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## Working Paper

# The impact of curriculum reform on teacher workload: A multidimensional time-use analysis

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## **The Impact of Curriculum Reform on Teacher Workload: A Multidimensional Time-Use Analysis**

*Erwin Doroteo Justien C. Daga, Michael R.M. Abrigo, and Edmar E. Lingatong*

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## **Abstract**

Teachers in developing countries often face heavy workload demands, yet little is known about how curriculum reforms shape their daily work patterns. This study examines how the revised K to 10 curriculum in selected Philippine public schools affects teacher time allocation, emotional wellbeing, and daily work patterns using data from a randomized controlled trial. We collected detailed time-use diaries from 696 teachers who recorded activities every twenty minutes over a full day, including their emotional states, locations, and social interactions. Reported activities were coded using the International Classification of Activities for Time-Use Statistics (ICATUS) as the initial framework and then refined through a customized coding system tailored to teaching-specific activities. The findings show that teachers in pilot schools spent less time on teaching and reallocated part of this time to lesson preparation and other teaching duties, resulting in a modest reduction in total work hours. Emotional well-being remained stable, with positive moods dominating across all activities. Sleep duration was unaffected, averaging seven hours for both groups. Spillover effects were minimal, as teachers of non-targeted grades maintained similar patterns except for a reduction in administrative tasks that benefited all teachers. These findings suggest that curriculum reform can reduce teaching time without affecting wellbeing, although workload adjustments occur through increased preparation rather than overall time savings.

**Keywords:** curriculum reform, teacher workload, teacher wellbeing, time-use analysis, randomized controlled trial, activity coding, permutation test, sleep time, spillover effects

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# The Impact of Curriculum Reform on Teacher Workload: A Multidimensional Time-Use Analysis

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## 1. Introduction

Teachers play a central role in building human capital. They devote time and effort to help students acquire the knowledge and skills needed for their future. Their responsibilities go beyond classroom instruction. Teachers prepare lessons, plan activities, assess student performance, and engage in professional collaboration, which are all essential elements of effective teaching (Beatson et al. 2023; Cauley and McMillan 2010; Darling-Hammond et al. 2017; Kaufman et al. 2018; Lara-Alecio et al. 2012; LePage et al. 2005). These tasks form a complex and interconnected set of activities that collectively shape educational outcomes.

In the Philippines, the Magna Carta for Public School Teachers (RA 4670) established basic protections, mandating six hours of classroom teaching and two hours for ancillary tasks daily, and explicitly prohibiting the assignment of teachers to non-teaching duties except in emergencies. More recently, the Department of Education has intensified efforts to address workload concerns through multiple policy interventions. DepEd Order No. 002, s. 2024, mandated the immediate removal of administrative tasks from teachers, transferring responsibilities to school heads and non-teaching personnel. DepEd Order No. 005, s. 2024, further rationalized teachers' workload by clarifying teaching load limits and compensation for overload. Perhaps most significantly, the pilot implementation of Revised K to 10 Curriculum in 2023 included comprehensive review and reduction of learning competencies across grade levels, explicitly aiming to streamline content and reduce instructional burden. These initiatives reflect growing policy attention to teacher working conditions as a way for improving education quality.

Despite these efforts, heavy workloads remain a serious challenge. The gap between mandated working hours and actual time spent on professional duties continues to widen. Teachers not only handle instructional responsibilities but also participate in activities such as immunization campaigns, feeding programs, population censuses, and election duties (David et al. 2019; Tarraya 2024). Many teachers report difficulty completing tasks within regular hours and often work beyond eight hours a day (Ancho and Bongco 2019). Recent evidence shows that Filipino teachers work an average of more than 12 hours each day, manage multiple classes, and teach large numbers of students (Cammayo et al. 2022). This reality contrasts sharply with the six-hour teaching mandate established decades ago and raises questions about whether current policies are sufficient.

This pattern of excessive workload is not unique to the Philippines. In fact, studies from other countries reveal similar pressures. In the United States, most (84%) public school teachers report lacking enough time during regular hours to complete essential tasks such as grading and lesson planning, and administrative work (Lin et al. 2024).

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Teachers in England often work more than sixty hours per week during term time, with many working evenings and weekends (Allen et al. 2024). Canadian teachers average nearly fifty hours weekly, and Australian teachers work more than forty hours (British Columbia Teachers' Federation 2016; Rothman 2018). Scholars describe this global phenomenon as time poverty, where individuals face too many tasks and too little time, creating persistent stress (Wajcman 2008). The consistency of this pattern across countries suggests that the challenge is systemic rather than a result of local policy failures.

Although the teacher's workload has been widely studied, important gaps remain, especially in developing countries. Most research relies on self-reported estimates of total work hours rather than detailed time-use diaries that capture actual activity patterns throughout the day. In the Philippines, there are no recent studies using time-use diaries to measure how teachers allocate time across different activities during a full day. International studies that use time-use methods often focus only on school-based activities such as teaching, grading, attending meetings, and ancillary or administrative tasks. Yet teachers' work extends beyond school premises and official hours. They prepare lessons at home, attend training sessions in various locations, and manage administrative tasks outside school (Ancho and Bongco 2019). Existing studies do not capture the multidimensional nature of teachers' experiences. We lack research that measures what teachers do (activities), how they feel (emotions), where they work (locations), and with whom they interact (companions) using a comprehensive time-use approach.

Most importantly, we know little about how curriculum reforms, which are a key policy tool for managing workload, affect the different dimensions of teachers' daily work. While many studies examine outcomes such as student achievement, they do not explore how reforms reshape teachers' time allocation, emotional wellbeing, or work patterns during implementation. Understanding these implementation dynamics is essential for several reasons. Teacher time is a scarce resource and a critical input to education. If reforms reduce teaching time but increase preparation burden, the net effect on workload may differ from what policymakers intend. Reforms that change work patterns without affecting emotional wellbeing may be more sustainable than those that reduce hours but increase stress. Early evidence can guide adjustments that improve both teacher welfare and student outcomes. The absence of such evidence limits our ability to design teacher-friendly and effective reforms.

This study addresses these gaps by analyzing how the Revised K to 10 curriculum reform affects teacher workload and wellbeing in selected Philippine public schools. We focus on three main questions. First, how does the reform change teacher time allocation across classroom instruction, lesson preparation, administrative tasks, and personal activities? Second, do changes in time correspond with changes in teachers' emotions during the workday? Three, are the curriculum reform effects concentrated among teachers of targeted grades (K, 1, 4, and 7), or do they spill over to colleagues teaching other levels?

We answer these questions using data from a randomized controlled trial of the revised K to 10 curriculum in selected Philippine public schools. The Department of Education randomly assigned schools to either pilot the revised curriculum or continue with the existing one, creating a valid comparison group for measuring reform effects. We collected time-use data from our teacher survey. We code the activities using the International Classification of Activities for Time-Use Statistics (ICATUS 2016) framework, which we customized to capture teaching-specific activities. Teachers recorded their activities every twenty minutes over a complete twenty-four-hour period. For each interval, they reported what they were doing, their emotional state, physical location, and social companions. This multidimensional approach

provides a detailed picture of not only how much time teachers spend working but also how they experience their work emotionally, the variety of activities they perform, and their patterns of professional and social interaction.

This study makes three contributions. First, it offers the first systematic time-use evidence on Filipino teachers, addressing a critical gap in education research for developing countries. We adapt the ICATUS framework to create a detailed classification system that distinguishes between class activities such as teaching and assessment, class preparation including lesson planning and materials development, grading, paperwork, and personal activities. Our detailed classification (Table 5) reveals how teachers divide time among specific tasks and how curriculum reform shifts this allocation. Second, we advance time-use diary methodology by integrating activity measurement with emotional states, location, and social companions. This multidimensional approach shows that curriculum reform changes what teachers do without altering how they feel emotionally, providing evidence of a sustainable reform. Third, we provide policy-relevant insights on curriculum reform during early implementation. Our findings show that the reform reduces time spent on class activities but does not proportionally reduce total work hours because teachers reallocate time to preparation and other support tasks. Policymakers should recognize that reducing one type of work does not automatically reduce overall workload if teachers shift their efforts to other necessary activities.

## **2. Methodology**

This study was designed as an impact evaluation of curriculum reform on teacher time use and wellbeing. Impact evaluations are conducted to measure the causal effects of interventions by comparing outcomes between treatment and control groups. Schools were randomly assigned to either pilot or non-pilot groups, which created a valid counterfactual and allowed us to isolate the effect of the curriculum intervention from other factors that might influence teacher time allocation. We followed established protocols for randomized controlled trials in education policy research (Slattery et al. 2025).

### *2.1. Design*

The revised K to 10 curriculum, previously referred to as the MATATAG curriculum, was implemented for specific grade levels, namely Kindergarten, Grade 1, Grade 4, and Grade 7. This design enabled us to compare two groups of teachers. The first group, referred to as the impact group, consisted of teachers handling the targeted grades in both pilot and non-pilot schools. The second group, referred to as the placebo group, included teachers handling other grade levels in both pilot and non-pilot schools. If the curriculum reform affected only the targeted grades, differences were expected between pilot and non-pilot schools for the impact group but not for the placebo group.

### *2.2. Data collection*

#### *2.2.1. Sample*

Data were collected from teachers employed in selected public schools regardless of employment classification. This included volunteer teachers, those hired by Local School Boards, and permanent teaching staff employed by the Department of Education. More than one thousand teachers began the survey, and over seven hundred completed it. After applying data cleaning and quality checks, the final sample consisted of 696 teachers who provided

complete and internally consistent time-use diary data. Participants ranged in age from mid-twenties to early sixties, with the majority being female.

### *2.2.2. Survey administration*

We conducted an online survey between April and May 2024. School heads were provided with shortened URL links and QR codes via email, which they distributed to all teachers in their schools. Prior to full-scale deployment, the survey was pretested with a small group of teachers and researchers to ensure clarity, assess completion time, and verify technical functionality.

### *2.2.3. Survey instrument*

The instrument used was the Teacher Survey, which contained multiple sections covering teacher background, demographics, employment characteristics, and other relevant information. The final section focused specifically on time use and served as the primary source of data for this analysis.

## *2.3. Teacher time-use diary methodology*

Time-use data collection followed established methodologies widely used in international research (Gershuny and Sullivan 2017). Time-use diaries are considered the gold standard for measuring how individuals allocate time across activities (Cornwell et al. 2019). This method required respondents to provide detailed chronological accounts of activities over a specified period, typically twenty-four hours, producing accurate and comprehensive data on time allocation (Juster et al. 2003; UN 2024).

We employed a diary-based approach consistent with the International Classification of Activities for Time-Use Statistics (ICATUS), developed by the United Nations Statistics Division to standardize time-use measurement globally. ICATUS provides a three-level hierarchical structure comprising nine major groups, fifty-six divisions, and one hundred sixty-five detailed categories (UN 2016).

### *2.3.1. Diary structure*

Teachers documented activities over a complete 24-hour period representing the previous day, beginning from 4:00 AM of the reference day until 3:59 AM of the following day. This period was divided into seventy-two consecutive intervals of twenty minutes each. The twenty-minute interval was chosen because very short intervals (e.g. 10 minutes) increase cognitive burden and reduce data quality, while longer intervals (60 minutes) may obscure short-duration activities. This interval length has been successfully used in previous time-use studies of professional workers (Jacobs and Gerson 2004).

For each interval, teachers reported four types of information. They described their primary activity in free-text format. Second, they indicated their emotional state by selecting from categories such as happy, inspired, amused, don't care (neutral), sad, annoyed, angry, or afraid. Third, they reported their location from options such as school, usual residence, someone else's home, other schools, stores, or other places. Fourth, they identified who was present, choosing from categories such as alone, students, colleagues, other household members, friends, or others.

### *2.3.2. Temporal reference*

Three temporal anchoring questions were included in the survey to establish clear boundaries for the diary period. Respondents reported the time they woke up yesterday, the time they went to sleep yesterday, and the time they woke up today. These questions helped distinguish sleep from waking hours. The survey also recorded the completion date, which allowed the day of the week to be calculated. The analysis focused on weekdays when teachers were engaged in professional work, consistent with the school calendar.

### *2.3.3. Data quality and validation*

Several validation procedures were applied to ensure the quality of the time-use diary data. First, responses were checked for internal consistency to confirm that reported activities covered the entire 24-hour period without gaps or overlaps. Second, reported time allocations were examined for plausibility to identify potential errors such as unusually long activity durations or sequences that were not possible. Third, aggregate time allocations were compared with expected distributions based on previous time-use studies, and responses showing unusual patterns were flagged for further review.

Respondents who provided incomplete diaries, such as those reporting activities for only part of the 24-hour period, or those with substantial inconsistencies, were excluded from the analysis. The final analytical sample included only teachers who submitted complete and internally consistent diary data that met quality standards. This selection ensured that the results reflected accurate time allocation patterns rather than measurement errors.

### *2.3.4. Activity classification*

After data collection, reported activities were classified into standardized categories based on ICATUS guidelines. The classification system organized activities into major categories, which included:

- **Employment and Related Activities:** Activities related to paid work, including class teaching, lesson preparation, other teaching duties, administrative work, paperwork, work breaks, training and meetings, work-related travel, and business.
- **Unpaid Care Work:** Activities providing care for household members, including childcare, eldercare, assistance with activities of daily living, and household care and maintenance including cooking, cleaning, shopping, and household management.
- **Leisure and Social Activities:** Activities perform religious activities, recreation, entertainment, social interaction, or personal development, including hobbies, media consumption, socializing, and community participation.
- **Self-Care and Maintenance:** Activities meet personal physiological and physical needs, including eating, sleeping, beauty care, personal hygiene, and medical care.

## *2.4. Data preparation*

A systematic data cleaning and transformation process was carried out using STATA 18 software to prepare the time-use diary data for coding. The data were reshaped from wide format, where each respondent occupied one row, to long format, where each row represented a twenty-minute interval or observation for a respondent. This structure facilitated activity coding and statistical analysis.

Several quality control procedures were implemented. Duplicate entries were removed to ensure that each interval appeared only once per respondent. The distribution of reported hours was examined, and respondents with incomplete diaries were excluded. Activity descriptions were cleaned by removing excess whitespace, special characters, and invalid entries consisting of only numbers or random letters.

Temporal and content consistency were also assessed. Diaries with unlikely activity sequences, such as random alternation between unrelated activities every twenty minutes or reporting work activities during the middle of the night, were dropped. Respondents who provided repetitive or nonsensical descriptions that did not form coherent daily narratives were excluded.

A common issue involved missing observations for overnight sleep. Many respondents did not explicitly record sleep activities, even though auxiliary questions confirmed that they slept during this period. For respondents with this pattern, no recorded activities during nighttime hours but valid responses to sleep timing questions, sleep observations were added to fill gaps. The last recorded location and companion information from the evening were copied, while mood data were marked as “not reported.” Sleep records were then inserted to cover the period from reported bedtime to wake time, ensuring complete twenty-four-hour coverage. This procedure was based on the assumption that respondents were sleeping during these unrecorded periods, supported by their responses and the biological necessity of sleep. No imputation was performed for daytime gaps or cases lacking supporting information.

## *2.5. Activity coding procedure*

We developed a systematic coding framework that transforms raw diary data into standardized activity categories. This framework represents a key methodological contribution, as it adapts the international ICATUS structure to capture activities specific to the work of teachers.

### *2.5.1. ICATUS 2016 as the coding foundation*

The coding system was primarily based on the International Classification of Activities for Time-Use Statistics (Table 4), developed by the United Nations Statistics Division to standardize time-use measurement across countries and enable international comparisons. ICATUS has been widely adopted in global time-use surveys, particularly in Asia and Africa, and provides a proven framework for activity classification (Charmes 2015). Its development spanned nearly two decades, beginning with an initial draft in 1997. After consultations and pilot testing, the trial version was released in 2005. Extensive revisions led to the publication of the finalized ICATUS 2016, which organizes activities into a three-level hierarchy comprising nine major groups, fifty-six divisions, and one hundred sixty-five detailed categories. The classification aligns with other international statistical standards, including the System of National Accounts and the International Standard Industrial Classification, facilitating integration with broader economic and labor statistics (Liangruenrom et al. 2019; UNSD 2016).

### *2.5.2 Initial activity classification*

A variable called MAJOR\_GROUP\_CODE was created to classify all activities according to the nine major ICATUS groups:

1. Employment and related activities
2. Production of goods for own final use
3. Unpaid domestic services for household and family members
4. Unpaid caregiving services for household and family members
5. Unpaid volunteer, trainee, and other unpaid work
6. Learning
7. Socializing and communication, community participation, and religious practice
8. Culture, leisure, mass media, and sports practices
9. Self-care and maintenance

We implemented coding text matching procedures in STATA using the *regexm* command to identify keywords and phrases corresponding to each category. Activities that could not be meaningfully classified received a code of zero and were removed during data cleaning.

### 2.5.3. Detailed activity categories

We developed an extended three-digit coding system for employment activities (GROUP\_CODE) to capture the diverse tasks comprising teaching work. This refined scheme included several categories:

- **Class Activities (111):** Direct instructional time such as classroom teaching, leading class discussions, demonstrating concepts, supervising student work during class time, conducting performance tasks, administering tests and quizzes, and other activities involving direct interaction with students.
- **Class Preparation (112):** Activities related to preparing instruction, including lesson planning, developing instructional materials, creating assessments, reviewing curriculum content, researching teaching methods, and preparing tests.
- **Other Teaching Duties (113):** Activities beyond direct instruction and preparation, such as grading student work, providing written feedback, recording grades, advising students individually, distributing modules outside class hours, and supervising hygiene activities like handwashing and toothbrushing.
- **Administrative and Ancillary Work (121):** Non-teaching responsibilities such as completing paperwork, forms, administrative, and ancillary works, coordinatorship, maintaining student records, facilitating school programs, attending school events, serving on committees, performing institutional maintenance tasks, conducting home visits, and communicating with parents.
- **Work Breaks (131):** Rest periods during the workday, including recess, lunch breaks, coffee breaks, restroom breaks, and short intervals between teaching periods.
- **Training and Meetings (141):** Professional development activities such as attending training sessions, seminars, workshops, and courses, as well as participating in staff meetings, department meetings, and collaborative planning sessions.
- **Travel and Commute (151):** Time spent traveling to and from work and between locations during the workday for work-related purposes.
- **Other Employment Activities (161):** Miscellaneous work tasks are not captured in the above categories, including seeking employment, setting up a business, paid tutoring outside regular employment, and providing other services.

In addition to employment categories, we created specific codes for other major activity types:

- **Sleep (901):** All sleep activities, assigned a distinctive three-digit code to facilitate identification in data visualization and analysis.

We also created specific codes for other major activity types, resulting in seventeen distinct three-digit codes in the final classification scheme.

#### *2.5.4. Quality assurance*

Several quality checks were applied to ensure coding reliability. Observations were randomly sampled across respondents, and activities were sorted by hour to identify potential errors. Total hours recorded for each teacher were reviewed to detect unusual or incomplete data. Time blocks were examined throughout the day, sorted by respondent and hour, to verify that activity sequences aligned with typical teacher routines.

### *2.6. Statistical analysis*

All statistical analyses were conducted using Stata 18 software. Before beginning the analysis, modifications were made to the activity coding structure to create more meaningful analytical categories.

#### *2.6.1. Activity category consolidation and exclusion*

Three separate categories were combined into Unpaid Care Work, which included unpaid domestic services, caregiving services, and volunteer work. These categories shared the common feature of unpaid labor benefiting household members.

Socializing and leisure activities were combined into Recreational Activities, as both represent discretionary time use oriented toward personal enjoyment and social connection.

Two ICATUS major groups were excluded: production of goods for own final use and learning activities. These categories contained very few observations in our teacher sample and did not affect the main findings.

#### *2.6.2. Statistical testing*

Differences in time allocation between pilot and non-pilot school teachers were examined using two complementary approaches. First, we calculate average total time spent on each activity category for both groups to provide descriptive comparisons of time allocation patterns.

Second, treatment effects were estimated to represent the difference in time allocation attributable to the revised curriculum intervention. For the affected group, which included teachers of targeted grades, the treatment effect measured the difference between pilot and non-pilot school teachers. For the placebo group, which included teachers of other grades, the treatment effect tested whether differences existed despite these teachers not being directly targeted by the intervention.

Statistical significance was assessed using permutation tests. These tests were chosen because they do not require strong distributional assumptions, making them robust to non-normality and outliers that often characterize time-use data. The test works by randomly reassigning treatment status many times and calculating the test statistic under each random assignment, generating an empirical distribution under the null hypothesis of no treatment effect. Significance was evaluated at the ten percent level, meaning the null hypothesis was rejected

when the observed effect would occur by chance less than ten percent of the time under random treatment assignment.

### 2.6.3. Survey weights

Data weights were generated to address potential sampling bias. These weights adjusted for differences between the sample and the full teacher population based on region, school type, treatment group, and gender. The weights were built using the expected number of teachers in each treatment group, defined by region, school, treatment status, and gender. These adjustments ensured that the results reflected real population patterns rather than random differences within the sample. The weights were applied across all statistical tests and analyses to produce accurate estimates.

## 3. Results and Discussion

In this section, we present the results of how the pilot curriculum intervention influenced four dimensions of teachers' daily experiences: time allocation, emotional states, location, and social interactions throughout the workday. Two distinct samples were analyzed. The first group consisted of teachers handling the affected grade levels, which included Kindergarten, Grade 1, Grade 4, and Grade 7. This group is referred to as the impact group. The second group consisted of teachers handling other grade levels and is referred to as the placebo group. Both groups included teachers from pilot and non-pilot schools, which allowed us to assess whether curriculum changes produced spillover effects.

### 3.1. Overview: A day in the life of teachers

Figures 1 and 2 provide a comprehensive view of how teachers spent their workdays across four dimensions: activities, moods, locations, and companions. These visualizations illustrate the typical patterns of teacher work and life throughout a full day.

**Activities Throughout the Day.** Teachers began their day early. During the early morning hours, most teachers engaged in personal care and unpaid household tasks to prepare for work. The workday became busier during the morning and early afternoon when class activities occupied most of their time. During these peak teaching hours, teachers focused on delivering instruction and conducting student assessments. After midday, the composition of work shifted. Teachers spent less time on class activities and more time on lesson preparation, administrative tasks, and other teaching duties. For many teachers, these responsibilities extended into the evening, particularly for those in pilot schools who continued working at home. By late evening, most teachers transitioned to personal time, although some continued working late.

**Moods Throughout the Day.** Teachers reported predominantly positive moods throughout the day. From morning until evening, many indicated feeling happy, inspired, or amused. Negative moods such as annoyance, sadness, anger, and fear appeared only in small portions, mostly during the busiest hours of the school day. Even during these demanding periods, positive emotions outweighed negative ones.

**Locations Throughout the Day.** The spatial patterns of teacher work showed clear boundaries between work and home. During school hours, the majority of teachers remained at their school premises. A small number reported work-related activities from home during school hours, which reflected alternative delivery modes during class suspensions caused by heatwaves.

After school hours, teachers gradually transitioned to their homes, where many continued work-related activities such as lesson preparation and administrative tasks. Some teachers visited other schools during the day for training and meetings, particularly those in pilot schools implementing the new curriculum.

**Companions Throughout the Day.** Social interactions shifted noticeably from work to personal time. At school, students were the primary companions for teachers. During breaks and lunch, teachers interacted with colleagues, which provided opportunities for professional support. After school, companion patterns changed, with evenings spent mainly with family or alone. These patterns highlight the clear separation between work life and home life.

These multidimensional patterns provide context for understanding how curriculum reform may have influenced teachers' experiences. The following sections examine whether these patterns differed between pilot and non-pilot schools and whether any differences were concentrated among teachers directly affected by the reform.

### *3.2. Multidimensional patterns: Comparing pilot and non-pilot schools*

#### *3.2.1. Hourly activity distribution*

Hourly activity patterns for teachers of affected grade levels are shown in Figure 1. Teachers in pilot schools spent less time on class activities during school hours compared to their peers in non-pilot schools. Peak engagement occurred during the morning and early afternoon, consistent with typical school schedules. This pattern supports the aggregate findings presented in Table 1.

Pilot school teachers allocated more time to other work activities such as lesson preparation and other teaching duties. These activities appeared as increased shares in the pilot group graphs, particularly during the afternoon and evening. This pattern also aligns with the aggregate findings presented in Table 1.

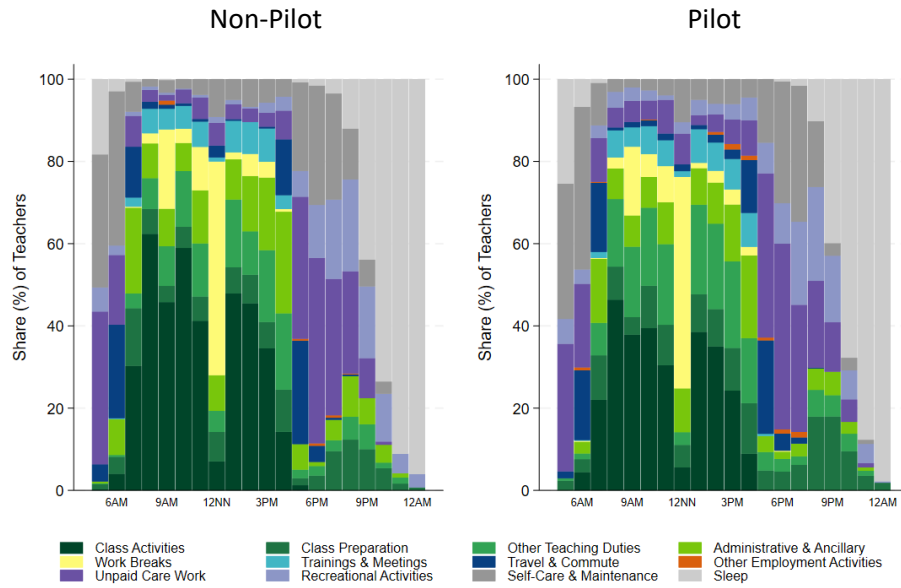
Figure 2, Panel A displays activity patterns for teachers of other grade levels. Teachers in pilot and non-pilot schools exhibited nearly identical distributions across all hourly intervals. This visual evidence reinforces the statistical finding that the curriculum intervention did not generate spillover effects on non-targeted teachers' time allocation.

#### *3.2.3. Location patterns*

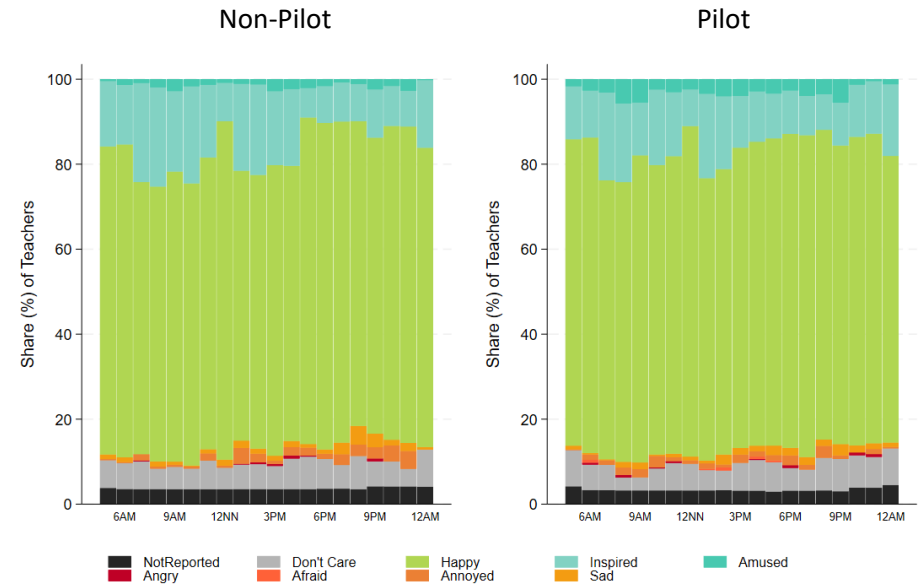
Spatial distributions shown in Figures 1 and 2 (Panel C) indicate that teachers had similar location patterns regardless of school type and group. During school hours, most work occurred at school premises. Some teachers worked from home during school hours due to class suspensions caused by heatwaves, which required alternative delivery modes of teaching. Pilot school teachers showed a slight increase in presence at other schools, mainly due to training and meetings related to the new curriculum.

**Figure 1. Affected school teachers' hourly experiences throughout workday**

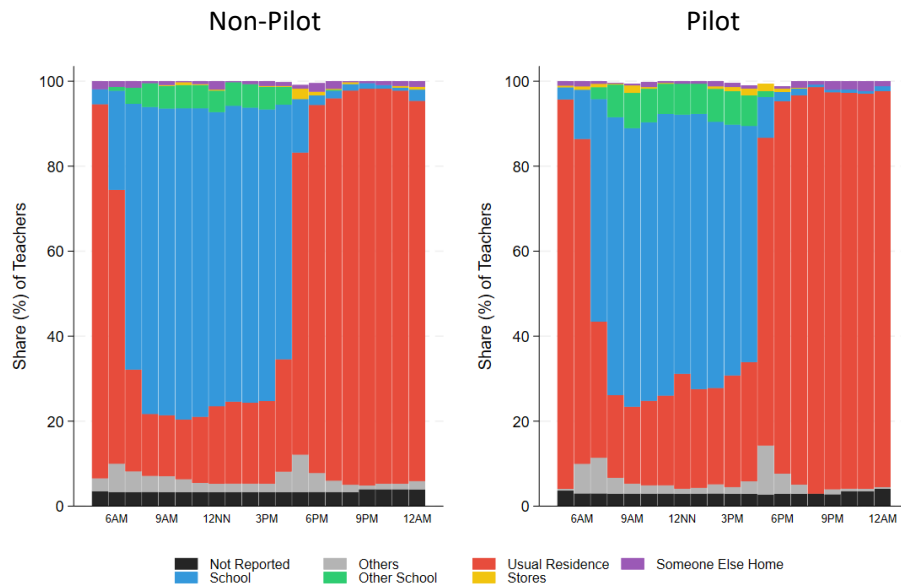
**A. Activities**



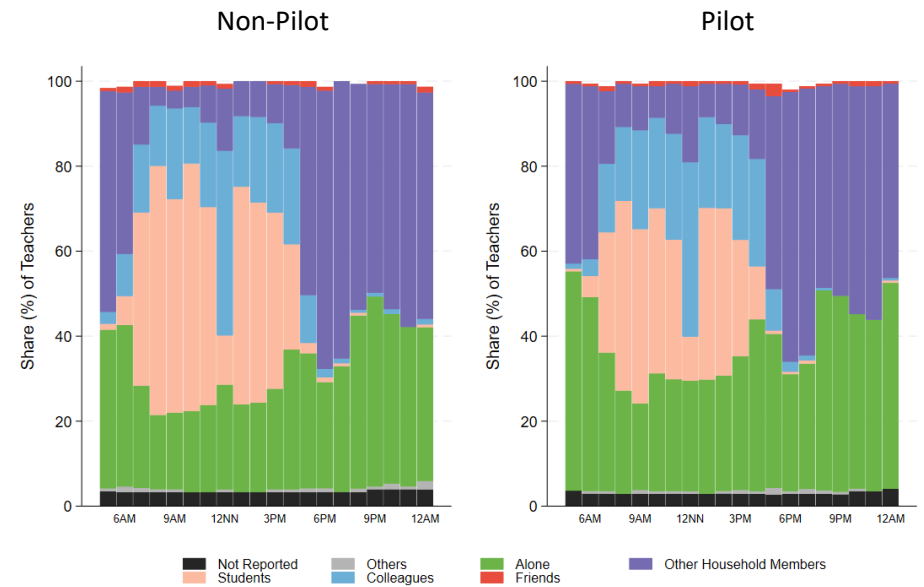
**B. Moods**



**C. Location**

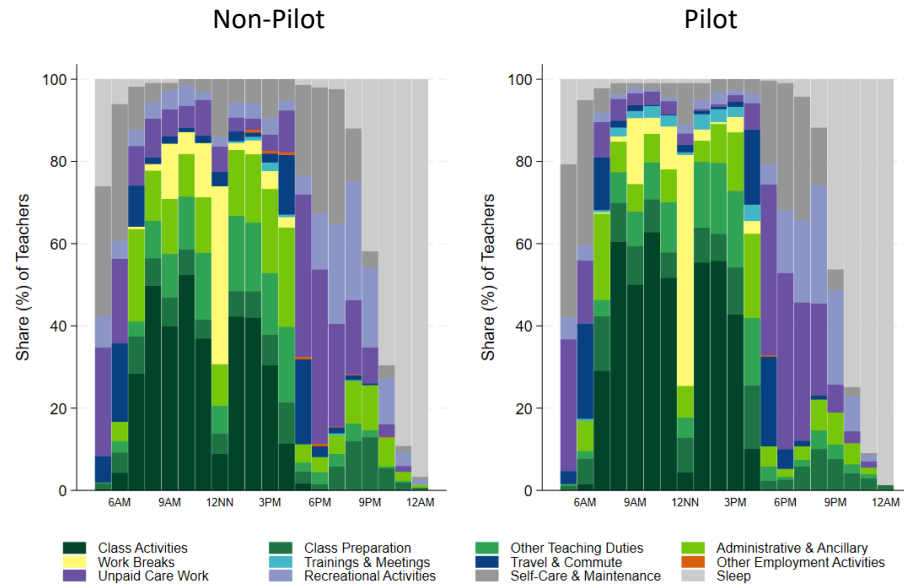


**D. Companion**

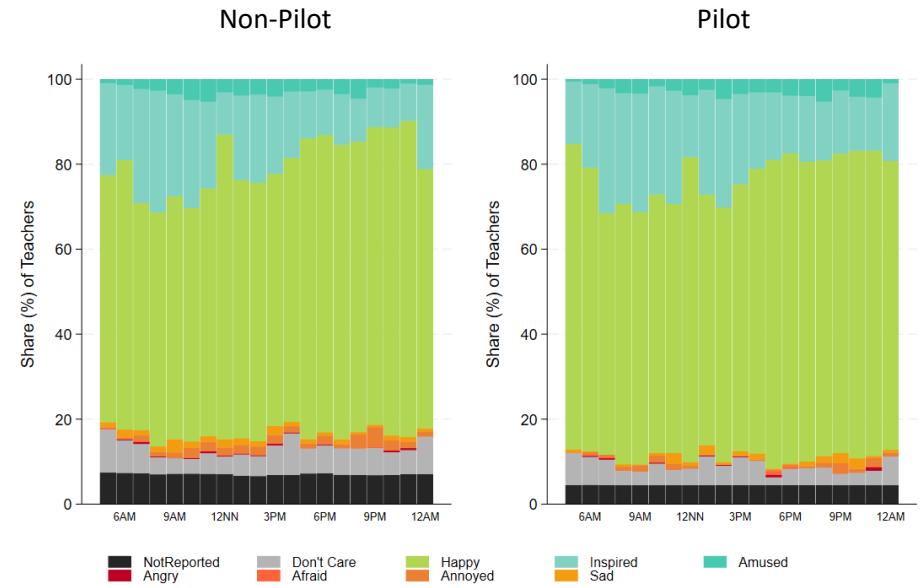


**Figure 2. Non-affected school teachers' hourly experiences throughout workdays**

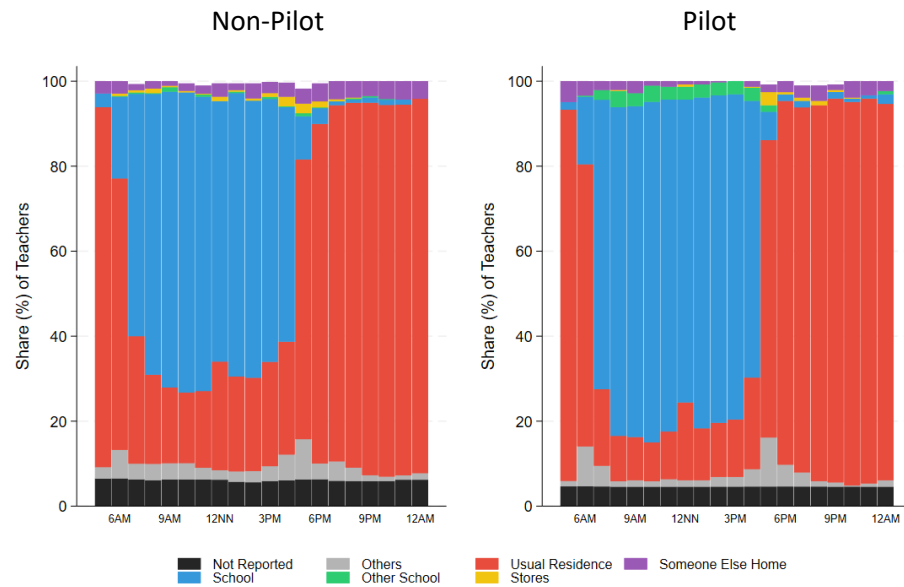
**A. Activities**



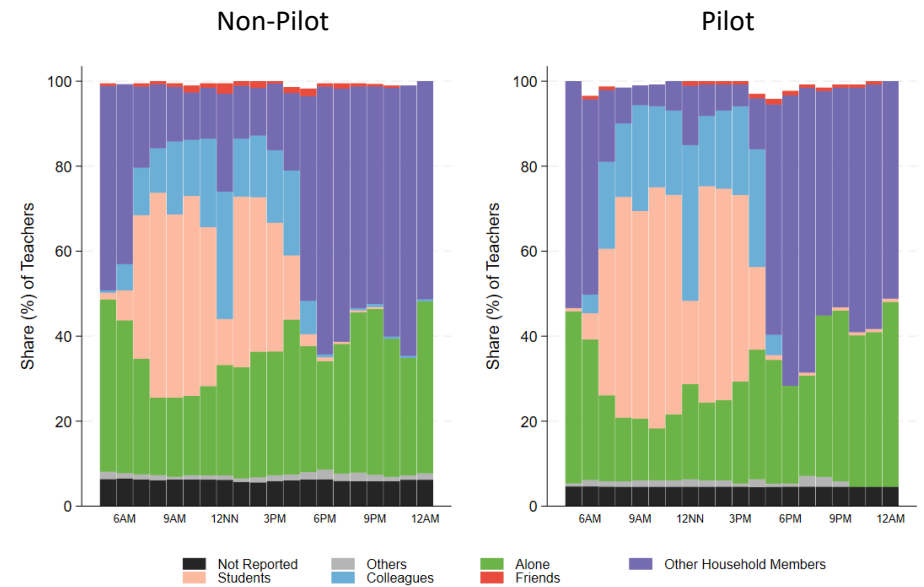
**B. Moods**



**C. Location**



**D. Companion**



### 3.2.4. Companion patterns

Companion patterns presented in Figures 1 and 2 (Panel D) were also similar across school types and groups. Student contact time dominated school hours for both groups. Interaction with colleagues occurred primarily during breaks and lunch. Time spent alone or with household members appeared mainly during non-school hours.

### 3.3. Time spent patterns

#### 3.3.1. Teachers of affected grade levels (K, 1, 4, and 7)

Clear differences were observed in how teachers from pilot and non-pilot schools allocated their time each day. On average, teachers in pilot schools reported spending nearly ten hours on employment-related activities, which is less time compared to teachers in non-pilot schools. This reduction in total work time provides strong evidence that the curriculum reform helped ease the workload for teachers handling the targeted grades.

**Class Activities.** The biggest change appears in class activities time. Pilot school teachers spend about 96 fewer minutes, or 1.6 hours, less on class activities than non-pilot school teachers. This drop is statistically significant at the 1% level. The finding aligns with the goal of the new curriculum, which aims to reduce teaching hours by simplifying content and allowing flexible class schedules (Deped, 2024). The curriculum reform specifically targets reducing the number of learning competencies and streamlining lesson content, which directly translates into less time needed for class teaching and student assessment.

The most notable change occurred in class activities. Teachers in pilot schools devoted considerably less time to classroom instruction than their counterparts in non-pilot schools. This finding aligns with the objectives of the revised curriculum, which aimed to simplify content and reduce teaching hours by streamlining learning competencies and allowing more flexible schedules. These adjustments translated into less time required for direct teaching and student assessment.

**Class Preparation.** While class time decreased, teachers in pilot schools spent more time on lesson preparation. This increase suggests that teachers invested additional effort in planning and adapting to new learning materials and assessment requirements under the revised curriculum. The shift indicates that reduced teaching time was partly offset by greater preparation demands.

**Other Teaching Duties.** This activity also showed a modest increase for teachers in pilot schools. This pattern suggests that some responsibilities were redistributed from classroom instruction to supporting tasks outside class hours.

**Personal Activities.** These activities reflected another important change. Teachers in pilot schools spent more time on self-care and recreational activities compared to those in non-pilot schools. Sleep duration remained stable across both groups, with teachers averaging about seven hours per night. This stability indicates that the reform did not negatively affect rest, even as work patterns shifted.

**Table 1. Average time spent in different activities by treatment and teacher group**

Activities	Teachers of affected grade levels			Teacher of other grade levels		
	Minutes		Effect	Minutes		Effect
	Pilot	Non- Pilot		Pilot	Non- Pilot	
Employment and Related Activities	589.8 (207.7)	647.84 (165.13)	-77.0 *** (24.7)	648.2 (157.6)	610.1 (212.9)	32.3 (0.4)
Class Activities	177.7 (154.6)	256.7 (152.3)	-95.6 *** (19.8)	268.4 (149.2)	233.9 (163.9)	34.4 (21.1)
Class Preparation	92.4 (93.7)	73.4 (73.5)	19.1 (10.9)	88.9 (95.2)	68.5 (83.2)	13.8 (11.4)
Other Teaching Duties	100.0 (134.3)	72.4 (101.5)	35.3 (15.1)	78.2 (130.2)	75.4 (113.7)	-4.9 (18.8)
Administrative & Ancillary	88.3 (117.3)	106.8 (111.8)	-17.0 (14.6)	82.2 (102.4)	114.8 (142.6)	-39.1 * (17.3)
Work Breaks	58.7 (50.9)	60.6 (41.6)	-6.7 (6.2)	62.0 (38.3)	56.6 (45.3)	9.0 (5.3)
Training & Meetings	24.0 (84.4)	20.4 (90.1)	0.8 (11.7)	15.0 (65.8)	1.9 (15.1)	15.7 (7.4)
Travel & Commute	46.6 (41.7)	55.4 (45.3)	-11.5 (5.0)	53.2 (49.4)	56.4 (52.6)	4.3 (6.3)
Other Employment Activities	2.1 (20.9)	2.2 (16.2)	-1.5 (1.6)	0.3 (3.7)	2.6 (22.5)	-0.9 (0.6)
Unpaid Care Work	155.9 (123.1)	150.6 (101.1)	7.0 (14.7)	146.4 (99.0)	157.1 (120.8)	-6.0 (16.1)
Recreational Activities	94.4 (116.1)	72.5 (74.5)	33.0 (13.3)	77.5 (77.4)	90.1 (100.1)	1.1 (11.1)
Self-Care & Maintenance	577.2 (123.5)	553.2 (112.8)	30.3 ** (15.5)	557.6 (108.1)	567.5 (123.7)	-14.1 (10.1)
Sleep	420.4 (107.8)	418.0 (79.2)	0.2 (12.6)	425.7 (90.7)	422.2 (94.3)	-9.4 (11.4)

Source: Author's calculations based on our Teacher Survey data from May to April 2024. *Note:* Figures in parentheses under *Minutes* denote standard deviation (SD), while figures in parentheses under *Effect* denotes standard error (SE); Asterisks (\*, \*\*, \*\*\*) indicate statistical significance at the 10%, 5%, and 1% alpha levels, respectively.

**Table 2. Average time spent in different emotional states by treatment and teacher group**

Moods	Teachers of affected grade levels			Teacher of other grade levels		
	Minutes		Effect	Minutes		Effect
	Pilot	Non- Pilot		Pilot	Non- Pilot	
Happy	1019.8 (394.8)	1017.7 (422.2)	-26.7 (51.6)	965.7 (429.0)	925.5 (484.0)	9.2 (61.1)
Inspired	173.6 (219.0)	218.3 (263.3)	-57.3 (30.7)	278.3 (325.4)	237.3 (301.1)	13.5 (40.9)
Amused	43.2 (106.5)	17.7 (47.4)	30.8 * (11.3)	31.3 (94.8)	32.0 (107.5)	-2.0 (15.1)
Don't Care (Neutral)	106.4 (201.0)	91.1 (231.9)	39.7 (26.6)	67.6 (183.4)	95.1 (225.7)	-27.4 (30.3)
Annoyed	29.5 (99.8)	18.4 (66.3)	16.9 (11.7)	9.9 (37.6)	18.2 (58.3)	-10.0 (6.1)
Sad	14.1 (45.0)	18.0 (67.1)	-0.8 (6.9)	12.7 (43.6)	17.1 (103.1)	2.2 (5.6)
Angry	1.0 (8.3)	1.5 (10.0)	0.0 (0.8)	1.7 (7.0)	2.9 (15.8)	-4.4 (2.4)
Afraid	1.2 (11.3)	0.0 (1.0)	1.4 (1.2)	0.5 (5.4)	0.3 (3.4)	0.4 (0.6)

Source: Author's calculations based on our Teacher Survey data from May to April 2024. *Note:* Figures in parentheses under *Minutes* denote standard deviation (SD), while figures in parentheses under *Effect* denotes standard error (SE); Asterisks (\*, \*\*, \*\*\*) indicate statistical significance at the 10%, 5%, and 1% alpha levels, respectively.

### *3.3.2. Teachers of other grade levels (Non-K, 1, 4, and 7)*

The analysis of teachers handling non-targeted grades served as a validation check. If the curriculum reform was focused only on specific grades, minimal differences should appear for teachers of other grade levels. The results confirmed this expectation. Overall employment time and class activities showed no significant differences between pilot and non-pilot schools, indicating that workload changes were concentrated among teachers directly affected by the reform.

One exception was observed in administrative and ancillary work. Teachers of other grade levels in pilot schools spent less time on these tasks compared to their counterparts in non-pilot schools. This pattern reflects recent DepEd policies aimed at reducing teacher administrative workload. DepEd Order No. 002, s. 2024 specifically mandates transferring certain administrative responsibilities from teachers to school heads and non-teaching personnel (DepEd 2024).

### *3.4. Teachers sleeping time*

Sleep plays a vital role in maintaining health and overall functioning. Leading health organizations recommend that adults should have at least seven hours of sleep each night to prevent functional impairments and long-term health risks (Consensus Conference Panel 2015; Hirshkowitz et al 2015; Scott et al. 2024). Our analysis shows that teachers in both pilot and non-pilot schools averaged about seven hours of sleep per night, which meets the minimum threshold recommended for adult health. No significant difference was observed between the two groups. This stability indicates that the curriculum reform did not lead to sleep deficits despite changes in work patterns. Teachers were able to maintain adequate rest, suggesting that the adjustments introduced by the reform did not compromise their ability to recover and sustain wellbeing.

### *3.5. Emotional experiences*

#### *3.5.1. Teachers of affected grade levels: emotional states*

The emotional experiences of teachers were examined to determine whether the curriculum reform influenced their wellbeing (Table 2). The analysis revealed that teachers in pilot schools reported emotional patterns similar to those in non-pilot schools.

Positive moods dominated the workday for both groups. Teachers spent a substantial amount of time feeling happy, and the difference between pilot and non-pilot schools was not statistically significant. However, amusement was reported more frequently by teachers in pilot schools, suggesting that the reform may have introduced elements that made certain activities more engaging. Levels of inspiration were slightly lower for pilot school teachers, but the difference was not significant.

Negative moods were reported only for short periods and showed no meaningful differences between groups. Annoyance was the most common negative emotion, followed by sadness, but these accounted for a very small share of the day. Stronger negative emotions such as anger and fear were almost absent. These findings indicate that the reform did not increase emotional distress and that overall wellbeing remained stable.

In summary, the emotional data suggest that the curriculum reform changed work activities without creating emotional burdens. Teachers in pilot schools experienced similar levels of happiness and slightly more amusement, while negative moods remained minimal.

### *3.5.2. Teachers of other grade levels: emotional states*

For teachers handling non-targeted grades, emotional patterns were nearly identical across pilot and non-pilot schools. Positive moods such as happiness and inspiration dominated, while neutral and negative moods appeared only occasionally. These results confirm that the reform did not create school-wide emotional spillover effects. Emotional stability among teachers of affected grades reflects the direct impact of the reform rather than general differences between schools.

### *3.6. Emotional stability across activities*

Although overall emotional states were similar between pilot and non-pilot schools, we examined whether emotions varied by activity type. Teachers may experience different feelings during class teaching compared to lesson preparation or administrative tasks, and the reform could influence these context-specific experiences. Table 3 presents the percentage distribution of emotional states within each activity for both pilot and non-pilot schools.

The analysis shows that positive emotions, particularly happiness, dominated across all activities. Happiness was most frequent during class activities and slightly less common during administrative work and other teaching duties. Lesson preparation also carried a positive tone, although neutral moods appeared more often during preparation and administrative tasks. Negative emotions were rare across all activities, with annoyance being the most frequent but still accounting for only a small share of time. Stronger negative emotions such as anger and fear were almost absent.

The emotional composition remained consistent between pilot and non-pilot schools within each activity type. Differences in happiness levels were minimal, and patterns were nearly identical for administrative tasks, class preparation, and teaching. This suggests that the nature of the activity itself, rather than the curriculum context, drives emotional experiences. Administrative tasks were less emotionally rewarding than teaching or preparation for both groups.

Statistical tests confirmed that emotional states varied by activity type but not by pilot status. For both pilot and non-pilot schools, the relationship between activity type and emotional state was significant, meaning that what teachers do influences how they feel. However, this relationship was stable across curriculum contexts. The reform did not alter the emotional landscape of teaching work. Teachers continued to associate similar emotional responses with specific activities regardless of whether they were in pilot or non-pilot schools.

These findings have practical implications. Continued support for lesson planning and assessment design may help maintain engagement during preparation tasks. Simplifying administrative processes and introducing digital tools may reduce annoyance and neutral states during paperwork. Protecting break quality and collegial time is likely to sustain positive moods throughout the day. Professional learning that encourages collaboration may also keep trainings and meetings in the positive range.

**Table 3. Distribution of emotional states by activity type and treatment group**

Variable	Group	Teachers of affected grade levels								
		Happy	Inspired	Amused	Don't Care	Annoyed	Sad	Angry	Afraid	Not Reported
Class Activities	Non-Pilot	65.7	25.0	1.6	3.5	1.3	0.2	0.1	0.0	2.7
	Pilot	67.8	20.8	3.5	3.2	1.3	0.6	0.2	0.1	2.5
Class Preparation	Non-Pilot	64.4	21.8	0.5	6.1	1.3	1.8	0.0	0.0	4.0
	Pilot	57.4	20.8	3.0	11.7	2.3	2.2	0.1	0.0	2.4
Other Teaching Duties	Non-Pilot	57.1	14.9	4.1	10.2	3.2	6.3	0.5	0.0	3.7
	Pilot	68.9	10.9	6.2	5.2	2.0	3.0	0.2	0.2	3.4
Administrative & Ancillary	Non-Pilot	61.1	18.0	1.4	9.8	3.8	3.9	0.4	0.0	1.6
	Pilot	66.5	12.0	3.1	7.7	3.9	4.4	0.1	0.1	2.1
Work Breaks	Non-Pilot	81.1	8.9	1.6	4.0	0.0	0.9	0.0	0.0	3.6
	Pilot	82.9	6.5	1.8	3.9	0.0	0.8	0.0	0.0	4.1
Training & Meetings	Non-Pilot	56.9	22.3	2.7	10.4	0.0	0.0	0.0	0.0	7.7
	Pilot	71.6	17.1	3.3	4.8	1.8	0.0	0.0	1.5	0.0
Travel & Commute	Non-Pilot	72.2	11.7	0.2	9.3	1.2	0.2	0.0	0.0	5.1
	Pilot	74.1	8.8	2.5	7.7	1.6	1.4	1.1	0.9	2.0
Other Employment Activities	Non-Pilot	78.6	7.1	14.3	0.0	0.0	0.0	0.0	0.0	0.0
	Pilot	63.6	15.2	9.1	12.1	0.0	0.0	0.0	0.0	0.0
Unpaid Care Work	Non-Pilot	77.0	10.2	0.8	6.6	0.8	0.9	0.5	0.1	3.2
	Pilot	74.4	11.9	2.4	5.3	1.1	0.8	0.4	0.1	3.7
Recreational Activities	Non-Pilot	74.9	12.8	2.8	4.9	1.4	0.9	0.0	0.0	2.3
	Pilot	71.0	13.3	7.2	4.2	0.1	0.4	0.0	0.0	3.6
Self-Care & Maintenance	Non-Pilot	75.5	11.4	0.7	6.2	1.3	0.8	0.0	0.0	4.1
	Pilot	73.4	13.2	1.3	7.1	0.1	1.0	0.0	0.0	3.9

Source: Author's calculations based on our Teacher Survey data from May to April 2024. treat = Non-Pilot: Pearson  $\chi^2(80) = 790.3699$  Pr = 0.000 ; treat = Pilot: Pearson  $\chi^2(80) = 791.1367$  Pr = 0.000

Although emotions were self-reported for a single day, the consistency across activities and groups, combined with strong statistical evidence, leads to a clear conclusion. The revised curriculum did not alter the emotional map of teaching. Teachers continued to feel most positive during teaching and preparation, less positive during administrative tasks, and highly positive during breaks and personal time. The reform appears sustainable and highlights the importance of reducing non-instructional burdens to support teacher wellbeing.

#### **4. Conclusion**

This study has shown that the pilot implementation of the revised K to 10 curriculum reduced the time teachers spent on class teaching (class activities) for targeted grade levels. The reduction in class activities was accompanied by an increase in lesson preparation (class preparation), which indicates that the freed time was not eliminated but reallocated to planning and related tasks. These effects were concentrated among teachers directly affected by the reform, with little evidence of spillover to colleagues teaching other grades except for a reduction in administrative tasks that benefited all teachers. Emotional wellbeing remained stable across both pilot and non-pilot schools, with positive moods dominating and negative emotions were very minimal. Sleep duration was unaffected, averaging seven hours for both groups, and teachers in pilot schools reported slightly more time for self-care and recreational activities, suggesting that the reform did not compromise personal wellbeing.

The findings carry important implications for education policy. Curriculum reforms can achieve their intended goal of reducing class teaching time, but reduced class time does not automatically lead to a proportional decrease in total work hours. Teachers often reallocate time to lesson preparation and other teaching-related activities. Policymakers should anticipate these adjustment costs and provide adequate support through professional development and instructional resources. Complementary measures such as reducing administrative burdens may create school-wide benefits and help sustain teacher wellbeing during implementation.

Methodologically, this study demonstrates the value of detailed time-use measurement for understanding teacher workload. Activities were coded using the ICATUS framework as an initial structure and refined through a customized classification system tailored to teaching work. This approach captured not only time allocation but also emotional states, locations, and social interactions, providing a multidimensional view of teacher experiences beyond simple estimates of total hours worked.

Several limitations should be noted. The data captured only a single day for each teacher, which may not fully represent typical patterns. The observation period covered the first year of implementation and coincided with holidays and class suspensions caused by extreme weather, which may have influenced time use. Future research should include repeated measurements across different phases of implementation to track how adaptation evolves over time. Linking time-use patterns to student learning outcomes would help determine whether changes in teacher activities translate into improvements in educational quality. Examining differences across teacher characteristics and comparing results across contexts would further enhance understanding of how reforms affect workload and wellbeing.

Additional improvements to the time-use methodology are recommended. First, the inclusion of secondary activities alongside primary activities would provide a more accurate picture of multitasking, which is common in teaching. Teachers often prepare lessons while supervising students or combine administrative tasks with instructional duties. Capturing these overlapping

activities, such as care work activities and other simultaneous responsibilities, would help researchers understand the intensity and complexity of teacher work. Second, the questionnaire should explicitly record the date of the diary day rather than relying on the completion date. This adjustment would prevent misclassification of activities and improve alignment with school schedules, holidays, and external disruptions. Third, the design of mood, companion, and location categories should be refined to reflect teachers' typical routines and or supported by behavioral models. Emotional states could be grouped into validated scales for wellbeing, companion categories could distinguish between professional and personal interactions more clearly, and location options could account for hybrid or alternative delivery settings. These refinements would improve data accuracy and comparability across studies.

In summary, the revised curriculum reduced class teaching time without affecting teacher wellbeing, but workload adjustments occurred through increased preparation rather than overall time savings. Continued monitoring and targeted support will be essential to ensure that reforms improve both teacher conditions and student outcomes.

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## **Appendix A. Coding framework for teacher time-use analysis**

We adopted the International Classification of Activities for Time-Use Statistics (ICATUS) 2016 as the foundational framework to systematically classify and analyze teacher time-use activities. This classification system was chosen because it provides internationally recognized categories for time-use research, ensuring consistency and comparability across studies. In this study, the initial coding of teacher activities was guided by the major divisions defined in ICATUS 2016, which include clear definitions, inclusions, exclusions, and examples to establish clear boundaries for each category.

Although ICATUS offers a comprehensive structure for general time-use classification, we recognized the need to adapt it to reflect the specific nature of teachers' work. Teachers engage in unique tasks such as lesson preparation, classroom instruction, and administrative responsibilities that are not fully captured by the original ICATUS categories. To address this, we developed a customized coding system that builds on ICATUS but incorporates teacher-specific activities. This adapted framework ensured that all recorded activities were categorized accurately and aligned with the objectives of teacher time-use analysis. The customized coding system is shown in Table A.2, which provides the activity codes, definitions, inclusions, exclusions, and examples used in this study.

**Table A.1. Customized activity coding system for teacher time-use analysis**

Codes	Title	Definition	Includes	Excludes	Examples
100	Employment and related activities	<p>Refers to employment, defined as activities to produce goods or provide services for pay or profit and to other activities directly related to employment.</p> <p>“For pay or profit” refers to work carried out as part of a transaction in exchange for remuneration payable in the form of wages or salaries for time worked or work carried out, or in the form of profits derived from the goods and services produced through market transactions, specified in the most recent international statistical standards concerning employment-related income:</p> <p>(a) The remuneration may be in cash or in kind, whether actually received or not, and may also</p>	<p>Employment in corporations, government and non-profit institutions</p> <p>Employment in household enterprises to produce goods</p> <p>Employment in households and household enterprises to provide services</p> <p>Ancillary activities and breaks related to employment</p> <p>Training and studies in relation to employment</p> <p>Seeking employment</p> <p>Setting up a business</p> <p>Travelling and commuting for employment</p> <p>Activities in all branches of economic activities in both self-employment and paid employment</p>	<p>200 Production of goods for own final use</p> <p>300 Unpaid domestic services for household and family members</p> <p>400 Unpaid caregiving services for household and family members</p> <p>500 Unpaid volunteer, trainee and other unpaid work (including internships)</p>	

		<p>comprise additional components of cash or in-kind income;</p> <p>(b) The remuneration may be payable directly to the person carrying out the work or indirectly to a household or family member.</p> <p>Related activities are travelling and commuting for employment, breaks during working time, training and studies in relation to employment, seeking employment, and other related activities outside working time.</p>			
111	Class Activities	<p>Direct instructional activities and classroom management undertaken during scheduled class periods, including all forms of teaching delivery, student assessment, and immediate classroom transitions.</p>	<p>Classroom teaching Alternative Delivery Mode (ADM) implementation Providing in-class activities Conducting group activities Facilitating student performance tasks Administering and supervising assessments and performance tasks Distributing modules during weekday class periods Class attendance monitoring</p>	<p>Lesson preparation (Code 112) Checking of outputs after class (Code 113) Administrative paperwork (Code 121) Breaking for rest (Code 131) Travel to classroom (Code 151)</p>	<p>Teaching a Mathematics lesson Supervising students during a quiz Conducting a science experiment Facilitating group discussions Moving from Grade 7 class to Grade 8 class Taking class attendance Distributing learning modules on Wednesday at 10 AM during class time</p>

			Transitioning between consecutive classes Class dismissal procedures during class time		About to dismiss students at the end of the period
112	Class Preparation	Activities dedicated to preparing instructional materials, lesson plans, and resources necessary for effective classroom teaching, conducted at the school premises outside of class time.	Reading and creating lesson plan Developing PowerPoint presentations Printing or photocopying lesson materials Printing or photocopying assessment materials and test papers Preparing laptops and technological resources for class Organizing teaching aids and materials needed for instruction Lesson preparation conducted at school	Actual classroom teaching (Code 111) Checking student work (Code 113) Home-based lesson preparation (Code 161 or 900) General printing not related to lessons (Code 121)	Writing a detailed lesson plan for English class Creating a PowerPoint presentation for Science Printing 10 copies of a quiz for Mathematics Photocopying worksheets for the week Preparing laboratory equipment for an experiment Setting up a laptop with educational videos for afternoon classes
113	Other Teaching Duties	Teaching-related responsibilities performed outside of direct classroom instruction, including assessment of student work, grade processing, communication with students about academic matters, and other	Checking and evaluating student outputs and assignments Computing and recording grades Student grade consultations Updating students on assessment results Sending lessons to online classes	In-class teaching (Code 111) Lesson planning (Code 112) Administrative paperwork and reports (Code 121) Non-school work (Code 161) Personal preparation (Code 900)	Checking 10 essay papers at the faculty room Recording quarterly grades in the grading system Meeting with a student to explain their test results Uploading modules to Google Classroom Sending assignments via email to students

		pedagogical support activities.	<p>Distributing or sending modules to students outside class time</p> <p>Weekend module distribution</p> <p>Class dismissal activities after school hours</p> <p>Sorting and organizing student papers</p> <p>General work preparation</p> <p>Processing student certificates</p> <p>Supervising student hygiene activities (handwashing, toothbrushing)</p> <p>Conducting remedial classes</p> <p>Facilitating peer tutoring; General printing activities not specified elsewhere</p> <p>Managing student arrivals and dismissals outside class periods</p>		<p>Supervising Grade 1 students during toothbrushing time</p> <p>Conducting after-school remedial sessions for struggling students</p> <p>Organizing submitted project papers</p> <p>Processing graduation certificates</p>
121	Admin & Ancillary	Non-instructional professional responsibilities required for school operations, including administrative tasks, facility maintenance, stakeholder engagement, and participation in school-	<p>Cleaning and organizing classrooms or school areas</p> <p>Parent-teacher consultations</p> <p>Time and attendance recording (TAM/Biometrics)</p> <p>School-related paperwork and documentation</p> <p>Flag ceremonies</p>	<p>Direct teaching (Code 111)</p> <p>Lesson preparation (Code 112)</p> <p>Checking student work (Code 113)</p> <p>Formal meetings (Code 141)</p> <p>Travel time (Code 151)</p> <p>General work unrelated to school (Code 161)</p>	<p>Sweeping and arranging the classroom before students arrive</p> <p>Meeting with parents regarding student behavior</p> <p>Logging into the biometric system upon arrival</p> <p>Filling out school forms and reports</p>

		wide initiatives conducted at the school premises.	<p>School garden maintenance</p> <p>Collegial discussions with co-teachers</p> <p>Classroom observations of other teachers</p> <p>Teacher monitoring duties</p> <p>Preparing reports, Individual Performance Commitment and Review Form (IPCRF), and administrative forms</p> <p>Printing reports, forms, and official documents</p> <p>Coordinatorship responsibilities</p> <p>Home visits</p> <p>Student or parent/guardian engagement activities</p> <p>School-wide programs, activities, and ceremonies</p>		<p>Participating in the Monday flag ceremony</p> <p>Watering plants in the school garden</p> <p>Discussing lesson strategies with a colleague</p> <p>Observing a fellow teacher's class for evaluation</p> <p>Completing IPCRF documentation</p> <p>Printing copies of the School Improvement Plan</p> <p>Serving as Science Club coordinator</p> <p>Conducting a home visit to check on an absent student</p> <p>Organizing the school's nutrition month activities</p>
131	Work Breaks	Designated or informal rest periods taken during official working hours to recuperate and prepare for continued work activities.	<p>Morning breaks</p> <p>Lunch breaks</p> <p>Afternoon breaks</p> <p>Short rest periods between tasks</p> <p>Coffee or snack breaks during work time</p>	<p>After-work rest (Code 900)</p> <p>Meal preparation at home (Code 300)</p> <p>Social activities after work hours (Code 700)</p>	<p>Taking a 15-minute break between classes</p> <p>Having lunch in the faculty room</p> <p>Drinking coffee during recess time</p> <p>Resting for 10 minutes after a two-hour meeting</p> <p>Taking a brief break to relax before the next teaching period</p>

141	Trainings & Meetings	Scheduled formal gatherings for professional development, institutional planning, collaborative learning, and school-related discussions that enhance teaching practice and school operations.	Professional training sessions Educational seminars and workshops Collaborative planning sessions Learning Action Cell (LAC) sessions Faculty meetings Department meetings School committee meetings Professional learning communities	Informal colleague discussions (Code 121) Classroom observations (Code 121) Independent studying (Code 600) Online meetings for non-school work (Code 161)	Attending a two-day training on differentiated instruction Participating in a seminar on classroom management Joining the weekly LAC session on literacy strategies Attending the monthly faculty meeting Participating in a department planning session for the upcoming quarter Joining a workshop on inclusive education Attending a meeting about the school's strategic plan
151	Travel & Commute	Time spent traveling to, from, or between work-related locations, including daily commutes and trips for official school business.	Traveling to school in the morning Commuting home from school Traveling to other school locations Journeying to work-related venues Time spent at the workplace during early arrival before official work starts (5-9 AM) Going home after work Bound for home or school	In-class transitions (Code 111) Personal errands during commute (Code 300) Leisure travel (Code 800)	Taking the jeepney from home to school at 6:30 AM Driving home from school at 5 PM Traveling to the division office for a meeting Riding a bus to another school for a training Waiting at school at 6 AM before the workday officially starts Walking from the school gate to the classroom Commuting to a district meeting venue

161	Other Employment	Work-related activities outside of primary teaching employment, including secondary jobs, business ventures, freelance services, and employment-seeking activities.	<p>Non-school related work</p> <p>Operating a production business</p> <p>Providing professional services outside teaching</p> <p>Offering private educational services (e.g., private tutorials outside school context)</p> <p>Seeking new employment opportunities</p> <p>Setting up or managing a business</p> <p>Other non-direct employment work</p>	<p>School-based teaching (Code 111)</p> <p>School administrative work (Code 121)</p> <p>Unpaid volunteer work (Code 500)</p> <p>Personal business errands (Code 300)</p>	<p>Conducting private tutoring sessions at home as a side job</p> <p>Managing an online selling business</p> <p>Providing freelance graphic design services</p> <p>Attending a job interview for a new position</p> <p>Setting up a small catering business</p> <p>Offering paid consultation services</p> <p>Working as a part-time content writer</p>
200	Production of Goods for Own Final Use	Activities involving the creation, cultivation, or production of goods primarily for personal or household consumption rather than for market sale.	<p>Growing vegetables in a home garden for own/household consumption</p> <p>Raising livestock or poultry for own/household consumption</p> <p>Making furniture or home items for own use</p> <p>Producing crafts or goods for own/household use</p> <p>Home-based food production for family</p>	<p>Commercial production (Code 161)</p> <p>Household chores (Code 300)</p> <p>Leisure hobbies (Code 800)</p> <p>Watering plants at home (Code 300)</p>	<p>Planting tomatoes and lettuce in the backyard garden</p> <p>Raising chickens for eggs and meat</p> <p>Building a bookshelf for the home</p> <p>Sewing curtains for the living room</p> <p>Making homemade jam from home-grown fruits</p>
300	Unpaid Care Work	Unpaid household work performed to maintain the home environment and support family members, including	<p>General house chores</p> <p>Preparing, cleaning, arranging, or organizing the house or rooms</p>	<p>School-related cleaning (Code 121)</p> <p>Caregiving activities (Code 400)</p> <p>Personal grooming (Code 900)</p>	<p>Sweeping and mopping the living room floor</p> <p>Doing the weekly grocery shopping</p> <p>Washing and folding laundry</p>

		cleaning, organizing, and routine household tasks.	<p>Grocery shopping for the household</p> <p>Watering plants at home</p> <p>Ironing clothes</p> <p>Washing dishes</p> <p>Doing laundry</p> <p>Cooking meals</p> <p>Sweeping and mopping floors</p> <p>Taking out trash</p> <p>Household maintenance tasks</p> <p>Constructing or repairing household items</p>	<p>Watering plants at school (Code 121)</p> <p>Growing vegetables in a home garden for own/ household consumption (Code 200)</p> <p>Planting tomatoes and lettuce in the backyard garden (Code 200)</p>	<p>Ironing school uniforms</p> <p>Cooking dinner for the family</p> <p>Organizing the bedroom closet</p> <p>Washing dishes after meals</p> <p>Cleaning the bathroom</p> <p>Watering the plants in the home garden</p> <p>Repairing household furniture</p>
400		Unpaid activities focused on providing direct care, supervision, and active engagement with family members, children, pets, or animals, involving responsibility for their wellbeing and development.	<p>Taking care of family members</p> <p>Feeding children</p> <p>Feeding pets or animals</p> <p>Watching children</p> <p>Playing actively with children (not bonding)</p> <p>Engaging in sports with family or children</p> <p>Supervising children's activities</p> <p>Assisting with children's needs</p> <p>Pet care activities</p> <p>Watching TV with family</p>	<p>Quality time and bonding (Code 700)</p> <p>Household chores (Code 300)</p> <p>Teaching as employment (Code 111)</p> <p>Retrieving data. Wait a few seconds and try to cut or copy again.</p> <p>Family bonding and quality time (passive, not active play)</p>	<p>Feeding a toddler breakfast</p> <p>Giving medicine to a sick family member</p> <p>Playing basketball with children in the yard</p> <p>Watching over a baby while they play</p> <p>Feeding the family dogs</p> <p>Helping a child with bathing</p> <p>Supervising children at the playground</p> <p>Taking a pet to the veterinarian</p> <p>Changing a baby's diaper</p> <p>Accompanying an elderly parent to a medical appointment</p>

500		Unpaid work performed for organizations, community groups, or causes, including volunteer services, trainee positions, and charitable activities outside of household and family obligations.	<p>Volunteering for community organizations</p> <p>Participating in charity events</p> <p>Serving as an unpaid trainee or intern</p> <p>Providing free services to community groups</p> <p>Volunteer work for religious organizations</p> <p>Unpaid community improvement projects</p> <p>Assisting in community programs</p>	<p>Paid work (Code 161)</p> <p>Household work (Code 300-400)</p> <p>Religious activities for personal spirituality (Code 700)</p> <p>School-required community service for employment (Code 121)</p>	<p>Volunteering at a local charity event</p> <p>Helping organize a charity fundraiser</p> <p>Participating in a beach cleanup drive</p> <p>Serving as a volunteer at a church event</p> <p>Assisting in a community vaccination drive</p>
600	Learning	Formal and informal learning activities undertaken for personal or professional development outside of paid work responsibilities.	<p>Pursuing graduate studies (Master's, PhD)</p> <p>Attending personal educational courses</p> <p>Self-directed learning activities</p> <p>Online courses for personal development</p> <p>Studying for personal certifications</p> <p>Educational research for own advancement</p>	<p>Work-required trainings (Code 141)</p> <p>Leisure reading (Code 800)</p> <p>Lesson preparation for teaching (Code 112)</p> <p>Reading or doing researching for class lessons or activities</p>	<p>Studying for a Master's degree in Education</p> <p>Completing coursework for graduate school</p> <p>Writing a thesis or dissertation</p> <p>Attending university classes</p> <p>Taking an online course on educational leadership</p> <p>Reading academic journals for personal knowledge</p> <p>Preparing for certification exams</p>
700	Recreational Activities	Activities involving social interaction, communication, spiritual practices, and quality time with family and community that	<p>Checking emails, text messages, or Messenger</p> <p>Chatting and communication</p> <p>Monitoring group chats</p> <p>Phone calls for social purposes</p>	<p>Active caregiving or playing with children (Code 400)</p> <p>Work-related communication (Code 113, 121)</p> <p>Leisure entertainment (Code 800)</p>	<p>Conducting research for a graduate project</p> <p>Attending Sunday Mass</p> <p>Praying the rosary with family</p> <p>Chatting with friends on Messenge</p> <p>Checking personal emails</p>

		contribute to social wellbeing and community cohesion.	Email correspondence (personal) Family bonding and quality time (passive, not active play) Religious activities (Mass, rosary, prayer) Attending community gatherings Social visits Maintaining relationships	Playing actively with children (not bonding) Watching TV with family Engaging in sports with family or children	Talking on the phone with a relative Having quality family time watching a movie together Attending a neighborhood meeting Visiting relatives Responding to text messages from friends Participating in a community fiesta
800		Activities pursued for enjoyment, relaxation, and personal entertainment during free time, including passive and active recreational pursuits.	Reading for leisure Watching television or movies Using mass media for entertainment Internet browsing for leisure Social media use Playing games (video games, mobile games, board games) Sports and exercise for recreation Pursuing hobbies Listening to music General use of gadgets without specific purpose Online entertainment	Internet use for lesson preparation (Code 112) Exercise for health maintenance (Code 900) Learning activities (Code 600) Work-related media use (Code 113)	Watching TV series Reading a novel for enjoyment Scrolling through social media Playing mobile games Exercising at the gym Practicing a musical instrument for fun Browsing online videos Playing basketball with friends for recreation Doing photography as a hobby Listening to music playlists Painting or drawing for leisure
900	Self-Care & Maintenance	Essential activities for personal hygiene, grooming, nourishment, rest, and preparation that maintain physical	Personal cleaning and beautification Arranging personal appearance Preparing or changing clothes	Preparing lesson materials and instructional resources (Code 112)	Taking a shower Brushing teeth Eating breakfast Getting dressed for work Packing a bag for school

		wellbeing and readiness for daily activities.	Bathing and hygiene Eating and drinking Resting and sleeping Morning and evening routines Personal preparation for work or school (bags, materials' Readying personal learning materials at home before leaving' Arranging or preparing things to go to school'	Household cleaning (Code 300); Work breaks (Code 131)	Sleeping at night Taking an afternoon nap Preparing clothes for tomorrow Applying makeup Styling hair Having dinner Drinking water Resting after work at home Arranging teaching materials in a bag at home before leaving for school'
901	Sleep	Refers to the state of rest in which an individual is unconscious and the body undergoes restorative processes.	Sleeping	Sleep or rest or nap at school (Code 131)	Sleeping at Home

Note: Production of Goods for Own Final Use (200) and Learning (600) were not included in our analysis. Instead, these categories were dropped from the main results, although the activities were still coded.