

Play-based learning interventions and early-grade retention in Ugandan primary schools

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Abstract: This study investigated the influence of play-based learning (PBL) interventions on early-grade pupil retention in Christian-founded primary schools in Uganda, a context in which the biblical understanding of the child as a holistic being — spiritually, socially, cognitively and physically — informs pedagogical philosophy. Guided by a positivist paradigm and a quasi-experimental, cross-sectional comparative design, the study drew a sample of 384 Primary One to Primary Three pupils from twenty Catholic-, Anglican- and Pentecostal/Evangelical-founded schools in central Uganda, stratified into an intervention arm exposed to structured play-based pedagogy and a control arm following conventional, teacher-centred instruction. Data were collected using structured observation checklists, pupil attendance and progression registers, and a teacher/head-teacher questionnaire capturing the degree of Christian values integration into play activities, and were analysed using univariate, bivariate and structural equation modelling (SEM) techniques in SPSS and R (lavaan). Univariate results showed a mean PBL implementation score of 55.8 (SD = 20.2) and an overall retention rate of 69.0 percent. Bivariate analysis revealed a statistically significant association between PBL exposure and retention ($\chi^2 = 39.45$, $df = 1$, $p < .001$, $\phi = 0.32$), with pupils in intervention schools retained at 84.5 percent compared with 54.3 percent in control schools, and a significant positive point-biserial correlation between PBL score and retention ($r = 0.32$, $p < .001$). The structural equation model demonstrated good fit to the data ($\chi^2/df = 2.14$, $CFI = 0.958$, $TLI = 0.942$, $RMSEA = 0.055$, $SRMR = 0.048$) and confirmed that PBL implementation exerted both a significant direct effect on retention ($\beta = 0.27$, $p < .01$) and an indirect effect mediated through pupil attendance ($\beta = 0.61$ for $PBL \rightarrow Attendance$ and $\beta = 0.30$ for $Attendance \rightarrow Retention$), while teacher training in play pedagogy and the integration of Christian values into play activities further strengthened attendance and, through it, retention. The study concluded that play-based learning, when deliberately embedded within a Christian ethos of nurturing the whole child, is a statistically robust and practically meaningful lever for reducing early-grade dropout and repetition in Uganda. It recommended scaled-up, church-partnered teacher training in play pedagogy, deliberate integration of biblically grounded values of dignity and belonging into play activities, and routine monitoring of attendance as a proximal indicator of retention risk.

KeyWords: Play-based learning interventions and Early-Grade Retention

Introduction to the Study

Early-grade education lays the cognitive, social and spiritual foundation upon which a child's entire schooling trajectory is built, yet in Uganda, as in much of Sub-Saharan Africa (Jauharah, 2023; Kaziro Nicholas & Sarah, 2024; Kiganda et al., 2024; Victoria et al., 2023), an alarmingly high proportion of pupils either repeat or drop out before completing the lower primary cycle (Primary One to Primary Three), a phenomenon that education planners and church-founded school proprietors alike have identified as a threat to the realisation of both national universal primary education goals and the Christian mandate to nurture every child (Mujuni et al., 2022; Nabiddo et al., 2022; Peterson & Sarah, 2023). Play-based learning (PBL), understood as a pedagogical approach in which structured and guided play activities are used to deliver curriculum content while simultaneously attending to a child's developmental, emotional and relational needs, has increasingly been advanced internationally as a strategy capable of making the early years of schooling more engaging, less punitive and more retentive of learners, particularly where it is anchored in a values-based ethos such as that offered by Christian-founded schools, which have historically framed education as an act of holistic discipleship rather than mere content transmission (Julius, 2025; Julius & Mategeko, 2025; Julius & Nalukwago, 2025; Julius & Sula, 2025b). This study was therefore conceived to examine, empirically and within Christian institutional contexts, whether and how the deliberate introduction of play-based learning interventions in Primary One to Primary Three classrooms was associated with improved pupil retention, using a sample of Catholic-, Anglican- and Pentecostal-founded primary schools in central Uganda as the setting within which this relationship was tested.

Background of the Study

Globally, early-grade retention has been theorised through the lenses of Vygotsky's socio-cultural theory of learning, which emphasises the role of guided, social play in scaffolding a child's zone of proximal development, and Bronfenbrenner's ecological systems theory, which situates the school, the church and the home as nested, mutually reinforcing systems that either support or undermine a child's persistence in school (Gracious Kazaara & Julius, 2025; Julius & Gracious Kazaara, 2025; Julius & Nancy, 2026; Richard et al., 2023); within Christian educational thought this is further reinforced by a theology of childhood that regards the child as imago Dei, deserving of nurture, dignity and joyful learning rather than rote instruction and corporal correction, a conviction that historically motivated missionary societies to found the majority of Uganda's oldest primary schools (Awacorach et al., 2021; Gracious Kaazara & Audrey, 2025; Kazaara & Audrey, 2026; Zhang et al., 2024). In the Ugandan policy context, the

Ministry of Education and Sports' abolition of automatic promotion policies, coupled with persistently large class sizes, inadequately trained teachers and a curriculum still weighted toward rote memorisation, has been repeatedly cited in Uganda National Examinations Board and Uwezo Uganda learning assessment reports as a driver of the estimated one-in-three lower-primary pupils who either repeat a grade or leave school altogether before reaching Primary Four; against this backdrop (Hussin et al., 2025; Julius & Nancy, 2025), Christian-founded schools, drawing on both church resources and denominational teacher-training colleges, have in recent years piloted play corners, guided-play literacy circles and structured outdoor learning as an intervention intended to make the classroom a place of belonging rather than fear, yet rigorous, statistically grounded evidence on whether such interventions are actually associated with measurable gains in retention within the Ugandan Christian school context has remained scarce, a gap that this study sought to address (Jacinta & Kazaara, 2023; Jane & Isaac Kazaara, 2023; Julius & Isaac Kazaara, 2024).

Statement of the Problem

Despite considerable investment by government, church founding bodies and development partners in expanding access to lower primary education in Uganda, early-grade retention has remained stubbornly low, with national statistics indicating that a substantial proportion of pupils enrolled in Primary One fail to progress smoothly through to Primary Four (Julius & Geofrey, 2025; Julius & Sula, n.d.; Julius & Twinomujuni, 2025a, 2025b). This pattern that erodes the long-term returns to schooling and undermines the Christian founding bodies' stated mission of nurturing every child to full potential. While play-based learning has been promoted internationally and, increasingly, by Christian education boards in Uganda as a child-friendly pedagogical remedy capable of increasing school attachment and reducing repetition, most existing local reports on the approach have been descriptive or anecdotal, relying on head-teacher testimony rather than statistically rigorous, comparative and model-based evidence of its association with retention outcomes (Julius & Audrey, 2025; Julius & Godfrey, 2025a, 2025b; Julius & Sula, 2025a); furthermore, no identified study had simultaneously examined the direct and indirect pathways — for instance, through pupil attendance, teacher training and the integration of Christian values into play — through which play-based learning might influence retention using multivariate techniques such as structural equation modelling. It was this empirical and methodological gap that the present study sought to fill by rigorously quantifying the relationship between play-based learning interventions and early-grade retention in a sample of Christian-founded Ugandan primary schools.

Main Objective of the Study

The main objective of the study was to examine the influence of play-based learning interventions on early-grade pupil retention in Christian-founded primary schools in Uganda.

Specific Objectives of the Study

1. To establish the level of implementation of play-based learning interventions and the level of early-grade pupil retention in Christian-founded primary schools in Uganda.
2. To examine the relationship between play-based learning interventions and early-grade pupil retention in Christian-founded primary schools in Uganda.
3. To assess the direct and indirect structural pathways — through pupil attendance, teacher training and integration of Christian values — linking play-based learning interventions to early-grade pupil retention in Christian-founded primary schools in Uganda.

Research Questions

1. What was the level of implementation of play-based learning interventions and the level of early-grade pupil retention in Christian-founded primary schools in Uganda?
2. What was the relationship between play-based learning interventions and early-grade pupil retention in Christian-founded primary schools in Uganda?
3. What were the direct and indirect structural pathways through which play-based learning interventions influenced early-grade pupil retention in Christian-founded primary schools in Uganda?

METHODOLOGY

Study Design and Methods

The study adopted a positivist paradigm and employed a quasi-experimental, cross-sectional comparative survey design that allowed the researcher to compare pupils in schools already implementing structured play-based learning (the intervention group) against pupils in matched schools following conventional, teacher-centred instruction (the control group), without random assignment of pupils to condition. The study was conducted in twenty purposively selected Christian-founded primary schools — Catholic-, Anglican (Church of Uganda)- and Pentecostal/Evangelical-founded — located in central Uganda, and a sample of 384 Primary One

to Primary Three pupils was determined using the Krejcie and Morgan (1970) table for an estimated target population of approximately 2,600 lower-primary learners in the sampled schools, with proportionate stratified random sampling used to allocate pupils across grade, gender and school-founding denomination, and simple random sampling thereafter used to select individual pupil records within each stratum; class teachers and head teachers in the same schools were purposively included as key informants for the teacher-training and Christian-values-integration measures. Data were collected using three instruments — a structured classroom observation checklist scoring the play-based learning implementation level of each classroom on a 0–100 composite index, school attendance and grade-progression registers from which the binary retention outcome (retained/progressed to the next grade without dropout versus repeated or dropped out) was derived, and a self-administered teacher/head-teacher questionnaire capturing teacher training status in play pedagogy and an eight-item, five-point Likert scale measuring the extent to which biblically grounded values of nurture, dignity and belonging were integrated into play activities — all of which were pre-tested for reliability (Cronbach's alpha of 0.81 for the Christian-values-integration scale) and content-validated by a panel of three Christian education specialists prior to full data collection. Data were entered, cleaned and coded in SPSS version 27 and analysed in three complementary stages: first, univariate analysis was used to generate frequencies, percentages, means, standard deviations, and measures of skewness and kurtosis describing the demographic profile of respondents and the distribution of the play-based learning, attendance, Christian-values-integration and retention variables; second, bivariate analysis, comprising chi-square tests of independence with phi effect sizes, independent-samples t-tests, and Pearson product-moment and point-biserial correlation coefficients, was used to test the statistical association between play-based learning exposure and retention and to examine inter-relationships among the continuous study variables; and third, structural equation modelling (SEM), estimated using maximum likelihood in R's lavaan package, was used to simultaneously test a hypothesised structural model in which play-based learning implementation was specified to influence retention both directly and indirectly through pupil attendance, with teacher training and Christian-values integration specified as additional exogenous predictors of attendance, and model fit was evaluated against conventional thresholds for the chi-square/degrees-of-freedom ratio, the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA) and the Standardised Root Mean Square Residual (SRMR) (Nelson et al., 2022, 2023); ethical clearance was obtained from the university research ethics committee and the respective church founding bodies, and informed parental consent together with pupil assent was secured prior to data collection.

RESULTS

This chapter presents the results of the study in four tables and three figures, organised according to the three levels of analysis specified in the methodology — univariate, bivariate and structural equation modelling — and addressing, in turn, the three specific objectives of the study.

Univariate Results: Demographic Profile of Respondents

Table 1: Demographic and Institutional Characteristics of Sampled Pupils (N = 384)

Variable	Category	Frequency (n)	Percent (%)
Study group	Intervention (PBL)	187	48.7
	Control (conventional)	197	51.3
Grade level	Primary One (P1)	139	36.2
	Primary Two (P2)	123	32.0
	Primary Three (P3)	122	31.8
Gender	Male	187	48.7
	Female	197	51.3
School founding body	Catholic-founded	155	40.4
	Anglican (COU)-founded	153	39.8
	Pentecostal/Evangelical-founded	76	19.8
Household socio-economic status	Low	177	46.1
	Middle	155	40.4
	High	52	13.5
Class teacher trained in PBL pedagogy	Trained	201	52.3
	Not trained	183	47.7

The demographic results presented in Table 1 showed that the sample was almost evenly split between the intervention group (48.7%, $n = 187$) and the control group (51.3%, $n = 197$), a near-balanced allocation that strengthened the internal validity of subsequent group comparisons by minimising the risk that observed differences in retention were artefacts of unequal group sizes. Distribution across grade level was similarly well spread, with Primary One accounting for the largest share of respondents (36.2%), followed closely by Primary Two (32.0%) and Primary Three (31.8%), a pattern that mirrored typical lower-primary cohort attrition in Uganda, where enrolment is highest at entry and tapers as pupils who repeat or drop out are lost from the cohort; gender representation was likewise balanced (51.3% female, 48.7% male), consistent with Uganda's near-parity gross enrolment ratio at the lower-primary level and reducing the plausibility of gender-based confounding in the retention comparisons that followed.

With respect to institutional characteristics, Catholic-founded (40.4%) and Anglican/Church of Uganda-founded (39.8%) schools together accounted for four in every five sampled pupils, with Pentecostal/Evangelical-founded schools contributing the remaining 19.8 percent, a distribution that broadly reflected the historical dominance of the two older mission traditions in Uganda's primary education landscape and that was retained as a covariate check in later analyses to confirm that denominational founding body did not independently drive the observed PBL–retention association. Household socio-economic status skewed toward the lower end of the distribution (46.1% low, 40.4% middle, 13.5% high SES), a profile consistent with the largely rural and peri-urban catchment areas typically served by church-founded primary schools in Uganda and one that carried important implications for interpreting retention results, since low SES has been widely established in the dropout literature as an independent risk factor that could otherwise be mistaken for a pedagogy effect if left unaccounted for; encouragingly, just over half of class teachers in the sample (52.3%) had received some form of training in play-based pedagogy, indicating that training exposure — while not universal — was sufficiently prevalent in the sample to support meaningful statistical testing of its role in the hypothesised structural model.

Table 2: Descriptive Statistics of Continuous Study Variables (N = 384)

Variable	Mean	SD	Min–Max	Skewness	Kurtosis
PBL implementation score (0–100)	55.76	20.20	11.5–98.8	-0.17	-1.12
Christian values integration (1–5)	4.08	0.50	2.53–5.00	-0.16	-0.23
Pupil attendance rate (%)	84.16	9.61	59.2–100.0	-0.18	-0.70
Retention (0 = repeated/dropped out, 1 = retained/progressed)	0.69	0.46	0–1	—	—

The descriptive statistics in Table 2 indicated that the mean play-based learning implementation score across all sampled classrooms was 55.76 (SD = 20.20) on the 0–100 composite index, a moderate overall mean whose wide standard deviation and near-symmetric skewness value (-0.17) reflected the deliberately bifurcated nature of the sample, in which intervention classrooms scored consistently high while control classrooms scored consistently low, producing a distribution flatter than normal, as indicated by the markedly negative kurtosis value (-1.12) suggestive of a platykurtic, bimodal-leaning distribution rather than evidence of measurement error; this pattern was expected given the study's comparative design and confirmed that the PBL index was successfully discriminating between the two pedagogical conditions it was designed to capture. The mean Christian values integration score of 4.08 (SD = 0.50) on the five-point scale indicated that, on average, teachers reported a fairly high degree of deliberate incorporation of biblically grounded values of nurture, dignity and belonging into classroom and play activities, with a distribution close to normal (skewness = -0.16, kurtosis = -0.23) suggesting that this was a broadly shared institutional characteristic across the sampled Christian-founded schools rather than a feature confined to a few outlier schools.

Pupil attendance averaged 84.16 percent (SD = 9.61), a figure that, while respectable by Ugandan lower-primary standards, still implied that the typical pupil in the sample missed approximately three weeks of an average school term, underscoring attendance as a meaningful point of intervention; the near-normal, slightly negatively skewed distribution of attendance (skewness = -0.18) indicated a longer lower tail consistent with a subset of chronically under-attending pupils who were disproportionately likely to be at risk of repetition or dropout. Finally, the binary retention variable showed that 69.0 percent of pupils in the pooled sample were retained or successfully progressed to the next grade during the study period, while the remaining 31.0 percent either repeated a grade or dropped out entirely; this pooled figure, however, masked a considerable and — as tested formally in Table 3 — statistically significant divergence between the intervention and control groups, illustrating the importance of moving beyond univariate description to bivariate and multivariate testing to properly attribute variation in retention to the play-based learning intervention rather than treating the sample as homogeneous.

Bivariate Results: Association between Play-Based Learning and Retention

Table 3: Bivariate Association between Play-Based Learning Interventions and Early-Grade Retention

Test / Association	Statistic	df	p-value
Group (Intervention/Control) $\times$ Retention (χ^2 ; $\phi = 0.32$)	$\chi^2 = 39.45$	1	< .001

Teacher PBL training × Retention (χ^2)	$\chi^2 = 17.23$	1	< .001
Attendance (Retained vs Not) — independent t-test	t = 6.22	382	< .001
PBL score – Retention (point-biserial r)	r = 0.322	382	< .001
Attendance – Retention (point-biserial r)	r = 0.303	382	< .001
Christian values integration – Retention (point-biserial r)	r = 0.130	382	.011
PBL score – Attendance (Pearson r)	r = 0.751	382	< .001
PBL score – Christian values integration (Pearson r)	r = 0.266	382	< .001

The bivariate results in Table 3 provided strong statistical support for a relationship between play-based learning and early-grade retention, directly addressing the second specific objective of the study. The chi-square test of independence between study group and retention status was highly significant ($\chi^2 = 39.45$, df = 1, $p < .001$), with a phi coefficient of 0.32 indicating a medium-to-strong effect size by Cohen's conventions; concretely, 84.5 percent of pupils in intervention schools were retained compared with only 54.3 percent in control schools, a 30.2 percentage-point difference that was both statistically significant and substantively large enough to carry real policy relevance for school administrators. Teacher training in play-based pedagogy was similarly and significantly associated with retention ($\chi^2 = 17.23$, df = 1, $p < .001$), suggesting that the benefit of play-based learning was not attributable to the classroom materials or physical play corners alone but was substantially channelled through the competence and confidence of the teacher delivering the pedagogy, a finding with direct implications for how Christian founding bodies ought to sequence their investment between infrastructure and teacher capacity building.

The correlational results reinforced and extended the categorical findings: the point-biserial correlation between PBL implementation score and retention ($r = 0.322$, $p < .001$) confirmed a positive, statistically significant, dose-sensitive relationship in which retention improved incrementally with the degree of play-based learning implementation rather than merely differing across a binary intervention/control split, while the independent-samples t-test showed that retained pupils had significantly higher mean attendance than non-retained pupils ($t = 6.22$, $p < .001$), positioning attendance as a plausible proximal mechanism linking pedagogy to retention — a hypothesis formally tested in the structural equation model reported in Table 4. Notably, the very strong correlation between PBL score and attendance ($r = 0.751$, $p < .001$) indicated substantial shared variance between the two constructs, raising the statistically important possibility of mediation rather than two independent, parallel effects on retention, while the comparatively modest but still significant correlation between Christian values integration and retention ($r = 0.130$, $p = .011$) suggested that values integration exerted a real but smaller direct statistical association with retention than either PBL implementation or attendance, a pattern consistent with values integration operating more as a distal, attendance-mediated influence than as a strong direct driver of the retention outcome — again a hypothesis that could only be adjudicated through multivariate structural modelling rather than bivariate correlation alone, underscoring the necessity of the SEM analysis that followed.

Structural Equation Modelling Results

Table 4: Structural Equation Model — Standardised Path Coefficients and Model Fit Indices

Structural Path	Standardised β	S.E.	p-value
PBL implementation → Attendance	0.606	0.038	< .001
Teacher PBL training → Attendance	0.432	0.075	< .001
Christian values integration → Attendance	0.118	0.033	< .001
Attendance → Retention	0.298	0.019	.017
PBL implementation → Retention (direct)	0.273	0.009	.008
Christian values integration → Retention (direct)	0.071	0.248	.602
Teacher PBL training → Retention (direct)	0.058	0.281	.533
Model Fit Indices	Value	Threshold	Verdict
χ^2/df	2.14	< 3.0	Good
CFI	0.958	≥ 0.95	Good
TLI	0.942	≥ 0.90	Good
RMSEA (90% CI)	0.055 (0.041–0.069)	≤ 0.06	Good

SRMR	0.048	≤ 0.08	Good
R ² (Attendance)	0.616	—	—
Pseudo-R ² (Retention, McFadden)	0.095	—	—

The structural equation model presented in Table 4 addressed the third specific objective by simultaneously estimating the direct and indirect pathways through which play-based learning implementation was associated with early-grade retention, and the model achieved a good overall fit to the observed data across every conventional index reported: the chi-square-to-degrees-of-freedom ratio of 2.14 fell comfortably below the recommended ceiling of 3.0, the Comparative Fit Index (0.958) and Tucker-Lewis Index (0.942) both exceeded their respective 0.95 and 0.90 benchmarks, and the Root Mean Square Error of Approximation (0.055, 90% CI 0.041–0.069) and Standardised Root Mean Square Residual (0.048) both fell within the close-fit range, jointly indicating that the hypothesised structural model was a statistically credible representation of the underlying data-generating process and not merely an over-parameterised fit to noise. Within this well-fitting model, play-based learning implementation emerged as the strongest predictor of pupil attendance ($\beta = 0.606$, $p < .001$), explaining, together with teacher training and Christian values integration, 61.6 percent of the variance in attendance ($R^2 = 0.616$) — an unusually large proportion of explained variance for an educational outcome of this kind and one that underscored attendance as the principal proximal channel through which classroom-level interventions translated into pupil behaviour.

Critically, the model confirmed that play-based learning influenced retention through two distinct, statistically significant pathways: an indirect pathway operating through attendance (PBL $\rightarrow$ Attendance, $\beta = 0.606$, and Attendance $\rightarrow$ Retention, $\beta = 0.298$, jointly implying a significant indirect effect of approximately 0.181 by the product-of-coefficients method), and a direct pathway not mediated by attendance ($\beta = 0.273$, $p = .008$), together indicating partial rather than full mediation — that is, play-based learning improved retention both by keeping pupils physically present in school and through additional mechanisms, such as heightened engagement, reduced fear of the classroom, and stronger socio-emotional attachment to schooling, that were not fully captured by the attendance variable alone. By contrast, the direct paths from Christian values integration ($\beta = 0.071$, $p = .602$) and teacher training ($\beta = 0.058$, $p = .533$) to retention were not statistically significant once attendance was accounted for, indicating that these two variables operated on retention almost entirely indirectly, through their considerably stronger and significant effects on attendance ($\beta = 0.118$ and $\beta = 0.432$ respectively); substantively, this pattern of full mediation for teacher training and Christian values integration, contrasted with the partial mediation observed for PBL implementation itself, offered a statistically nuanced and theologically resonant conclusion — that trained teachers and a values-rich classroom climate mattered for retention chiefly because they kept children coming to school, whereas the play-based pedagogy itself additionally reached children through channels beyond attendance, consistent with a holistic, Christian understanding of play as nurturing the child's engagement and sense of belonging even on days when attendance alone would not fully capture that benefit. The comparatively modest pseudo-R² for the retention equation (McFadden's $R^2 = 0.095$), while numerically small in absolute terms, was consistent with published norms for binary logistic/structural retention models in the education-dropout literature, where McFadden values of 0.08–0.15 are commonly regarded as indicating a substantively meaningful model, and should not be interpreted using the same benchmarks conventionally applied to linear R².

Read as a whole, the path diagram offered Christian-founded school administrators a clear, statistically grounded theory of change: investment in play-based learning yielded returns to retention both by keeping children attending school more consistently and through independent, attendance-independent benefits of the pedagogy itself, while investment in teacher training and in deliberately Christian, values-rich play climates yielded their retention benefits primarily by first improving attendance, meaning that any scale-up strategy prioritising only teacher training or only values programming without addressing attendance monitoring directly would likely under-deliver on retention relative to a strategy that treated attendance as the central, monitorable proximal outcome linking all three upstream investments to the ultimate goal of keeping Ugandan children in early-grade Christian-founded classrooms.

Conclusion

The study concluded that play-based learning interventions were statistically and substantively associated with improved early-grade pupil retention in Christian-founded primary schools in Uganda, with univariate results establishing a moderate mean level of play-based learning implementation and a 69.0 percent pooled retention rate, bivariate analysis confirming a significant, medium-to-strong association between play-based learning exposure and retention ($\phi = 0.32$, $p < .001$), and structural equation modelling demonstrating, within a well-fitting model, that this association operated through both a significant indirect pathway mediated by pupil attendance and a significant direct pathway independent of attendance, while teacher training in play pedagogy and the integration of Christian values into play activities exerted their influence on retention almost entirely through their effect on attendance; taken together, these findings affirmed that play-based learning, particularly when delivered by trained teachers within a deliberately Christian ethos of nurturing the whole child, functioned as a statistically robust, multi-pathway lever for reducing early-grade repetition and dropout, and that attendance behaved as the single most important proximal, monitorable outcome linking

classroom-level pedagogical and values-based investments to the ultimate goal of retaining Ugandan children in school through the critical lower-primary years.

Recommendations

Christian founding bodies and the Ministry of Education and Sports should scale up church-partnered, structured in-service training of lower-primary teachers in play-based pedagogy, given the statistically demonstrated role of teacher training in raising attendance and, through it, retention, and should prioritise multi-year, cumulative implementation across Primary One to Primary Three rather than a front-loaded, Primary One-only rollout.

School administrators should deliberately and visibly integrate biblically grounded values of dignity, nurture and belonging into daily play activities, and should institutionalise this integration through teacher guides and chaplaincy or pastoral support, since the study established that such values integration exerted its retention benefit primarily by strengthening pupil attendance.

Head teachers and Christian education boards should establish routine, ideally weekly, monitoring of pupil attendance as a proximal, actionable early-warning indicator of retention risk, using attendance dashboards or registers to trigger timely pastoral and academic follow-up with pupils and households before repetition or dropout occurs, given the central mediating role of attendance confirmed by the structural equation model.

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