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Teacher (De)motivation in a Low-Income Rural Setting: Prominent Correlates in Sub-Saharan Ghanaian Kindergarten Teachers

Working Paper

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Contents

1	Introduction.....	1
2	Theoretical framework.....	4
3	Context: Education Policy and Early Childhood Education in Ghana	7
4	Data and methods.....	9
5	Results.....	12
6	Discussion and Conclusion	25
7	Strengths and Limitations.....	27
	Annex A	34

1 Introduction

Teacher motivation is a critical determinant of education quality. Motivated teachers are more likely to adopt effective pedagogical practices, invest effort in lesson preparation, and foster positive classroom interactions—all of which improve student learning outcomes (Hanushek, 2020; Ronfeldt, Loeb, and Wyckoff, 2013; Skaalvik and Skaalvik, 2007; World Bank, 2018). When motivation declines, teachers tend to reduce their instructional effort and emotional investment, leading to lower teaching quality and weaker student engagement (Webb et al., 2004; Buchanan, 2010; Skaalvik and Skaalvik, 2007). Persistent exposure to such stressors can, over time, culminate in teacher burnout—a state of emotional exhaustion and reduced professional efficacy that has been linked to diminished classroom performance and higher turnover (Belcastro and Gold, 1983; Lee and Ashforth, 1996; Huberman, Grounauer, and Marti, 1993).

Despite the central role that teacher (de)motivation plays in shaping education systems, especially through their effects on retention and instructional quality, there remains limited empirical evidence on the mechanisms driving (de)motivation—particularly in low- and middle-income countries (LMICs). This paper examines the determinants of teacher demotivation—proxied through emotional exhaustion, the affective core of burnout¹—among public teachers in Northern Ghana, a context where teachers often operate under conditions of high job demands, limited resources, and weak institutional support, making the risk of demotivation especially acute. Understanding the factors that erode or sustain teachers' motivation in such environments is essential for improving education quality and teacher wellbeing.

In this study, we focus on teachers in the early childhood education (ECE) sector—specifically, public kindergarten (KG) teachers. Officially children aged 4 to 6 years old attend two years of kindergarten (KG1 and KG2), however in reality underage and overage children are often present in kindergarten classrooms. Parents require childcare for younger children while older children who are not yet ready to attend primary school attend kindergarten overage. In our baseline sample, in KG1 90% of students are between the ages of 3 and 6, with a full age range of 2 to 9 years old. Early childhood education plays a foundational role in shaping children's development, providing the basis for later learning and wellbeing (Gertler et al., 2014; McCoy et al., 2016; Andrew et al., 2024). Yet, in many LMICs, the quality of ECE provision remains particularly low compared to higher grades, constrained by inadequate resources, limited training, and high turnover among teachers (Bassok et al., 2021; Neuman, Josephson, and Chua, 2015). Ghana has achieved near-universal kindergarten enrolment, but teacher

¹ We build our study on definitions according to Maslach (Maslach et al., 1996), which defines three dimensions of burnout: emotional exhaustion (broadly the feeling of being drained and depleted of energy), depersonalization (a sense of cynicism or detachment from one's job, often seen as a coping mechanism for emotional exhaustion) and reduced accomplishment (a feeling of inefficacy and a lack of productivity and achievement).

shortages, low morale, and poor retention continue to undermine learning outcomes, particularly in rural northern regions.

Using detailed primary survey data collected from 330 KG teachers as part of the evaluation of a large-scale government early childhood education programme (Augsburg et al., 2022), we address two research questions. First, we describe the characteristics and working conditions of KG teachers in Ghana, including their levels of emotional exhaustion and personal accomplishment. Second, we analyze how factors across the personal, school, and external/policy domains are associated with teacher demotivation. Building on a newly developed *Demotivation Framework* (Colombé & Augsburg, 2025), which conceptualises teacher burnout as part of a longer motivational journey, we identify the factors that most strongly predict teachers' emotional exhaustion. The analysis offers the first systematic quantitative evidence on the drivers of teacher burnout among early childhood educators in Northern Ghana and provides insights for policy efforts to strengthen teacher retention and support in similar LMIC settings.

The analysis reveals that nearly half of kindergarten teachers in Northern Ghana experience signs of emotional exhaustion, underscoring the fragility of motivation in low-resource educational environments. Burnout risk is driven less by teachers' individual traits than by the balance between job demands and resources: large class sizes and limited parental engagement exacerbate fatigue, while access to professional development, local community ties, and perceived respect from citizens and leaders provide critical buffers. Interestingly, teachers with high professional accomplishment also report higher exhaustion, suggesting that commitment and strain often coexist.

The studies most closely related to ours are Lee and Wolf (2019) and Aboagye et al. (2025), which examined burnout and engagement among early childhood educators in Ghana using the Job Demands–Resources (JD–R) framework. Lee and Wolf (2019) analysed data from 444 teachers interviewed as part of the *Quality Preschool for Ghana* programme in the Greater Accra Metropolitan Area, identifying workload, job satisfaction, and administrative support as key correlates of burnout in urban and peri-urban schools. Aboagye et al. (2025) applied the JD–R model to a sample of almost 600 kindergarten teachers across several Ghanaian regions, showing that job demands such as workload and administrative pressure increased burnout, while autonomy, collegial support, and professional development buffered its effects. Our study complements and extends this work by focusing on public kindergarten teachers in the northern regions of Ghana, where most families live on less than US\$2 per day. It is estimated that 20% of children under 5 are stunted and 39% of 3-4 years olds are off-track cognitively (WHO, 2018), creating markedly different working conditions compared to regions in southern Ghana. Whereas previous Ghanaian studies primarily examined teachers in better-resourced or mixed settings, our analysis highlights the mechanisms of demotivation in rural, low-resource contexts—conditions that may amplify the imbalance between job demands and job resources. In addition, we embed the analysis within the Demotivation Framework, which situates demotivation within a broader motivational process and connects burnout dynamics to teachers' long-term career trajectories. In doing so, we also contribute to a wider international literature documenting how contextual constraints shape early childhood educators' wellbeing in low- and

middle-income countries (e.g., Bassok et al., 2021; Wolf et al., 2019; Ng et al., 2020; Salifu and Agbenyega, 2013).

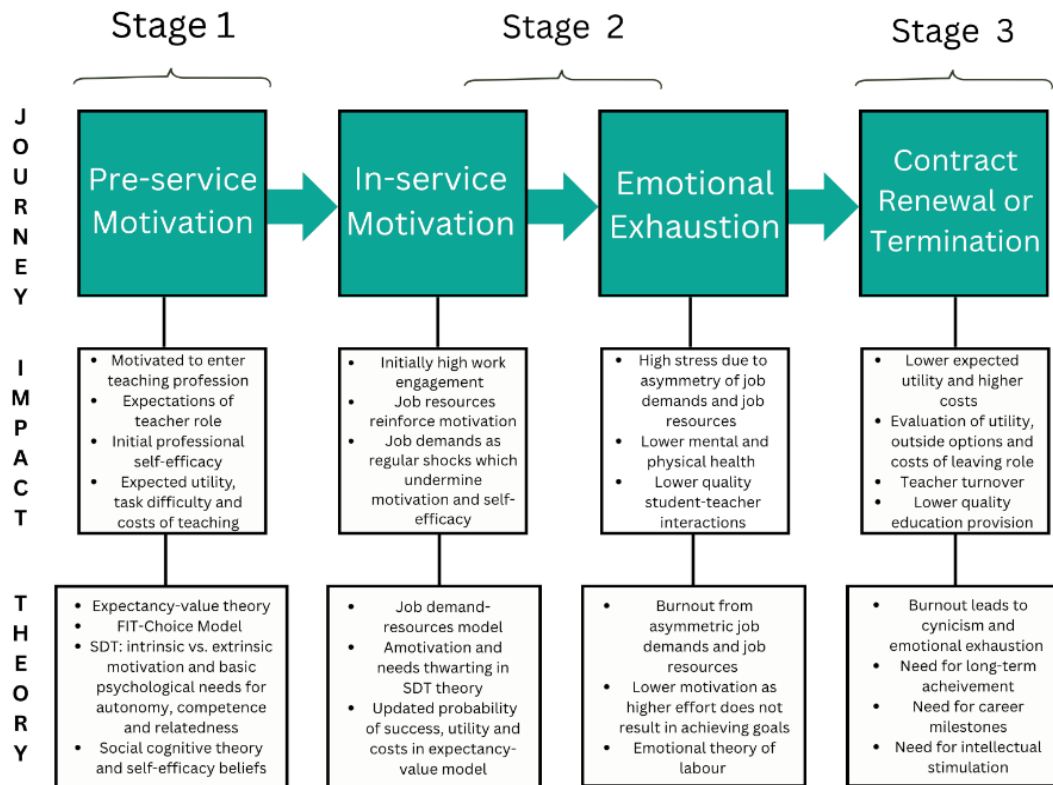
The paper proceeds as follows. Section 2 situates the study within the broader literature on teacher motivation and burnout, highlighting the relevance of the *Demotivation Framework* for understanding how teachers' wellbeing evolves in response to the balance between job demands and job resources. Section 3 describes the institutional context of early childhood education in Ghana and the data used in the analysis. Section 4 presents descriptive evidence on teachers' working conditions and wellbeing, followed by multivariate regressions examining the correlates of emotional exhaustion. Section 5 discusses the implications of these findings for policies aimed at improving teacher retention and the quality of early childhood education in low-resource settings. Section 6 concludes with recommendations for future research that can further unpack the mechanisms driving teacher demotivation and turnover in LMICs.

2 Theoretical framework

This study builds on a conceptual *Demotivation Framework* that models the process through which teachers transition from high motivation and work engagement to burnout and eventual turnover. The framework integrates insights from four major strands of motivation theory—expectancy–value theory (Eccles and Wigfield, 2020), social cognitive theory (Bandura, 2001), self-determination theory (Deci and Ryan, 1985; Ryan and Deci, 2020), and the Job Demands–Resources (JD-R) model of burnout (Demerouti et al., 2001; Bakker and Demerouti, 2007). Together, these perspectives offer a complementary account of how teachers' motivation develops and erodes: expectancy–value theory and social cognitive theory emphasize the cognitive appraisals that shape motivation (e.g., perceived competence, values, and efficacy), self-determination theory highlights the role of basic psychological needs in sustaining intrinsic motivation, and the JD–R model situates these individual processes within the structural balance of job demands and resources that can either support or drain teachers' energy. The framework then conceptualises teacher motivation as a dynamic process that unfolds across three interrelated stages: (1) pre-service motivation and teacher training, (2) in-service motivation and burnout, and (3) contract renewal or exit from the profession. These are depicted in Figure 1.

In **Stage 1**, individuals decide to enter the teaching profession based on their *expected utility* from teaching, which reflects perceived ability, task value, and career aspirations (Watt and Richardson, 2007). Their motivation at entry is shaped by both intrinsic factors—such as a desire to contribute to children's learning—and extrinsic considerations such as income, job security, and social recognition. Each teacher also possesses an *idiosyncratic stress-tolerance threshold*, reflecting their capacity to manage adversity and maintain psychological wellbeing (Troy et al., 2023).

Figure 1: Demotivation Framework



Notes: Adjusted from Colombé & Augsborg (2025).

Stage 2, which is the focus of this study, describes the period of in-service teaching when the balance between job demands and job resources becomes the primary determinant of teacher motivation and wellbeing, manifested as burnout. The JD-R model posits that burnout arises when job demands—such as heavy workloads, large class sizes, or emotionally taxing interactions—consistently exceed available job resources like collegial support, professional development opportunities, and autonomy (Bakker et al., 2014; Aboagye et al., 2025). High job demands initiate a *health-impairment process* that drains teachers' energy and can lead to emotional exhaustion, while job resources initiate a *motivational process* that fosters engagement and resilience. In this context, emotional exhaustion is understood as the central symptom of burnout and the key pathway through which adverse work conditions erode motivation (Maslach, Jackson, and Leiter, 1997).

Expectancy–value and self-determination theories explain how these environmental conditions influence teachers' cognitive and emotional responses. Under high job demands and limited resources, teachers perceive a lower probability of achieving desired learning outcomes and reduced satisfaction from teaching (Eccles and Wigfield, 2020). This reduces the *utility* and *intrinsic value* associated with teaching and can give rise to amotivation—a state in which teachers feel that their effort no longer affects outcomes (Deci and Ryan, 2008). When the basic psychological needs of autonomy, competence, and relatedness

are thwarted, motivation deteriorates further, producing disengagement and, ultimately, burnout (Bartholomew et al., 2011; Fernet et al., 2012).

Teachers who experience persistent emotional exhaustion may respond through coping strategies such as *job crafting*—seeking resources, adjusting tasks, or reducing demands (Tims and Bakker, 2010)—but if these strategies fail, they may withdraw effort or seek alternative employment (Lee and Ashforth, 1996). The framework therefore anticipates significant heterogeneity in teachers' motivational trajectories, depending on individual resilience, the quality of professional and social supports, and the institutional environment in which they work.

Finally, **Stage 3** describes how teachers decide whether to remain in, switch within, or leave the profession. This decision reflects the updated *expected utility* from continuing to teach, weighed against outside employment options and the costs of switching (Nguyen and Springer, 2023). Burnout and diminished professional efficacy increase the likelihood of attrition, whereas access to supportive professional networks and recognition can restore motivation and encourage persistence.

In summary, the *Demotivation Framework* highlights how teacher burnout is not an isolated psychological condition but part of a broader motivational process shaped by structural working conditions. The empirical analysis that follows focuses on **Stage 2**, examining how job demands, job resources, and contextual factors in Northern Ghana's kindergarten classrooms are associated with teachers' emotional exhaustion and professional wellbeing.

3 Context: Education Policy and Early Childhood Education in Ghana

Ghana is a lower-middle-income country in West Africa with a population of about 35 million (IMF, 2025). In 2023 it ranked 143 of 189 countries on the Human Development Index—above the Sub-Saharan African average but below the LMIC mean (UNDP, 2024). Over the past two decades, the Ministry of Education (MoE) has pursued ambitious reforms to improve education quality and learning outcomes, as articulated in its Education Strategic Plan 2018–2030 (Ministry of Education, 2018, 2019). A key component of this strategy has been the recognition of early childhood education (ECE) as foundational to human capital development. The National Early Childhood Care and Development Policy (2004) and the Programme to Scale-Up Quality Kindergarten Education (2012) introduced two years of free, compulsory pre-primary education for four- and five-year-olds, positioning Ghana as a regional leader in ECE access. These reforms achieved near-universal kindergarten enrolment; however, quality remains a persistent challenge, with national assessments showing that learning outcomes remain low across all levels of schooling (UNESCO, 2022), especially in early grades (Ministry of Education, 2022).

While policy attention has increasingly focused on improving early-grade learning, teachers across Ghana continue to face difficult working conditions. Salaries remain low relative to other professions, opportunities for advancement and professional development are limited, and class sizes are often large, particularly in public schools (Aboagye et al., 2025; Amadu et al., 2018). Many teachers report inadequate teaching and learning materials, delayed pay, and weak administrative support. Qualitative studies describe the emotional and physical strain associated with managing overcrowded classrooms, limited parental involvement, and high expectations from school management and communities (Hedges, 2002; Akyeampong and Stephens, 2000). These conditions contribute to low morale, absenteeism, and turnover, particularly among early childhood educators, who also tend to earn less and receive less recognition than their peers in higher grades (Neuman, Josephson, and Chua, 2015; Sun, Rao, and Pearson, 2015).

These systemic challenges are magnified in Northern Ghana, where the education system operates under severe resource constraints, and where educational attainment lags far behind the south: in 2008/09, school non-attendance among children aged 6–14 was three times higher in the North (28 percent) than in the

South (9 percent) (Krauss, 2013). Structural inequalities—including lower agricultural productivity, weak infrastructure, and historical underinvestment—have compounded the difficulties faced by teachers (Whitehead, 2009; Harttgen and Klasen, 2012). Many are posted far from their home communities, often to remote rural areas with poor living conditions and limited amenities (Akyeampong and Stephens, 2000; Akyeampong and Lewin, 2002). Inadequate facilities, and linguistic mismatches between teachers and pupils further constrain learning (Osei, 2006; Akyeampong, 2017; Piper, Zuilkowski, and Strigel, 2018). At the kindergarten level, only 65 percent of teachers were trained as of 2016/17, and the average pupil–classroom ratio was 55:1 in 2018 (Ministry of Education, 2019). These conditions translate into high job demands and low job resources—the precise asymmetry that the Demotivation Framework identifies as a source of teacher burnout and turnover.

Evidence from the Demotivation Framework further underscores how these systemic conditions shape both the entry and exit points of teachers' motivational trajectories. At the pre-service stage, Ghana's teacher education reforms have raised qualification standards for kindergarten teachers—from a Diploma in Basic Education to a Bachelor of Education in Early Childhood Education (MoE, 2018; National Teaching Council, 2024)—requiring considerable time and financial investment. Yet motivations to enter the profession remain diverse: while some candidates are driven by an intrinsic commitment to child development and social contribution, others view teaching primarily as a stable form of public employment or as a stepping stone toward more prestigious or better-remunerated positions in higher grades (Hedges, 2002; Akyeampong and Stephens, 2000; Watt and Richardson, 2007; Richardson and Watt, 2008). These differing entry motives translate into varying expectations of job satisfaction, task difficulty, and resilience once in service. At the later stage of the motivational journey, sustained exposure to high job demands and limited job resources often leads teachers to reassess their professional utility and career prospects. Studies in Ghana and comparable LMIC contexts document that teachers facing high stress and low institutional support frequently seek transfers or exit the profession altogether, particularly when opportunities in better-resourced or higher-status schools exist (Lee and Ashforth, 1996; Wolf et al., 2015; Nguyen and Springer, 2023). These patterns suggest that demotivation and turnover are not isolated outcomes but the culmination of long-term mismatches between teachers' expectations, working conditions, and available career pathways.

Against this backdrop, understanding the factors that undermine KG teachers' motivation is critical. The particularly demanding environment in Northern Ghana—characterised by heavy workloads, limited institutional support, and low community engagement—makes it an ideal setting in which to empirically examine the mechanisms proposed by the Demotivation Framework. The following section applies this framework to analyse how personal characteristics, school-level factors, and external policy conditions are associated with kindergarten teachers' emotional exhaustion and professional wellbeing.

4 Data and methods

4.1 Data and Sample

The empirical analysis uses baseline data from a randomized controlled trial (RCT) impact evaluation of an ECE programme scaled by the Ghana Education Service (Augsburg et al., 2022). The evaluation took place in 54 of the 62 implementation districts. The data was conducted between May 2022 and November 2023 in three regions of Northern Ghana—Northern, North East, and Upper East—and covered public kindergarten (KG) schools, excluding single gender schools. The survey collected detailed information on teacher characteristics, wellbeing, job satisfaction, and perceptions of school and community conditions, as well as classroom observations and head teacher interviews.

The analytical sample includes 330 public KG teachers employed at 330 schools. These schools were selected randomly from the Education Management Information System (EMIS) of the Ghana Education Service, to achieve a representative sample of public schools with kindergarten, excluding urban, single gender and very small schools (defined as having less than 20 children in a kindergarten class). For each school, the teacher responsible for teaching the first year of kindergarten (KG1) was interviewed. If a school had more than one kindergarten class, one was chosen at random and that teacher was approached for an interview. If there was more than one teacher in the classroom, the main teacher with the longest experience and who speaks the local language was interviewed. Due to the requirements of the RCT, only teachers who were on a permanent contract were eligible, hence the majority of teachers in the sample are permanently contracted as opposed to part time teachers or volunteers.

4.2 Survey Instruments

Teachers were interviewed one-on-one by a trained enumerator, with responses recorded in numerical format on a tablet. Interviews were conducted in English, the official language of Ghana. Teachers were asked a variety of questions that allow us to measure our main outcome of interest, (de)motivation, as well as a large set of independent variables. The data supports the application of Stage 2 of the demotivation framework through its description of the shocks to teacher demotivation. We also have some indicative evidence speaking to stage 3 on the alternative employment considered by KG teachers if they were to leave their KG role.

- 4.2.1 Outcome: (De)Motivation

We proxy teacher (de)motivation through a measure of emotional exhaustion—the central affective component of burnout. It reflects the extent to which teachers feel emotionally drained and fatigued by their work. Emotional Exhaustion is measured based on the Maslach Burnout Inventory - Educator Survey (MBI-ES; Maslach et al., 1996), which has been validated and used in the Ghanaian context (Lee and Wolf, 2019; Baidoo et al., 2023; Konlan et al., 2022).²

Emotional exhaustion refers to the inability to keep up with the emotional demands of a job. We implement 9 items assessing the feeling of being emotionally drained by one's work on a 6-point Likert scale ranging from "never" to "everyday" and generates a score between 0 to 54. Items include statements such as 'I feel used up at the end of the working day,' and 'Working with people puts too much stress on me.' The items have a Cronbach's alpha coefficient of 0.79 indicating a satisfactory level of internal consistency. A higher score is associated with a higher likelihood of experiencing burnout syndrome, with the threshold of 27 considered to be an indication of experienced burnout.

- Correlates

Correlates are organized into three domains aligned with the framework: personal factors, school factors and external/policy factors.

Personal factors: are captured through a module on teacher demographics (age, gender, marital status, education level, and teaching experience, and whether they are from the same community as where they work). We also measure their and Personal Accomplishment score based on the Maslach Burnout Inventory. This scale measures feelings of competence and satisfaction with teaching activities and consists of 8 items that are used to generate a score between 0 and 48 using the same Likert scale as in the Emotional Exhaustion scale. Items include 'I deal very effectively with the problems of my schoolchildren.', 'I feel I am positively affecting people's lives.' and 'I have accomplished many worthwhile things in this job.'. A score of less than 33 is indicative of experienced burnout. The items have a Cronbach's alpha coefficient of 0.84 indicating adequate internal consistency of the items to measure the construct of personal accomplishment.

School factors: Teachers also reported on employment conditions (tenure status, distance from home to school, class size, and workload), and access to professional development, materials, and classroom infrastructure. An additional head teacher survey provides information on school characteristics, including pupil-teacher ratios, availability of teaching and learning materials (TLMs).

External factors: Teachers report on community participation in school activities, as well as their perceptions of respect from towards their profession from parents, as well as citizens/stakeholders.

4.3 Empirical Strategy

² Questions related to the depersonalisation subscale was not administered as previous studies have documented responses with a constricted variance which indicate that individuals suffering with burnout in Ghana do not report experiencing depersonalisation towards their students (Lee & Wolff, 2019).

The empirical analysis proceeds in two steps. First, to answer our first research question, we present **descriptive evidence** on the distribution of emotional exhaustion and related indicators across teacher and school characteristics. These descriptive patterns illustrate the heterogeneity of teachers' wellbeing and provide suggestive evidence on potential correlates.

Second, turning to our second research question, we estimate **ordinary least squares (OLS) regressions** of the following general form:

$$Y_{ij} = \alpha + \beta X_{ij} + \gamma S_j + \delta R_j + \varepsilon_{ij}$$

where Y_{ij} denotes the emotional exhaustion score for teacher i in school j ; X_{ij} is a vector of individual-level teacher characteristics (demographics, experience, intrinsic motivation); S_j represents school-level conditions (class size, infrastructure, and school management support); and R_j captures external factors such as parental involvement and perceived respect for teachers. In order to account for district level differences in resources and educational policy, standard errors are clustered at the district level throughout the analysis.

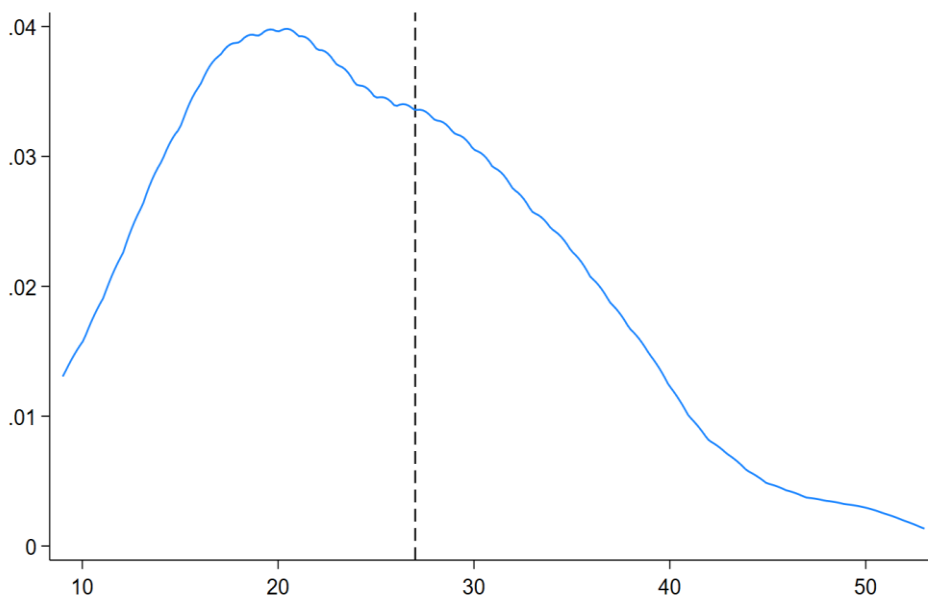
Coefficients are interpreted as associations rather than causal effects, given the cross-sectional nature of the data. Nonetheless, the rich detail of the baseline survey allows for a nuanced analysis of how combinations of job demands and resources relate to teacher wellbeing in line with the *Demotivation Framework*.

5 Results

a. Descriptive statistics: Emotional Exhaustion

Among kindergarten (KG) teachers in our sample, the average emotional exhaustion score is 24.7 (s.d. = 9.4). Using the conventional threshold from the Maslach Burnout Inventory (27–54) as a reference point, 40.6 percent of teachers scored above the burnout threshold, while 6.4 percent scored 40 or above, corresponding to levels often classified as *high burnout*. These thresholds should, however, be interpreted with caution: they were developed using U.S. population norms, and the MBI was not designed for diagnostic use across cultural settings (Kleijweg, Verbraak, and Van Dijk, 2013), though previously implemented in the Ghanaian context (Lee and Wolf, 2019; Baidoo et al., 2023; Konlan et al., 2022; Aboagye et al., 2018). We therefore treat them as indicative rather than definitive benchmarks.

Figure 2: Distribution of the Emotional Exhaustion Score



Interpreted in context, the distribution of scores, as shown in Figure 2, suggests that while the average KG teacher in Northern Ghana is not suffering from emotional exhaustion, roughly one in three teachers exhibits clear signs of burnout, and for nearly 10 percent this exhaustion could be categorised as severe. These figures are comparable to, though somewhat higher than, those reported for early childhood educators in urban Ghana (Lee and Wolf, 2019), providing evidence of the elevated emotional fatigue associated with working in low-resource northern environments, and consistent with the notion that persistent job demands and limited job resources have begun to erode motivation.

b. Descriptive statistics: Correlates

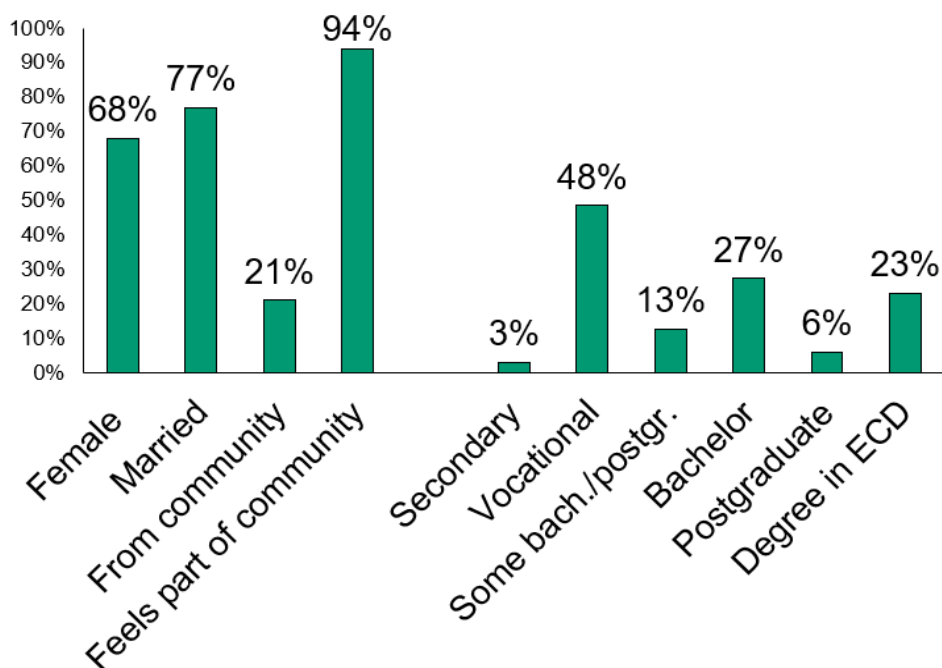
5.2.1 Teacher characteristics

Figure 3 and 3B summarize key demographic and educational characteristics of kindergarten (KG) teachers in our sample. A complete list of descriptive statistics, including means, standard deviations, and ranges for all variables, is presented in Appendix Table 1.

The typical teacher is female (68%) and married (78%). Just over one-fifth of teachers (21%) were born in the same community where they currently live, yet nearly all (95%) report feeling part of their local community—suggesting strong social integration despite limited local origin.

With respect to educational background, most teachers have a vocational training background (48%). Just over a quarter (27%) hold a bachelor's degree, and a small minority possess higher qualifications (6% postgraduate), and 13% have some exposure to bachelor or postgraduate training. 23% received formal training in Early Childhood Care and Education (ECCE). Their experience on the job is on average 6 years and 4 months (ranging from 0 to 40 years). Despite the 2018 reform which established a Bachelor of Education (B.Ed.) in Early Childhood Education (or an equivalent qualification, such as a Postgraduate Diploma in Education with an early childhood specialisation) as the minimum requirement for early childhood educators, in our sample it appears this reform was not binding. 213 teachers qualified after the 2018 reform while 117 qualified after the 2018 reform. The proportion of teachers with a qualification of a Bachelor's Degree or higher (32% before the reform and 28% after the reform) is very similar in both groups, indicating the reform did not meaningfully influence the educational background of kindergarten teachers.

Figure 3: Teacher demographic characteristics

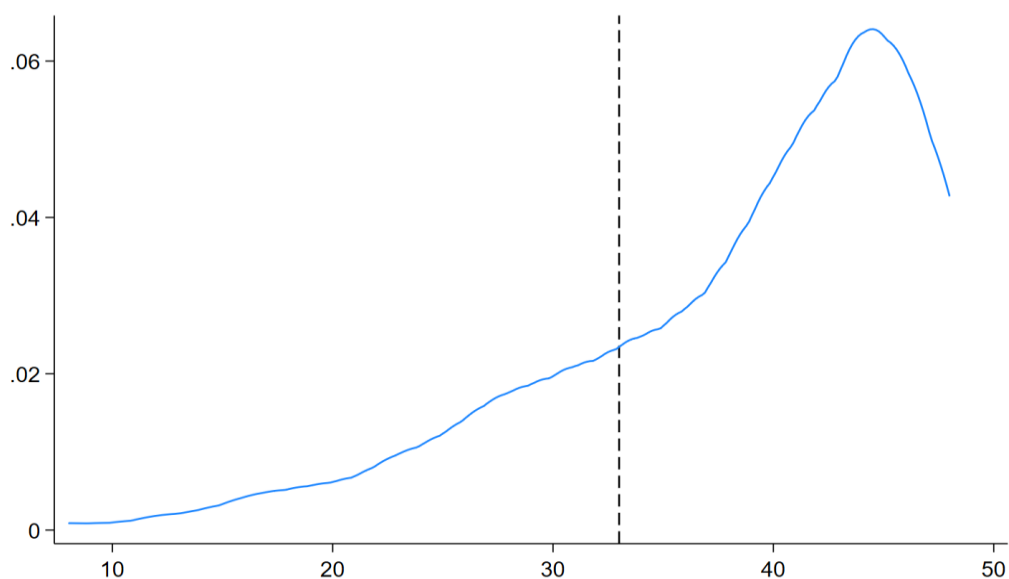


As discussed above, emotional exhaustion represents the core component of burnout. Here we also consider the positive dimension of teachers' professional wellbeing—personal accomplishment—which reflects the extent to which

teachers feel effective, competent, and successful in their work. Within the burnout literature, personal accomplishment is often seen as a counterbalance to emotional exhaustion: even when teachers experience fatigue or frustration, they may remain motivated by a sense of professional efficacy and contribution to children's learning (Maslach, Jackson, and Leiter, 1997; Demerouti et al., 2001). In the *Demotivation Framework*, personal accomplishment corresponds to teachers' perceived professional efficacy—the belief that effort translates into valued outcomes—which plays a central role in sustaining motivation during Stage 2 of the motivational journey.

In our sample, the average personal accomplishment score is 38.8 (s.d. = 8.4). Using the conventional benchmark from the Maslach Burnout Inventory (MBI) as a reference (a score of 31 or less), 20% of teachers are at risk of high level of reduced professional self-esteem, and 3.3% scored below 19, considered *very low accomplishment*. Figure 4 shows the distribution of scores. As with emotional exhaustion, these thresholds should be interpreted cautiously, as they are based on U.S. norms and have not been validated for diagnostic use in Ghana.

Figure 4: Distribution of the Personal Accomplishment Score



Overall, these results suggest that most KG teachers in Northern Ghana report a relatively strong sense of personal accomplishment, despite difficult working conditions, discussed below. Average scores are higher than those typically associated with burnout risk in international studies, suggesting a reservoir of professional pride and resilience. However, about two in ten teachers reports low accomplishment, consistent with feelings of inefficacy or lack of recognition. Teachers in this group are more likely to express frustration that their efforts do not translate into student progress or community appreciation, as highlighted in qualitative findings from Ghana (Akyeampong and Stephens, 2000; Hedges, 2002).

5.2.2 Teachers' working environment — the school

Figure 5 provides an overview of the working environment of KG teachers in Northern Ghana. A majority of classes (62%) are managed by a single teacher, and the typical class has more than 50 pupils (average of 56 students and median of 48). One fifth of classes have fewer than 25 pupils and 35% have between 26 and 50. While the majority of classrooms have basic learning materials, many remain without: just over half of classes (54%) have access to books, and 76% have writing materials. Nine percent of classrooms have a handwashing station, reflecting poor infrastructure in early childhood settings. A KG teacher tends to spend 21 hours of the generally 30 hour work-day with the children (Appendix Table 1), though the percentage time spent with kids varies significantly (from spending less than 5% of the working day with the kids to 100%). The majority of teachers (79%) report having received some form of professional development in the past 12 months, which includes courses/seminars attended in person, observation visits to other KGs and on-site coaching by an external person.

Figure 5: Teacher working environment – the school

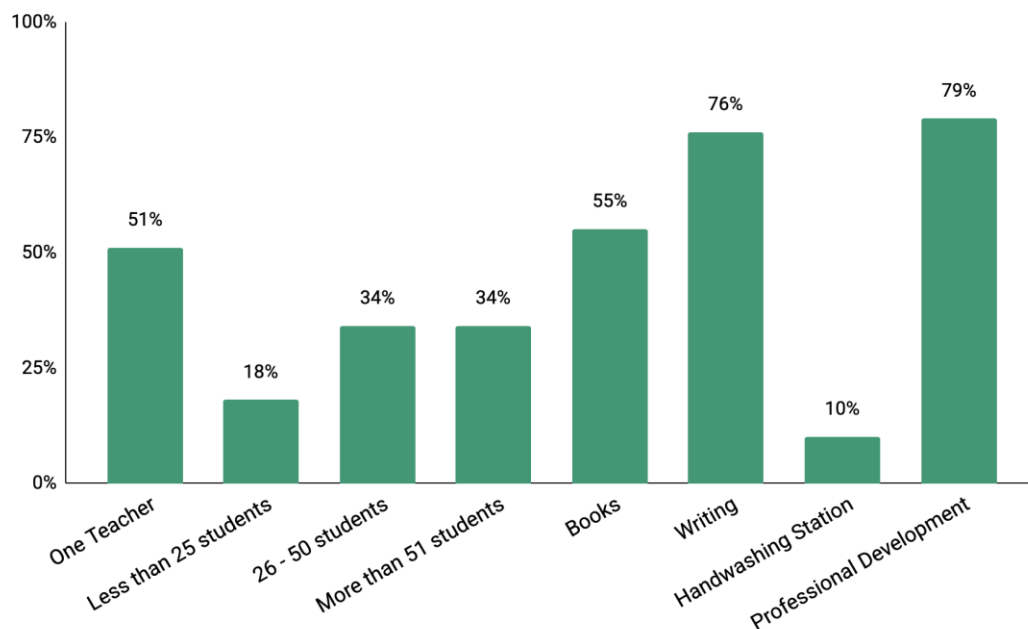
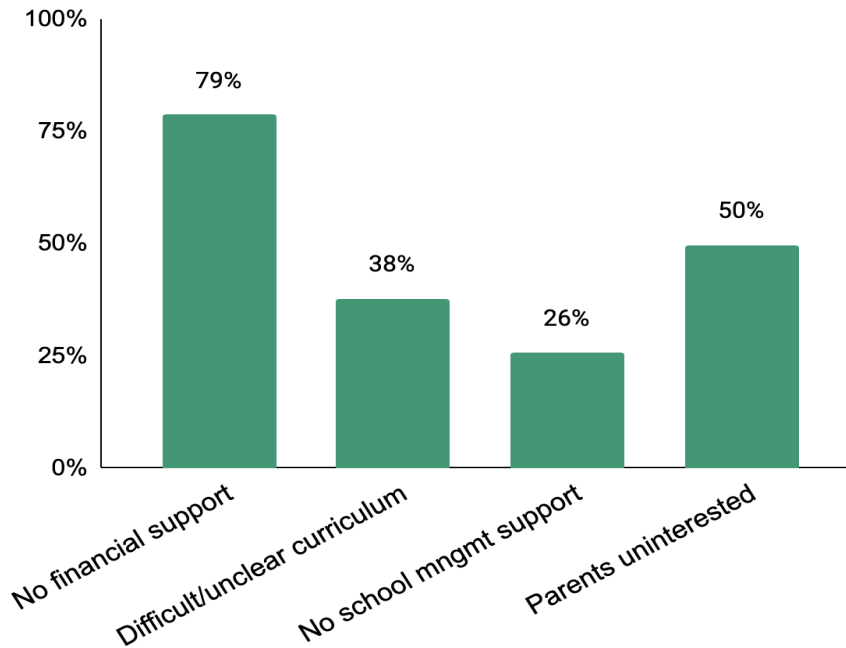


Figure 6 illustrates frequently cited challenges to teaching which include the lack of financial resources (mentioned as a big problem by 79% of teachers, as a little problem by 15% of teachers and the remaining 6% say it is no problem), curricula perceived as too difficult for children (38% big, 22% little problem), and limited support from school management (mentioned by 26% of teachers as big problem, 32% as little problem). In addition, 50% of teachers report insufficient parental engagement in school activities as a big problem and 25% as a little problem.

Figure 6: Teacher working environment – reported difficulties



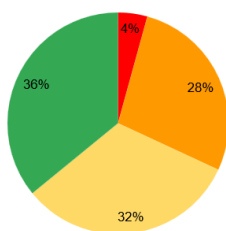
5.2.3 Teachers' external environment — respect

The majority of teachers report receiving either *quite a lot* (36%) or a *fair amount* (32%) of respect from community members such as parents and local leaders, as shown in Figure 7. Nonetheless, about one-third of teachers report receiving *very little* (28%) or *no* (4%) respect.

Perceptions of respect decline when teachers are asked about how their profession is valued by Ghanaian citizens and leaders more broadly. Here, 51% of respondents report receiving *very little* respect, and 10% feel they receive *none*. These perceptions underscore that, while teachers often enjoy appreciation within their local communities, they perceive their profession to hold limited social prestige nationally. More details on these teacher perceptions are reported in Simpson et al. (2024).

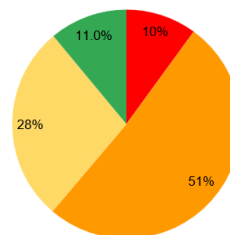
Figure 7: Teacher environment – external

Respect from Parents and Community Leaders



■ No respect ■ Very little respect
 ■ A fair amount of respect ■ Quite a lot of respect

Respect from Citizens and Leaders of Ghana



■ No respect ■ Very little respect
 ■ A fair amount of respect ■ Quite a lot of respect

- Descriptive evidence: Emotional exhaustion and selected correlates

To complement the summary statistics presented above, this section explores how emotional exhaustion varies with key teacher and workplace characteristics that are central to the *Demotivation Framework*. We focus on variables representing teachers' professional experience, sense of personal accomplishment, and selected aspects of their work environment. These correlates were chosen on theoretical grounds and to provide a descriptive preview of the relationships examined more formally in the regression analysis that follows. Specifically, the framework posits that burnout emerges when job demands outweigh available resources, but that individual and contextual factors—such as professional efficacy, experience, and social support—can moderate this relationship.

The descriptive evidence presented here therefore serves two purposes. First, it illustrates the heterogeneity of emotional exhaustion across subgroups of teachers, highlighting potential patterns of vulnerability and resilience. Second, it offers preliminary insight into how personal and professional characteristics interact to shape wellbeing. While these associations should not be interpreted causally, they provide valuable intuition for the multivariate models in Section 6, where we estimate the independent contributions of these correlates after controlling for other teacher and school characteristics.

- Emotional exhaustion and selected teacher characteristics

We start by plotting teachers' emotional exhaustion against their personal accomplishment

Figure 8. Maslach et al. (1996) emphasise that Personal Accomplishment and Emotional Exhaustion are not opposites of the same component and their correlation is typically low. In the study setting the relationship between personal accomplishment and emotional exhaustion is moderately positive ($\rho \approx 0.072$), indicating that teachers who feel more effective tend to experience greater emotional strain, though the two dimensions are far from perfectly correlated. At lower levels of emotional exhaustion the variance of the personal accomplishment score is high and there is no clear correlation between emotional exhaustion and personal accomplishment. As the emotional exhaustion score increases, the correlation with the personal accomplishment score becomes positive and significant. Taking the cutoff of 27 and above, the correlation coefficient is 0.265 with a p-value of 0.002. In this sample the individuals with the highest sense of Personal Accomplishment also have the highest level of emotional exhaustion. This suggests a situation where the most motivated KG teachers contribute a high level of emotional and physical energy to their teaching activities and are at highest risk of emotional exhaustion. Strikingly, none of the teachers exhibit high emotional exhaustion and low personal accomplishment at the same time.

Figure 8: Emotional Exhaustion and Personal Accomplishment

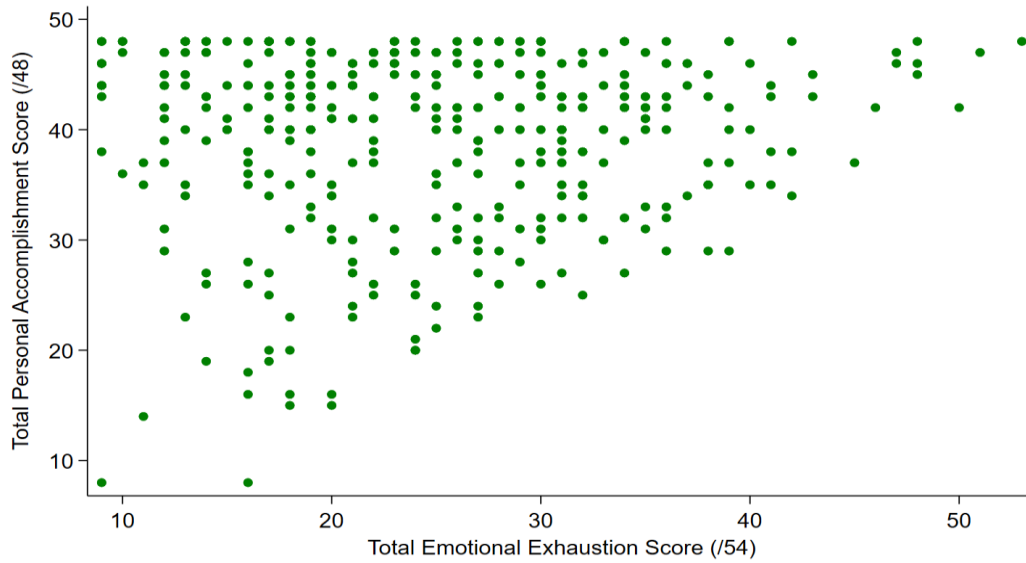
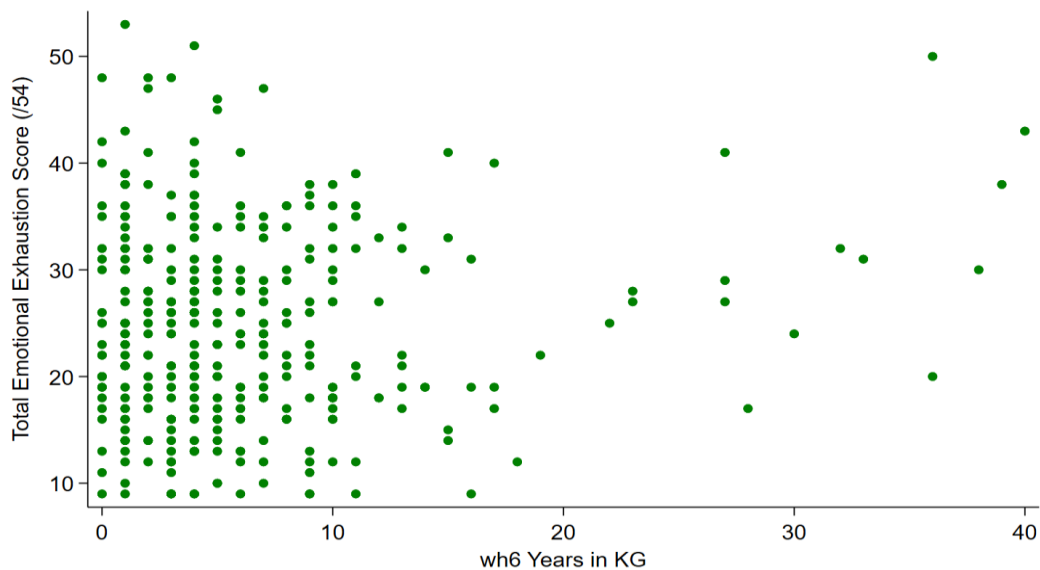


Figure 9 plots emotional exhaustion against years of teaching experience. The distribution reveals considerable heterogeneity among early-career teachers: within the first ten years, exhaustion levels vary widely—from teachers reporting very high fatigue (up to the maximum of 54) to others who appear largely unaffected (scores of zero). This pattern aligns with the Demotivation Framework, which posits an early-career “reality shock” as teachers transition from pre-service expectations to the demands of classroom life. Between roughly ten and fifteen years of experience, average exhaustion levels decline before gradually rising again among teachers with longer tenure. The correlation coefficient above 15 years of experience is 0.468 ($p=0.014$), though this pattern should be interpreted cautiously given the small number of highly experienced teachers (7% of the sample).

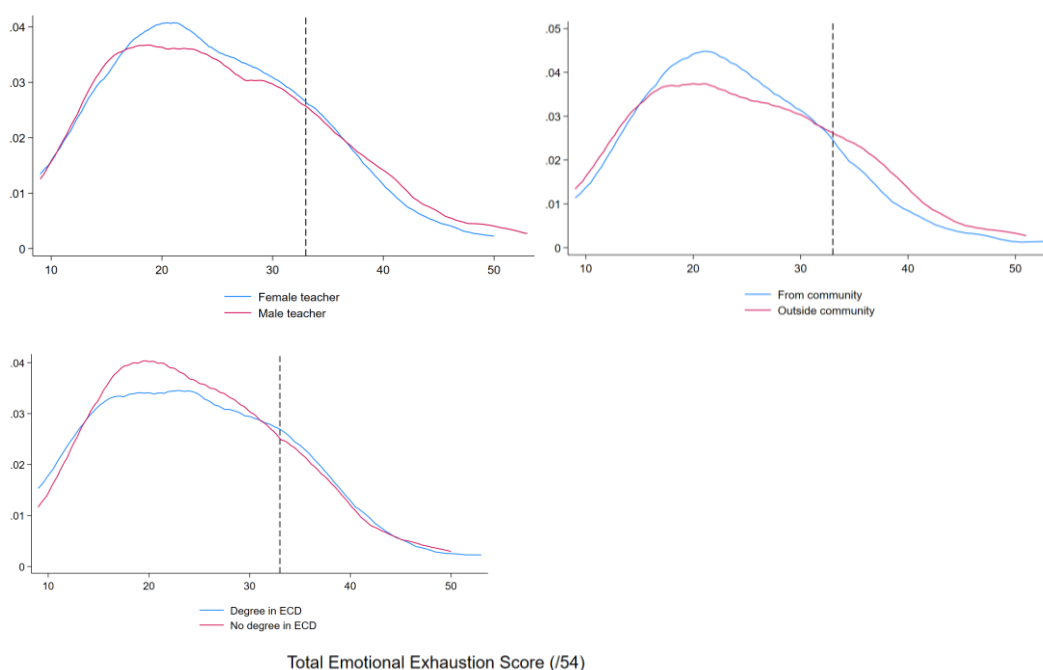
Figure 9: Emotional Exhaustion and Years of Experience



The mid-career dip in exhaustion may reflect a selection effect, whereby the most emotionally drained teachers leave the profession within their first decade. Those who remain may have developed coping strategies, adjusted expectations, or possess higher stress tolerance. The subsequent increase in exhaustion among long-serving teachers could then capture the cumulative strain of persistent resource constraints or limited opportunities for professional growth. Overall, the pattern suggests a dynamic, non-linear process in which burnout risk evolves over the teaching career rather than following a simple linear trajectory—consistent with evidence from other contexts (Huberman, 1993; Lauermann and König, 2016).

Figure 10 plots the distributions of teachers' emotional exhaustion by three further personal teacher characteristics: (i) whether the teacher is male or female; (ii) whether the teacher comes from a community served by the school, or not; and (iii) whether the teacher has a degree in ECD, or not. For all comparisons, the distributions are very similar, confirmed by Kolmogorov-Smirnov test. Considering moments of the distributions by gender, the mean score for male teachers is 25.3 for men compared to 24.4 for women. Just under 40% of female teachers (39.6%) and 43% of males teachers were above the burnout threshold. None of these differences are statistically significant. For community origin, the two lines diverge somewhat above the burnout threshold—teachers from outside the community seem to have higher emotional exhaustion scores than those from within the community, though even here the difference is not statistically significant. Finally, when comparing teachers with and without an ECD degree, the distribution of emotional exhaustion is again very similar. The density for teachers without an ECD degree shows a slightly greater mass at lower exhaustion levels, but across the full distribution the two lines largely overlap, and the Kolmogorov-Smirnov test confirms that the difference is not statistically significant.

Figure 10: Emotional Exhaustion and other personal characteristics

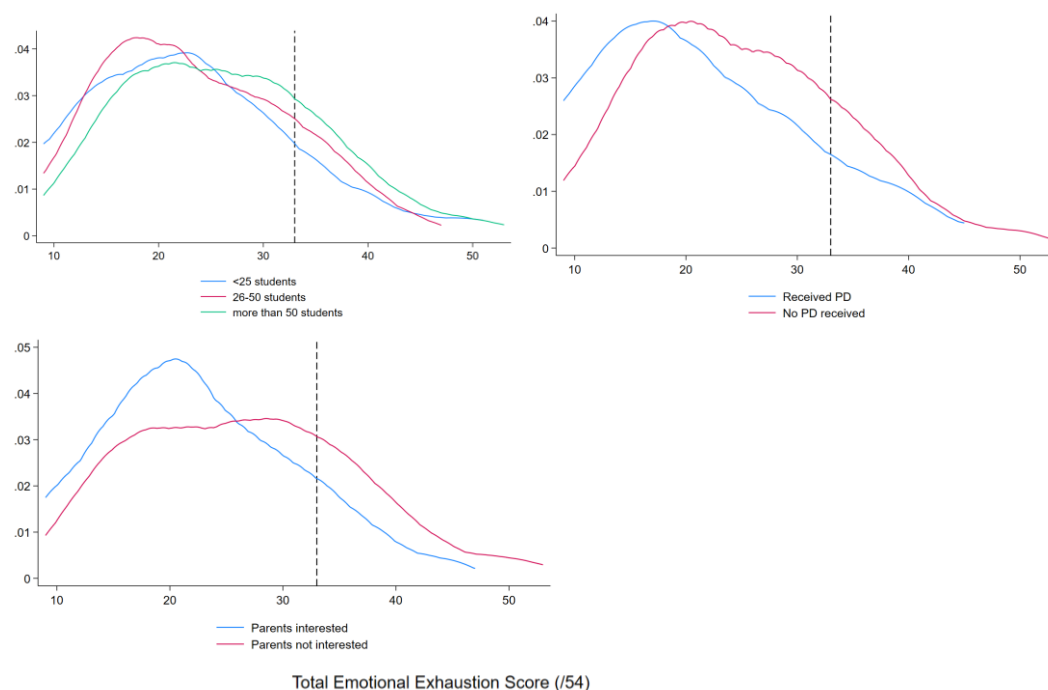


- Emotional exhaustion and selected school environment characteristics

Figure 11 shows the distributions of teachers' emotional exhaustion by three work environment characteristics: (i) class size (grouped into fewer than 25 pupils, 26–50 pupils, and more than 50 pupils); (ii) whether the teacher received professional development in the past 12 months; and (iii) whether the teacher identifies lack of parental interest in children's schooling as a problem.

Emotional exhaustion increases systematically with class size: the distribution for teachers handling classes of more than 50 pupils lies entirely to the right of that for teachers with 25 pupils or fewer. A similar pattern is observed for professional development—teachers who did not participate in training exhibit consistently higher exhaustion scores than those who did. Finally, teachers who report low parental engagement also display higher emotional exhaustion, confirming that perceived lack of parental interest is a strong correlate of burnout.

Figure 11: Emotional Exhaustion and class size and problems



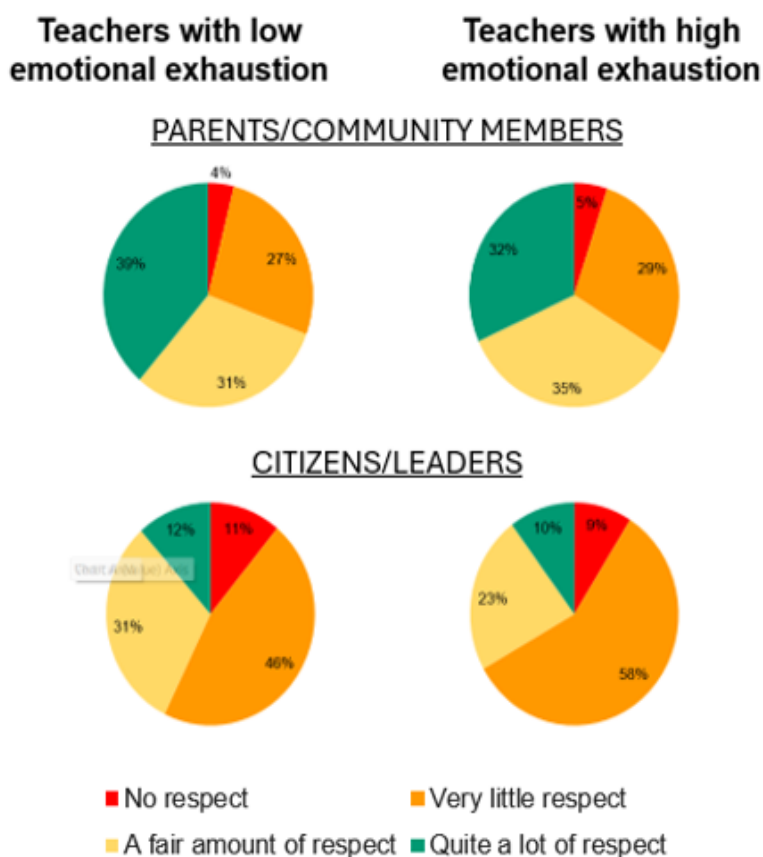
- Emotional exhaustion and external factors (respect)

Figure 12 compares teachers' perceptions of social respect by their level of emotional exhaustion, distinguishing between parents/community members (top panels) and citizens/leaders (bottom panels). The relationship between emotional exhaustion and perceived respect from parents and community members is modest: while teachers with higher emotional exhaustion are slightly more likely to report lower levels of respect, these differences are not statistically significant and distributions are similar overall.

In contrast, the pattern is somewhat more pronounced for respect from citizens and local leaders. Here, teachers with high emotional exhaustion are significantly more likely to report *very little respect*, whereas those with low emotional

exhaustion more frequently indicate receiving a *fair amount of respect*. The shares reporting *no respect* or *quite a lot of respect* remain relatively stable across groups, suggesting that the difference is concentrated in the middle categories.

Figure 12: Emotional Exhaustion and perceived respect



Taken together, these patterns indicate that differences in emotional exhaustion are more closely associated with teachers' perceptions of parental engagement than with perceived respect from parents or community members. In contrast, perceived recognition from citizens and local leaders tends to vary more systematically with emotional exhaustion, suggesting that broader societal and institutional esteem may be an important contextual correlate of teacher wellbeing.

1.1. Regression analysis

We next explore these relationships formally through regression analysis, examining how personal, work environment, and wider factors jointly predict teachers' emotional exhaustion.

All models include clustered standard errors at the district level to account for within-district correlation in working conditions. Because the data are cross-sectional, the coefficients should be interpreted as conditional associations rather than causal effects. Following the Demotivation Framework, explanatory variables are grouped into three domains: (i) *personal factors*, (ii) *school factors*, and (iii) *external factors*.

1.1.1. Models 1 and 2: Teacher characteristics only

The first model includes demographic and educational characteristics. Overall, personal characteristics explain only a small share of the variation in emotional exhaustion (adjusted $R^2 \approx 0.022$), with no variable showing statistical significance, except the square of experience (at a 10% significance level), suggesting that emotional exhaustion might follow a nonlinear pattern over the career cycle, initially increasing with experience and declining after a certain point. The results are consistent when we add the personal accomplishment score to the personal characteristics model (column 2), which is not significantly correlated with emotional exhaustion in this model.

1.1.2. Model 3: School environment characteristics only

When considering school-level characteristics (column 3) explanatory power is – while still small, significantly larger than in models 1 and 2 (adjusted $R^2 \approx 0.088$), indicating that workplace conditions considered have stronger correlation with emotional exhaustion than our set of individual traits by themselves. Three findings stand out.

For one, teachers who teach larger class sizes, have significantly higher scores than teachers with smaller class sizes (significant at 10%), all other school characteristics kept constant. Similarly, perceived lack of parental interest in kindergarten education is associated with higher exhaustion (+3.9 points), significant at the 1% significance level, highlighting how weak home–school engagement can come with heightened emotional strain. Third, teachers that report having received professional development in the last 12 months, report significantly lower exhaustion (-4.8 points), and also teachers that report on average more contact with children have on average slightly lower emotional exhaustion than teachers that report less time with children.

1.1.3. Model 4: External factors only

Model 4 considers variables capturing teachers' perceptions of social recognition and respect. Emotional exhaustion is negatively associated with perceived respect from citizens and community stakeholders (-2.5 points), suggesting that broader societal valuation of teachers matters for wellbeing beyond school-level factors. Respect from parents shows a weaker, non-significant correlation once reported respect from citizens is accounted for. Overall, the R^2 is smallest in this model compared to model 3, explaining only 1.1% of variation in emotional exhaustion.

1.1.4. Model 5: Combining factor

When all covariates are combined (column 5), the model's explanatory power increases substantially (adjusted $R^2 = 0.128$), indicating that roughly 13 percent of the variation in emotional exhaustion is accounted for, still leaving 87% unexplained. Among personal characteristics, the personal accomplishment score now becomes statistically significant, showing a positive association with emotional exhaustion—that is, teachers who report higher personal accomplishment also tend to experience greater emotional fatigue. This pattern echoes findings from other contexts that the most engaged and conscientious teachers are often at greatest risk of burnout (Kieschke and Schaarschmidt, 2008; Wolf et al., 2015). On the other hand, teachers that come from the community

have on average lower emotional exhaustion (-3.76 points) compared to those that moved to the community.

Within the school environment domain class size, time spent with children, having received professional development, and perceived parental interest in schooling remain significantly associated with emotional exhaustion, with stronger significance levels in the full model.

Finally, respect from citizens continues to be a significant correlate, reinforcing the association between broader social recognition and teachers' emotional wellbeing.

These findings align closely with the propositions of the *Demotivation Framework*, which conceptualises burnout as the outcome of cumulative imbalances between job demands and job resources over the course of a teacher's career. Larger class sizes and low parental engagement increase work demands and emotional strain, while opportunities for professional development and societal recognition act as compensatory resources that sustain motivation. The positive link between personal accomplishment and exhaustion suggests that even teachers who remain professionally committed are not immune to emotional fatigue—illustrating how prolonged exposure to demanding environments can erode motivation despite strong intrinsic drive.

Table 1: Factors correlated with emotional exhaustion score

	(1)	(2)	(3)	(4)	(5)
Age	-0.434	-0.439			-0.305
	(0.657)	(0.640)			(0.590)
Age Squared	0.00540	0.00561			0.00416
	(0.00780)	(0.00757)			(0.00711)
Female	-1.181	-1.160			-0.147
	(1.212)	(1.225)			(1.113)
Married	-1.585	-1.654			-1.265
	(1.432)	(1.450)			(1.238)
Prior Community Member	-1.598	-1.689			-2.777**
	(1.055)	(1.106)			(1.335)
Secondary Education	-1.859	-1.246			-4.814
	(3.220)	(3.274)			(3.774)
Bachelor/Vocational Degree	-4.105	-3.659			-5.321*
	(2.597)	(2.697)			(2.792)
Postgraduate Qualification	-1.528	-0.902			-2.684
	(3.756)	(3.929)			(3.814)
Degree in ECD	0.671	0.491			0.892
	(1.288)	(1.293)			(1.140)
Experience	-0.195	-0.198			0.0226
	(0.204)	(0.207)			(0.195)

Experience squared	0.00992*	0.0101*			0.00353
	(0.00531)	(0.00536)			(0.00476)
Total Personal Accomplishment Score (/48)		0.0905			0.121**
		(0.0593)			(0.0536)
Total number of students			0.0308*		0.0349**
			(0.0164)		(0.0167)
Other teachers in KG class			-0.580		-0.488
			(0.627)		(0.585)
Books in the classroom			0.906		0.327
			(0.985)		(1.034)
Dummy for imputed missing data			-1.468		-0.152
			(3.178)		(3.311)
Weekly hours w/ children actual			-0.0837*		-0.140**
			(0.0486)		(0.0562)
Professional Development			-4.847***		-4.893***
			(0.963)		(1.153)
Parents are insufficiently interested			3.878***		3.400***
			(1.066)		(1.045)
Lack of financial resources			1.178		0.637
			(1.342)		(1.303)
Lack of support from school management			-1.035		-0.771
			(1.211)		(1.291)
Curriculum is too difficult			0.954		1.407
			(1.068)		(1.007)
Respected by parents				0.0396	0.656
				(1.310)	(1.234)
Respected by citizens/stakeholders				-2.538**	-2.407*
				(1.099)	(1.213)
Observations	330	330	330	330	330
Adjusted R²	0.022	0.026	0.088	0.011	0.128

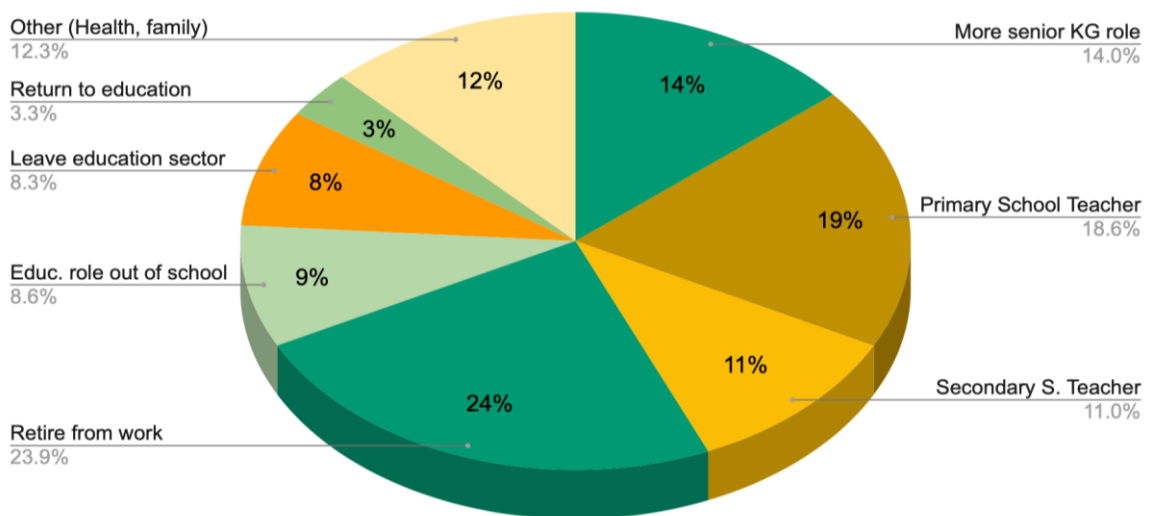
The Emotional Exhaustion scale from the Maslach Burnout Inventory is scored from 0 - 54. Standard errors clustered at the District level are in parentheses. P-values from a t-test with null hypothesis that the coefficient is zero, * p < 0.1, ** p < 0.05, *** p < 0.01.

6 Discussion and Conclusion

The analysis reveals that nearly half of public kindergarten teachers in Northern Ghana show signs of emotional exhaustion, underscoring the strain of working in resource-constrained environments. While burnout is only weakly related to individual demographics, it is closely associated with the balance between job demands and available supports. Large class sizes and limited parental engagement exacerbate emotional fatigue, whereas access to professional development, belonging to the local community, and perceived respect from citizens and local leaders serve as protective factors. Notably, teachers who report high personal accomplishment also tend to experience greater exhaustion, highlighting that strong professional commitment does not shield against burnout but may instead heighten vulnerability when institutional supports are weak.

These findings align with Stage 2 of the Demotivation Framework, in which sustained mismatches between job demands and job resources erode teachers’ motivation and wellbeing. The patterns are consistent with the “reality shock” observed among early-career teachers and the cumulative strain that develops over time when coping mechanisms and institutional buffers are insufficient. The evidence points to a dual challenge: retaining motivated teachers while preventing the overextension of those who are most dedicated.

Figure 13: Intentions to leave the profession



Although our data are cross-sectional, the survey also provides suggestive evidence on Stage 3 of the motivational process—the decisions teachers

anticipate making about their professional future. As shown in Figure 13, about 38 percent of teachers report that, if they were to leave their current kindergarten role, they would either retire from the profession altogether or move to a more senior kindergarten position. The remaining 62 percent indicate aspirations that lie outside the kindergarten sector: becoming primary or secondary school teachers, taking other education-related roles outside schools, leaving education entirely, or pursuing further studies. While this question was not designed to elicit firm career intentions, the pattern suggests that a majority of KG teachers do not view their long-term future within early childhood education. This finding is consistent with the framework's expectation that persistent emotional strain, limited recognition, and scarce career pathways can prompt teachers either to withdraw or to seek opportunities perceived as more rewarding or prestigious.

Taken together, the results illustrate how teacher demotivation is not an isolated psychological outcome but part of a longer professional trajectory shaped by structural working conditions and social valuation. Interventions that address workload and enhance professional resources—such as reducing class sizes, expanding continuous professional development, and strengthening community–school partnerships—could help sustain motivation in the short term. Yet longer-term retention in early childhood education will likely require policies that raise the status and career prospects of KG teaching itself. Creating visible advancement routes within the ECE sector, improving remuneration parity with primary education, and reinforcing societal respect for teachers are essential steps to break the cycle of demotivation and attrition in low-resource settings.

7 Strengths and Limitations

This study contributes to the emerging interdisciplinary literature on teacher motivation and wellbeing in low- and middle-income countries in several important ways. First, it draws on a large, representative sample of public kindergarten (KG) teachers in Northern Ghana, a region where evidence on early childhood educators' professional wellbeing is scarce. By focusing on this underserved context, the study broadens the geographical and institutional scope of the teacher motivation literature, which has traditionally centered on urban or better-resourced settings. Second, we use rich, primary survey data collected through individual interviews with teachers and head teachers, capturing a comprehensive set of personal, school, and community factors alongside validated measures of burnout and professional accomplishment. Third, by embedding the empirical analysis within the Demotivation Framework, the study bridges psychological and structural perspectives on teacher burnout, linking individual emotional exhaustion to broader patterns of professional recognition, institutional support, and career trajectories. Finally, the inclusion of data on teachers' anticipated career moves provides rare insight into the later stage of the motivational process—how demotivation may translate into turnover or exit from early childhood education.

At the same time, several limitations should be noted when interpreting the findings. First, the analysis is based on cross-sectional data, which limits causal inference. Results, including those in the regression analysis, should therefore be interpreted as descriptive associations rather than causal effects, despite the wide range of teacher and school characteristics that we control for. Second, all wellbeing and perception measures are self-reported, which may introduce social desirability or recall bias. Nonetheless, internal consistency of the scales and coherence across related indicators lend credibility to the patterns observed. Third, emotional exhaustion and personal accomplishment were measured based on the Maslach Burnout Inventory–Educator Survey, developed in high-income settings; although validated in Ghana and adjusted to the context, cultural differences may affect interpretation of thresholds and intensity, making direct comparison to the original scale difficult. Fourth, the analysis is restricted to public KG teachers in three northern regions, and results may not generalize to private schools, southern Ghana, or other low-resource countries with differing institutional environments. Finally, while the data provide indicative evidence on teachers' anticipated career moves, the question design does not allow us to disentangle preference from perceived opportunity, and thus these results should be interpreted as suggestive rather than predictive of future attrition.

Despite these limitations, the study offers rare, contextually grounded quantitative evidence on the mechanisms of teacher demotivation in low-resource settings. The integration of detailed survey data with a theoretically informed framework provides a foundation for future longitudinal and experimental research to more rigorously identify causal pathways and evaluate interventions aimed at sustaining teacher motivation and wellbeing in early childhood education.

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Annex A

	Mean	SD	Min.	Max.	Obs
Personal Factors					
Age	36.96	8.33	22	60	330
Female (%)	68.18	0.47	0	1	330
Married (%)	78.18	0.41	0	1	330
Prior Community Member (%)	21.21	0.41	0	1	330
Feels a part of the community (%)	94.85	0.22	0	1	330
Primary Education (%)	3.33	0.18	0	1	330
Secondary Education (%)	2.73	0.16	0	1	330
Vocational (%)	48.48	0.50	0	1	330
Some Bachelors (%)	88.18	0.32	0	1	330
Bachelors (%)	27.27	0.45	0	1	330
Postgraduate (%)	5.76	0.23	0	1	330
ECD Degree (%)	23.03	0.42	0	1	330
Years of experience in KG	6.38	6.80	0	40	330
Total Personal Accomplishment Score	38.76	8.43	8	48	330
Total Emotional Exhaustions Score	24.68	9.39	9	53	330
School Factors					

Total No. Students	56.00	36.71	6	181	330
Total No. Teachers		0.81	0	5	330
Books in classroom (%)	53.77	0.49	0	1	330
Writing materials in classroom (%)	76.10	0.43	0	1	318
Handwashing station in classroom (%)	9.12	0.29	0	1	318
Weekly hours w/ students	20.98	11.25	1	50	330
Professional Development (Last 12 mnths (%))	78.79	0.41	0	1	330
Perceived problems					
Parents are insufficiently uninterested (%)	49.70	0.50	0	1	330
Lack of financial resources (%)	78.79	0.41	0	1	330
Lack of support from school management (%)	25.76	0.44	0	1	330
Curriculum is too difficult (%)	37.88	0.49	0	1	330
External Factors					
Perceived to be respect by parents (%)	67.27	0.47	0	1	330
Perceived to be respect by citizens and stakeholders (%)	38.48	0.49	0	1	330

Thrive

Thrive is a multi-country research programme that aims to support countries to turn what we know about positive early childhood development into practical, scalable, low-cost programmes, able to transform societies over multiple generations. Working closely with policymakers and other stakeholders, Thrive aims to build understanding of early childhood development service delivery models and how they can be provided cost effectively and at scale, and how these systems can innovate, improve, and better serve children and communities in low- and middle-income countries.

Our five focus countries are Bangladesh, Ghana, Kiribati, Sierra Leone and Tanzania.

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Research partner(s)

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