TPD@SCALE BRIEFING NOTE

Moving Towards Successful Teacher Professional Development in the Global South

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Executive Summary

- There is limited evidence on what constitutes effective and/or successful teacher professional development (TPD) from low-income contexts. A number of challenges can impact the efficacy of TPD in low-income contexts. These range from challenges in initial teacher education to school monitoring and inspection regimes and, more recently, the COVID-19 pandemic.

- Nonetheless, there are some promising examples of TPD from across the Global South that highlight five key thematic areas for consideration when designing TPD at scale. They include (but are not limited to): recognition of teachers as professionals/change agents; adequate support for teachers to help them to center students' needs; TPD design being situated, authentic, and practice-based; the provision of opportunities for reflective practice, peer learning/collaboration, the establishment of teacher communities; and a sustained approach over time. Coaching is also an important area that has been shown to enhance the quality of teaching.

- A number of contextual issues and how they interact at various levels (system, school, classroom, and teacher) need to be taken into consideration when designing TPD at scale.

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Acronyms

BLF	Building Learning Foundations
ELLN	Early Language, Literacy and Numeracy
ICT	information and communications technology
ITE	initial teacher education
LAC	Learning Action Cell
MOOC	massive open online courses
NGO	non-government organization
OER	open educational resources
TESS-India	Teacher Education through School-based Support in India
TPD	teacher professional development

Boxes and Figure

Introduction

It is well established that there is limited evidence and literature on what constitutes effective or successful teacher professional development (TPD) in low-income contexts (Haßler et al., 2018). Much of the existing reviews from developing contexts analyze small-scale, one-off initiatives and interventions with variable evaluation methodologies (Sims & Fletcher-Wood, 2020). Nonetheless, some promising insights from low-income contexts are beginning to provide a southern perspective on characteristics of successful TPD that are increasingly important during this period of COVID-19 recovery.

Our working definition of TPD describes a long-term, continuous process involving regular opportunities to "develop an individual's skills, knowledge, expertise and other characteristics as a teacher" (OECD, 2009, p. 49). TPD may include formal courses, non-formal training activities (such as workshops and seminars), and informal experiences (such as participation in a professional learning community). More importantly, effective TPD is planned systematically and designed to promote growth and development in the profession (Villegas-Reimers, 2003).

This briefing note brings together current understanding about the characteristics that have the greatest potential to positively impact teacher behaviors and ultimately learner outcomes. More established, rigorous research from high- or medium-income contexts provides a fruitful starting point for this discussion, such as the principles identified in Darling-Hammond et al. (2017). Such insights will be contextualized to examine the interrelation between the macro, meso, and micro contexts typical to the Global South.

Policy context: Challenges with and in teacher professional development and learning in the Global South

Initial teacher education is insufficient in terms of access and quality. Universal education policies and the subsequent rapid expansion of the teaching workforce mean that many teachers have not benefited from any form of initial teacher education (ITE) before entering the classroom (Orr et al., 2013). Where ITE has taken place, numerous studies point to overloaded, outdated ITE curricula that focus on general pedagogy; a large theory and practice gap (Haßler, 2020); lack of modelling of "best practice"; insufficiently trained/experienced teacher trainers/educators (Bainton et al., 2016); weakly acquired pedagogical knowledge; lack of follow up mentorship support for teachers; and a disconnect between the promoted learner-centered pedagogies and teacher-centered ITE training styles.

In addition, planners and implementers rarely take a holistic approach to ITE. Oftentimes, ITE seemingly ignores the influence of teachers' previous experiences, values, and beliefs on their classroom practice (Westbrook et al., 2013) and why these influences might be problematic. Views of "good teaching" by teachers and teacher educators alike seldom mirror effective practice and often oppose the principles of learner-centered education that tend to be promoted at the national policy level (Akyeampong et al., 2013).

ITE curricula, student curricula, pedagogy, and student assessment systems are often misaligned. Student curricula, pedagogy, and student assessment are critically interrelated and have mutual influence over each other in day-to-day classroom interactions and teacher practice. In many contexts, ITE (and TPD) curricula are poorly aligned or inconsistent with student curricula that teachers are expected to teach and the pedagogical styles they are encouraged to use (Allier-Gagneur et al., 2020). As student curricula tend to be highly demanding, centralized, and accompanied by high stake examinations, this typically has "strong backwash effects" and sends clear signals to the teachers as to the topics, concepts, and skills they should focus on. As a result, teachers may use more teacher-directed methods to cover the curriculum quickly and "teach to the test" (Somerset, 2011).

Access to and frequency of TPD opportunities are often inconsistent and/or inequitable. Provision of TPD is often inadequate or non-existent for various reasons: insufficient financing; absence of a structure for TPD; and the lack of more experienced, high-quality teacher educators and mentors to provide ongoing, regular support to teachers. Similarly, teacher educators themselves often do not have the required capacity-building support to strengthen their own skills and experience. TPD in the form of cascade training and one-off workshops dominate, but evidence strongly suggests that these approaches are ineffective (Westbrook et al., 2013). As such, current TPD provision seldom provides sustained opportunities for situated, reflective practice and opportunities for peer learning.

The purpose and objectives of TPD are not always clear and rarely defined in terms of learner outcomes. Some studies have reported confusion among teachers about how TPD is defined, with many understanding TPD as a way of upgrading existing qualifications as opposed to a program to support improved student learning (Hardman et al., 2011). Consequently, much of the focus for TPD tends to be on attendance and completion as opposed to improvements in teachers' classroom practice.

In many cases, TPD is not explicitly designed to address professional learning needs arising from students' learning needs. Instead, most studies focus on whether teachers adopt the methods that feature in teacher education programs and use self-reporting as evaluation; this does not help teachers to understand how students become differentially positioned in classrooms. As Allier Gagneur et al. (2020) point out, the observer effect, i.e., the likelihood that teachers make an extra effort to use new methods when under observation, is rarely discussed. Another study from South Africa suggests that in many instances teachers adopt the "form" and not the "substance" of learner-centered pedagogical reform, i.e., arranging students to undertake group work but not changing the nature of tasks and classroom interactions (Brodie et al., 2002).

Classroom realities and working conditions are also not sufficiently considered in the design of TPD. Successful teacher education programs (both pre-service and in-service) should recognize the everyday realities of the classroom as well as the motivation and capacity of teachers to deliver classroom reforms. Despite this, there is often little recognition of the realities of teachers' classrooms in macro-level policies, reforms, and the design of professional

learning opportunities. These realities include: language diversity in the classroom; gender inequalities; the needs of first-generation learners and children with disabilities/special needs; and resource constraints (Hardman et al., 2011).

School monitoring and inspection regimes also have a constraining effect on teacher practices and may encourage didactic, ineffective pedagogies as opposed to supporting openness to experiment and reflect on new approaches via TPD. Other reasons for lack of engagement with TPD and/or new teaching practices may include teacher workloads, external responsibilities and commitments, lack of or no allocated time scheduled for ongoing TPD, logistical constraints, and TPD design.

The COVID-19 pandemic has created unprecedented challenges for teaching and learning but also an opportunity to reconfigure TPD. From the onset of the pandemic, teachers across the world were immediately tasked with implementing distance learning approaches, often without sufficient guidance, training or resources. In many contexts including the Global South, TPD has moved online or been delivered via telephone, video, and radio applications. However, this support has frequently not reached teachers working in marginalized communities. Even in contexts with sufficient digital infrastructure, many educators lack confidence and/or the most basic information and communications technology (ICT) skills. This means that they will likely struggle with their own ongoing professional development, let alone with facilitating quality distance ICT-mediated learning (United Nations, 2020; Liyanagunawardena, 2013). More than a year after the pandemic began, there are few publicly available evaluations of remote TPD interventions. Building this evidence base would strengthen our understanding of any developments in teachers' ICT skills and ways in which technology can act as an enabler for enhanced professional learning for all teachers.

What do we know about successful TPD in the Global South?

Several recent studies have provided characteristics and principles for consideration in the design of TPD (see Allier-Gagneur et al., 2020; Bainton et al., 2016; Burns & Lawrie, 2015; Haßler, 2020; Haßler et al., 2020; Naylor & Sayed 2014; Popova et al., 2021; Power et al., 2019; Westbrook et al., 2013). Though there is no clear consensus, some emerging themes present themselves as areas of common relevance across a range of different studies focused on successful TPD in low-income contexts. Ultimately, successful TPD effectively models desired practice and enables teachers to learn through practice in ways which address their own learning needs; is rooted in collaborative inquiry and reflection; creates conditions in which teachers have and use their agency; and offers access to expertise in various forms.

The following are five key themes that we have identified across various studies focused on TPD in the Global South. Case studies in the boxes that follow illustrate the identified themes in practice. It should be noted that the case study examples are "at scale" examples with available data. We acknowledge that there are also smaller innovations that can also provide useful insights.

SUCCESSFUL TPD:

1 RECOGNIZES TEACHERS AS PROFESSIONALS.

Teachers often begin participation in TPD with years of previous experience and it is important that this experience is neither ignored nor undermined. Teachers' practical and professional knowledge should be recognized to both motivate them to engage and participate in TPD and to leverage their diverse experiences and knowledge through collaborative dialogue and peer learning. With this in mind, teachers should be afforded the choice and agency to identify their own professional learning on their journey as reflective practitioners (SUMMA, 2021b). This can be done by addressing teachers' self-identified needs, modelling communicative pedagogy, and providing opportunities for critical inquiry, active learning, and teacher collaboration to support them in addressing their learners' needs (Haßler et al., 2020). Box 1 illustrates how an international NGO's approach to TPD empowers teachers as change agents in their school communities.

Box 1. Teachers as change agents

STIR Education's approach to TPD uses communities of practice run by district officials and other teachers to improve teachers' professional behaviors and sense of agency to make positive changes in their classrooms and schools. Teachers share effective practices that work for them, are provided with evidence and research on what improves student engagement, and are tasked with "challenges" to improve school culture and classroom outcomes over a specific time period. After joining the program as an "associate changemaker," a teacher becomes a "changemaker" after the first year, a "lead changemaker" on finishing the first challenge, and finally a "fellow" after the second challenge, recognizing their efforts, progression, and achievements during the program (ID Insight, 2018).

An independent World Bank-funded randomized controlled trial of the STIR intervention in Delhi showed that even when only a fifth of the teachers in a school had access to the intervention, the entire school saw a strong statistically significant gain in learning levels in Maths (0.11 standard deviation average across the entire school). This strong "spill over" of learning gains across the whole school coincided with a statistically significant gain in teachers' growth mindset and motivation. In Uganda, teachers reported increased confidence in their abilities as teachers, increased experimentation, use of teaching aids, and improved questioning techniques in class (Wolfenden et al., 2018).

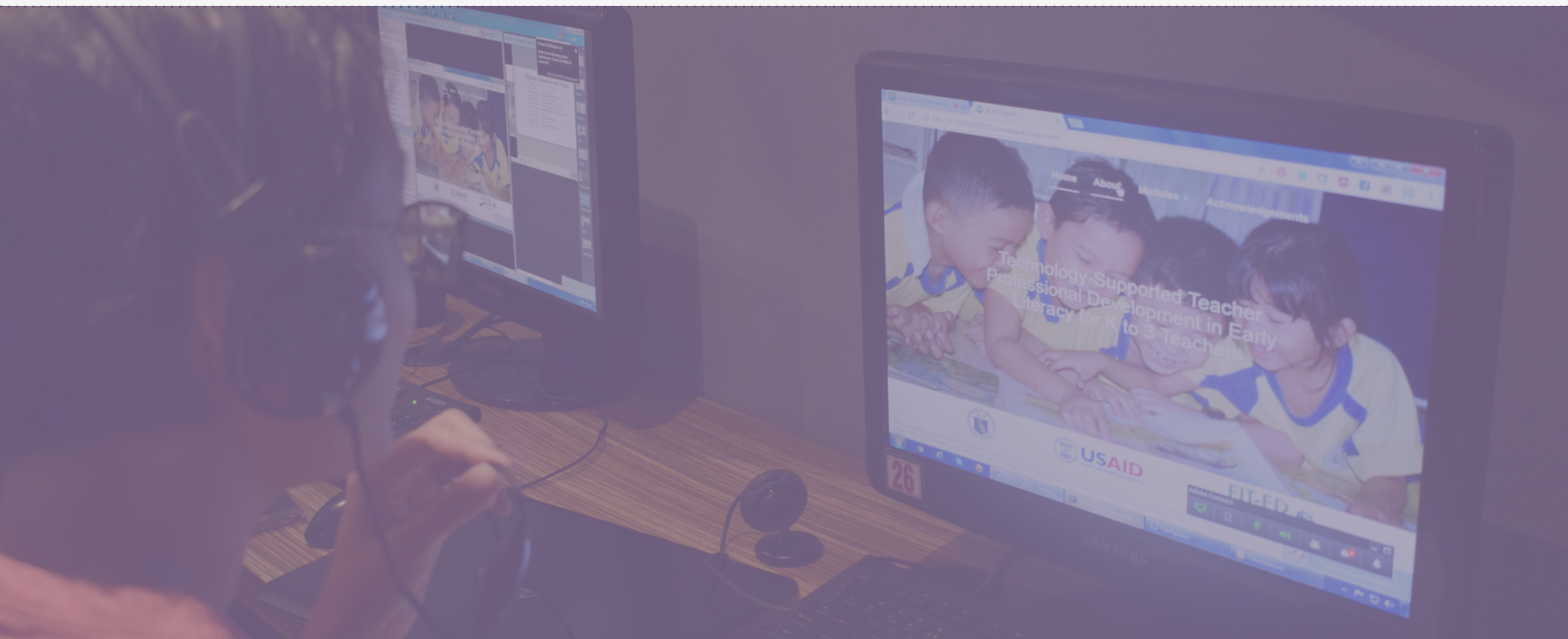
2 SUPPORTS TEACHERS TO FOCUS ON THE LEARNING NEEDS OF ALL THEIR PUPILS.

Current TPD design and evaluation generally emphasize changing teacher behaviors and this is assumed to lead to better quality of teaching and learning. Where linkages to learner outcomes are made, these are often narrowly defined in terms of literacy and numeracy, and the needs of the most marginalized students (and teachers) are rarely considered. Teachers should be encouraged and supported to undertake inquiry and experimentation in the classroom that relates to their subject matter, students, and setting. Any consequent changes in classroom practice and interactions should highlight multiple aspects of students' learning and their perspectives on what they value, not only assessment scores. Effective TPD programs support teachers to recognize and respond to marginalization and its consequences for learning. This often involves a change in perspective on practice leading to a broadening of their repertoire of practice, as the case study in Box 2 illustrates.

Box 2. Improving student learning and outcomes through TPD

The Early Language, Literacy and Numeracy Digital (ELLN Digital) TPD program in the Philippines aims to improve literacy and numeracy teaching in K-3 classes. This blended program combines flexible self-study of interactive offline materials with participation in weekly school-based face-to-face sessions. Each week, teachers are expected to complete an activity or assignment that frequently involves a classroom-based activity. These collaborative Learning Action Cells (LACs) are facilitated by a peer mentor. Peer mentors are supported by Learning Facilitators who are available to visit and provide support through phone and SMS (Oakley et al., 2018).

Evaluation of the pilot ELLN Digital program found that *"teachers shifted their views on how literacy should be taught in K-3 classrooms"* (Oakley et al., 2018, p. 22). Teachers reported learning new ways to assess their pupils and plan differentiated teaching. This has led to a positive impact on students in terms of their *"motivation, eagerness to learn, enjoyment, and overall participation"* (Oakley et al., 2018, p. 21).



3 IS SITUATED, AUTHENTIC, AND PRACTICE-BASED.

Numerous studies, including recent evidence from Ecuador (SUMMA, 2021a), highlight the importance of TPD being contextualized and focused on classroom practice and conditions as well as providing guidance for experimenting with new practices in an exploratory way that relates to the subject matter, students, and context of each teacher. Also important is the need for TPD content to relate to the learning needs of the teacher, which in turn will relate to the learning needs of their students (Akyeampong et al., 2011; Allier-Gagneur et al., 2020; Burns & Lawrie, 2015; Bainton et al., 2016; Haßler, 2020; Haßler et al., 2020; Naylor & Sayed, 2014; Power et al., 2019; Westbrook et al., 2013). In contextualizing any TPD programs, while there are particular meso factors (e.g., country, region, school level, subject, national languages) that are normally considered important for such adaptation, there is some evidence that there are likewise micro factors pertaining to the distinct circumstances of the school and the teacher that may be equally significant (Haßler et al., 2019). Although tailoring at the school and individual teacher level will be challenging, greater consideration of how TPD can be decentralized and tailored to school contexts and teachers' needs is vital, as the experience of Teacher Education through School-based Support in India (TESS-India) illustrates (*see Box 3*).

Box 3. Tailored resources for personalized TPD

TESS-India's comprehensive toolkit of 191 open educational resources (OER) equips teachers with the knowledge and skills to actively engage their students in meaningful learning. The toolkit consists of 105 teacher development units, 20 school leadership units, 10 principles of practice, 55 videos of authentic classroom teaching, and a repository offering sample teaching and learning pathways through the OER. Resources are available in multiple formats, languages, and language versions for different states. Central to the resources are activities for teachers to undertake in their classrooms; these reflect core aspects of the school curriculum and model participatory pedagogic approaches.

Created in collaboration with over 200 Indian and international teacher professional development experts, the online toolkit enables teachers to turn teaching policy into real practice. The online resources can be selected, sequenced, and adapted flexibly according to the priorities of states, districts, schools, or individuals. Teachers can use the resources to study independently or with the support of teacher educators.

Teacher educators are also supported by free massive open online courses (MOOCs) available in English and Hindi. Over 50,000 participants have completed these MOOCs (Koomar et al, 2020). Evidence from Wolfenden et al. (2017) suggests that the program engaged teachers to attempt more interactive and participatory practices in both lesson planning and in-classroom teaching. Wolfenden and colleagues' (2017) study also describes the enhanced digital literacy of teachers following engagement in the program.

4 INCLUDES OPPORTUNITIES FOR REFLECTIVE PRACTICE AND PEER LEARNING/ COLLABORATION, AND ESTABLISHES TEACHER COMMUNITIES.

Where TPD has been successful and resulted in improved instruction and student learning outcomes, it has been grounded in teacher collaboration (Burns & Lawrie, 2015). In one evaluation from Ecuador, several teachers affirmed that the process of transformation is not achieved via training but rather, on a day-to-day basis through experimentation and reflection in the classroom. They also stated that these experiences are enriched by the formation of teacher communities where ideas and experiences are shared (SUMMA, 2021a). A mistaken presumption, however, is that teacher-to-teacher collaboration occurs naturally and needs little planning or investment. The value of peer-to-peer collaboration is realized when particular conditions are present, the most critical being time and space for collaboration; head teacher/school leader support; presence of a more experienced facilitator; access to expertise (ideally a combination of face-to-face and remote support); and crucially, teachers feeling "in-charge" of their own learning (Burns & Lawrie, 2015). Evidence from China's Peking University X-Learning Centre also demonstrates the importance of informal learning among teachers within and across schools (TPD@Scale Coalition for the Global South, 2019). Box 4 illustrates how TPD strategies deliberately provide opportunities for individual and collaborative learning among teachers in Rwanda.

Box 4. Reflective school-based teacher communities

Funded by UKAid and implemented by a consortium led by the Education Development Trust, Building Learning Foundations (BLF) Rwanda focuses on establishing solid foundations at the primary level (P1 to P6) in all government and government-aided schools through three pillars: teacher development, leadership for learning, and system strengthening.

For the TPD pillar, the program provides self- and peer-learning toolkits to all English and Mathematics teachers at the primary level. The toolkits consist of printed books and supporting audio-visual materials on removable media that cover subject-specific pedagogy and content. The toolkits have been designed to be used on teachers' own mobile phones. In addition, each school has been provided with two smartphones so that teachers can watch the instructional videos and film their own classes for self-reflection and peer discussion. Teachers meet at least once a month and use adaptable, guided communities of practice session plans to discuss and reflect on toolkit content as well as any practical classroom challenges that they face.

5 IS SUSTAINED OVER TIME.

Teacher practice is difficult to change and takes time to embed (Burns & Lawrie, 2015). In order to embed any change, it is important to recognize TPD as an essential component in career-long professional learning for teachers. As such, a variety of sustained approaches is needed. As evidence suggests, TPD that is focused on both teacher practices and learner outcomes; uses a variety of modalities (e.g. coaching, audio-visual materials, and workshops); provides follow up support; and provides opportunities for peer learning, has been proven to be more effective over time (Hardman et al., 2011). Box 5 describes how TPD initiatives were successfully sustained in Vietnam.

Box 5. A comprehensive and sustained approach to TPD

The Escuela Nueva model, originally established in Colombia in the 1970s, has evolved over several decades within and beyond Latin America. The model has also been successfully adapted to the Vietnamese context where the approach has been proven to have statistically significant effects on student outcomes in both Vietnamese and Mathematics.

Central to the program's success were careful and thoughtful adaptations to the Vietnamese context; a whole school approach; and a comprehensive strategy that involved sustained awareness building and a motivational campaign which effectively targeted school communities and other key stakeholders. Over the four years of the program, teachers engaged in ongoing experiential learning where learner-centred pedagogy was modelled effectively; micro-centers which promoted professional learning networks at the school level were established; and teachers received school-based support through learner guides (Parandekar et al, 2017).

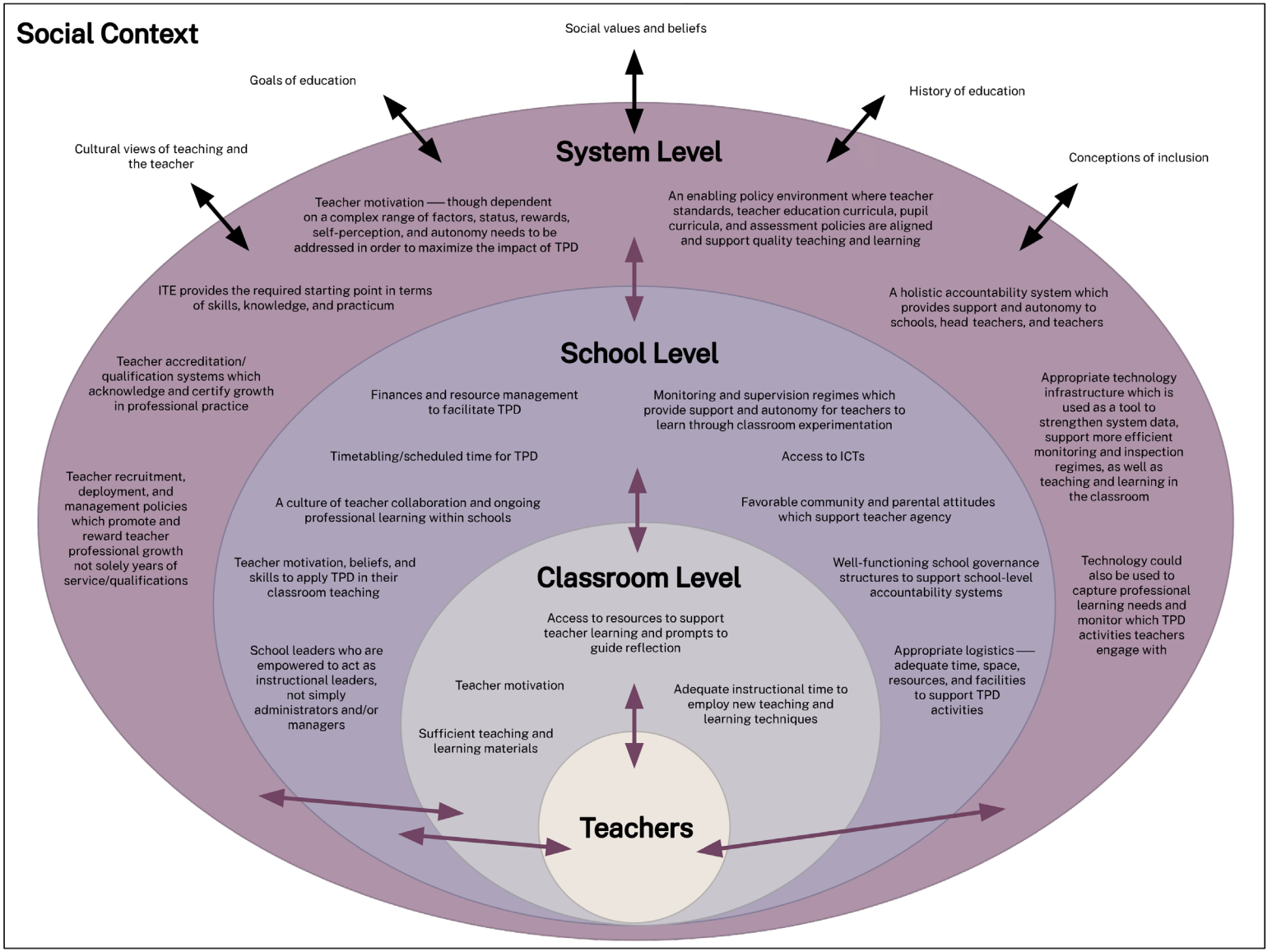
An honorable mention – coaching. Various studies highlight the importance of external expertise in quality TPD, particularly through the medium of coaching. Evidence from high-income contexts suggests that coaching can be highly effective as a component of TPD. A growing body of literature from the South supports this; however, capacity and implementation challenges hinder its use as well as effectiveness (Piper & Zuilkowski, 2015). Evidence from South Africa suggests that virtual coaching is as effective as on-site coaching at improving both the instructional practice of teachers and the learning outcomes of children. This suggests the potential for technological innovations to enable wider rollout of coaching programs even in contexts where teachers are not familiar with new technologies. Nonetheless, in any coaching program, coaches need to be carefully selected, thoroughly trained, and their roles very clearly defined to maximize their effectiveness (Kotze et al., 2018).

It should be noted that there are mixed reports as to whether the characteristics highlighted above make a significant impact on learner outcomes. One meta-review that surveyed a wide range of studies from Southern countries found a positive relationship between in-service teacher training and student outcomes; nevertheless, the relationship was neither strong nor

consistent (Glewwe et al., 2011). However, this could point to issues of variance in quality and delivery as opposed to the efficacy of the characteristics themselves. Another meta-review supports this and suggests that effectiveness of TPD seems to relate to what kind of training is on offer (e.g., its quality, intensity, and duration); how far it is context-specific and related to teacher needs; and how far it forms part of a planned, long term, and sustainable program (Naylor & Sayed, 2014).

The final section of this brief outlines key enabling factors required at the system, school, classroom, and individual (teacher) levels to facilitate successful TPD in low-income contexts (*see Figure 1*). Technology can be used effectively at each level to enable more efficient working and scaling of programs. However, the outcomes of any TPD program are highly dependent on context as well as system-level priorities. In-depth discussions on issues relating to technology, conflict, the COVID-19 pandemic, costs, and assessment are beyond the scope of this briefing note but are covered in other related background papers.

Figure 1. Enabling factors to facilitate successful TPD in low-income contexts



Note: Authors' construct

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