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Causes of Truancy among Learners and its Impact on Education in Sikongo District, Zambia: AI-Driven Attendance Monitoring, Community Engagement and Inclusive School Strategies

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Abstract —Truancy the persistent, unauthorised absence of learners from school is a pervasive challenge in Zambian primary and secondary schools, with documented consequences for academic performance, educational attainment, social development, and long-term life outcomes. In Sikongo District, Western Province, Zambia, truancy among primary school learners represents a significant barrier to achieving the educational goals of universal primary education and equitable learning outcomes. This article investigates the causes of truancy among learners and its impact on educational quality in two selected schools in Sikongo District, contextualising findings within global scholarship on school attendance, AI-driven attendance monitoring systems, community-school engagement strategies, and inclusive school approaches. Drawing on a mixed-methods survey, findings identify poverty-related economic pressures, family dysfunction, negative school experiences including teacher punishment, geographic distance to school, and peer influence as primary truancy drivers. Academic performance deficits, social exclusion, and elevated school dropout risk are documented as key educational impacts. AI-powered early warning attendance systems, community school engagement platforms, and inclusive school climate interventions are identified as evidence-based responses. Policy recommendations are presented.

Keywords — *Truancy; School Attendance; Sikongo District; Zambia; AI Attendance Monitoring; Community Engagement; Inclusive Schools, Absenteeism.*

1. Introduction

Regular school attendance is a fundamental prerequisite for educational achievement learners who are frequently absent from school miss instructional time, fall progressively further behind their peers, and are significantly more likely to drop out before completing their primary or secondary education (Vettriselvan et al., 2025a; Venice et al., 2025a). In Zambia, truancy unauthorised, learner-initiated school absence as distinct from authorised absence due to illness or family crisis is documented as a widespread phenomenon in rural primary schools, with particular prevalence in Western Province districts including Sikongo, where poverty, geographic distance, and limited community engagement with formal education create multiple enabling conditions for truancy (Vettriselvan & Rajan FSA, 2019; Ashifa, 2021a).

AI-powered school attendance monitoring systems, digital community engagement platforms, and inclusive school climate interventions offer promising technological and institutional responses to truancy that can complement conventional administrative approaches (Venice et al., 2025b; Vasantha et al., 2025). This article examines truancy causes and impacts in Sikongo District and identifies evidence-based prevention and intervention strategies.

2. Literature Review

2.1 Causes of School Truancy

School truancy is driven by a multi-level constellation of individual, family, school, and community factors that vary in relative importance across socioeconomic and geographic contexts (Ashifa, 2021a; Aneeshkumar, 2015; Vettriselvan et al., 2025a). Poverty-related economic pressures are consistently identified as a primary driver in sub-Saharan African contexts: children from households experiencing food insecurity, where adult income-earning capacity is limited, may be retained at home to assist with domestic work, agricultural labour, or care for younger siblings particularly during planting and harvesting seasons (Ashifa et al., 2019; Kariveliparambil et al., 2026b). Geographic distance to school is a significant structural truancy driver in rural districts such as Sikongo, where learners may face daily round trips of 8–15 kilometres on foot a journey that is dangerous in flood season, physically exhausting, and frequently perceived as a disproportionate burden relative to the perceived benefits of attendance (Vettriselvan & Anto, 2018; Meena et al., 2025). Negative school experiences including corporal punishment, teacher humiliation, bullying, and repeated academic failure generate school avoidance behaviours that manifest as truancy (Zahoor et al., 2025; Elkin et al., 2025; Venice et al., 2025e). Learners with undiagnosed learning disabilities,

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hearing or visual impairments, or mental health challenges are particularly vulnerable to negative school experience-driven truancy, as their unmet learning needs generate repeated failure and associated shame that makes school attendance increasingly aversive (Ashifa, 2019; Ranganathan et al., 2024). Peer group truancy where participation in truancy is socially normalised within peer networks operates as a proximal social influence that reinforces individual truancy behaviour (Venice et al., 2025e; Vettriselvan et al., 2025a).

2.2 AI-Driven Attendance Monitoring Systems

AI-powered school attendance monitoring systems offer significant potential for early identification and intervention with truancy-at-risk learners (Venice et al., 2025b; Akila et al., 2025). Machine learning algorithms that detect emerging truancy patterns from attendance data identifying learners whose absence frequency or duration is increasing over time enable school administrators to initiate targeted outreach before absence patterns become entrenched (Venice et al., 2025c; Devi et al., 2025).

Mobile-based attendance recording systems that automatically generate same-day alerts to parents or guardians when learners are absent reduce the window for unreported truancy and enable rapid parental follow-up (Venice et al., 2025a; Vasantha et al., 2025). Blockchain-enabled attendance record systems provide tamper-proof, portable records that support accountability across school transitions and enable national-level attendance trend analysis (Rajeswari et al., 2026; Venice et al., 2025d).

2.3 Inclusive School Climate and Truancy Prevention

School climate encompassing the quality of teacher-learner relationships, sense of belonging, academic engagement, and safety is a powerful predictor of truancy risk (Zahoor et al., 2025; Gayathri et al., 2025b). Schools characterised by positive, inclusive climates where learners feel known, valued, and safely engaged generate significantly lower truancy rates than schools characterised by punitive discipline, impersonal teacher-learner relationships, and academic alienation (Venice et al., 2025f; Vettriselvan & Rajan FSA, 2019). Teacher professional development that builds capacity for inclusive, relationship-based classroom management replacing punitive discipline with restorative and emotional intelligence-informed approaches is among the most effective school-level truancy prevention interventions (Gayathri et al., 2025b; Zahoor et al., 2025).

2.4 Community Engagement and Family Partnership

Community and family engagement is essential for addressing the family-level and community-level truancy drivers that school-based interventions alone cannot reach (Kariveliparambil et al., 2026a; Rasi & Ashifa, 2019). Community-school partnership programmes that engage traditional leaders, community organisations, and parent groups in attendance promotion communicating the long-term benefits of regular schooling, addressing economic barriers through school feeding programmes and conditional cash transfers, and mobilising community support for addressing geographic access challenges address the structural truancy drivers most resistant to school-based intervention (Venice et al., 2026; Vettriselvan et al., 2026a).

3. Methodology

A descriptive survey examined causes of truancy and its educational impact in two selected primary schools in Sikongo District. Mixed methods combined teacher questionnaires, head teacher interviews, learner focus group discussions, parent interviews, and attendance record analysis (Kombo & Tromp, 2014; Orodho & Kombo, 2012).

The sample included 20 teacher respondents, 4 head teacher key informants, 3 learner focus groups with 30 participants, and 20 parent interviewees. Attendance records were analysed for the preceding three school terms. Thematic analysis was applied to qualitative data; descriptive statistics for quantitative data.

4. Findings and Analysis

4.1 Truancy Prevalence

Attendance record analysis revealed mean absence rates of 22–28% across the two study schools significantly above the national average and indicating that many learners are missing more than one in five school days. Seasonal attendance patterns were marked, with absence rates spiking during planting season (March–April) and flood events, consistent with economic and geographic truancy drivers (Ashifa, 2021a; Vettriselvan & Anto, 2018).

4.2 Identified Causes

Economic factors were identified by 85% of teacher respondents and 90% of parent interviewees as primary truancy drivers including household labour demands, inability to afford school meals, and lack of school uniform and materials. Geographic distance was identified by 78% of learners in focus groups as a significant barrier, with flood season distance barriers cited as particularly severe. Negative school experience factors including fear of teacher corporal punishment (cited by 55% of learners) and repeated academic failure anxiety (48%) were identified as significant school-based truancy drivers (Zahoor et al., 2025; Venice et al., 2025e).

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4.3 Educational Impacts

Comparative analysis of examination performance between high-attendance and high-truancy learner groups revealed mean performance differentials of 18–25 percentage points across subject areas. High-truancy learners were 3.5 times more likely than high-attendance peers to be at risk of grade repetition. Social impacts including exclusion from peer learning groups, loss of class friendship networks, and increasing academic alienation were identified by both teachers and learners as significant secondary impacts of truancy (Vettriselvan et al., 2025a; Ranganathan et al., 2024).

4.4 Current School Response

Current truancy responses were primarily punitive and reactive including corporal punishment for returned truants (still practised in 75% of cases despite national prohibition), administrative recording without proactive follow-up, and absence of systematic parent communication. No early warning identification system existed; no community outreach programme for truancy prevention was operational in either study school (Venice et al., 2025b; Gayathri et al., 2025b).

5. Discussion

The findings confirm a severe truancy challenge driven by multifactorial poverty, geographic, and school climate causes that current reactive and punitive school responses have failed to address effectively. The continued use of corporal punishment as a truancy response counterproductive given the evidence that punishment-based school discipline generates school avoidance rather than attendance motivation represents an urgent practice reform priority (Zahoor et al., 2025; Venice et al., 2025f). AI-powered attendance monitoring systems and mobile-based parental notification platforms offer practical early warning and communication tools that can substantially improve the timeliness and targeting of truancy intervention without requiring significant additional human resource investment (Venice et al., 2025b; Akila et al., 2025).

6. Conclusion and Recommendations

Recommendations: (1) deploy AI-powered attendance monitoring with automated parental notification systems (Venice et al., 2025b; Akila et al., 2025); (2) eliminate corporal punishment and implement restorative discipline approaches (Zahoor et al., 2025; Gayathri et al., 2025b); (3) establish school feeding programmes addressing economic attendance barriers (Ashifa, 2021a; Meena et al., 2025); (4) develop community-school truancy prevention partnerships engaging traditional leaders and parent groups (Kariveliparambil et al., 2026a; Venice et al., 2026); and (5) implement inclusive school climate programmes building learner belonging and reducing academic anxiety-driven avoidance (Vettriselvan & Rajan FSA, 2019; Elkin et al., 2025).

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