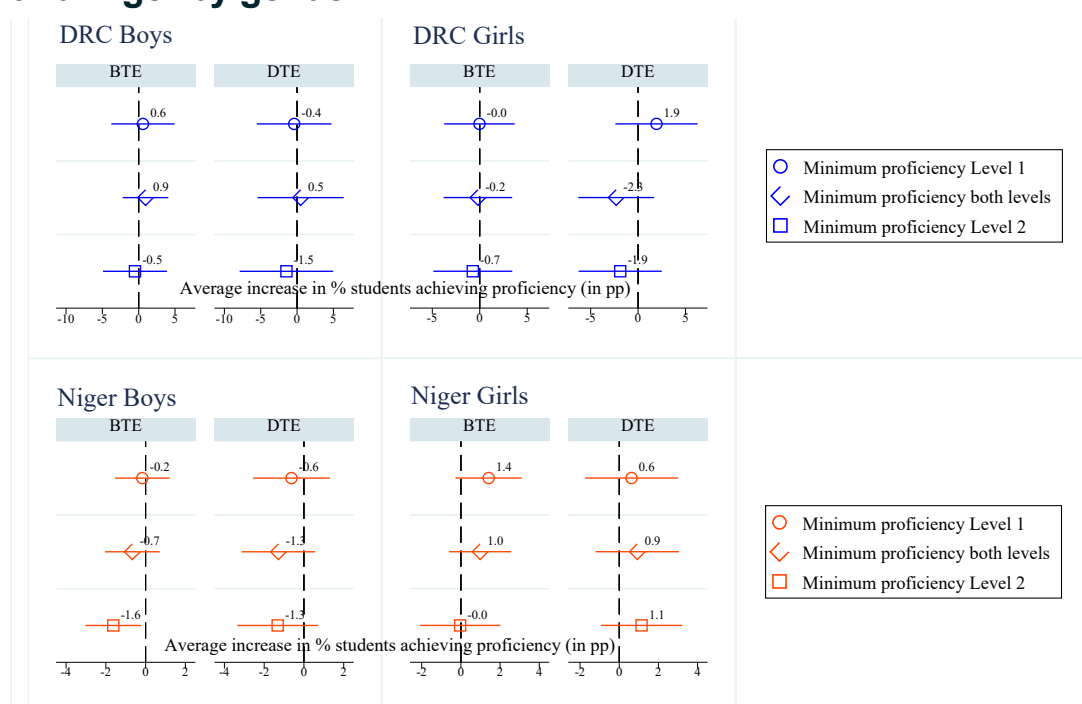
An examination of EGRA by gender is presented in Figure 7.13. From this, we see that the estimates for Niger are driven by male children, with three of five elements showing significant baseline treatment effects.

Figure 7.13 Impact evaluation on EGRA in the DRC and Niger by gender



The estimates for the DRC corroborate the null effects estimates for the overall sample of children, as do the estimates on reading proficiency for both the DRC and Niger (Figure 7.14).

Figure 7.14 Impact evaluation on reading proficiency in the DRC and Niger by gender



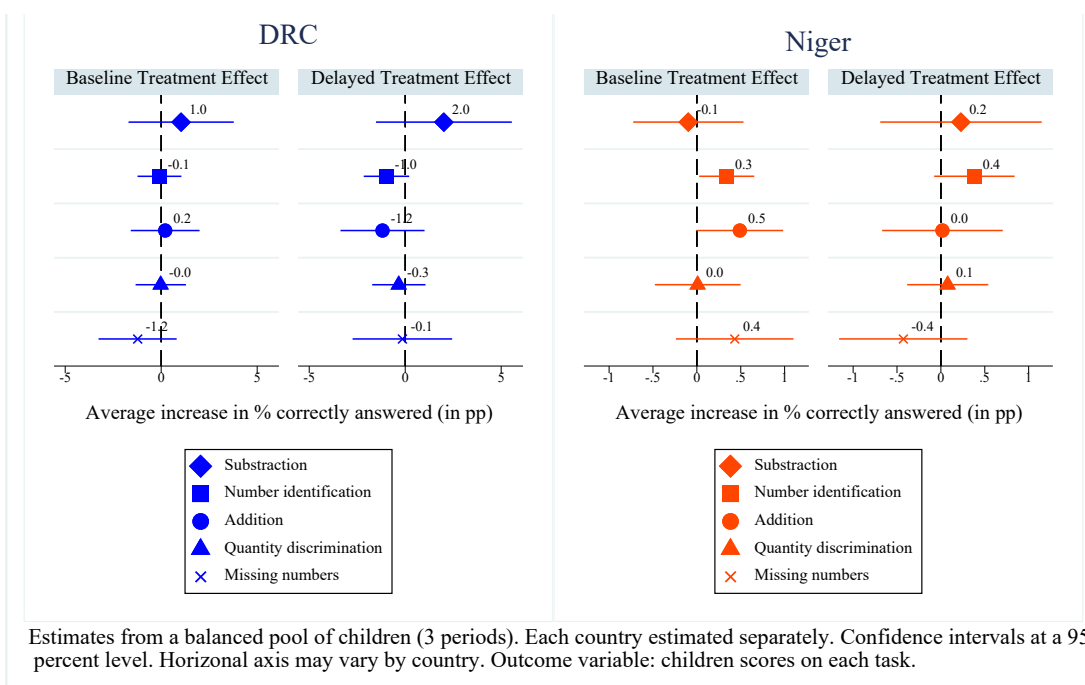
Notes: BTE is Baseline Treatment Effect. DTE is Delayed Treatment Effect. Balanced pool of children of three periods. Confidence interval at a 95 percent level. Horizontal axis may vary.

Source: Authors' own, based on the data.

Note: pp: percentage points.

With regards to EGMA – the mathematics assessment – the results show a slightly stronger impact of the intervention on female students in Niger and no gender difference in the DRC.

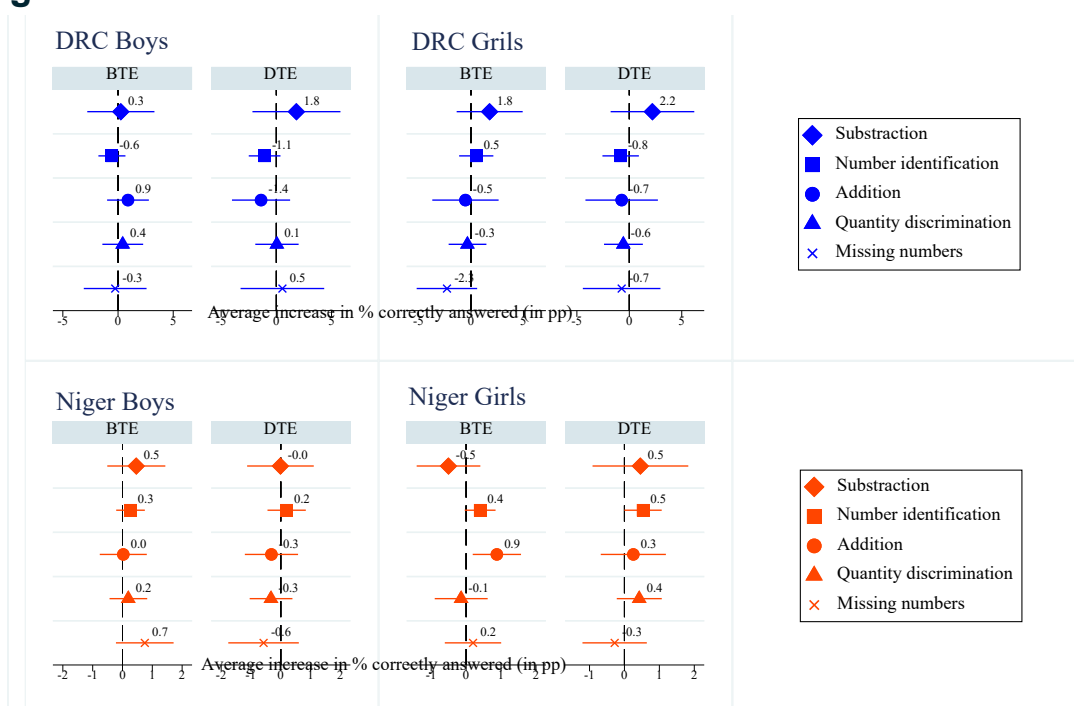
Figure 7.15 Impact evaluation on EGMA in the DRC and Niger



Source: Authors' own, based on the data.

Note: pp: percentage points.

Figure 7.16 Impact evaluation on EGMA in the DRC and Niger by gender



Notes BTE is Baseline Treatment Effect. DTE is Delayed Treatment Effect. Balanced pool of children of three periods. Confidence interval at a 95 percent level. Horizontal axis may vary.

Source: Authors' own, based on the data.

Note: pp: percentage points.

Overall, these results do not provide strong evidence of an effect of the combined ILET and TPD interventions on children's cognitive learning though, as we have seen, there are positive effects in Niger on both the EGRA and EGMA tests. As previously noted, this is not particularly surprising as neither the ILET nor the TPD interventions directly targeted students' cognitive learning. Neither targeted students' maths skills and no particular result was expected in that regard apart from what could be attributed to an overall enhancement of the quality of teaching and learning environments. The situation is slightly different with the TPD intervention, which contained three modules related to reading, meaning that one might have hoped for some stronger 'indirect' effect on the reading assessments.

It is important, however, to nuance these results and consider at least two elements. First, the project took place in a context where school closures have led to significant learning gaps, which have been documented across the world. Here again, the fact that the school closures were significantly longer in the DRC than in Niger – and enhanced by the sharp increase in students resulting from the *Gratuité* policy – is likely to explain why no statistically significant effects are found in the DRC, whereas some positive effects are found in Niger. Second, the potential 'indirect' causal chain linking the TPD and ILET interventions to cognitive learning is long: even if teaching practices changed overnight – and section 7.2.1 has demonstrated that changing teaching practices is a complex story – it may take some time for changes to affect students' cognitive learning – possibly more than just a few months as evaluated by the BRiCE project.

7.3.2 Socioemotional learning: perseverance and empathy

In addition to students' cognitive learning, we measured components of students' socioemotional learning using Save the Children's ISELA. The assessment was designed to examine the non-cognitive skills of primary school students and changes over time in response to social and emotional interventions. Scores in each test are not comparable across contexts and they are not used as a diagnostic tool. The following components of socioemotional learning were measured.

Self-motivation

– **Perseverance task**

Perseverance refers to the child's ability to stay on a task, despite the task being difficult. Additionally, self-motivation is captured by a child's aspiration or passion for long-term goals (Von Culin, Tsukayama and Duckworth 2014). Specifically, we administered the Perseverance test (ISELA), asking students to complete three drawings using their non-dominant hand. We use this task to report the percentage of students who completed all three drawings, thereby displaying perseverance.

– **Aspiration**

We asked children a question related to their educational long-term goal: 'Will you continue to study even after getting married?' We use this question to report the percentage of students answering 'Yes', thereby indicating having educational aspirations.

Social awareness/empathy

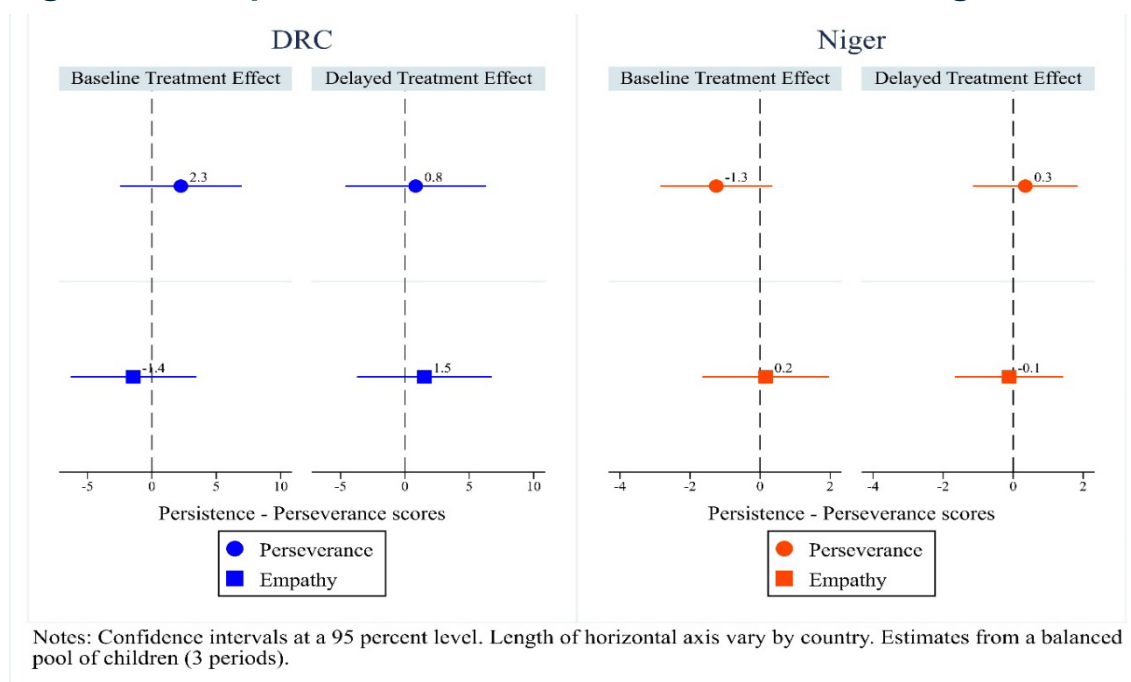
Empathy refers to taking other people's perspective into account and understanding their emotional reactions. For a child, empathy is important in building desirable social interactions and forming social support systems. Specifically, we administer the Empathy test (ISELA) to measure this. The test first asks three questions about a picture of a crying child.⁵⁹ The test then asks the child two questions based on a story about why the child in the picture is crying.⁶⁰ We report the percentage of children who answered all five questions displaying empathy. Detailed statistics on students' empathy scores can be found in Annexe 3, from Figure 3.9 onwards.

Here again, the assumption was that, although the TPD and ILET interventions did not directly target children's socioemotional learning, there would be an indirect effect on that outcome as a result of the enhancement of children's learning environment. As can be seen in Figure 7.17, we do not find evidence of an overall effect on students' perseverance and empathy tests, as none of the estimates are statistically significant.

⁵⁹ The three questions are 'How do you think the child is feeling right now?', 'What would you do to make her/him feel better?', and 'Is there anything else you would do to make her/him feel better?'

⁶⁰ The story is the following: 'Now, I will tell you a story about this child and why she is crying. One day the teacher told all the children in the classroom to line up so that they can go out to play. As they were lining up, the girl/boy was pushed by another child. She fell and hurt her knee. Therefore he/she is crying in this picture.' The two questions about the story are 'Why do you think that the other child pushed [him/her]?' and 'How do you think this other child felt after pushing [him/her]?''

Figure 7.17 Impact on students' socioemotional learning



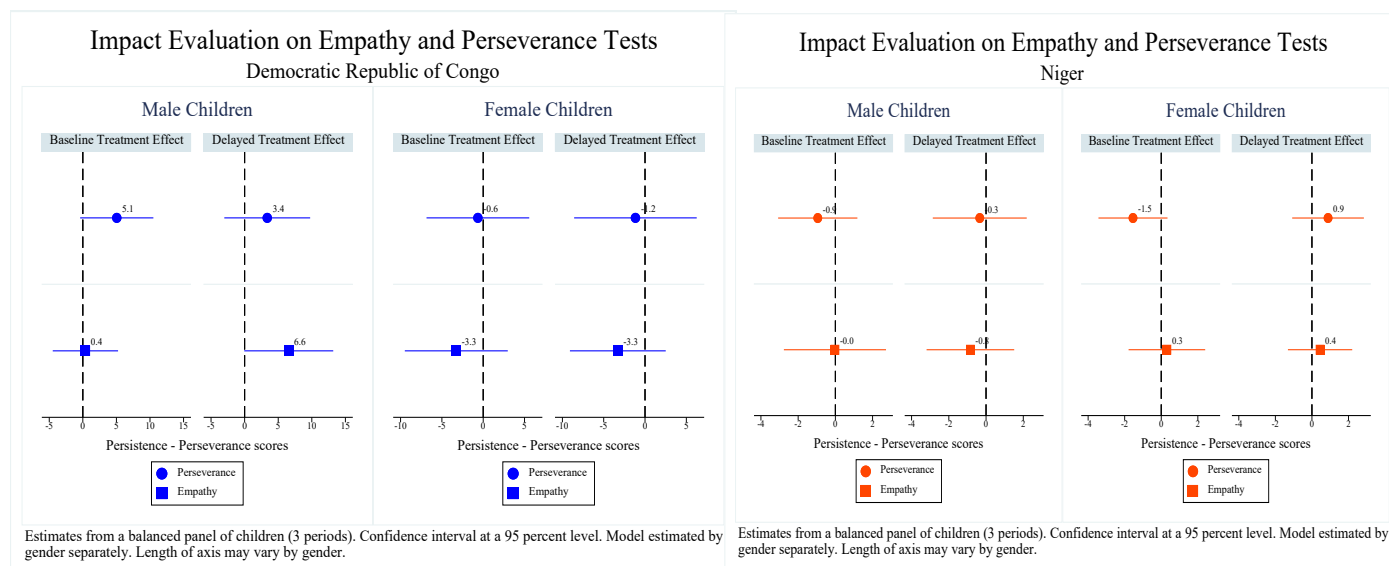
Source: Authors' own, based on the data.

A gender breakdown of these results in Figure 7.18 shows, however, that there are some gender differences on these outcomes in the DRC: the baseline treatment effect on perseverance is positive and statistically significant for boys, and the delayed effect is statistically significant for empathy. In contrast, none of the effects are statistically significant for girls in the DRC. This suggests that there might be gender differences in the effects of the project, to which we return later in this section.

In Niger, no clear gender differences are discernible, with all estimates statistically insignificant. It is useful to note that the results are slightly different from the Midline Report where we saw some effects on girls' perseverance; this is because we used a different empirical approach, as explained in section 7.1.3. The different models are based on different assumptions (and slightly different datasets); the results presented in the Midline Report should, therefore, be considered non-robust.⁶¹

⁶¹ In more technical terms, we used a pooled ordinary least squares model and had a replacement strategy for the Midline Report, while here we have restricted the sample to the students we could track and use a panel approach. As explained earlier, the assumptions are different – but if the findings are strong, such assumptions should not matter significantly because the different approaches should produce similar results.

Figure 7.18 Impact on students' socioemotional learning by gender



Source: Authors' own, based on the data.

7.4 Impact on students' learning environment

Key findings

- TPD and ILET had limited effects on safety and security, with slight effects on boys feeling safe at school in the DRC and the same for girls in Niger.
- The interventions do not seem to affect students' perceptions of positive discipline.

Improving children's learning environments is one of the central objectives of the BRiCE project: it is the stated central objective of the ILET intervention, embedded in its title. It is also an important objective of the TPD intervention, as several modules related to positive discipline aim to create a better learning environment for children. We can therefore expect the interventions to have a direct effect on students' learning environment.

Assessing improvements and changes in learning environments, however, is not straightforward. The learning environment encompasses a wide range of factors, from those related to the personal sphere and children's learning away from school, to those related to school infrastructure and even educational policy. Here, we focus on several core aspects of students learning environment:

1. First, safety and security, which is a core tenet of an enabling learning environment.

2. Second, positive discipline, particularly students' perceptions about whether they are subjected to physical punishment and whether they feel encouraged by their teachers.
3. Third, we look at students' preparedness for conflict-related crisis, which we have seen is one of the central challenges in conflict-affected contexts.

For all these dimensions, we take advantage of the fact that the student and household surveys give us a different perspective on these issues to the teacher survey. When relevant, we therefore incorporate a discussion of the teacher survey results, to compare and contrast perspectives.

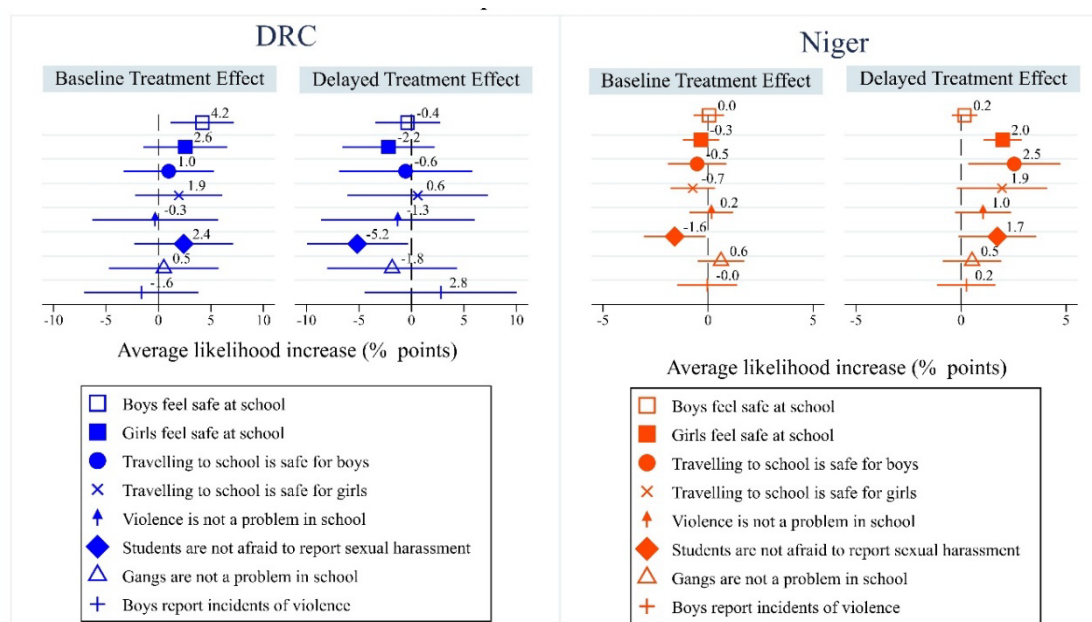
7.4.1 Safety and security

The QLF, which underpins the theory of change of the BRiCE project (see section 6), considers the safety and protection of students at schools as a central tenet of a quality learning environment. The safety and protection of children is also a stated objective of the ILET intervention (and, to a lesser extent, TPD), and one of the interventions' assumptions is that the BRiCE project would raise awareness about security and safety issues at school.

The ILET SIPs were expected to be a major channel through which security and safety issues would be addressed; indeed, just to pick one example, four schools in Niger and five in the DRC chose to build a school enclosure to enhance their security. The BRiCE project also carried out a range of awareness-raising activities related to safety and security at school, from trainings forming part of the TPD intervention to visual displays set up around the schools.

To assess security and safety, we asked students whether they agreed with a set of basic statements. It is important to note that, as with all awareness-raising initiatives, the question of the effect of the TPD and ILET interventions on security and safety is difficult. Raising awareness entails that students and school staff become more aware of risks and potential security issues than they were before and, therefore, (self-)report them more often. Given that our outcomes are based on self-reported measures, an increase does not necessarily mean an increase in insecurity, for example, but might reflect an increase in awareness of security issues. Figure 7.19 presents the results on these variables in Niger and the DRC. The results disaggregated by gender can be found in Annexe 4 (Figures A4.41 and A4.42).

Figure 7.19 Impact evaluation on students' perceptions of violence



Notes: Confidence intervals at a 95 percent level. Length of horizontal axis vary by country. Estimates from a balanced 'pool of children (3 periods). Dependent variables are binary taking the value of one upon improvement in outcome. Coefficient interpreted as likelihood change (points).

Source: Authors' own, based on the data.

Safety at school and on the road to school

The first four variables concern perceptions of safety at school and on the way to school. As can be seen for students' perceptions of safety at school, the interventions were associated with positive and statistically significant effects in the DRC (baseline treatment effect) and in Niger (delayed treatment effect). In the DRC, students were 4.2 per cent more likely to consider that boys feel safe at school. Both boy and girl students were more likely to agree with this statement in the DRC (Figure A4.4 on gender breakdown in the DRC, in Annexe 4). In Niger, they were 2 per cent more likely to say that girls feel safe at school. In Niger, at baseline (before the TPD and ILET interventions), 93 per cent of students considered that boys felt safe at school. Therefore, given how we measure this outcome, there is limited room for improvement in Niger on this aspect. A gender breakdown for Niger also reveals stronger delayed effects for statements relating to safety in school and travelling to school.

Gangs and violent groups at school

Another useful indicator of safety and security is the presence of gangs or other types of violent groups at school. There are no positive and statistically significant effects on students' perceptions in either country. This is not surprising, given that the BRiCE project is not a security project per se. The positive effects of students' perceptions of safety at school, however, may be

the result of investments of ILET funds in the construction of fences and barriers at schools. Based on the school survey, 13 per cent of schools with ILET funds used them for this purpose in Niger. The effects on students' perceptions of safety travelling to school are not statistically significant, except for boys travelling to school in Niger. Students were 2.5 per cent more likely to consider that boys felt safe travelling to school in Niger.

Reporting cases of violence

Finally, we considered students' perceptions regarding reporting cases of violence at school. The analysis shows that the interventions resulted in students being 5.2 per cent less likely to consider that students are not afraid to report sexual harassment (delayed treatment effect) in the DRC and 1.6 per cent less likely in Niger (baseline treatment effect). When we look at the effects for this indicator by gender, the effects are only statistically significant for girls in both countries. This might be expected; as mentioned above (section 7.4.1), TPD modules on girls' education and conflict-sensitive education may have made students more aware of sexual harassment and of available resources in the DRC and Niger for girls, affecting their perceptions of other students' behaviours.

7.4.2 Students' perception of positive discipline

In addition to children's safety and security at school, the development of a nurturing and supportive learning environment is an essential component of children's wellbeing and learning. As has previously been discussed, it was a central objective of the ILET and TPD interventions. In section 7.2, we noted positive effects of the interventions on teachers' self-reported perceptions of positive discipline, both with regards to the use of physical punishment and to support to students. The household and student survey provide us with another perspective on this matter, and give nuance to the results discussed in section 7.2.

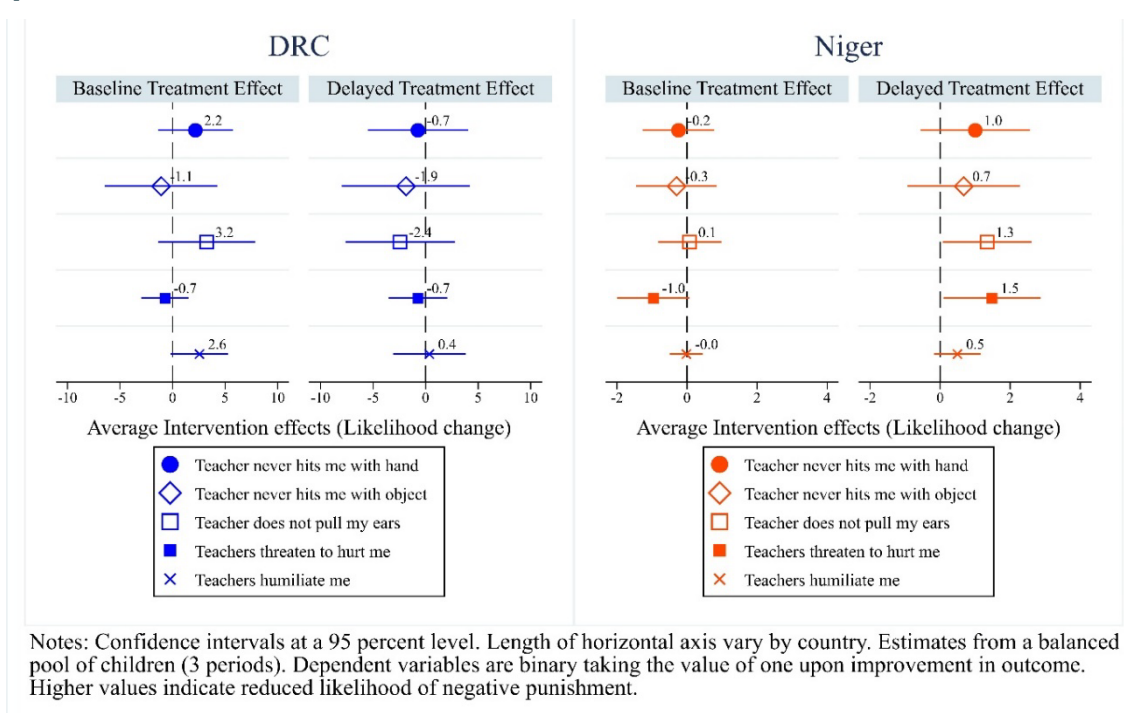
Indeed, overall, the results provide limited evidence that students' perception of the learning environment changed for the better as a result of the interventions. The baseline levels of the indicators used in this section all present quite some margin for improvement, meaning that the absence of effects is unlikely to be because the situation was already good and hard to improve on; on the contrary, students point to significant issues at all levels in the baseline survey.

The results are based on questions that students were asked about their teachers' behaviours and attitudes, usually about the frequency with which they experience specific teacher behaviours and attitudes. More specifically, we looked at physical punishment (Figure 7.20), positive discipline (Figure 7.21)

and conflict preparedness (Figure 7.22). These variables are, as with many others in this report, mainly self-reported and they should be treated as such (see all the caveats mentioned earlier in section 7.3).

In Figure 7.20, which relates to physical punishment, we can see that the strong positive and significant effect found for teachers in section 7.2 is not reflected by students. In the DRC, none of the estimates is statistically significant; in Niger, there are two significant delayed effects, but also a counteracting negative baseline effect to one of the statements. Disaggregated effects by gender corroborate these results; these can be found in Annexe 4 (Figures A4.35 and A4.36).

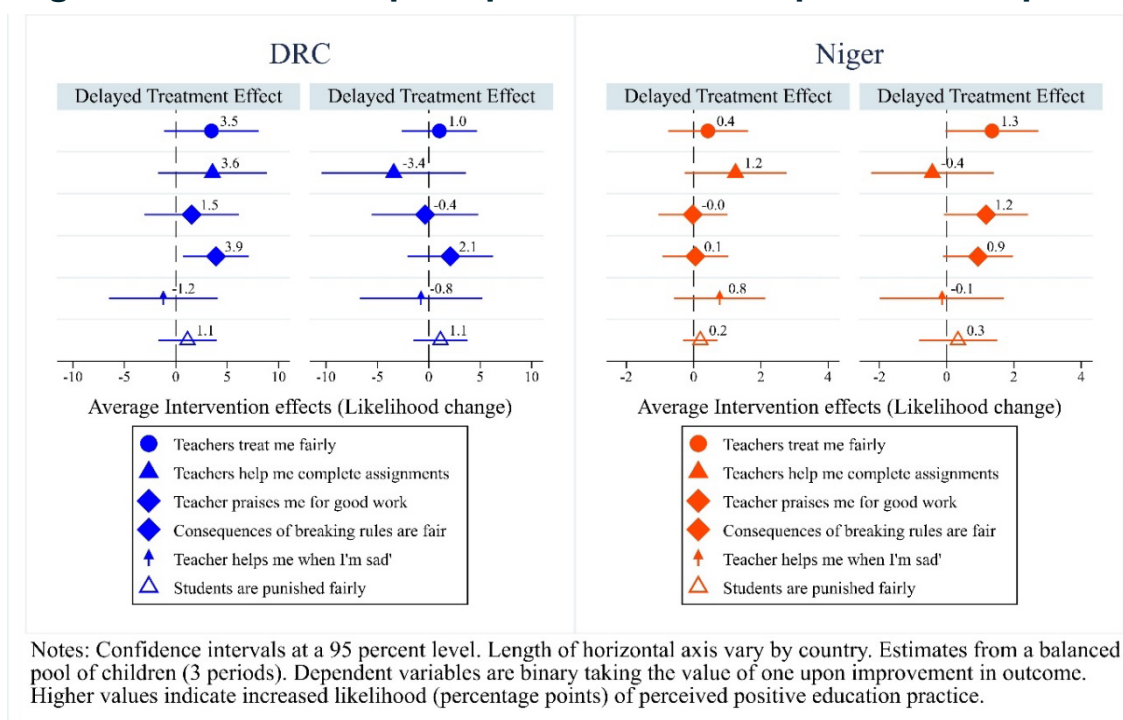
Figure 7.20 Students' perception of teachers' punishment practices



Source: Authors' own, based on the data.

Figure 7.21 shows the effects of the interventions on students' perceptions of positive discipline by teachers, such as treating students fairly (in general and when they are punished), helping them complete assignments and praising them for good work. Almost all effects are positive, but only a few questions that relate to fairness are statistically significant.

Figure 7.21 Students' perception of teachers' positive discipline

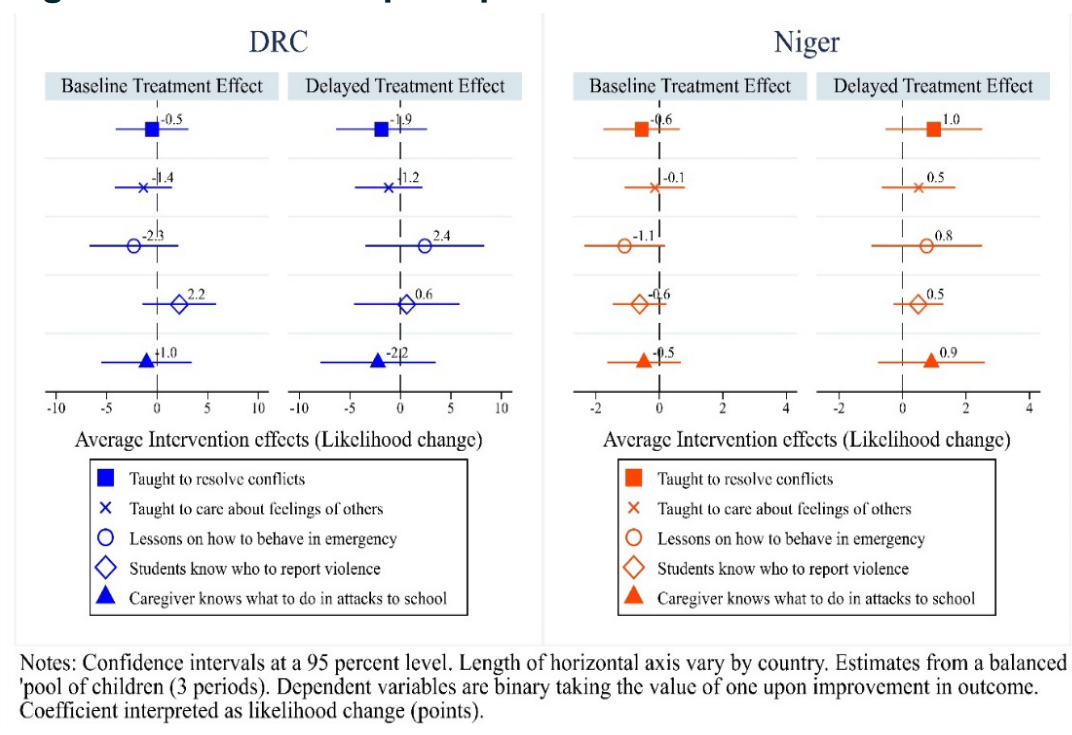


Source: Authors' own, based on the data.

The baseline treatment effect is positive and statistically significant for 'consequences of breaking rules are fair' in the DRC; students were 3.9 per cent more likely to believe that teachers treated them fairly when they broke rules. This may be an indirect effect of the overall BRiCE approach, which emphasised the importance of interacting with children in a respectful way, of teaching in an inclusive way and privileging discipline instead of punishment. In Niger, we find from the delayed effect that students are more likely to report that teachers treat them fairly. Looking at the gender breakdown tells a similar story (see Annexe 4, Figures A4.37 and A4.38).

Finally, we look at students' levels of preparedness for violent conflict and crises. This corresponded to specific components of the TPD and ILET interventions, but it also constituted cross-cutting efforts by Save the Children staff and partners throughout the project, which consisted of awareness raising, discussions with students and parents, and visuals and other props deployed in schools for children to learn about how to react to crises. We do not detect statistically significant effects for any of the statements about preparedness for crises in either the DRC or Niger.

Figure 7.22 Students' perception of conflict-sensitive education



Source: Authors' own, based on the data.

7.5 Concluding thoughts

The TPD and ILET interventions had ambitious goals and were implemented in difficult conditions that led to a series of delays and an implementation of the different packages that stretched over a longer period than expected, making the baseline and midline surveys less clear-cut moments than they should have been. This, in turn, complicates the evaluation: rather than a complete set of interventions, what is being evaluated is a partial package of modules at midline (which differ between Niger and the DRC) and another package, plus the end of the previous package at endline. Nevertheless, our analysis does provide us with a good sense of the impact of the ILET and TPD interventions.

In summary, we find limited evidence of an overall impact of the interventions, but some specific positive effects. Some individual variables are affected by the interventions, but the majority of our indicators do not change. Nigerien teachers are the most positively affected by the intervention, with some positive effects of the intervention on both their teaching quality and wellbeing, although the positive effect on teaching quality is not necessarily something echoed by their students. From the students' perspective, the effects of the intervention are very limited: again, in Niger there seems to be slight improvement of boys' literacy and girls feeling safe at school – but these are only two indicators among dozens and caution is necessary; statistically, the chances of randomly finding

'false positives' increases with sample size. The main positive stories in the DRC are the diminished acceptability of physical punishment among teachers after the intervention, and boys feeling safer at school.

Does this mean that the TPD and ILET interventions were not worthwhile? The evaluation and its methodology do not allow us to answer this question, with the odds stacked against the interventions (as a result of the pandemic among other things) and also the methodological difficulties of measuring impact in the first place. However, it is worth bearing in mind that the interventions often had positive yet not significant effects – and we know from calculating the statistical power of our research design that the sample might often be too small to be able to detect small effects. It is, however, clear that apart from a few indicators, the interventions did not lead to major changes.

The rest of this report stresses a set of very hard challenges that might need to be addressed for the ILET and TPD interventions to be truly effective: the level of resources available to schools is minimal, interpersonal trust is low, and violence is rife (especially in the DRC and increasingly in Niger). Perhaps even more important when considering the results of the interventions, it is useful to return to the theory of change and to acknowledge that the bar was set high not only in terms of the wide range of elements affected by the interventions, but also in terms of the timeframe. Changing school environments and teachers' behaviour takes time, and evaluating effects after a couple of very turbulent years was always a very optimistic endeavour. Further qualitative research to see what is left of the ILET and TPD interventions in a few years would be useful and could surprise us.

8. Learning from emerging teacher competencies

A central challenge for building resilient systems through education is to ensure that knowledge developed by teachers is understood, shared, and made available for programming and policy to face future crises. Teachers and school staff in fragile and conflict-affected contexts have the most precise understanding of the challenges that schools face in such contexts, and crucial insights on how to address them. The first principle of the BRiCE TPD approach emphasises the importance of contextualisation and building on context- and school-specific knowledge to achieve the broader aims of the TPD intervention (see section 6.1.1). There are, however, considerable challenges regarding the recognition of teachers' knowledge and its incorporation into programming.

In this section, we examine RQ4: **How can knowledge developed by teachers in conflict-affected contexts be used effectively in policy and programming?**⁶² This question was not addressed in the Midline Report, but section 6.1 of the current report began to shed light on it. We discuss the different types of knowledge that were prevalent in our interviews, and the obstacles and entry points for incorporating them into existing approaches, with a focus on the BRiCE TPD intervention.

To avoid conceptual confusion, we will henceforth use the BRiCE term 'competencies' rather than 'knowledge'. Teacher competencies, as conceived in BRiCE, encompass knowledge, skills and behaviour. This section focuses on the DRC, as our empirical data regarding this question is much more substantial for the DRC than for Niger. As explained earlier, the lack of a research partner in Niger has been a limitation, and efforts to address this imbalance have faced severe challenges, particularly the last phase of qualitative data collection in Niger (see section 2.2). When relevant, however, we insert and discuss insights concerning Niger throughout the section.

Congolese and Nigerien teachers start their teaching careers without any formal preparation for teaching in emergencies or protracted violent crises. Teachers usually have to adapt what they have learned during formal training and draw from their own and colleagues' experience to improve the quality and relevance of their teaching practices and respond to non-teaching-related challenges in

⁶² The Baseline and Midline Reports did not explicitly address this question.

the school environment.⁶³ Teachers therefore develop context-relevant competencies through their experience in classrooms and the school environment in conflict-affected contexts. Given the variability of crisis configurations, knowledge about 'what works' in crisis contexts is often highly specific to particular regions and contexts.

We now explore competencies that teachers have developed in direct or indirect relation to TPD components. We focus on those salient aspects that came out during our interviews with teachers in the DRC, as well as some in Niger. Table 8.1 traces how these different empirical aspects of teacher competencies map on to the competencies of the Teacher Competency Framework (see Annexe A.3 for a full list of competencies). We then assess how these competencies could be incorporated into future donor or government TPD programmes to further improve their contextualisation. Policy change – especially at the national level – can be a long process that faces considerable challenges (see section 6.1.3). Rather than reiterating these challenges, in this section we focus on opportunities.

Table 8.1 Overview of empirical topics and TPD competencies

Topics	Competencies
Using religious ethics to address discrimination at school Teaching about armed conflict Dealing with other dynamics related to armed conflict	16 – explaining how students in your community may be affected by conflict and the impact it has on them 17 – recalling and applying the three-step model for providing psychological first aid with students who have experienced conflict 18 – identifying and developing knowledge, skills and behaviours of conflict-sensitive education and explaining their importance in their schools and communities
Positive discipline	11 – fostering a positive classroom environment by establishing clear rules and using discipline rather than punishment
Teaching in a multilingual setting Overcrowded classrooms	5 – using different strategies in their classrooms and school to improve students' reading fluency 8 – using different strategies in their classrooms and school to develop students' reading vocabulary 12 – demonstrating teaching and assessment strategies that cultivate inclusive classroom environments

Source: Authors' own.

⁶³ Mirroring the ambivalent role and 'multiple faces' of education in conflict (Bush and Saltarelli 2000; Tebbe *et al.* 2010), teachers in conflict-affected contexts can develop knowledge to mitigate the negative impact of conflict on education, but their actions can also reinforce conflict dynamics (see section 5).

8.1 Discrimination at school and the role of religious ethics

We now investigate teachers' practices in relation to discrimination at school. The first major observation is denial of ethnic-based discrimination in schools in the DRC, which was prevalent in interviews. Many (head) teachers claimed that schools are neutral spaces, where ethnic identities do not matter and where discrimination does not occur. A common argument found in the interviews was that the 'school is neutral and does not know ethnic groups'. Respondents set a very high standard for teachers' ethics and were adamant that this involved ensuring that all students were treated equally. According to these narratives, teachers should actively oppose discrimination, not hold grudges, hide any prejudices and maintain neutrality. Several interviews, however, pointed to the existence of identity-based tensions and discrimination in schools (Midline Report, section 5.4; Endline Report, section 5). Teachers, we found, need to navigate the inherent tension between high ethical standards and the lived realities of ingrained prejudices, discrimination on ethnic grounds, and armed conflict.

There are several avenues for explaining the prevalence of this norm of neutrality, such as the legacy and role of the idea of the nation in the Congolese post-colonial state, whereby the nation is considered to be above all ethnic or tribal identities. Yet an aspect that came out prominently in our interviews is religious ethics, mostly Christian in the DRC and Islamic in Niger. Altruism is a core value in Christian ethics, famously deriving from the commandment to 'love thy neighbour as thyself' (Matthew 22: 36-40).

The interviews in the DRC show that teachers often resort to biblical references and biblical allegories to respond to episodes of discrimination in the classroom.⁶⁴ It is very likely that Christian ethics play an important role beyond the BRiCE schools, given the importance of faith-based organisations, which establish and manage a large share of public schools in the DRC and are key institutions in everyday life. A survey in four different Congolese provinces found that 74 per cent of early grade reading materials analysed were published by faith-based organisations (RTI International 2016). The following banner, photographed in Tshopo province in 2013 by one of the BRiCE team researchers, illustrates the importance of Christian ethics in educational governance:

⁶⁴ As noted in the methodology section, we have not been able to carry out classroom observations and our data only contains limited evidence of such analogies.

Figure 8.1 Christian ethics in educational governance



Source: Authors' own (2013).

Although our qualitative data is more limited in Niger, it also points to the prevalent role of religious ethics in the school environment. Interviewees referred to religious prescriptions, metaphors or allegories as guidelines for teachers' behaviour and ethics, such as the Hadith on responsibility ('Everyone is a shepherd and responsible for his flock') and its resonance with the role of the teacher in the classroom. Islamic education, koranic schools and *médersas* (educational institutions) play an important role in Niger, and Islamic ethics are also prevalent in daily life. Some teachers, however, took a counterpoint by saying that religion should be kept to a minimum in public schools because of their attachment to secular values.

Implications for the TPD intervention

As the idea that 'the school is neutral and does not know ethnic groups' remains widespread in the DRC, the TPD intervention could embed some critical discussions on this idea, by incorporating more content on various forms of identity-based discrimination in schools and allowing teachers to reflect on the contrast that might exist between this conception of schools as neutral spaces and the reality of discrimination in school.

Furthermore, we have seen that religious ethics play a role in teachers' approach to addressing discrimination and solving conflicts in the classroom, yet religion is not mentioned in TPD materials. Integrating references to Christian, Islamic or other religious morals into a TPD programme on positive discipline, at least through examples and analogies, could help teachers to better relate new ideas to content they are already applying in their classrooms.

8.2 Teaching about armed conflict

Discussing violent conflict in the classroom in contexts of ongoing violence is very challenging. The baseline study pointed to contrasting evidence on this practice in the BRiCE schools in the DRC, which mirrors different perspectives. Some teachers tend not to raise this issue, for a range of reasons: it can have negative reverberations outside of school; it can incite students to enrol in armed groups; it can reinforce tensions between students from different ethnocultural backgrounds; or teachers consider that they should only focus on the curriculum or that they are not appropriately trained to address the issue. Other teachers, however, discuss violent conflict because they consider that it enables children to understand the socioeconomic and educational impact of armed conflict, and that it can help them to address conflicts within the classroom or help them support traumatised students.

In the DRC, civic and moral education, and health and environmental education, classes were named as the most appropriate spaces for such discussions. Addressing armed conflict in the classroom, however, would normally entail explicit discussions about ethnicity and identity-based discrimination; yet – as we pointed out in the preceding section – the prevalent norm is that ‘there is no ethnicity in school’. Any attempt to incorporate discussions of conflict in the curriculum would have to take into account this predominant norm and its underlying principles. Discussing such issues, however, is highly sensitive and comes with the risk of further reinforcing polarisation within the classroom.

In Niger, the teachers interviewed during the qualitative study indicated that it is not possible to discuss insecurity or violent conflict in classrooms as it is a taboo topic and can be dangerous for both teachers and students. A head teacher said that, even during discussions around the risk reduction plan – which includes discussions about what to do in case of attacks and involves teachers, students as well as parents – it is not possible to discuss violent conflict because ‘conditions are restricted’, and ‘we don’t even pronounce their [Boko Haram’s] name’ (EL Int. 14).

Some teachers indicated that they did discuss it with colleagues, as they generally had discussions about the news and events, but that they were careful when doing so. Many teachers said that they would like to be able to discuss such questions with their students, as they considered it very important, and because these were issues that children heard about in the news or experienced in their daily lives. Teachers indicated that the most appropriate classes to discuss these would be history, as well as civic and moral education. In sum, while it appears that teachers would be interested in discussing this very important issue in both Niger and the DRC, they are not necessarily equipped with the pedagogical tools to do so and face a range of challenges if they do, from potential risks to restrictive norms.

Moreover, teacher knowledge is not necessarily devoid of problematic preconceptions or personal opinions, nor is it necessarily conflict-sensitive, either. Teachers' own views and political opinions, which are forged by their own identity, personal background and experience, can in some cases reinforce fault lines in their classrooms, as the endline findings highlight. Related research has shown that teachers can carry discriminatory and prejudiced views of certain ethnocultural groups, and in some cases propagate these in their lessons and through their teaching practices (Marchais *et al.* 2021).

In the endline interviews, we found evidence of such problematic views, such as one teacher declaring they were willing to teach 'a course to talk about Bembe who were suddenly trapped by enemies'. As the two sides of the academic debate on education in conflict have shown extensively, schools can be sites of discrimination, and in the DRC, racist and discriminatory ideologies have long penetrated the education sector (see Brandt *et al.* 2022). It is important, therefore, to situate teacher knowledge in its broader context, and to maintain a critical distance in order not to reify it or consider that it is necessarily constructive or positive.

Implications for the TPD intervention

The BRiCE TPD intervention does not currently address the question of how teachers should talk about armed conflict in the classroom, despite having a module on conflict-sensitive education. There is no easy way to go about such an issue, which is very complicated in situations where armed conflicts are ongoing and continue to affect school environments. Whether or not violent conflict should be discussed in class depends on the context, and most importantly whether it is safe for students and teachers to do so.

However, what can be done is to equip teachers with the pedagogical tools to take decisions about whether or not to discuss violent conflict in class, how to discuss it if they do, and how to respond to students' questions on such issues. Given that teachers have considerable experience in this regard, and often detailed knowledge about the contexts in which they work, the objective would be to bring out that knowledge through reflective pedagogical tools. This has been one of the motivating ideas behind elaborating a teaching module on education in conflict-affected contexts, which was developed through this project for ISP Bukavu in the DRC and is presented in Annexe A.1.

8.3 Positive discipline

Pedagogy is not just the 'act of teaching', but is grounded in 'larger cultural, political and economic processes, within which teachers make judgements about what and how, when and where to teach' (Higgins 2018: 481). Although there should be no doubt about the harmful nature of corporal punishment, it remains important to understand its functions and the reasons why it persists. Past evaluations of Save the Children's educational projects in the DRC (e.g. Vas-Y Fille!) found that 'some teachers still deplored the "interdiction of the whip", because it (the whip) "wakens conscience and brings the child back on the right way"' (Randall *et al.* 2017).

Similarly, in the context of Kakuma refugee camp in Kenya, a few teachers 'expressed their disagreement with the policy banning corporal punishment, and attribute an increase in student misbehaviour to this ban' (Mendenhall *et al.* 2021: 154). The authors of that paper argue that providing a safe space for reflection and discussion about corporal punishment and positive discipline would help to reduce negative practices and stress the key role teachers play in creating such environments (*ibid.*).

In the midline study, we noted that many teachers in the DRC had expressed opposition or reluctance toward positive discipline for similar reasons; namely, that it weakened teachers' authority and reinforced students' misbehaviour (Midline Report, section 7.3.1). The endline study provides further evidence that a number of teachers oppose positive discipline for the same reasons (e.g. EL Int. 19, 22, 35). One teacher argued that 'positive discipline leads to the degradation of educational mechanisms especially as we are in an area affected by crisis' (EL Int. 19). Another mentioned the difficulty of relying on positive discipline in overcrowded classrooms (EL Int. 22). This was also reported in endline qualitative interviews in Niger and mentioned during a workshop on the lessons learned from the TPD intervention in Niger (see section 6.1.3).

At the same time, it needs to be understood that teachers do not apply 'negative discipline' (e.g. corporal punishment) without hesitation. Punishing students in a conflict-affected context implies further challenges. Teachers are often hesitant to discipline students when they are unsure of who might make use of relations with armed groups to settle scores. Teachers who are not considered to be local to an area ('*originaires*') might be even more hesitant, as has been discussed in section 5. Even if we have found limited examples of instances in which such threats have materialised, the high exposure to violence of teachers which the survey has evidenced, and the prevalence of violent revenge in the wider social environment means that such threats are very likely to influence people's behaviour.

Implications for the TPD intervention

Teachers' hesitancy regarding positive discipline needs to be taken seriously in implementing the TPD intervention. Although the use of physical punishment is harmful for students, it can be a way for teachers to deal with extremely difficult teaching conditions marked by crisis and indiscipline. Many teachers consider that they find themselves in a situation where violent and harmful forms of discipline are dangerous for themselves because of the risk of retaliation, but positive discipline (reportedly) further undermines their authority. As noted in the Midline Report, teachers often have a sense of eroding authority, which is amplified by the social consequences of violent conflict and has negative implications for their wellbeing and capacity to teach. Emphasising that positive discipline does not necessarily lead to a reduction in authority, and providing examples of teachers who have achieved positive discipline in such contexts, is therefore important.

Moreover, behavioural norms and ingrained practices take time to change. The impact evaluation presented in section 7 has shown that, in the DRC, while the BRiCE project has led to a clear shift in the attitudes of teachers regarding extreme forms of corporal punishment, this was not yet detectable from the students' perspective, indicating that changes in opinion do not immediately translate into changes in behaviour and can take time. Moreover, imposing new norms too hastily can lead to a sense of cultural alienation, and trigger various forms of backlash.

In both the DRC and in Niger, BRiCE staff, teachers and partners said that, while there had been gradual recognition of the value of positive discipline among teachers who had taken part in the TPD intervention, it had been much more difficult to convey this to teachers who had not. In both countries, staff and partners have emphasised that leaving ample space and time for people to discuss their position regarding positive discipline without moral judgement is key.

Thus, given that one of the key outcomes of the intervention is to reduce the use of corporal punishment, such predicaments, opposition and potential backlash against practices considered to be inappropriate are important to take into account when reflecting on the programmatic changes. It would be advisable for trainers not to convey positive discipline as a strict injunctive norm, but to invite teachers to share and discuss the challenges they face when trying to apply positive discipline.

8.4 Dealing with other dynamics related to armed conflict

Building on the findings summarised in section 5, this section sheds light on teachers' agency in relation to dynamics of armed conflict that affect the school environment. In the DRC, first, (head) teachers attempt to convince armed groups to minimise the use of school infrastructure for military purposes, to reduce negative impacts on teachers and students. Such practices are in line with The Safe Schools Declaration,⁶⁵ to which the DRC is a signatory. More broadly, many respondents pointed to the importance of good relations between the school and armed actors; in particular, the national military, but in some cases non-state armed groups as well (see Baseline Report, section 4.8 and Midline Report, section 6.1.4). Second, teachers in conflict-affected areas handle school fees with great care (especially before the *Gratuité* policy), knowing that the Mai-Mai can intervene to demand that school fees be paid or not paid, depending on their allegiance. Third, a student or teacher who has links with armed groups can present some advantages for schools, as they can provide information in case of attacks. Fourth, teachers can join armed groups as a means of protection or self-defence, or to take advantage of the militarised political economy. Fifth, and finally, teachers exchange information with peers and parents to find solutions to these challenges.

In Niger, we have seen that the BRiCE schools were less directly affected by the presence and violence of armed groups than in the DRC, but that in Diffa there were numerous effects of the rampant insecurity on schools. In this context, teachers develop strategies to protect themselves, such as returning to safer towns for the evening and night when their schools are situated in more risky areas. As discussed in the Midline Report, this can have consequences on the time they have to teach during a day, as well as on their capacity to develop good relations with the school community.

Other interviews also alluded to gender-specific protection strategies deployed by teachers, such as female teachers making sure that they wore a hijab in public spaces in rural areas (EL Int.2), stressing, however, that restrictive social norms around public appearance and behaviour were also applicable to male teachers. In the endline interviews carried out in Niger, a teacher reported that they and other teachers in their schools were vigilant about students' behaviour and whether or not students were being approached by networks related to armed groups; the teachers sought to counter such influences by talking to the

⁶⁵ [The Safe Schools Declaration](#) (accessed 25 October).

students about their morale, about religion and about their future prospects to convince them to 'stay on the right track' (EL Int. 14).

Implications for the TPD intervention

The teaching module on education in conflict-affected contexts developed by ISP Bukavu and IDS seeks to foster discussions about these issues. Regarding the TPD intervention, the current conflict-sensitive education module does not place a strong emphasis on teachers. We believe that, although it remains important to discuss the effects of violence on students, it is also important to offer a safe space where teachers discuss how violent conflict affects them and their work, and the strategies that they develop to address it. More broadly, it is important to reflect on how particular protection or adaptation strategies that teachers deploy to address the effects of violent conflicts within schools also shape and curtail their teaching practices and their capacity to attend trainings.

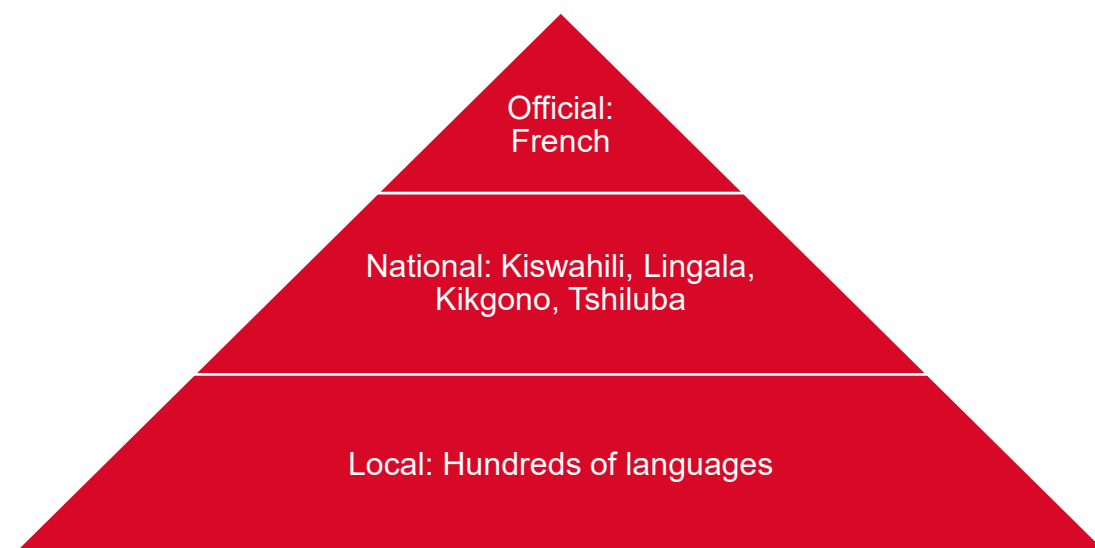
Furthermore, the advanced competence number 16 – 'explaining how students in your community may be affected by conflict and the impact it has on them' – entails that: 'The teacher is able to clearly identify forms of conflict in their community'. This skill seems very ambitious, given the enormous complexity of 'conflict' in the South Kivu and Niger environments, and the rather limited conflict analysis that is currently part of the TPD intervention. The module should either reframe the competence or invest more in conflict analysis, to balance input and expectations.

8.5 Teaching in a multilingual setting in the DRC

In this section, we focus on the specific challenges generated by multilingualism in the classroom environment in the DRC, and its relation to dynamics of violent conflict. This section focuses exclusively on the DRC, as the lack of a research partner in Niger did not allow us to carry out a similar analysis in Niger. However, qualitative interviews show that multilingualism is as much a teaching challenge in Niger as it is in the DRC, and therefore discussions of the DRC case will be relevant for Niger.

Languages in the DRC and the Kivus

As per the constitution of 2006, the DRC has French as its official and administrative language, four national languages (see Map A.4.1) and over 450 'local' languages (see Map A.4.2). Language and ethnocultural belonging are tightly bound to each other, as each ethnocultural group has its own language.

Figure 8.2 Hierarchy of languages in the DRC

Source: Authors' own. Adapted from Matabishi (2018). Reproduced with permission.

While national languages are widespread, they are not spoken by everyone in a particular region and exist as a mosaic of vernaculars and dialects (RTI International 2015: 61). In Fizi and Uvira, French is spoken next to Kiswahili (also a *lingua franca*) and many other local languages such as Kibembe, Kibuyu, Kifuliiru, Kinyarwanda, Kinyindu, Kivira, Kirundi, etc.

Language of instruction policy

Questions over language of instruction (LOI) have been discussed in Congo since the era of colonial education and existed in other forms in the precolonial era. While national and local languages have often been allowed as LOIs in the first years of primary schooling, French has usually been considered as more 'prestigious' and as the sole real LOI (Sene Mongaba 2012). The former educational framework law from 1986 (Article 120) stipulated that national and local languages could be used as LOIs, but all pedagogic material issued by Congolese Ministry of Education used to be published in French.

This situation has changed. Following the constitution, the *Stratégie Nationale d'Utilisation des Langues Nationales* of 2009 and the educational framework law of 2014 (in particular Article 195) specify that national and local languages can be used in the first four years of primary schooling (*cycles élémentaire et moyen*). The national curriculum targets four language skills: listening, speaking, reading and writing. Listening and speaking skills in French are developed in grades 1 and 2 of primary school; reading and writing are introduced in grades 3 and 4, and reinforced in later grades (5 and 6). On the basis that learners have already acquired listening and speaking skills in local languages among their families, they are immediately introduced to reading and writing skills in grades 1 and 2 of primary school, and those skills serve as a transition towards

developing proficiency in French in grades 3 and 4. In grades 5 and 6, the respective national language is still taught, while French ought to become the main LOI (see Table 8.2).

Table 8.2 Languages of instruction per grade in the DRC

Grade	French	Local and regional language	Main LOI
1	Listening and speaking	Listening, speaking, reading and writing	Local/regional
2	Listening and speaking	Listening, speaking, reading and writing	Local/regional
3	Listening, speaking, reading and writing	Listening, speaking, reading and writing	Local/regional and French
4	Listening, speaking, reading and writing	Listening, speaking, reading and writing	Local/regional and French
5	Listening, speaking, reading and writing	Listening, speaking, reading and writing	French
6	Listening, speaking, reading and writing	Listening, speaking, reading and writing	French

Source: Authors' own, based on the data.

Over the last few years, textbooks have been produced in national languages and have been distributed to a significant number of schools.

LOI: policy versus spoken languages

A gap exists between the formal LOI policy and actual practices in schools. The main tension is between the symbolic value of French and students' actual language skills. French is rarely spoken at home (Torrente *et al.* 2012; Torrente, Aber and Shivshanker 2011; Randall *et al.* 2017). French is the only language that can consistently be used throughout all phases of the Congolese education system across the country, from primary schools to higher education institutes (HEIs). As French is widely considered to be the language of prestige and social mobility, many parents desire that their children are taught in French from day one (Meeuwis 2013: 37; UNICEF 2016: 28; Torrente, Aber, and Shivshanker 2011). Bal (1979: 247) noted that French in francophone Africa was a marker of difference between urban and rural, between generations and classes. Speaking French opens spaces for some and is prohibitive for others. The Kiswahili saying '*hautakula français yako*' ('you will not eat your French'), is an example of the reaction to various forms of linguistic violence, uttered by those who feel frustrated by any proficient speaker of the supposedly prestigious language.

A school's Internal code of conduct (*règlements d'ordre intérieur*) might contradict formal policy and prohibit the use of any language apart from French and English, sanctioning any disobedience. A difference exists between Catholic schools, which treat French as the main LOI, and Protestant schools, which opt for gradual introduction of French.

In addition to challenges due to French, the reality of Congolese languages also poses immense problems. Many students speak a different language at home to the one they speak at school (Torrente, Aber and Shivshanker 2011; RTI International 2016; Randall *et al.* 2017; IBTCI 2020). There are significant variations in national languages (Chemonics International and SIL LEAD 2019: 4). Children usually speak the local variety of the national language in urban areas, but less so in rural contexts (*ibid.*). In fact, local languages can be children's first language. The variety of linguistic backgrounds makes it problematic to properly teach in languages that all students understand (*ibid.*). Despite recent developments, learning materials in national languages are scarce and, according to inspectors we spoke to, do not consider regional specificities and have not been designed in a participatory manner.

Our data confirms these findings for the cases of Fizi and Uvira. Table 8.3 shows the percentage of teachers in BRiCE schools who reported that their class was composed of students with difficulties in understanding the LOI. More than 80 per cent of teachers reported this classroom challenge in the baseline and the midline. It declined in the endline to a little more than 60 per cent, but we currently have no explanation of why this was the case. Among the teachers who reported this type of challenge, teachers were asked the number of students experiencing this difficulty. On average, this number exceeded around ten students per class. This number is consistent across the data collection rounds.

Table 8.3 Language-related challenges in BRiCE schools

	Baseline	Midline	Endline
% of teachers who had students with difficulties understanding the teaching language	86.02	81.16	62.78
Average number of students per class experiencing difficulties in understanding the teaching language	11.79	13.41	10.64
Average classroom size	56.22	66.65	66.88

Source: Authors' own, based on the data.

Note: Teachers surveyed in all three data collections. 'Average classroom size' is based on the data in the school survey.

Teachers' reactions to a complex LOI environment

Teachers often struggle to teach in these challenging circumstances but have come up with coping mechanisms. Considering children who do not understand the LOI, teachers stated that they would translate the content into the children's first language (EL Int. 5, 9, 22), though this is not always practically feasible – for example, because the teacher does not speak all of these languages (EL Int. 24). Overcrowded classrooms resulting from the *Gratuité* policy and the changing composition of the student body are likely to have exacerbated these challenges.

Schools as spaces of linguistic conflict

As noted by Calvet (1999: 122), schools make underlying power relations between different linguistic groups visible – and audible. Schools are spaces where mastery of language plays a predominant role in social differentiation and accumulation of prestige through language as cultural capital. A slight difference in language proficiency can generate social discrimination. Such conflicts can erupt between students during class, after class, in the playground and even outside of school. Differences in language are easy to detect and seemingly minor details can trigger discrimination. Primary languages differ in the extent to which they enable students to pronounce certain sounds in French. Students with Kinyarwanda as their first language, for example, tend to find it difficult to pronounce a lateral 'L', which is often mistaken for an 'R'. Others are unable to produce nasal sounds characteristic of French.

Such clear markers of linguistic background can serve as a basis for immediate discrimination because of ethnocultural origin, which we have seen is particularly acute in polarised contexts. Such language-based discrimination can push students to drop out of school or discourage them from raising their hand in class. Failing in French can cause a student to repeat a full year, which students and households want to avoid, and which can lead to dropouts. Out-of-school children are easier prey for armed groups, which directly links sociolinguistic conflicts in schools to wider armed conflicts. At the same time, it can be helpful to reframe issues around children dropping out of school due to language-related issues: a student who decides to abandon a school where French is imposed on them can bear witness to their rejection of the dominant language, and symbolically demands the restoration of their mother tongue as an LOI.

Language can also create tensions between students and teachers. A student who corrects their teacher might be subject to sanctions, especially when the teacher misinterprets a 'technical' correction at the level of orthography or pronunciation as a questioning of their authority. Finally, in combination with other factors, language can create tensions between teachers and head

teachers. Several inspectors we talked to reported that some of the head teachers they supervise only speak the local language, whereas some of their teachers might speak more than one language. In such cases, the head teacher was frequently selected on the grounds of belonging to a regionally dominant ethnocultural group. They might feel an inferiority complex in relation to teachers who speak Kiswahili or French and treat them unfairly. Again, such conflicts can reverberate outside of schools.

While French remains a marker of prestige, many parents in South Kivu desire a multilingual education system: primary school in local and national languages, secondary school in national languages and French, and higher education in French and English (Matabishi Namashunju 2016), thus inverting the language pyramid presented above.

Figure 8.3 Inverting the language pyramid



Source: Authors' own. Adapted from Matabishi (2018). Reproduced with permission.

Implications for the TPD intervention

The BRiCE TPD literacy boost module was adapted to the national curriculum for French literacy. The fluency and vocabulary modules are tailored to French, as well. They do not address learning national languages nor the challenges teachers face in a multilingual setting. The advanced stage of TPD competence number 5 – ‘using different strategies in their classrooms and school to improve students’ reading fluency’ – does therefore not include strategies regarding multilingualism. While it is clear that a TPD component cannot address all relevant aspects, our discussion suggests that further contextualisation with regard to multilingualism would do justice to recent changes to national policy in the DRC and teachers’ lived realities.

8.6 Overcrowded classrooms

In the DRC, the *Gratuité* policy caused a massive influx of students while simultaneously many *nouvelles unités* teachers left the profession, creating severely overcrowded classrooms, as was evidenced in section 3.1.3. This created severe challenges for teachers. As can be seen in Table 8.4, the percentage of teachers who reported that they had too many students in the class for one teacher rose from 31 per cent before the policy (baseline) to 65 per cent after the policy (midline). Of those who said there were too many students in one class, the percentage of those who said that the situation was unmanageable rose from 50 to 67 per cent over the same period. The challenge this created for teachers was not solely one of student numbers. The influx of students also led to changes in the composition of the student body, as discussed in section 3 of this report.

Table 8.4 Challenges related to class size

		Baseline	Midline	Endline
Too many students	% of teachers who reported that they had too many students in the class for one teacher	31.1	65.7	56.6
	% of teachers, among those who reported too many students for one teacher, who found this situation unmanageable	50.4	67.1	52.4
Different grades	% of teachers reporting having children from different grades in the class	39.5	48.0	42.9
	% of teachers who found this situation unmanageable (children from different grades in the class)	46.5	57.0	50.6

Source: Authors' own, based on the data.

Note: Rows on the percentages of teachers who found this situation unmanageable have a lower number of observations as they only apply to teachers who reported difficulties mentioned in the previous row.

In Table 8.4, we can see that the percentage of teachers reporting having children from different grades in their class rose from 39 per cent to 48 per cent after the *Gratuité* policy, suggesting difficulties in tailoring learning content to children's skill level.

Interestingly, however, most of the indicators then drop in the endline, with fewer teachers reporting too many students for one teacher at the endline than at the midline, and fewer teachers reporting having children from different grades in the same class (and in both cases, fewer teachers reporting that these situations were unmanageable). While we do not have a definitive explanation for the apparent reduction in these challenges at the endline,

several factors might be at play. First, a potential mechanical effect, resulting from the fact that the endline was collected at the end of the school year (May 2021), whereas the midline was at the start of the year (October 2020). Students might have dropped out of school during the 2020/21 school year, making the situation more manageable for teachers, though our data on student enrolment does not suggest major changes in student numbers.⁶⁶ Alternatively, schools and teachers might have adapted to these new circumstances, and developed strategies to address large class numbers, with the support of the TPD module on managing large class sizes. Perceptions of self-efficacy are adaptive; given that teachers dealt with large numbers of students throughout the year, this might have given them a sense of achievement, which is reflected in these numbers.

In the qualitative interviews, teachers report that students with low grades are particularly affected by overcrowded classrooms and multigrade teaching (EL Int. 39). Save the Children responded to this challenge by offering a module on managing large classrooms. While teachers said that they appreciate the module, many said that managing 70 or more students is simply not possible. Teachers' main coping strategy is to allocate students to smaller groups for group work (EL Int. 5, 27). Moreover, some teachers perceive maintaining positive discipline in overcrowded classrooms as particularly challenging (EL Int. 22). Several teachers emphasised the importance of paying attention to shy students, even in overcrowded classrooms (EL Int. 9, 16, 19, 39). Reported ways of doing this were: assigning them individual tasks; understanding the reasons why they are shy; increasing their self-confidence; allowing them to appreciate their own successes; making them feel safe in an atmosphere in which they can make mistakes; motivating them; and talking to them about their potential. Importantly, such practices align with those encouraged by the TPD intervention, notably the positive discipline approaches.

8.7 Concluding thoughts

In this section, we have looked at some of the competencies that teachers develop in crisis contexts to deal with the effects of these crises in the school environment. As we have seen, these competencies are highly context-dependent. Such competencies and knowledge should not be reified. As we have seen, teachers can also adopt problematic stances and behaviours in class. Nevertheless, more should be done to incorporate such knowledge in

⁶⁶ Based on data collected in the school survey, the average number of students enrolled per school at the start of the 2020/21 school year (midline data collection) was 939. It was slightly lower at the end of the 2020/21 school year (endline data collection), at 931 students. This does not take into account attendance, however, which is likely to have fluctuated more significantly.

policy and programming, both at the national level and in educational interventions. This is not an easy task, for reasons that we have already highlighted in section 6.1 of this report, notably given that there are limited channels for the upward mobility of knowledge, and those channels that do exist are not necessarily operational, or can be curtailed by ingrained professional hierarchies.

Even with regards to NGOs and international educational interventions in the field of education, programmes and policies are still largely designed in a top-down fashion, despite efforts to include participatory components. Moreover, as a result of ingrained social norms and professional hierarchies, teachers working in such contexts might not consider that their knowledge and practices are relevant or worthy of being shared. Finally, identifying such knowledge is not easy. As noted before, we do not have the impression that our methodological approach, based centrally on structured interviews, allowed us to fully explore this question. For future programmes, a direct implication of this is to reflect on how to solicit and incorporate such knowledge into programming.

9. Conclusion and policy implications

9.1 Discussion

Despite considerable challenges during the period of the project, the education component of the BRiCE project, led by Save the Children in partnership with national organisations in the DRC and Niger, and the research component, led by IDS and ISP Bukavu, have now been completed. The present report has discussed the effects of BRiCE and how a wide set of disruptions, ranging from external crises – such as Covid-19 – to organisational constraints, have affected the timeline and delivery of both components.

In this concluding section, we shift our focus and reflect on the project's ambitious objective: **building resilience in crises through education**. We build on key points made throughout the study – and developed in the Baseline, Midline and Endline Reports – to zoom out and analyse BRiCE in wider national and global contexts, identifying its shortcomings as well as its strengths. In doing so, we draw out the implications of our research programme for education policy and programming in the DRC, Niger and beyond.

9.1.1 Breaking down 'violence in schools'

The Baseline, Midline and Endline Reports have provided considerable empirical evidence of the negative effects of violent conflict on education. Violence is widespread in eastern DRC, especially in South Kivu, and reflects wider violent dynamics in society. While the BRiCE interventions partly addressed some of the manifestations of violence in the school environment – such as seeking to reduce corporal punishment in schools – other dimensions were untouched by the programme, such as long-term trauma and ethnic discrimination. We outline some of the key takeaways from our research, which are likely to apply to any future work, including beyond the DRC and Niger.

First, **levels of violence need to be understood properly**. Using recall methods, we have shown that 38 per cent of the teachers in the BRiCE schools in Uvira and Fizi in the DRC, and 4 per cent of teachers in the BRiCE schools in Zinder and Diffa in Niger schools have experienced direct attacks in their lifetime. These are considerable numbers, which provide further evidence that existing databases on violence against education, such as the GCPEA, most likely underestimate the real magnitude and intensity of violence against teachers and students, and in schools in general (Bennouna *et al.* 2016). For instance, the GCPEA report *Education Under Attack 2022* (GCPEA 2022)

points to a few well-reported attacks on schools in Uvira but misses other forms of violence against teachers that we found to be prevalent in Uvira and Fizi.

Second, it is key to identify **how generally violent environments affect schools and teachers**. Violent conflict in society penetrates the school environment. As our reports have repeatedly highlighted, violence against schools and against teachers is often the result of the entanglement of the education sector in broader societal dynamics that are themselves marked by violence. This affects schools at two levels:

1. In societies marked by violence, schools, such as the ones we studied in Niger and the DRC, become prime and ordinary targets of violent actors, including for extortion and as recruiting grounds for armed actors, who often directly intervene in the governance and internal functioning of schools as part of wider violent political economies.
2. High levels of violence in society are often accompanied by militarisation, which is the reorganisation of society around armed actors. In the schools we studied, students, parents and teachers have close social ties with armed actors. As a result, disagreements and tensions in the school environment – for instance, around school grades or personalities who do not get on, and which are found anywhere in the world and would not normally be violent – can spill out of school and escalate into violence.

Violence is also rooted in more particular contextual dynamics. In the DRC, for instance, our study has shown that dynamics of discrimination are often associated with the dynamics of violence. These include discrimination based on perceived identity, which often has a linguistic component. In the Midline Report (section 5), we looked at the role of ethnicity in Uvira and Fizi in South Kivu, where social polarisation along ethnic lines has created significant challenges for teachers. These include ethnic concentration in schools in some areas of these territories, and various forms of patronage and discrimination along ethnic lines, which create a range of distortions and difficulties in the school environment.

All these elements provided a motivation for the development of a teaching module on conflict-affected contexts, which we aim to incorporate into the curriculums of ISPs across the DRC. The module will be made available for free online and is presented in Annexe A.1.

Third, our study invites careful consideration of exactly **how teachers' work is shaped by violence, and the type of challenges they face in violent environments**. As a starting point, and deriving from our previous point, it is fundamental to recognise that, as teachers are direct targets of violence, their own security and safety is a pressing concern. We documented many protection strategies that teachers deploy, from refusing appointments in high-risk areas to

developing relations with armed actors, or even abandoning the profession entirely.

What is also key for teachers is to have the tools to identify and deal with violence in the school. This was one of the motivations behind the BRiCE programme. The TPD modules sought to equip teachers with pedagogical instruments to deal with the effects of violent conflict, notably through the conflict-sensitive education module, as well as conflict mapping. These approaches have generally been well received by teachers and school staff, but our analysis shows several important issues still need to be addressed. In particular, the toll that violent conflict has on teachers' wellbeing and capacity to teach is not directly addressed in the modules, which primarily focus on providing assistance to students. Teachers have to deal with traumatised students and students who have direct or indirect relations with armed actors – but they are often also traumatised themselves. Our study showed disturbingly high levels of PTSD-related problems; for instance, over 60 per cent of teachers in the DRC reported having their work disturbed by memories of violence.

Of course, proper psychological or even psychiatric research is needed here, but the results are clear. The teachers in our study told us that trauma results from direct but also indirect exposure to violence, and individual and collective forms of trauma within the teaching profession are rife. The mental burden resulting from such contexts cannot be underestimated, and has substantial effects on teachers' wellbeing and their capacity to teach. While the focus of the study has been on teachers, it is also important to bear in mind that other education actors – from inspectors to head teachers to school staff – as well as project staff and partners, including from the BRiCE project, also face such difficulties in their work.

In conclusion, our work stresses the importance of an analysis of violence that is multifaceted and sees schools and teachers as closely linked with their surroundings. The risk is that school-only approaches miss not only the scale but also the nature of violence, and therefore fail to improve the situation. Given the variation in configurations of violent conflict, as well as the importance of culturally relevant forms of support, there needs to be considerable reflection on the contextualisation of tools, which is a point we return to below.

9.1.2 Teachers are members of society

Our Baseline and Midline Reports, and to a lesser extent the present report, have sought to cast light on the contexts in which teachers operate. Such contexts are marked by violence, as we reiterate in the previous section, but it is crucial not to stop there. In fact, on a daily basis, teachers' main concerns may have more to do with navigating complex social environments and trying to

make ends meet in contexts of poverty. Our research has shed light on teachers' precarious working conditions, whose nature and ramifications are essential to grasp for any policy or intervention to succeed.

We have explored several facets of teachers' social position in the conflict-affected societies of the DRC and Niger. A few salient points are worth emphasising. We have shown that the teaching profession has become a space of socioeconomic and professional emancipation for women, especially in Niger, a society characterised by entrenched gender norms. Professional emancipation, however, is curtailed by gendered professional hierarchies in the education sector, and female teachers report lower levels of teaching quality in both countries. Female teachers still face serious challenges as they navigate persisting gendered norms in the school environment.

We have also shown that the socioeconomic situation of teachers is shifting in both countries. In Niger, there has been a sharp increase in the number of contract teachers. While this shift has made it possible to partially palliate the increase in student numbers and resulting increase in demand for teachers, it is also problematic in many regards: the growing number of contract teachers has affected the average level of training and skills of primary school teachers, and the precarious employment status of contract teachers is stifling their career progression prospects.

In the DRC, we analysed the sharpening of inequalities in employment status induced by the *Gratuité* policy. In line with the objectives of the policy, parental contributions to teachers' salaries have dropped drastically, though we have shown that they have not entirely disappeared. The policy has put teachers who are not yet registered with the Ministry of Education but are often essential to the functioning of schools in an untenable financial position. They rely on these contributions for their income; and, in most cases, the state has not regularised their situation. We have documented an exodus of such teachers from the profession as a result of this situation. It is also important to bear in mind that teacher registration remains a heavily politicised affair, especially in the DRC.

The socioeconomic positioning of teachers is important to understand a key dimension of teachers' work: turnover and absenteeism. In both Niger and the DRC, we have documented a high turnover of teachers that is explained by insecurity – which causes population displacement and triggers teachers' protection strategies – but also by the precarity of employment many teachers find themselves in. In Niger, we have seen that absenteeism and permanent dropout could also be caused by pregnancies and other gender-related issues, as women comprise the majority of the teaching workforce. Turnover and absenteeism are substantial challenges for teacher training programmes and any form of educational intervention.

The relative socioeconomic precarity that shapes the daily experience of many teachers is also key to understanding how they cope with external shocks. Covid-19-related school closures had dramatic consequences, in particular in the DRC where they lasted more than twice as long as in Niger. During these closures, a high proportion of teachers on insecure contracts in the DRC reported not having received their salaries. This had severe effects on teaching quality, teachers' wellbeing and mental health, and their sense of purpose.

9.1.3 Teacher-focused interventions in context

The central focus of the BRiCE education programme and research project has been on teachers, and their wellbeing and capacity to teach effectively in difficult working conditions. While BRiCE project staff are generally acutely aware of the factors we have discussed – contract status, salary, social positioning in polarised societies, gender and perceived ethnocultural identity, among other things – and how they influence teachers' capacity to work effectively, the interventions and their underlying theories of change did not always take these factors into account, as we have seen in section 6 of this report regarding the TPD and ILET interventions and their implementation in the DRC and Niger. Our research has stressed a few important elements.

One important aspect concerns salaries and financial compensation, an issue that we have discussed throughout these reports. As we have explained above, teachers in both Niger and the DRC are underpaid, which affects their wellbeing and motivation. The BRiCE project did not directly seek to address this arguably complicated issue, whose solutions are most likely to be found through national-level policy. Yet, the relatively low salaries of contract teachers in contexts of high costs of living, and the limited prospects of career advancement in the case of Niger, did noticeably reduce contract teachers' incentive to invest time and energy in TPD, thereby reducing the potential effects of such interventions.

Another aspect concerns the time that teachers can realistically spend on self-directed activities. The BRiCE TPD intervention relies on a 20-30-50 model, whereby 50 per cent of training is done through self-directed activities. It is important here to stress that the BRiCE programme has sought to embed these self-directed activities in the normal teaching practice of teachers, thus reducing the additional workload. Nevertheless, in a context where teachers already have excessive workloads and may be juggling several income-generating activities, or have to travel long distances on a daily basis for security reasons, this format has significant limitations if it implies additional work.

This has already been noted in other studies (Wolf *et. al.* 2015), and has been consistently mentioned by training participants in both Niger and the DRC, in the quantitative and qualitative data, as well as in feedback from Save the Children.

In both countries, it is all the more the case for teachers on temporary contracts, who we have seen earn lower incomes than teachers on permanent contracts. Not only do self-directed activities not seem appropriate in such contexts, but this needs to be considered alongside the very positive feedback that teachers have expressed regarding in-person trainings. Indeed, what teachers seem to have really appreciated is 'time off' from their normal duties, in a setting and configuration where they felt valued for their work and encouraged, with positive effects on their wellbeing.

Absenteeism and attrition are also significant challenges for the intervention – it is beyond doubt that the effectiveness of TPD is greatly reduced when teachers only attend part of the training or leave their school not long after the training. Turnover is a key feature of crisis-affected contexts and a reality in both Niger and the DRC. While long-term solutions are not easy to find, further thinking on TPD could focus on developing flexible approaches that allow for prolonged absences, related to pregnancies or teachers moving to different regions, for example.

Absenteeism and turnover were also key challenges for the research component of the BRiCE project, and for research in fragile and conflict-affected contexts in general. As discussed in this report, high attrition in the teacher cohorts – as well as the student cohorts – reduces our capacity to measure key changes over time, and as a result reduces the levels of certainty of our analyses. Impact evaluation methodologies, and research methodologies more generally, are often based on assumptions that are not compatible with high attrition. This is a major issue, as it means that crisis contexts cannot be studied with the same level of precision as other contexts, which can reinforce the fact that they are understudied. Building methodologies that consider the realities of such contexts is therefore a priority for research on education in crisis contexts.

9.1.4 Working with(in) the context: building on existing systems

Both the BRiCE education programme and BRiCE research project sought to pay attention to context as well as existing systems in their approaches. In both cases, however, there is still considerable room for improvement.

Regarding the education programme, both the TPD and ILET interventions sought to contextualise their approaches and build on existing knowledge. The TPD approach sought to 'adapt to individual contexts and needs' (section 6.1 of this report); and ILET has a participatory approach whereby school actors are involved in decision-making (section 6.2). Yet, in both cases, analysis carried out for this research project, and feedback from BRiCE staff and partners, show that more could have been done to engage with and build on existing systems.

In the DRC, a closer engagement with national-level education authorities and curriculum designers (which are set at the national level) may have helped strengthen the diffusion and institutionalisation of the TPD and ILET approaches – directly through educational policy, but also indirectly through the influence the national level has on provincial and subprovincial authorities. Engaging with existing systems and authorities, especially at the national level, takes time and may actually slow down rather than speed up a project, but it is also a key channel for ensuring the long-term impact of interventions. In Niger, the main missed opportunity in terms of building on and working with existing systems is the failure to include ISPs in efforts to bolster the TPD intervention, despite them being key institutions for teacher training.

Similarly, the research component of the BRiCE project sought to integrate the socioeconomic context into its approach. This was the impetus behind adopting a (partially) inductive approach to the analysis of teacher wellbeing. It helped ensure that the analysis reflected teachers' experiences and concerns, and informed RQ4, directed toward existing forms of knowledge and competencies developed by teachers in these contexts. It is also reflected in efforts to tailor the research instruments – both qualitative and quantitative – to the contextual and cultural specificities of the regions studied. The input of the researchers from ISP Bukavu has been invaluable in that regard, and the lack of a research counterpart in Niger has been sorely felt.

Nevertheless, there have also been obstacles to contextualising and incorporating existing forms of knowledge. As we explained in a blogpost (Wandji *et al.* 2022), there are deep inequalities between researchers and research institutions in so-called global collaborations, and 'fixing' these issues requires a lot of time and resources, including repeat and likely in-person consultations at all stages of the project. It also requires critically interrogating the language and conceptual lenses that are used. The choice of a randomised controlled trial for the evaluation, an extremely time and labour-intensive methodology, meant that fewer resources could be devoted to incorporating alternative methodologies and forms of knowledge than we would have liked.

9.1.5 Working with(in) the context: taking the time and asking the right questions

For both the education and research components, time has been a central challenge. While the BRiCE project had a relatively longer timeline than many educational and humanitarian interventions, severe delays caused by the Covid-19 school closures and the impact of the *Gratuité* policy meant that deadlines were still tight. Ultimately, and given the rocky implementation process of the TPD and ILET interventions, it is not unlikely that some effects will take time to

become visible – and possibly longer than the time we had available to detect them. Our delayed treatment effects have sought to capture some of the longer-term dynamics, but they are not methodologically perfect and the ‘delay’ they cover is less than a year. Behavioural changes such as the ones expected from TPD can take a long time, as knowing how – and why – something could be done differently does not mean that actions are taken immediately.

At a different level, and as we argued in our recent blogpost on international partnerships (*ibid.*), time is also a key requirement to ensure real engagement and dialogue that bring together different linguistic, epistemic and educational traditions and perspectives. The key is to ensure that all stakeholders develop real ownership of a project and approach.

More fundamentally even, the type of collaboration that is afforded by more time is also what allows epistemological progress. Notions such as teaching quality, which are deployed through education interventions and serve as guiding principles for monitoring and evaluation as well as research, still reflect Western-centric conceptions of education. Despite efforts to embed participatory approaches in education interventions, most continue to be based on conceptions of education that are culturally and socially situated (Sriprakash, Tikly and Walker 2020).

Both from a programmatic and a research perspective, the risk here is a form of incapacity to incorporate key actors and institutions in educational interventions. There is also a risk of missing key realities and challenges that schools face. In section 8, we have shown that the BRiCE project did not really take into account multilingualism, which is a reality in both Niger and the DRC, despite it being both a challenge and source of educational richness in both contexts.

The risk is to use diagnostic and programmatic tools that say much about what these contexts **are not** – for example, systematically finding that teachers have low scores on measures that are not adapted to the context – while understanding little about what they **are**, and the resilience and originality of approaches that exist in these contexts. What we understand as **quality** is highly context and culture specific (Jang, Cho and Wiens 2019). Projects – but also funding calls – need to allow for meaningful engagement with non-dominant and non-standard understandings of quality. This is also relevant for resilience to crises and addressing trauma.

9.2 Policy recommendations

9.2.1 For governments, NGOS and educational actors in crisis contexts

1. **PSS for teachers and school staff is a priority in conflict-affected contexts.** Increasing attention is paid to the psychological effects of violent conflict, but more resources should be invested in PSS for teachers and school staff, as well as frontline workers – including NGO and education project workers – who are all affected by violent conflict. In conflict-affected contexts, teachers bear the psychological weight of exposure to violence and violence permeates the school environment. Approaches that tend to focus on wellbeing cannot address severe trauma. Psychological support for traumatised teachers should be a policy priority (e.g. in Rwanda, the National Mental Health Policy launched by the Ministry of Health in 2011). Programmes should factor trauma into their design and develop and provide first mental aid care as well as counselling to teachers and educational actors (when possible, at scale). Practical examples include setting up a hotline or SMS/text-messaging service for teachers to speak with trained counsellors, psychologists and mental health workers, or developing on-site first mental aid care.
2. **Invest more in existing systems and understanding the context.** Schools are not detached and insulated from surrounding dynamics, which include violence but also *ad hoc* mechanisms to cope (and sometimes thrive). The BRiCE project has shown that partnerships can strengthen education and research projects, and add deep knowledge about contexts and existing systems, but there is considerable room for improvement. Projects should invest significant time and resources into understanding existing systems and incorporate them into their approaches. This should be a priority and might entail reducing other objectives. The recent tendency of funding short-term projects with unrealistic objectives is detrimental to the crucial objective of achieving contextualisation and engaging meaningfully with existing systems and institutions. Funders have the opportunity to change this trend and restore funding structures that allow for long-term engagement.
3. **Develop approaches that are based on the realities that teachers face.** Too often, adapting projects to the teachers' situation is insufficient, resulting in misaligned incentives. Teachers' experience, realities and challenges should be the starting point in the design of educational interventions and TPD. Issues such as turnover, dropout and absenteeism, which are realities that are often caused by crises, should be addressed directly in programming and not ignored, notably by developing flexible

approaches. Programmes and policies should encourage teachers' and students' representation in programme design as a way to ensure that realities are fully taken into account. Another idea would be to promote a more open-ended experimental programme for SIPs. This would give school communities more leeway to spend grants according to their priorities. For education interventions focused on teacher wellbeing, some communities might also consider that the best value for money in allocating project funds is to increase teachers' salaries. Teachers would then have to sign a contract to institutionalise their commitment to spend more time on school-related issues in the mornings and afternoons. Such a programme component could be inspired by the principles of performance-based financing, such as the idea of autonomy of management (Falisse *et al.* 2012; Renmans *et al.* 2016).

4. Provide incentives for girls to stay in school, especially towards the end of primary education, and for female teachers to stay in school.

Abolishing financial barriers, as was done through the *Gratuité* policy, is not sufficient. Policies and programmes need to do more to address gender bias in the teaching profession and school learning environment, particularly in Niger. The teaching profession can be an avenue for gender emancipation, as highlighted in the case of Niger. However, as evidenced in the baseline and midline studies, strong gender biases that affect teachers' and parents' perception of female teachers and hamper quality teaching hinder the full potential of such emancipation. Additionally, the perception of gender norms and roles limits the impact of programmes on girls' learning and wellbeing, especially in Niger. Affirmative policies would help female teachers achieve stable and lasting employment and senior positions in schools and the educational administration. They would also encourage positive interactions between parents, communities and female teachers.

9.2.2 For the government and its partners

- 1. Stabilise the teaching workforce.** Employment status is a major source of inequality and should be a point of entry for teacher wellbeing. Employment status conditions – whether a teacher is on a permanent, secure and fully recognised contract or on a more precarious type of contract (e.g. directly negotiated with a school or fixed term) – heighten inequalities in the teaching profession in Niger and the DRC. Policies should continue to seek to address inequality through public sector reforms to increase teacher wellbeing and teaching quality. Employment status issues should be addressed through public sector (payroll) reform and are first and foremost the remit of the governments of Niger and the DRC, frequently supported by international organisations.

2. **Integrate pedagogical tools to address violent conflict at school.** This should be done as part of teacher training and the general curriculum, and would build and sustain healthy teacher-student relations.

9.2.3 For Save the Children

1. **Broaden the conception and measurement of teaching quality.** Develop indicators of teaching quality that go beyond evaluating capacity-building modules, and explicitly reflect the (necessarily subjective) values and objectives assigned to education by society – and in particular by students and parents.
2. **Consider the role financial incentives play** in programme implementation and sustainability (see also the policy recommendations of the Midline Report).
3. **When designing future evaluations:**
 - 3.1 Ensure survey rounds align with interventions.
 - 3.2 Test and refine the potential theory of change with key stakeholders before implementation (better yet, co-create it).
 - 3.3 Define a few, limited key indicators – with others set as intermediary indicators.

Annexe

A.1 Teaching module on education in conflict-affected contexts

With support from the BRiCE project, ISP Bukavu and IDS have developed a module on conflict-sensitive teacher education. The development of the teaching module has been led by the following team of researchers: Professor Samuel Matabishi (ISP Bukavu); Professor Murhega Mashanda (ISP Bukavu); Professor Bosco Muchukiwa (Institut Supérieur de Développement Rural de Bukavu); Professor Justin Cheria Nfundiko (Université Catholique de Bukavu); Pamela Hajal (IDS); Cyril Brandt (IDS) and Gauthier Marchais (IDS).

The main outcome is an EiE module for secondary school teachers that will serve as an initial training tailored to conflict-affected contexts in the DRC. Drawing on the INEE Teachers in Crisis Contexts Training Pack and the DRC Education Cluster's materials, the module encompasses teacher wellbeing, peace education, child protection, children wellbeing and inclusion. Furthermore, the module makes reference to the EiE architecture, the political economy of conflict, the impact of armed conflict on education, conflict-sensitive education and teachers' resilience *vis-à-vis* multiple entanglements of schools with conflict dynamics.⁶⁷ This section provides a brief background to ISPs in the country and introduces the rationale for designing this module.

The first public universities in the DRC were established in 1963. In the 1970s, all primary and secondary schools and HEIs were nationalised. At the end of the 1980s, private HEIs were formally allowed. Over the years, the distinction between university and ISP has become increasingly blurred, especially in the private sector. Today, the country has about 500,000 students in higher education, of whom two thirds study in 387 public HEIs and one third in 456 private HEIs. Kinshasa, which accounts for roughly 9 per cent of the population, is home to roughly 35 per cent of enrolled students. Teaching in HEIs is attractive, with salaries about 10–15 times higher than those of primary school teachers, largely funded by students. Enabling access to HEIs is a major challenge for politicians and leaders. Elections and administrative decentralisation have fuelled the proliferation of HEIs (Poncelet and Kapagama 2020). As a consequence, the value of diplomas has decreased. Recently, 'academic titles of certain Congolese professors and lecturers have been

⁶⁷ Novelli 2013; Novelli, Lopes Cardozo and Smith 2017; Shah 2019.

invalidated' (Muhindo Balume and Batumike 2018). Higher education is a challenging terrain to operate in.

ISPs are pre-service teacher training institutes that were created shortly after independence to respond to the acute shortage of teachers due to the departure of European educational staff. ISP Bukavu was created in 1961, and has since grown into a university, with a range of departments beyond pedagogy. Over the years, a number of additional ISPs have been created in North and South Kivu. While future primary school teachers only need to finish secondary school, future secondary school teachers require a diploma from a higher education teacher training institute. In reality, especially in rural areas, numerous secondary school teachers do not have the required qualifications. Nonetheless, ISPs continue to train a pedagogical elite for secondary schools, who then teach in urban and rural areas. It is well known that the international development discourse has strongly prioritised supporting primary education over secondary and higher education. Moreover, with regard to the subject of this report, it is remarkable that the pre-service higher education curriculum has not been adapted to the changing circumstances of the political situation in the Kivus (see Younes 2020: 173 for a similar assessment in Syria).

After three decades of armed conflict, teachers are still not being prepared for the reality they encounter in the classroom. With a strong focus on the acquisition of knowledge, conflict-sensitive education has not made its way into ISPs. At the same time, teachers work with traumatised students, in contexts of acute tensions between ethnocultural groups, and face a variety of challenges related to the multifaceted entanglements between schools and armed groups. Teachers need to understand and apply the basic tenets of conflict-sensitive education, becoming resilient in the face of armed conflict, and critical with regard to their role in these challenging environments.

Research demonstrates that HEIs can play an important role in responding to dynamics of violent conflict (Millican 2018). Conflict-sensitive education has the potential to become a cross-cutting component of teacher training and thereby 'impact, at scale, the transformation to a more peaceful, respectful, civically-minded population' (INEE 2013). Starting with the question of who is trained, pre-service teacher training ought to be accessible without discrimination against any group, particularly refugees and displaced people.

Regarding content and approaches, conflict-sensitive teacher training includes 'a range of competencies that cut across the development of a teacher's pedagogical confidence (participatory methodologies, multi-grade instruction), subject knowledge (human rights, conflict dynamics and transformation, historical memory) and social skills (identity issues, reconciliation, non-violent alternatives)' (Horner *et al.* 2015; INEE 2013). At the same time, as for all facets

of education systems, universities play ambivalent roles in violent conflict, as they can serve as platforms for violent mobilisation, or as centres where the exclusionary ideologies that underpin violent conflict breed. Nevertheless, they can also provide zones of relative peace, and key spaces for mediation and discussion, and are among the most durable and resilient 'national' institutions during violent conflict (Millican *et al.* 2018; 2021).

Our empirical findings warrant the approach of focusing on teacher training institutes and universities. Trainings delivered by NGOs have focused on PSS and conflict-sensitive education. However, our research emphasises the importance of equipping teachers with knowledge to face the multiple entanglements of the education sector with dynamics of ongoing violent conflict. Interviews with professors and other teaching staff at ISP Bukavu revealed a concern with conflict analysis and conflict resolution, in particular the impact of armed conflict on education and vice versa. Such a desire for conflict analysis was also found in other contexts (Horner *et al.* 2015). Teachers voiced similar desires:

Through this topic we can encourage the students to consider and respect each other's different identities in order to avoid tensions related to identities. Yes, as we are in a constantly changing environment, it is useful to address this topic in order to be prepared for possible changes in the context and the possible impact of these conflicts on education. In addition, through this theme, students would become aware of the main drivers of conflict, what divides and connects in society, and the dynamics of conflict. Therefore, this analysis of armed conflict should be regularly updated, shared with staff and students.

(EL 47)

The main objectives of the EiE module are to:

1. Equip teachers with critical and reflective understanding of how conflict affects education by 'drawing on their own experiences' (Horner *et al.* 2015). Reflective teaching enables teachers to critically interrogate the forms of knowledge they summon and convey (Ashwin *et al.* 2015: 157), and to trust their own knowledge of a particular issue or situation, while critically reflecting on it. This is particularly important for teachers dealing with extremely complex and context-specific crises, as they are the ones equipped with the most advanced knowledge of the situations they deal with.
2. Prepare teachers for conflict-related challenges they might face in schools.
3. Equip teachers with skills related to conflict resolution and peacebuilding in the classroom.

4. Disseminate insights and best practices from existing studies and reports, such as the ones published by the GCPEA.
5. Improve teachers' understanding of the EiE architecture.

We expect that teachers with strengthened knowledge in these fields will be able to create a more inclusive and conflict-sensitive learning environment. Furthermore, knowledge about the entanglement of violent dynamics with the education sector will enable teachers to develop a stronger sense of professionalism, as such knowledge will allow them to adapt their teaching content and teaching practices to reduce potential harm to students and school staff. The module has a built-in feedback mechanism, allowing those who deliver the training (principally, ISP teaching staff) to incorporate suggestions by teachers. ISP Bukavu will provide a report on the module after its first year of implementation, to identify and share areas for improvement. The module will consist of six units, lasting 2–4 hours each.

Limitations

One limitation of this module is that Congolese ISPs only train secondary school teachers. Primary school teachers would therefore not benefit from the project. Depending on the success of the module, a follow-up activity with primary schools might be envisaged. As of now the programme lacks an evidence-based assessment. To develop the assessment tools, we will draw on the INEE's EiE Competency Framework (INEE 2020) and the one developed for the BRiCE project, as well as ISP Bukavu's own methods and practices for assessing teaching modules.

Continuous professional development would be desirable, but we believe that it is too early, and extremely ambitious, to plan such follow-up mechanisms in the challenging context of the DRC, where hardly any structured continuous TPD exists. Teachers provided indirect input into the module through the BRiCE research, where their voices were heard and we have learned from the experiences of teacher trainers at ISP Bukavu. Through the assessment tools, we hope to further draw on teachers' experiences to make the module as relevant and beneficial for teachers as possible. Naturally, a module on conflict-sensitive education is only one element of an institution or even a sector-wide approach to conflict-sensitivity (Millican *et al.* 2021).

A.2 List of qualitative interviews

Table A.2.1 List of qualitative endline interviews (DRC)

No.	Date	Territoire	Lieu	Position
1	27.07.2021	Fizi	Baraka	Enseignant
2	27.07.2021	Fizi	Baraka	Enseignante
3	27.07.2021	Fizi	Baraka	Enseignant
4	28.07.2021	Fizi	Baraka	Enseignant
5	28.07.2021	Fizi	Baraka	Enseignant
6	28.07.2021	Fizi	Baraka	Enseignant
7	29.07.2021	Fizi	Baraka	Directrice
8	29.07.2021	Fizi	Baraka	Enseignante
9	29.07.2021	Fizi	Baraka	Enseignant
10	30.07.2021	Fizi	Baraka	Enseignant
11	30.07.2021	Fizi	Baraka	Inspecteur provincial
12	30.07.2021	Fizi	Baraka	Enseignant
13	30.07.2021	Fizi	Baraka	Enseignant
14	30.07.2021	Fizi	Baraka	Directeur
15	30.07.2021	Fizi	Baraka	Enseignant
16	31.07.2021	Fizi	Katanga	Directeur adjoint
17	31.07.2021	Fizi	Baraka	Enseignant
18	31.07.2021	Fizi	Lusenda	Directeur adjoint
19	31.07.2021	Fizi	Baraka	Enseignant
20	01.08.2021	Fizi	Lusenda	Enseignant
21	01.08.2021	Fizi	Katanga	Enseignant
22	30.07.2021	Fizi	Mboko	Maître en chef
23	02.08.2021	Fizi	Lusenda	Enseignante

24	02.08.2021	Fizi	Lusenda	Enseignant
25	03.08.2021	Fizi	Mboko	Inspecteur
26	03.08.2021	Uvira	Rugembe	Enseignante
27	05.08.2021	Uvira	Mulongwe	Inspecteur
28	05.08.2021	Fizi	Mboko	Secrétaire
29	05.08.2021	Uvira	Mulongwe	Maître formateur
30	05.08.2021	Uvira	Kiliba	Enseignant
31	05.08.2021	Uvira	Mulongwe	Inspecteur
32	05.08.2021	Fizi	Mboko	Enseignante
33	06.08.2021	Uvira	Kiliba	Enseignant
34	06.08.2021	Fizi	Mboko	Enseignant
35	06.08.2021	Uvira	Kiliba	Directeur
36	06.08.2021	Fizi	Mboko	Enseignante
37	07.08.2021	Uvira	Kiliba	Enseignant
38	07.08.2021	Uvira	Kavimvira	Enseignant
39	07.08.2021	Uvira	Sange	Enseignante
40	08.08.2021	Uvira	Sange	Enseignante
41	08.08.2021	Uvira	Luvungi	Sous-Preved
42	09.08.2021	Uvira	Luvungi	Directeur
43	09.08.2021	Uvira	Luvungi	Enseignant
44	09.08.2021	Uvira	Luvungi	Directeur
45	09.08.2021	Uvira	Luvungi	Enseignant
46	10.08.2021	Uvira	Luvungi	Enseignant
47	10.08.2021	Uvira	Luvungi	Directeur
48	12.08.2021	Uvira	Sange	Enseignante
49	12.08.2021	Uvira	Sange	Enseignante

50	16.08.2021	Bukavu	Kibombo/ISP	Professeur
51	16.08.2021	Bukavu	Kibombo/ISP	Chef de travaux
52	16.08.2021	Bukavu	Kibombo/ISP	Professeur associé
53	18.08.2021	Bukavu	Kibombo/ISP	Professeur ordinaire
54	18.08.2021	Bukavu	Kibombo/ISP	Chef de travaux

Table A.2.2 List of qualitative endline interviews (Niger)

No.	Date	Region	Department	Role
1	22.11.2021	Diffa	Diffa	Government administrator
2	22.11.2021	Diffa	Diffa	TPD coach
3	23.11.2021	Diffa	Diffa	Government administrator
4	23.11.2021	Diffa	Diffa	Directeur
5	23.11.2021	Diffa	Diffa	Head teacher
6	23.11.2021	Diffa	Diffa	Teacher
7	24.11.2021	Diffa	Diffa	Head teacher
8	25.11.2021	Diffa	Maine	Head teacher
9	25.11.2021	Diffa	Maine	Parent
10	26.11.2021	Diffa	Diffa	TPD coach
11	26.11.2021	Diffa	Diffa	Head teacher
12	26.11.2021	Diffa	Diffa	Teacher
13	26.11.2021	Diffa	Diffa	Head teacher
14	26.11.2021	Diffa	Maine	Government administrator
15	26.11.2021	Diffa	Maine	Government administrator
16	26.11.2021	Diffa	Maine	Head teacher
17	26.11.2021	Diffa	Goudoumaria	Head teacher
18	26.11.2021	Diffa	Goudoumaria	Teacher

19	26.11.2021	Diffa	Goudoumaria	Parent
20	26.11.2021	Diffa	Goudoumaria	Head teacher
21	26.11.2021	Diffa	Goudoumaria	Teacher
22	27.11.2021	Diffa	Maine	Head teacher
23	27.11.2021	Diffa	Maine	Teacher
24	27.11.2021	Diffa	Goudoumaria	Government administrator
25	27.11.2021	Diffa	Goudoumaria	Government administrator
26	29.11.2021	Zinder	Kantche	Head teacher
27	29.11.2021	Zinder	Kantche	Teacher
28	29.11.2021	Zinder	Kantche	Head teacher
29	29.11.2021	Zinder	Kantche	Head teacher
30	30.11.2021	Zinder	Kantche	Government administrator
31	30.11.2021	Zinder	Zinder	Head teacher
32	30.11.2021	Zinder	Zinder	Head teacher
33	30.11.2021	Zinder	Kantche	Head teacher
34	30.11.2021	Zinder	Kantche	Head teacher
35	30.11.2021	Zinder	Kantche	Head teacher
36	30.11.2021	Zinder	Kantche	Parent
37	01.12.2021	Zinder	Kantche	Teacher
38	01.12.2021	Zinder	Kantche	Head teacher
39	02.12.2021	Zinder	Zinder	Government administrator
40	02.12.2021	Zinder	Zinder	Government administrator
41	02.12.2021	Zinder	Zinder III	Head teacher
42	02.12.2021	Zinder	Zinder III	Head teacher
43	02.12.2021	Zinder	Zinder	Government administrator
44	03.12.2021	Diffa	Zinder	TPD coach

45	03.12.2021	Diffa	Zinder	TPD coach
46	03.12.2021	Zinder	Zinder II	Head teacher
47	03.12.2021	Zinder	Zinder II	Teacher
48	03.12.2021	Zinder	Zinder II	Parent
49	03.12.2021	Zinder	Kantche	Government administrator

Table A.2.3 List of online BRiCE key informant interviews

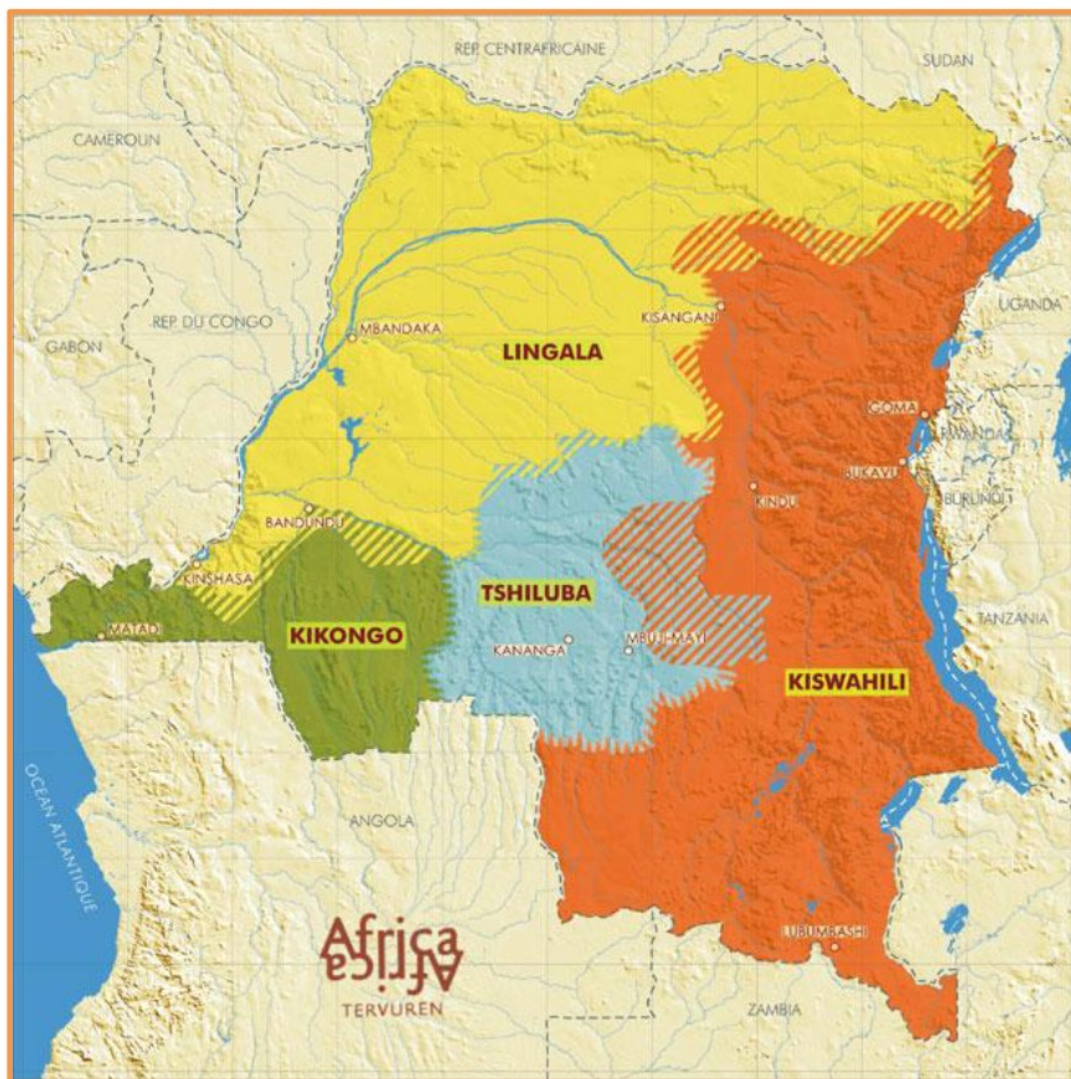
No.	Date	Role
1	14.09.2021	Senior Advisor MEAL, Save the Children Norway
2	14.09.2021	Education & Protection Project Manager Niger, Save the Children International
3	15.09.2021	MEAL Coordinator for BRiCE in the DRC, Save the Children International
4	16.09.2021	Head of Education Programming, Save the Children UK
5	17.09.2021	Education Programme Manager Uvira, Save the Children International
6	22.09.2021	Education MEAL Adviser, Save the Children UK
7	22.09.2021	Area Director for West, Central and Southern Africa; Director Programme Quality and Impact, Save the Children Norway
8	23.09.2021	Government pedagogic counsellor, Niger
9	24.09.2021	Government pedagogic counsellor, Niger
10	24.09.2021	Education Project Officer, DRC, Save the Children International
11	30.09.2021	Save the Children UK during design phase

A.3 BRiCE Teacher Competency Framework

Competency
1 – explaining the core competencies that children need to read and write
2 – explaining how your learners are developing their reading skills
3 – understanding the value of print in your classrooms and develop purposeful print for a literate environment
4 – explaining the importance of fluency in reading for comprehension and competent readers and identifying readers' fluency levels
5 – using different strategies in their classrooms and school to improve students' reading fluency
6 – using strategies to help learners who may be struggling to see and so read text
7 – explaining how vocabulary development is important for competent readers
8 – using different strategies in their classrooms and school to develop students' reading vocabulary
9 – recognising and addressing potential differences between girls and boys in vocabulary development
10 – describing the roles and responsibilities of a teacher both inside and outside of classroom and school settings
11 – fostering a positive classroom environment by establishing clear rules and using discipline rather than punishment
12 – demonstrating teaching and assessment strategies that cultivate inclusive classroom environments
13 – defining the terms 'gender' and 'sex' and explaining how the language we use could reinforce or tackle gender stereotypes
14 – identifying specific ways in which girls are often disadvantaged in classroom and school settings
15 – applying differentiation and gender-responsive strategies to lesson content, tasks, and assessment
16 – explaining how students in your community may be affected by conflict and the impact it has on them
17 – recalling and applying the three-step model for providing psychological first aid with students who have experienced conflict
18 – identifying and developing knowledge, skills and behaviours of conflict-sensitive education and explaining their importance in their schools and communities

A.4 Maps: Languages in the DRC

Figure A.4.1 The four national languages of the DRC



Source: Matabishi (2018). Reproduced with permission.

Figure A.4.2 ‘Local’ languages of the DRC



Source: Matabishi (2018)

A.5 Outputs of the BRiCE project

A.5.1 Presentations and workshops

April 2021: CIES Annual Conference

Marchais, G.; Brandt, C.; Gupta, S.; Matabishi, S. and Mze Somora, P. (2021) 'Teacher Wellbeing and Teaching Quality in Protracted Crises. Insights from the DR Congo and Niger', conference presentation at the Annual Conference of the Comparative and International Education Society, April 2021, Seattle (virtual), on a panel with the other BRiCE research consortia

August 2021: IDS-Save the Children

Marchais, G.; Brandt, C.; Gupta, S. and Matabishi, S. (2021) 'Projet de Recherche BRiCE', internal Save the Children presentation, 5 August

November 2021: Inter-agency Network for Education in Emergencies

Matabishi, S. (2021) 'Le Développement Professionnel des Enseignants dans les Zones à Conflits Armés et Non Armés au Sud-Kivu', input and plenary discussant at the INEE Webinar '**Teacher Professional Development in Crisis Contexts – Sharing Good Practice, Lessons Learned and Opportunities for Change**', with support from Gauthier Marchais and Cyril Brandt, 24 November (accessed 25 October 2022)

January 2022: Presentation of results in Uvira, DRC

11 January 2022: Presentation of preliminary results by Gauthier Marchais, Samuel Matabishi and Cyril Brandt to Save the Children BRiCE staff, BRiCE project school directors, teachers and partners from Uvira territory; the presentation was followed by a workshop on the BRiCE research project.

12 January 2022: Presentation of preliminary results by Gauthier Marchais, Samuel Matabishi and Cyril Brandt to Save the Children BRiCE staff, BRiCE project school directors, teachers and partners from Fizi territory; the presentation was followed by a workshop on the BRiCE research project.

January 2022: Presentations at ISP Bukavu, DRC

14 January 2022: Presentation of research project by Gauthier Marchais, Samuel Matabishi and Cyril Brandt to ISP Bukavu research staff, South Kivu education actors and directors of South Kivu research centres and universities; the presentation was followed by a workshop on education in conflict-affected areas.

15 January 2022: Workshop on the teaching module on education in conflict-affected contexts at ISP Bukavu; presentations by Prof. Samuel Matabishi, Dr Cyril Brandt, Prof. Murhega Mashanda, Prof. Bosco Muchikiwa and Prof. Justin

Nfundiko. This workshop was preceded and followed by a series of consultations and discussions on the module.

9–11 February 2022: Workshop with South Kivu Ministry of Education and Education Cluster, Bukavu, DRC

Three-day workshop with the South Kivu Education Cluster and the representatives of the MEPST in South Kivu, to present the results of the BRiCE research project as well as the BRiCE teaching module and reflect on education in emergencies. Co-organised with Save the Children (David Biloko); BRiCE staff conducting presentation: Prof. Matabishi and Prof. Mashanda (with support from Gauthier Marchais).

15–17 February 2022: Training of ISP staff on teaching module, Bukavu

Training of the ISP teaching staff on the teaching module on education in conflict-affected contexts, conducted by Prof. Mashanda, Prof. Matabishi and Prof. Nfundiko, with the support of Gauthier Marchais.

24–26 February 2022: Training of BRiCE partners on teaching module, Uvira

Training of BRiCE project partnerships in Fizi and Uvira on the teaching module on education in conflict-affected contexts, conducted by Prof. Mashanda, Prof. Matabishi and Prof. Nfundiko, with the support of Gauthier Marchais. Co-organised with Save the Children (David Biloko).

9 March 2022: IDS Members' Seminar Presentation

Presentation of the BRiCE research project to IDS and Sussex academic communities at the IDS Members' seminar.

28 March 2022: Presentation of preliminary Niger results to BRiCE staff and partners in Niger (online).

24 May 2022: Save the Children Learning Workshop, including presentation of research results by IDS. The invitation will be shared with the DRC Education cluster and the Niger Education cluster.

A.5.2 Reports and papers

Marchais, G. *et al.* (2020) **BRiCE Project DRC and Niger: Baseline Report**, Brighton: Institute of Development Studies (accessed 25 October 2022)

Marchais, G. *et al.* (2020) *Short Study: The Impact of COVID-19 on Education in South Kivu, DRC*, Brighton: Institute of Development Studies (shared with Save the Children)

Gupta, S. *et al.* (2020) **BRiCE Project DRC and Niger: Midline Report. Teacher Wellbeing and Teaching Quality in Fragile and Conflict-Affected**

Contexts, Brighton: Institute of Development Studies (accessed 25 October 2022)

Falisse, J-B. *et al.* (2022) '**Comment la Gratuité de l'Enseignement Atténue et Exacerbe les Effets de la Pandémie de Covid-19 en RDC** (How the Free Education Reform Mitigates and Exacerbates the Effects of the Covid-19 Pandemic in DRC)', *Journal of Education in Emergencies* [resubmitted after revisions] (accessed 25 October 2022)

Brandt, C.; Marchais, G.; Matabishi, S. and Hajal, P. (2022) 'Critical Education in Emergencies Module for Teachers' Training Institutes in the DR Congo', in C. Henderson and C. Berquin (eds), *Teachers in Crisis Contexts Event Series 2021 –2022*, New York: INEE

A.5.3 Blogs

Brandt, C.; Marchais, G.; Matabishi, S. and Mze Somora, P. (2020) **School Focused Educational Interventions are Limited in Addressing Structural Inequality in Conflict-Affected Contexts**, REACH Initiative, Harvard Graduate School of Education, 19 October (accessed 25 October 2022)

[French version: **Les Interventions Éducatives Axées sur l'École sont Limitées pour Lutter contre les Inégalités Structurelles dans les Contextes Touchés par les Conflits**] (accessed 25 October 2022)

Wandji, D.; Brandt, C.; Falisse, J-B.; Marchais, G. and Matabishi, S. (2022) **How Can We Address Global Knowledge Inequalities in International Research Partnership**, Democracy in Africa blog, 12 January (accessed 25 October 2022)

A.6 Implementation of TPD and ILET

Table A.6.1 Timeline of implementation of TPD in the DRC

DRC TIMELINE																																					
		2018			2019						2020												2021												2022		
		Dec	...	May	...	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb		
Cohort 2	Reading and writing																																				
	Fluidity for understanding																																				
	Vocabulary																																				
	Girls' education																																				
	Code of Conduct																																				
	CSE																																				
Cohort 3	Reading and writing																																				
	Fluidity for understanding																																				
	Vocabulary																																				
	Girls' education																																				
	Code of Conduct																																				
	CSE																																				
External shocks	General elections																																				
	Gratuité																																				
	Covid-19: closure of schools																																				
	Floods																																				
	Teacher strikes																																				
		Baseline																Midline						Endline													

Source: Authors' own, based on information collected for this project.

Table A.6.2 Timeline of implementation of TPD in Niger

Niger TIMELINE																																
		2020												2021												2022						
		...	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Cohort 2	Reading and writing																															
	Fluidity for understanding																															
	Vocabulary																															
	Girls' education																															
	Code of Conduct																															
	CSE																															
Cohort 3	Reading and writing																															
	Fluidity for understanding																															
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	Code of Conduct																															
	CSE																															
Covid-19: closure of schools																																
		Baseline				Midline								Endline																		

Source: Authors' own, based on information collected for this project.

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