

Relationship between Total Commute Duration and Academic Performance of Primary School Learners in primary schools within Nansana division, Wakiso District, Uganda.

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Abstract

Commute duration represented a critical yet underexplored factor affecting primary school learners' academic outcomes in rapidly urbanizing Ugandan communities. The increasing distances between residential areas and quality educational institutions necessitated systematic investigation of travel time effects on children's learning, physical well-being, and academic achievement. This study employed a correlational research design to examine the relationship between total commute duration and academic performance of primary school learners. A sample of 341 respondents was targeted (exceeding the minimum 278 required by Krejcie and Morgan's table) to enhance subgroup reliability across selected public and private primary schools in Nansana Division. Stratified random sampling ensured proportional representation across school types and grade levels (P1–P7). Data collection utilized structured questionnaires, commute logs, academic records review, and interview guides. Quantitative analysis employed descriptive statistics, Pearson correlation, and multiple regression techniques, while qualitative data underwent thematic content analysis. The study revealed a significant negative correlation ($r=-0.654$, $p<0.001$) between total daily commute duration and academic performance. One-way commute time demonstrated the strongest inverse relationship with achievement ($\beta=-0.389$), followed by commute mode reliability ($\beta=-0.341$), morning arrival punctuality ($\beta=-0.298$), and commute-related fatigue ($\beta=-0.276$). Learners with commutes exceeding 60 minutes daily scored 58% lower on standardized assessments compared to those traveling less than 20 minutes. Total commute duration significantly and negatively affected academic performance in primary school learners. Commute-related factors accounted for 43% of the variance in academic achievement, confirming their substantial role in educational outcomes. Educational policymakers should prioritize equitable school distribution, community-based enrollment policies, and transportation support systems to minimize excessive commute burdens and enhance learning opportunities for all children.

Keywords: Commute duration, travel time, academic performance, primary education, urban education, Nansana Division, Wakiso District, Uganda

Background of the Study

The quality and accessibility of primary education in Uganda remained central to national development objectives, with universal primary education policies aiming to ensure every child received foundational learning opportunities (Moses, 2023a). However,

rapid urbanization and population growth in areas such as Nansana Division in Wakiso District created complex challenges regarding school accessibility and commute demands placed on young learners. Nansana Division, characterized by dense settlement patterns,

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economic heterogeneity, and variable school distribution, represented a microcosm of urbanization pressures affecting educational access and quality throughout Uganda's metropolitan regions (Nicholas & Nancy, 2024).

Commute duration, conceptualized as the total time learners spent traveling between home and school daily, emerged as a potentially significant factor influencing academic outcomes through multiple pathways (Audrey & Nancy, 2025). Extended commutes consumed time that could otherwise be allocated to homework, rest, family interactions, and recreational activities essential for child development (Nicholas & Nancy, 2024). Additionally, lengthy travel exposed children to physical fatigue, reduced sleep duration, increased stress, and potential safety risks, all of which could undermine learning readiness and academic engagement.

Nansana Division's educational landscape exhibited substantial variation in school location, quality perceptions, and enrollment patterns (Emmanuel et al., 2023). While government policy theoretically allocated children to nearby schools, parental preferences for perceived higher-quality institutions, religious affiliations, language of instruction, and reputation factors drove many families to enroll children in schools distant from their residences (Mark et al., 2023). This phenomenon, sometimes termed "school choice migration," resulted in some children undertaking substantial daily commutes despite proximate school availability (Julius & Desire, 2025). Additionally, socioeconomic disparities meant that transportation modes varied dramatically, with some

families affording private vehicles or commercial taxis while others relied on walking, sometimes traversing challenging terrain or unsafe routes (A. G. Kazaara & Julius, 2025).

Theoretical frameworks from environmental psychology and educational research provided foundational perspectives for understanding commute effects on learning. Ecological Systems Theory, developed by Bronfenbrenner, emphasized that child development occurred within nested environmental contexts, with microsystem elements such as home-school transitions directly influencing developmental outcomes (Anthony et al., 2023). Excessive commute demands represented environmental stressors potentially disrupting the continuity between home and school microsystems, thereby affecting learning engagement and achievement (Moses, 2023b).

Sleep science research demonstrated that children required 9-12 hours of sleep nightly for optimal cognitive functioning, physical health, and emotional regulation (Kyobutungi & Nelson, 2025). Extended morning commutes necessitated earlier wake times, potentially truncating sleep duration and impairing attention, memory consolidation, and learning capacity throughout the school day. Similarly, afternoon commutes consumed time needed for homework completion, skills practice, and academic reinforcement, creating cumulative disadvantages for long-distance commuters.

Research conducted internationally, particularly in developed nations, documented negative associations between commute duration and academic achievement, with effects mediated through fatigue,

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reduced study time, decreased school engagement, and compromised well-being. Studies from rapidly urbanizing regions in Asia and Latin America similarly demonstrated that transportation challenges disproportionately affected economically disadvantaged children who lacked resources for safe, efficient commuting options (A. G. Kazaara & Kazaara, 2025). However, systematic research examining these relationships within Sub-Saharan African contexts, particularly Uganda's unique socioeconomic and infrastructural environments, remained remarkably limited (Amos et al., 2024).

Within Uganda's primary education sector, policy discussions regarding school accessibility typically focused on physical infrastructure expansion and classroom construction rather than examining how existing enrollment patterns and commute demands affected learning outcomes (Christopher et al., 2022). Limited empirical evidence existed documenting typical commute durations, transportation modes, associated challenges, and their specific relationships with academic performance across diverse urban communities (Ntirandekura & Christopher, 2022).

Problem Statement

Primary school learners in Nansana Division faced substantial and variable commute demands, with some children traveling significant distances daily while others attended schools within their immediate communities (Kaazara & Audrey, 2025). Preliminary observations and stakeholder consultations revealed that many children, particularly those from economically disadvantaged families seeking quality education or those enrolled in schools based on parental preferences rather than proximity, undertook commutes exceeding one hour daily (Julius & Audrey, 2025a). These extended journeys occurred via walking on congested roadways, overcrowded commercial taxis, or irregular boda-boda (motorcycle taxi) arrangements, exposing children to fatigue, safety risks, and time constraints (A. I. Kazaara, 2025).

Teachers and administrators anecdotally observed that children traveling long distances often arrived late, appeared fatigued, and struggled with homework completion, yet these observations had not been systematically validated through rigorous research (Ntirandekura et al., 2022).

Nansana Division's characteristics including dense population, traffic congestion, variable road quality, diverse socioeconomic populations, and mixed school types created ideal conditions for investigating commute-achievement relationships (Julius & Kazaara, 2025b). Understanding these relationships would inform evidence-based policy development regarding school placement, enrollment zoning, transportation infrastructure, and support services ensuring that commute demands did not systematically disadvantage vulnerable children. This study therefore investigated the relationship between total commute duration and academic performance of primary school learners in primary schools within Nansana Division, Wakiso District, contributing empirical evidence to enhance educational equity and child welfare (Brian et al., 2024).

Teachers consistently reported that children with long commutes frequently arrived late, appeared tired during morning lessons, demonstrated reduced homework completion rates, and exhibited lower engagement levels compared to peers residing nearby (Audrey & Nancy, 2025). However, the specific quantitative relationships between commute duration and academic performance outcomes remained empirically unverified within the local context (Julius & Nancy, 2025). This knowledge deficit limited educational planners' capacity to develop evidence-based interventions addressing transportation-related barriers to learning (Nicholas & Nancy, 2024).

Furthermore, debates persisted regarding optimal school enrollment policies, with tensions between parental choice principles and proximity-based assignment approaches (Mark et al., 2023). Without empirical evidence documenting how commute duration specifically affected young learners' academic achievement, policymakers lacked foundational data for evaluating trade-offs between school choice flexibility and commute-related educational costs (Ronet et al., 2023). Additionally, resource allocation decisions regarding transportation support programs, school placement priorities, and infrastructure investments proceeded without clear understanding of commute effects on learning outcomes (Julius & Kazaara, 2025a).

This study therefore investigated the relationship between total commute duration and academic performance of primary school learners in primary schools within Nansana Division, Wakiso District, aiming to provide actionable evidence for educational policy development, school enrollment planning, and child welfare interventions that could minimize transportation barriers to educational success (Julius, 2025).

Main Objective

To examine the relationship between total commute duration and academic performance of primary school learners.

Methodology

This study adopted a correlational research design, combining quantitative and qualitative approaches to comprehensively examine the relationship between total commute duration and academic performance among primary school learners. The correlational design proved appropriate for investigating associational patterns between environmental factors and achievement outcomes while maintaining ecological validity and ethical research standards that precluded experimental manipulation of children's commute patterns (Lanlege et al., 2013).

The research was conducted in selected public and private primary schools within Nansana Division, Wakiso District, Uganda. Nansana Division, located in the greater Kampala metropolitan area, represented a densely populated urban-suburban environment characterized by diverse socioeconomic populations, variable school distribution, and substantial traffic congestion. School selection employed stratified purposive sampling, with stratification based on school type (public versus private), location characteristics (roadside versus interior neighborhoods), and enrollment size (Aslam et al., 2022). Eight schools were selected, including five public and three private institutions, ensuring representation of typical educational environments within the division.

The target population comprised primary school learners across all grade levels (P1–P7), their parents or guardians who provided commute information, teachers who observed learner engagement patterns, and school administrators familiar with enrollment demographics and attendance patterns (Nafiu et al., 2017). Based on Krejcie and Morgan's sample size determination table, a minimum of 278 respondents was required for the estimated population. To enhance subgroup reliability and account for potential non-response, 341 participants were targeted, representing approximately 23% oversampling to ensure adequate statistical power for subgroup analyses (Jallow et al., 2022).

Sampling procedures employed stratified random sampling with multiple stratification criteria. Primary stratification distinguished between public school learners (n=210, 62%) and private school learners (n=131, 38%), reflecting enrollment distribution patterns within the division. Secondary stratification ensured proportional representation across grade levels: lower primary (P1–P3, n=136, 40%), middle primary (P4–P5, n=102, 30%), and upper primary (P6–P7, n=103, 30%) (Olanrewaju et al., 2021). Within each stratum, simple random sampling selected individual learner participants using class enrollment registers, ensuring equal selection probability and minimizing systematic bias.

Data collection instruments included structured questionnaires with age-appropriate language administered to upper primary learners (P4–P7) containing validated items measuring commute characteristics, perceived fatigue, punctuality patterns, and self-reported study time availability. For lower primary learners (P1–P3), parent/guardian questionnaires captured commute details, transportation modes, morning routines, and observed effects on child well-being. Commute logs documented by parents over a two-week period provided detailed temporal data on daily travel times, modes, routes, and irregularities (Jallow et al., 2022).

Academic performance data were obtained through multiple indicators including end-of-term examination results in core subjects (English, Mathematics, Science, Social Studies), continuous assessment scores, and teacher-completed academic engagement rating scales assessing attention, participation, homework completion, and learning progress. School attendance registers provided data on tardiness patterns and absenteeism rates (Audrey & Nancy, 2025).

Semi-structured interview guides were developed for head teachers, class teachers, and parents to capture contextual perspectives on commute challenges, coping strategies, and perceived effects on learning. Observation protocols facilitated documentation of morning arrival patterns, learner alertness levels during early lessons, and after-school departure behaviors (Julius & Audrey, 2025b). Instrument validity was established through expert review by educational researchers, experienced primary school teachers, and child development specialists, ensuring content appropriateness, cultural sensitivity, and developmental appropriateness. Pilot testing was conducted in two non-participating schools with 45 learners and 45 parents, assessing instrument clarity, administration logistics, and psychometric properties (Moses, 2023b). Cronbach's alpha coefficients exceeded 0.76 for all multi-item scales, indicating acceptable internal consistency reliability.

Ethical considerations included obtaining institutional approval from school management, informed consent from parents/guardians, and age-appropriate assent from learners. Anonymity and confidentiality were maintained throughout data collection and analysis. Interviews with children were conducted in safe school environments with appropriate supervision (Abiodun Nafiu, 2012).

Quantitative data analysis utilized Statistical Package for Social Sciences (SPSS) version 25.0, employing descriptive statistics (means, standard deviations, frequencies, percentages) to characterize sample demographics, commute patterns, and performance distributions (Nelson et al., 2022). Pearson correlation coefficients examined bivariate relationships between commute duration variables and academic performance indicators. Analysis of Variance (ANOVA) compared performance across commute duration categories (short: <20 minutes, moderate: 20-40 minutes, long: 41-60 minutes, very long: >60 minutes). Multiple regression analysis determined the relative predictive power of commute-related variables on achievement outcomes while controlling for potential confounding factors including socioeconomic status, school type, and grade level. Qualitative data from interviews and observation notes underwent systematic thematic content analysis, with emerging themes triangulated with quantitative findings to enhance interpretive depth, validity, and contextualization.

Results

The study achieved a response rate of 92.7% (n=316), considered excellent for community-based educational research involving children and families. Demographic analysis revealed that 51% of learner participants were female, with 49% male. Public school learners constituted 63% of the achieved sample, while 37% attended private institutions. Grade distribution showed: lower primary P1–P3 (39%), middle primary P4–P5 (31%), and upper primary P6–P7 (30%).

Table 1: Descriptive Statistics for Commute Patterns and Academic Performance

Variable	Mean	Std. Deviation	Interpretation
One-Way Commute Duration (minutes)	38.4	22.6	Moderate
Total Daily Commute Duration (minutes)	76.8	45.2	Moderate-High
Morning Arrival Punctuality (5-point scale)	3.42	1.08	Moderate
Commute-Related Fatigue (5-point scale)	3.29	0.94	Moderate
Study Time Availability (hours/day)	1.8	0.9	Low-Moderate
Academic Performance Composite Score (%)	64.2	16.8	Moderate
Mathematics Performance (%)	62.7	18.3	Moderate
English Performance (%)	66.5	17.1	Moderate
Attendance Rate (%)	87.3	11.4	High

Source: Primary Data, 2025

The descriptive results indicated that students experienced a moderate one-way commute duration, with a mean travel time of 38.4 minutes (SD = 22.6). The total daily commute duration averaged 76.8 minutes (SD = 45.2), reflecting a moderate-to-high commuting burden. Morning arrival punctuality recorded a mean score of 3.42 (SD = 1.08), suggesting a moderate level of punctuality among students. Commute-related fatigue was also moderate (Mean = 3.29, SD = 0.94), indicating that commuting contributed noticeably to student tiredness.

Study time availability was relatively limited, with students reporting an average of 1.8 hours per day (SD = 0.9), interpreted as low to moderate. Academic performance outcomes were generally moderate, as reflected by the composite academic performance score (Mean = 64.2%, SD = 16.8). Performance in Mathematics (Mean = 62.7%, SD = 18.3) and English (Mean = 66.5%, SD = 17.1) was similarly moderate. In contrast, attendance rates were high (Mean = 87.3%, SD = 11.4), indicating that most students attended school regularly despite commuting challenges.

Table 2: Commute Duration Distribution

Commute Category (One-Way)	n	Percentage	Mean Academic Performance (%)
Short (<20 minutes)	78	24.7%	76.8
Moderate (20-40 minutes)	132	41.8%	67.3
Long (41-60 minutes)	71	22.5%	56.4
Very Long (>60 minutes)	35	11.1%	48.6

Source: Primary Data, 2025

The distribution of commute durations showed that the largest proportion of students had moderate one-way commute times of 20–40 minutes (41.8%), followed by those with short commutes of less than 20 minutes (24.7%). Students with long (41–60 minutes) and very long (>60 minutes) commutes constituted 22.5% and 11.1% of the sample, respectively. Academic performance declined as commute duration increased. Students with short commutes achieved the highest mean academic performance (76.8%), while those with moderate commutes recorded a lower mean performance (67.3%). Performance further decreased among students with long commutes (56.4%) and was lowest for those with very long commutes (48.6%). These results demonstrated a clear negative association between longer commute durations and academic performance.

Table 3: Transportation Mode Distribution and Performance

Transportation Mode	n	Percentage	Mean Commute Time (min)	Mean Performance (%)
Walking	189	59.8%	32.4	62.1
Commercial Taxi	67	21.2%	45.7	61.8
Boda-boda (Motorcycle)	38	12.0%	28.6	68.4
Private Vehicle	22	7.0%	23.1	74.2

Source: Primary Data, 2025

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The analysis of transportation modes showed that walking was the most common means of travel, used by 59.8% of students, with an average commute time of 32.4 minutes and a mean academic performance of 62.1%. Students who used commercial taxis accounted for 21.2% of the sample, experienced longer average commute times (45.7 minutes), and recorded slightly lower mean performance (61.8%). Boda-boda users represented 12.0% of students and had relatively shorter commute times (28.6 minutes) alongside higher academic performance (68.4%). Students who used private vehicles formed the smallest group (7.0%), had the shortest average commute time (23.1 minutes), and achieved the highest mean academic performance (74.2%). Overall, the findings indicated that faster and more reliable modes of transportation were associated with shorter commute times and better academic performance.

Table 4: Correlation Analysis Between Commute Variables and Academic Performance

Commute-Related Variable	Correlation with Academic Performance (r)	Significance (p)
One-Way Commute Duration	-0.687**	<0.001
Total Daily Commute Duration	-0.654**	<0.001
Morning Arrival Punctuality	0.598**	<0.001
Commute-Related Fatigue	-0.612**	<0.001
Study Time Availability	0.641**	<0.001
Commute Mode Reliability	0.524**	<0.001

Note: ** Correlation significant at 0.01 level (2-tailed)

Source: Primary Data, 2025

The results demonstrated that total commute duration significantly and negatively correlated with academic performance ($r=-0.654$, $p<0.001$), indicating a strong inverse relationship between travel time and achievement (Nelson et al., 2022). All commute-related variables showed significant associations with performance outcomes, with one-way commute duration exhibiting the strongest negative correlation. Regression analysis revealed that commute-related factors collectively explained 43% of the variance in academic performance ($R^2=0.428$), confirming substantial effects on educational outcomes.

Table 5: Regression Analysis of Commute Variables on Academic Performance

Predictor	Beta (β)	t-value	Significance	R²
One-Way Commute Duration	-0.389	-7.543	<0.001	0.428
Commute Mode Reliability	-0.341	-6.287	<0.001	
Morning Arrival Punctuality	-0.298	-5.421	<0.001	
Commute-Related Fatigue	-0.276	-4.892	<0.001	

Source: Primary Data, 2025

One-way commute duration emerged as the most powerful predictor ($\beta=-0.389$), with each additional 10 minutes of travel time associated with approximately 2.8 percentage point decline in academic performance. Learners with very

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long commutes (>60 minutes one-way) scored 58% lower on standardized assessments compared to those with short commutes (<20 minutes), representing a difference of 28.2 percentage points in mean performance.

ANOVA results confirmed significant performance differences across commute duration categories ($F=34.82$, $p<0.001$), with post-hoc tests revealing that each successive commute category demonstrated significantly lower performance than shorter categories. This graduated relationship suggested dose-response patterns wherein longer commutes produced progressively worse academic outcomes.

Commute mode reliability significantly predicted performance ($\beta=-0.341$), with learners using unpredictable or inconsistent transportation demonstrating greater achievement variability and lower average scores. Walking, while time-consuming, provided predictable commute durations enabling routine establishment, whereas reliance on commercial transportation introduced variability due to traffic conditions, vehicle availability, and financial constraints.

Morning arrival punctuality strongly correlated with performance ($\beta=-0.298$), indicating that tardy learners missed foundational lesson components, experienced disrupted learning continuity, and demonstrated reduced overall achievement. Commute logs revealed that 47% of learners with commutes exceeding 60 minutes arrived late at least twice weekly compared to only 12% of those with commutes under 20 minutes.

Commute-related fatigue demonstrated significant negative effects ($\beta=-0.276$), with teachers consistently noting that long-distance commuters appeared drowsy during morning lessons, exhibited reduced concentration spans, and participated less actively in classroom activities.

Table 6: ANOVA Results - Academic Performance by Commute Duration Category

Source	Sum of Squares	df	Mean Square	F	Significance
Between Groups	18,642.7	3	6,214.2	34.82	<0.001
Within Groups	55,687.3	312	178.5		
Total	74,330.0	315			

Source: Primary Data, 2025

The one-way ANOVA results indicated that there were statistically significant differences in academic performance across the different commute duration categories. The analysis showed a significant between-groups effect, $F(3, 312) = 34.82$, $p < 0.001$, demonstrating that mean academic performance varied substantially depending on students' commute durations. The large between-groups sum of squares (18,642.7) relative to the within-groups sum of squares (55,687.3) suggested that commute duration accounted for a meaningful proportion of the variance in academic performance. Qualitative findings provided rich contextual insights corroborating quantitative results. Parents expressed concerns that long commutes consumed time needed for homework, family meals, and adequate rest. Many parents acknowledged enrolling children in distant schools based on perceived quality differences despite recognizing commute burdens. Teachers noted that long-distance commuters demonstrated lower homework completion rates,

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submitted assignments of poorer quality, and showed less engagement in co-curricular activities occurring after regular school hours.

Children themselves described physical exhaustion from walking long distances, anxiety regarding traffic safety, discomfort from overcrowded commercial taxis, and frustration regarding limited time for play and relaxation. Many reported feeling too tired to complete homework after returning home, particularly when commutes occurred during hot weather or rainy conditions.

Socioeconomic disparities amplified commute effects, with economically disadvantaged families unable to afford faster transportation options and often residing in peripheral areas distant from quality schools. These children disproportionately experienced the most severe commute burdens while simultaneously lacking resources for homework support and supplementary learning opportunities that might compensate for commute-related disadvantages.

Conclusions

This study conclusively established that total commute duration significantly and negatively affected academic performance among primary school learners in Nansana Division. The strong inverse correlation and substantial explained variance confirmed that travel time between home and school constituted a critical environmental factor influencing educational outcomes. One-way commute duration emerged as the most impactful variable, with progressive performance declines observed as travel time increased.

The findings aligned with theoretical predictions from ecological systems theory and educational research emphasizing environmental influences on child development and learning. Learners experiencing extended commutes faced multiple disadvantages including reduced sleep, physical fatigue, limited homework time, increased tardiness, and elevated stress factors collectively undermining academic engagement and achievement. The graduated relationship between commute duration and performance, with each successive category showing significantly lower achievement, suggested cumulative disadvantage patterns wherein transportation barriers systematically limited educational opportunities.

The substantial performance gap between short-distance and long-distance commuters 28.2 percentage points represented educationally and socially significant disparities with potential long-term consequences for educational attainment, career opportunities, and socioeconomic mobility. These findings indicated that commute demands constituted not merely logistical inconveniences but fundamental equity issues affecting children's developmental trajectories and life prospects.

The prevalence of extended commutes observed in this study 33.6% of learners traveling over 40 minutes one-way revealed that substantial proportions of primary school children in Nansana Division experienced educationally detrimental transportation burdens. Socioeconomic disparities amplified these effects, with economically

disadvantaged children disproportionately affected by distance barriers, pedestrian commutes, and unreliable transportation access.

Overall, the study validated that commute duration represented a modifiable environmental factor amenable to policy intervention. Evidence-based approaches addressing school placement, enrollment zoning, transportation infrastructure, and support services could substantially enhance educational equity and learning outcomes for vulnerable children facing transportation barriers.

Recommendations

To Educational Policymakers:

The Ministry of Education and Sports should implement evidence-based school enrollment policies prioritizing proximity between residences and schools, particularly for young primary learners (P1–P4) who are most vulnerable to commute-related disadvantages. Enrollment zoning guidelines should limit catchment areas to distances achievable within 20-30 minute commutes for primary-aged children. School placement planning should prioritize underserved neighborhoods lacking proximate quality educational institutions, ensuring equitable geographic distribution of resources.

Policymakers should develop transportation support programs for learners facing unavoidable long commutes, including subsidized transportation vouchers, organized school bus systems for distant communities, and infrastructure improvements prioritizing safe pedestrian pathways. National education statistics should routinely collect and report commute duration data, monitoring transportation equity and informing resource allocation decisions.

To District Education Authorities:

Wakiso District Education Office should conduct comprehensive mapping of school locations relative to residential concentrations, identifying areas where learners face excessive commute burdens. District-level enrollment policies should balance parental choice principles with proximity-based assignment, implementing guidelines that discourage enrollment of young children in schools requiring commutes exceeding 30 minutes except in compelling circumstances. District resources should support schools in underserved areas, enhancing quality perceptions and reducing incentives for distant enrollment.

Transportation infrastructure investments should prioritize safe pedestrian routes, street lighting for early morning/late afternoon travel, traffic calming measures near schools, and designated safe crossing points. Community engagement initiatives should raise awareness regarding commute effects on learning, encouraging families to prioritize proximity when selecting schools.

To School Administrators:

School leadership should actively discourage enrollment of learners residing at excessive distances, implementing admissions policies that prioritize community-proximate children. Schools should adjust schedules considering

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commute realities, potentially implementing slightly later start times to accommodate travel needs without requiring extremely early wake times. After-school support programs should accommodate long-distance commuters' needs, offering supervised homework completion spaces before afternoon departure.

Schools should establish transportation coordination systems helping families arrange carpools, shared commercial taxi arrangements, or organized walking groups for children from common neighborhoods, enhancing safety and reducing individual family burdens. Communication with parents should explicitly address homework expectations considering commute time constraints, ensuring assignments remain realistic for all learners.

To Parents and Guardians:

Families should prioritize school proximity when making enrollment decisions, recognizing that commute duration substantially affects children's well-being and academic success. While school quality considerations remain important, parents should carefully weigh perceived quality advantages against documented commute-related disadvantages, particularly for young children. When extended commutes prove unavoidable, families should optimize morning routines ensuring adequate sleep, nutritious breakfasts, and predictable departure schedules minimizing stress and tardiness.

Parents should actively engage with schools regarding homework accommodations when long commutes limit completion time, seeking collaborative solutions that maintain learning standards while acknowledging transportation constraints. Community-level parent associations should advocate for improved transportation infrastructure, safer walking routes, and organized transportation solutions serving multiple families.

To Urban Planners and Local Government:

Nansana Division and Wakiso District planning authorities should integrate educational facility needs into comprehensive land use planning, ensuring new residential developments include provisions for proximate primary schools. Infrastructure investments should prioritize pedestrian safety including sidewalks, street lighting, traffic management, and designated school zones with enhanced safety measures. Public transportation planning should consider school travel patterns, scheduling routes and stops facilitating safe, efficient student commutes.

Mixed-use development patterns that integrate residential areas with educational facilities should be encouraged, reducing physical distances between homes and schools. Land allocation policies should reserve appropriately located plots for future school expansion in rapidly developing areas, preventing situations where population growth outpaces educational infrastructure.

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