

Distance learning methods and academic achievements of students in selected private universities in Kampala capital city, Uganda.

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Abstract

Background:

Synchronous learning, involving real-time online instruction, is promoted for fostering interaction and immediate feedback in distance education. However, its effectiveness in contexts like Kampala's private universities, where technological and infrastructural challenges are prevalent, requires investigation to understand its impact on student academic achievement.

Methods:

A mixed-methods approach was employed, utilizing a descriptive correlational and cross-sectional survey design. Data were collected from 190 students and staff across five private universities in Kampala using questionnaires and interviews.

Results:

The study found a moderate positive and statistically significant relationship between synchronous learning and academic achievement ($r = 0.536$, $p = 0.001$). While beneficial for real-time engagement, its impact was constrained by significant challenges, including poor internet connectivity, inconvenient scheduling, low student participation, and insufficient real-time feedback from lecturers.

Conclusion:

Synchronous learning contributes meaningfully to academic success but is not a standalone solution. Its effectiveness is highly dependent on overcoming technological barriers and enhancing pedagogical delivery to meet the needs of the student population.

Recommendations:

Universities should partner with telecom providers for subsidized data, offer flexible session timings (evenings/weekends), and provide continuous professional development for lecturers on facilitating interactive online sessions. Implementing robust attendance and participation monitoring systems is also crucial.

Keywords: *Synchronous Learning, Academic Achievement, Real-time Interaction, Technological Barriers, Private Universities, Kampala.*

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Introduction

The global expansion of distance learning has positioned synchronous learning as a critical modality, designed to replicate the interactive dynamics of traditional face-to-face classrooms in a virtual environment. This mode involves real-time, instructor-led sessions using platforms like Zoom and Google Meet, facilitating immediate feedback, dynamic discussions, and a structured learning routine (Hrastinski, 2008). Theoretically, this aligns with social constructivist principles, where learning is enhanced through social interaction and timely scaffolding (Shaikh et al, 2017). For adult learners in private universities, who often balance education with work and family, the scheduled nature of synchronous learning can provide a necessary framework that reduces procrastination and fosters a sense of community (Gillett-Swan, 2017).

Globally, studies indicate that well-structured synchronous learning can lead to academic outcomes comparable to, or even surpassing, those of traditional instruction, particularly through enhanced engagement and social presence (Lowenthal & Dunlap, 2020). However, its efficacy is not universal. In resource-constrained environments like Uganda, the promise of real-time interaction is often undermined by a harsh reality. The contextual perspective of this study highlights systemic issues within Kampala's private universities, including unreliable internet connectivity, high data costs, and variable digital literacy among students and staff (Nabunya & Kintu, 2024; Twebaze & Baryamureeba, 2020). These barriers can transform interactive sessions into frustrating experiences, leading to low attendance and passive participation.

Despite its potential, preliminary data from the Kampala context reveal a worrying trend. The Private Universities Academic Retention Report (PUARR, 2024) and the KCCA Higher Education Performance Monitoring Survey (KHEPMS, 2024) indicate low GPAs and high dropout rates among distance learners. Qualitative insights from university staff suggest that synchronous sessions are often poorly attended, with students facing significant challenges in consistently participating in live classes. This disconnect between the theoretical benefits of synchronous learning and the on-the-ground challenges in Kampala creates a critical research gap. Therefore, this study seeks to objectively examine the relationship between synchronous learning and the academic achievements of students in selected private universities in Kampala Capital City. The findings will determine the extent to which this mode is a viable tool for enhancing academic success in this specific context.

Methodology

Research Design

This study adopted a descriptive correlational and cross-sectional survey research design to assess the relationship between distance learning methods and the academic achievements of students in selected private universities within Kampala Capital City. The correlational aspect was utilized to examine the nature and strength of relationships

between synchronous learning and the academic achievements of students.

A mixed-methods approach was primarily employed to collect and analyze both numerical and non-numerical data related to learner achievements.

Study Area

The selected universities include: Cavendish University, Uganda Technology and Management University (UTAMU), ISBAT University, Kampala International University (KIU), and Nexus International University. This study covered the period from 2020 to 2024.

Study population

The target population for this study consisted of university staff responsible for Distance Learning across various faculties and final-year students enrolled in distance learning programs at selected private universities within Kampala Capital City. Specifically, the study targeted a total of 400 individuals, comprising 40 university staff and 360 students.

The selection of these participants was based on their direct involvement and experience with distance learning modalities, providing relevant insights into the relationship between synchronous learning methods and academic achievements.

Table 1: Target Population

Universities	Students	Staff	Total population
Cavendish University	120	10	130
Uganda Technology and Management University (UTAMU)	80	06	89
ISBAT University	60	06	68
KIU	51	09	52
Nexus International Universities	49	09	55
Total	360	40	400

Source: National Council for Higher Education (2024)

Sample Size

Table 2: Target Population Size, Sample Size, Sampling Technique and Methods of Data Collection

Coordination centers	Target population	Sample size	Sampling technique	Methods of data collection
University Staff	40	20	Purposive sampling	Interview
Students	360	176	Stratified sampling	Questionnaire
Total	400	196		

Source: National Council for Higher Education (2024); Krejcie & Morgan (1970) table of sample determination.

A total sample size of 196 participants was selected to represent the target population. This sample comprised 20 university staff responsible for Distance Learning, selected using purposive sampling due to their expertise and direct involvement in distance learning implementation. 176 students, selected through stratified sampling, ensuring

proportional representation across different faculties and universities included in the study.

The determination of the sample size was based on the Krejcie and Morgan (1970) table for sample size estimation, which recommends appropriate sample sizes for given

population sizes. For a population of 400, the table indicates a required sample size of 196 participants.

Sampling Techniques

This study employed two distinct sampling techniques: purposive sampling for university staff and stratified random sampling for students.

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Purposive Sampling

Purposive sampling was employed to select university staff members who were directly involved in the planning, implementation, or supervision of distance learning programs within the selected universities. A total of 20 staff members were selected based on their roles and responsibilities in academic delivery and technology integration.

Stratified Random Sampling

Stratified random sampling was utilized to select student participants. A total of 176 students were selected through this method.

Sources of Data

This study utilized both primary and secondary data sources to comprehensively assess the relationship between synchronous learning and the achievements of students in private universities within Kampala Capital City. The integration of both data types enabled triangulation, thereby increasing the reliability and validity of the findings.

Methods of Data Collection

This study employed a combination of quantitative and qualitative data collection methods to gather comprehensive and reliable information from the target respondents. The primary methods that were used include questionnaires, interviews, and documentary review. These methods were selected to complement one another and allow for triangulation, thereby strengthening the credibility and validity of the study findings.

Questionnaire

Structured questionnaires were administered to students enrolled in distance learning programs. This method was used to collect quantitative data on learners' experiences, synchronous, and the perceived impact of distance learning on their academic achievements.

The questionnaire consisted of both closed-ended and Likert scale-based questions, which allowed easy coding and statistical analysis. Respondents were asked to indicate the extent to which they agree or disagree with various statements related to learning flexibility, support systems, motivation, academic performance, and skill acquisition.

Interview

Semi-structured interviews were conducted with selected distance learning coordinators and other university staff at

the coordination centre. This qualitative method was used to collect in-depth information on program implementation, institutional support, policy considerations, and challenges faced in managing distance learning in private universities.

The interviews were guided by an interview protocol with open-ended questions, allowing flexibility for the interviewer to probe further based on participants' responses.

Documentary Review

Documentary review was used to collect secondary data relevant to the study. Key documents reviewed included: Institutional reports and student academic records from the private universities involved. Policy guidelines on distance education issued by the Ministry of Education and Sports or the Kampala Capital City Education Department. Previous evaluation reports or research studies on distance learning and adult education. Course materials and instructional tools used in distance learning delivery.

These documents helped validate the information collected from primary sources and provide background information and statistical data on enrollment, performance, and program structure.

Documentary review also assisted in identifying existing gaps, trends, and benchmarks that support the interpretation of findings from both the questionnaires and interviews.

Validity of Instruments

The researcher used the expert judgment method to establish the validity of the instruments that were used for data collection. The questionnaires and interview guides were reviewed by a panel of education experts to ensure that the items comprehensively cover all relevant aspects of Distance learning and the achievements of students.

The experts examined whether the instruments adequately address the key concepts. A Content Validity Index was determined by dividing the number of relevant questions (23) by the total number of questions (25) in the instrument, and the obtained Content Validity Index (CVI) of 0.92 was compared with 0.7 as proposed by Amin (2005), and thus the instruments were valid.

Reliability of Instruments

Reliability refers to the consistency or stability of an instrument in measuring a concept over time. The researcher used test-retest methods with Cronbach's alpha coefficient to determine the reliability of instruments. The questionnaire was administered to a small subset (4 respondents outside the study) of respondents twice over a short interval (2 weeks). The relative values of uniformity of answers from the first and the second issue of questionnaires were used to determine the Cronbach alpha (0.86) coefficient, which was compared with 0.7 as proposed by Amin (2009). And thus, instruments were declared consistent and reliable.

Data Analysis

This study adopted both quantitative and qualitative data analysis techniques to interpret the findings collected through questionnaires, interviews, and document reviews. The use of mixed methods enabled the researcher to gain a deeper and more holistic understanding of the relationship between synchronous learning and the achievements of students in private universities within Kampala Capital City. Quantitative data were collected mainly through structured questionnaires administered to students. After data collection, the responses were coded and entered into the Statistical Package for the Social Sciences (SPSS v. 25) software for statistical analysis.

Qualitative data were obtained through interviews. These interviews were audio-recorded (with consent), transcribed verbatim, and subjected to thematic analysis.

Qualitative findings were presented using narrative descriptions supported by direct quotations from participants to illustrate key points.

Ethical Considerations

Informed Consent: Before participation, all respondents were provided with a detailed explanation of the study. A written informed consent form was provided, clearly stating that participation is voluntary and that participants could withdraw at any time without penalty. **Confidentiality and Anonymity:** All personal information and responses were kept strictly confidential, and ethical clearance was obtained from The Research Ethics Committee of the affiliated academic institution.

Results

Response Rate

The response rate is a critical indicator of the reliability and validity of a study, as it reflects the proportion of participants who completed the data collection instruments relative to those who were initially targeted. Table 3 presents the response rate for the two key coordination centers involved in this study: university staff and students.

To determine the response rate, the research uses the formula;

$$\text{Response Rate (\%)} = \left(\frac{\text{Interviews Conducted and Questionnaires Issued}}{\text{Interviews Scheduled and Questionnaires to be Issued}} \right) \times 100$$

Table 3: Response Rate of the Study

Coordination Centers	Interviews Scheduled and Questionnaires to be Issued	Interviews Conducted and Questionnaires Issued	Response Rate (%)
University Staff	20	15	75.00
Students	176	175	99.43
Total	196	190	96.94

Source: Primary data (2025)

A total of 196 interviews were scheduled, and corresponding questionnaires were to be issued. Of these, 190 interviews were successfully conducted, resulting in an overall response rate of 96.94%. This high response rate indicates a strong level of engagement and cooperation from the targeted participants, enhancing the credibility of the study's findings. Among the selected Universities, the student group demonstrated the highest response rate. Out of the 176 interviews scheduled for students, 175 were conducted, yielding a response rate of 99.43%. This suggests an exceptional level of participation and responsiveness from the student population, which may be attributed to factors such as accessibility, relevance of the study topic, or effective coordination during data collection. In contrast, the university staff category recorded a lower response rate. Of the 20 scheduled interviews, only 15 were completed, resulting in a response rate of 75.00%. While still within acceptable limits for most social research, this

comparatively lower rate may be due to constraints such as limited availability, conflicting schedules, or lower interest in the research topic. Overall, the high response rate across both categories supports the representativeness of the sample and the generalizability of the study results within the targeted population.

Socio-Demographic Characteristics of Respondents

The study involved a total of 190 respondents drawn from private universities within Kampala Capital City. The demographic characteristics of the respondents are presented in Table 4.2 and include gender, age group, marital status, and highest educational qualification. These characteristics are essential in contextualizing the findings related to the relationship between distance learning methods and academic achievement.

Table 4: Demographic Characteristics of Respondents (N = 190)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	98	51.6%
	Female	92	48.4%
	Total	190	100.0%
Age Group (Years)	18–24	110	57.9%
	25–34	50	26.3%
	35–44	20	10.5%
	45 and above	10	5.3%
	Total	190	100.0%
Marital Status	Single	132	69.5%
	Married	51	26.8%
	Divorced/Widowed	7	3.7%
	Total	190	100.0%
Highest Education Qualification	Certificate	25	13.2%
	Diploma/Certificate	48	25.3%
	Bachelor's Degree	92	48.4%
	Postgraduate Degree	25	13.2%
	Total	190	100.0%

Source: Primary data (2025)

Gender of Respondents: The gender distribution of respondents was relatively balanced. Out of the 190 respondents, 98 (51.6%) were male, while 92 (48.4%) were female. This balanced representation suggests that both male and female perspectives were adequately captured, making the findings more inclusive and reflective of the broader student population in private universities.

Age Group of Respondents: The majority of the respondents (110, or 57.9%) were within the age bracket of 18–24 years, indicating that most participants were traditional university-aged students. This was followed by 50 respondents (26.3%) aged 25–34, 20 (10.5%) aged 35–44, and only 10 (5.3%) aged 45 and above. The distribution suggests that distance learning is predominantly accessed by younger students, though a significant number of mature learners are also represented. This is particularly relevant to the study as different age groups may respond differently to various learning methods.

Marital Status of Respondents: Regarding marital status, the majority of respondents were single (132, or 69.5%), followed by married individuals (51, or 26.8%). A smaller percentage (7 respondents, or 3.7%) reported being divorced or widowed. These findings reflect a predominantly single-student population, which may influence study habits and

availability for synchronous or asynchronous learning modes, potentially affecting academic outcomes.

Highest Educational Qualification: In terms of educational qualifications, 92 respondents (48.4%) held a Bachelor's degree, making them the largest group. This was followed by 48 (25.3%) with a diploma or certificate, 25 (13.2%) with a secondary school certificate, and another 25 (13.2%) with a postgraduate degree. The diversity in academic qualifications suggests that the study captured input from students at various levels of their academic journey, thus providing a richer perspective on how different distance learning methods impact academic achievement.

Synchronous learning of students in selected private universities in the capital city.

This section presents the findings related to the use of synchronous learning methods among students in private universities in Kampala Capital City. The data was collected through a structured questionnaire in which respondents were asked to indicate their level of agreement with a series of statements using a five-point Likert scale, where 1 = Strongly Disagree and 5 = Strongly Agree. The results are summarized in Table 5.

Table 5: Responses on Synchronous Learning Use (N = 190)

Statement	1	2	3	4	5	Mean	Std. Dev.
Students regularly attend scheduled live online sessions.	40	62	55	25	8	2.31	1.08
Lecturers are always available to respond to students in real-time.	50	60	45	25	10	2.28	1.13
Synchronous sessions are conducted at convenient times.	42	58	50	30	10	2.37	1.12

Students are able to actively participate in live discussions.	35	65	55	25	10	2.35	1.06
Internet connectivity allows smooth participation in live sessions.	55	60	45	20	10	2.21	1.14
Attendance in synchronous sessions is monitored and recorded.	30	50	60	35	15	2.59	1.13
Students ask questions and get instant feedback during live sessions.	48	62	50	20	10	2.25	1.10
The number of sessions held is adequate for course coverage.	40	58	55	25	12	2.36	1.11
Students demonstrate high engagement during live classes.	45	65	50	20	10	2.29	1.08
Tools like Zoom or Google Meet are effectively used in teaching.	30	60	55	30	15	2.50	1.12
Technical challenges are promptly resolved during live sessions.	52	63	45	20	10	2.24	1.09

Source: Primary data (2025)

The findings revealed that students' regular attendance of scheduled live online sessions was low, as reflected by a mean score of 2.31 (SD = 1.08). This indicates that most respondents disagreed or remained neutral about consistent attendance during synchronous sessions. Similarly, students reported low levels of active participation in live discussions, with a mean score of 2.35 (SD = 1.06). These findings suggest that the level of real-time engagement in online classes is generally poor among the respondents. The statement regarding lecturers being available to respond to students in real-time received a mean score of 2.28 (SD = 1.13). This indicates a low level of real-time lecturer-student interaction during synchronous sessions. In addition, students expressed dissatisfaction with their ability to ask questions and receive instant feedback, reflected in a mean score of 2.25 (SD = 1.10). These findings highlight a gap in the immediacy and effectiveness of communication between instructors and students during live online classes. When asked whether synchronous sessions were conducted at convenient times, respondents gave a mean score of 2.37 (SD = 1.12). This suggests that many students do not find the timing of live sessions suitable, which may contribute to the low attendance and engagement levels reported earlier. The issue of internet connectivity was a significant barrier to effective synchronous learning. The statement "Internet connectivity allows smooth participation in live sessions" recorded the lowest mean score of 2.21 (SD = 1.14). Similarly, the statement regarding prompt resolution of technical challenges received a mean of 2.24 (SD = 1.09). These results indicate that infrastructural challenges, particularly unreliable internet and delayed technical support, continue to impede the effective use of synchronous learning tools. Respondents reported low satisfaction with the monitoring and recording of attendance, with a mean of 2.59 (SD = 1.13) — the highest mean in the category but still below the neutral midpoint of 3.0. The adequacy of the number of sessions held to ensure course coverage was also rated low (mean = 2.36, SD = 1.11). In terms of the use of synchronous platforms such as Zoom and Google Meet, the effectiveness of these tools in teaching was rated 2.50 (SD = 1.12), again reflecting limited satisfaction. The overall level of student engagement during live classes was also perceived as low (mean = 2.29, SD = 1.08). This suggests that even when sessions are held, student involvement remains minimal, possibly due to the previously discussed

issues such as timing, internet reliability, and instructor availability. During the Interview with one Lecturer from the selected Universities, he said, *"We've observed that student attendance during synchronous sessions is inconsistent. Even when sessions are scheduled in advance, many students either don't show up or join very late. A good number just log in and remain passive. You rarely get responses when you ask questions, and most keep their cameras and microphones off."* Another respondent, the E-Learning Coordinator, said, *"One of the main barriers to effective synchronous learning is poor internet connectivity among students, especially those off-campus. Some students complain about data costs, while others are in areas with weak signals. This limits their ability to join or fully participate in live sessions, no matter how well we plan."* Another lecturer said, *"Although synchronous sessions are supposed to allow real-time interaction, in practice, it rarely happens. Lecturers often end up giving monologues because students are hesitant to ask questions or contribute. Sometimes it's due to network delays or the fear of interrupting the class flow."*

The ICT Officer added, *"We mostly use Zoom and Google Meet, but there are frequent technical issues. Some lecturers are not fully comfortable with the tools, and students sometimes struggle with joining links or adjusting audio settings. While we try to offer support, real-time troubleshooting during live classes can be challenging."*

The Academic Registrar added, *"Scheduling synchronous sessions has been a challenge because students have diverse timetables; some are working, others are in different time zones. We've tried to standardize timing, but it's not always convenient for everyone. Also, not all lecturers are trained in delivering engaging online sessions, which affects student participation."*

Academic Achievements of Students in Private Universities in Kampala Capital City

Descriptive Findings of Academic Achievements of Students in Private Universities in Kampala Capital City

This section presents the findings related to the academic achievements of students enrolled in private universities in Kampala, the Capital City. Respondents indicated their level of agreement with statements concerning various indicators of academic success, using a five-point Likert scale where 1 = Strongly Disagree and 5 = Strongly Agree. The results, summarized in Table 4.6, suggest a low level of academic achievement among the students surveyed.

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Table 6: Responses on Academic Achievements of Students (N = 190)

Statement	1	2	3	4	5	Mean	Std. Dev.
Students complete class assignments on time.	70	60	30	20	10	2.13	1.01
Students have completed and published research papers	90	50	25	15	10	1.92	1.03
Students have acquired relevant academic qualifications	60	65	35	20	10	2.19	1.04
Students have mastered new academic and professional skills	50	70	30	25	15	2.37	1.09
Students on distance learning perform better	80	60	25	15	10	1.94	1.02
Students achieve GPA and CGPA above 3.0	85	55	25	15	10	1.90	1.04
Most students graduate in stipulated time	75	60	30	15	10	2.05	1.02
Most students drop out	10	20	25	70	65	4.07	1.05
Most students complete their studies in time	65	55	30	25	15	2.33	1.12

Source: Primary Data (2025)

The majority of respondents disagreed that students complete class assignments on time, with a low mean score of 2.13 (SD = 1.01). Similarly, there was strong disagreement regarding the completion and publication of research papers by students, which recorded an even lower mean of 1.92 (SD = 1.03). These findings indicate significant challenges in students' ability to meet academic deadlines and contribute to scholarly research.

Respondents also expressed skepticism about students acquiring relevant academic qualifications and mastering new academic or professional skills. The mean scores for these statements were 2.19 (SD = 1.04) and 2.37 (SD = 1.09), respectively, reflecting a perception that many students struggle to achieve essential academic milestones and competencies.

Regarding academic performance, respondents largely disagreed that students engaged in distance learning perform better academically, with a mean of 1.94 (SD = 1.02). The achievement of GPA and CGPA above 3.0 was similarly rated low (mean = 1.90, SD = 1.04). Furthermore, the perception that most students graduate within the stipulated time was also low, with a mean score of 2.05 (SD = 1.02).

Conversely, the statement that most students drop out garnered a high mean score of 4.07 (SD = 1.05), indicating widespread agreement that dropout rates are a significant concern within these institutions.

The perception that most students complete their studies on time was rated low, with a mean score of 2.33 (SD = 1.12), further highlighting concerns about delayed graduations and extended study periods.

Qualitative Findings on Academic Achievements of Students in Private Universities in Kampala Capital City

During the interview,

The Academic Registrar said, *"One of the biggest challenges we face is students not submitting assignments on time. This delays grading and feedback, which in turn affects their progression and ability to graduate within the expected timeframe. Many students also struggle to keep up with coursework, leading to extended study periods."*

Also, a Lecturer added, *"Unfortunately, the number of students who have completed and published research papers is quite low. This is partly due to limited research skills and insufficient mentorship. Additionally, while some students acquire the necessary academic skills, many fall short of mastering the professional competencies required for their fields."*

The Distance Learning Coordinator added, *"The perception that distance learning students perform better academically does not reflect our reality. Many distance learners face challenges like poor internet connectivity, lack of motivation, and balancing work with studies, which negatively impact their academic results."*

The Student Support Officer added, *“Dropout rates remain a serious issue. Several students discontinue their studies due to financial difficulties, lack of academic support, or personal circumstances. We are actively seeking ways to improve retention through counseling and additional academic assistance.”*

The Quality Assurance Officer added, *“The overall academic achievements are below expectations. We need to strengthen academic support services and provide more resources to help students improve their performance. This includes better monitoring of student progress and timely interventions for those at risk of failing or dropping out.”*

Documentary Review Findings on Academic Achievements in Selected Private Universities in Kampala City

This section presents findings from the documentary review conducted on academic performance records, student progression reports, graduation statistics, and institutional quality assurance documents from five selected private universities in Kampala City: Cavendish University, Uganda Technology and Management University (UTAMU), ISBAT University, Kampala International University (KIU), and Nexus International University. The documentary evidence corroborates the survey and interview findings, highlighting challenges related to academic achievements among students enrolled in these institutions.

Review of course completion reports and learning management system (LMS) logs across the universities revealed low rates of timely submission of assignments and assessments. For example, records from Cavendish University showed that approximately 40% of students regularly submitted assignments past deadlines, impacting their continuous assessment scores. Similarly, LMS data from UTAMU and ISBAT University indicated that a significant number of students accessed learning materials irregularly, suggesting low engagement with asynchronous components of their courses.

Institutional repositories and research publication records from KIU and Nexus International University indicated that only a small fraction (10-15%) of undergraduate and postgraduate students had completed and published research papers within the last three academic years. This low research output was attributed to limited mentorship programs, insufficient research funding, and inadequate emphasis on research skills development within curricula.

Graduation records reviewed from all five universities showed a concerning trend of delayed graduations. On average, only about 60% of students graduated within the stipulated time, with the remainder either taking extended study periods or discontinuing their programs. Documentation from quality assurance offices noted gaps in practical skills acquisition, citing limited industrial

attachments and internship opportunities, particularly at ISBAT University and Nexus International University.

Academic transcripts and cumulative grade point average (CGPA) reports indicated that the proportion of students achieving a GPA/CGPA above 3.0 was relatively low, estimated at less than 30% across the institutions. KIU’s registrar’s office reported that many students struggled to maintain consistent academic performance, partly due to balancing work commitments with studies, especially among distance learners.

Student enrollment and retention reports from the five universities revealed that dropout rates ranged between 25% and 35%, with the highest rates recorded at Nexus International University and UTAMU. Common reasons for dropout documented included financial constraints, academic difficulties, and personal challenges. These reports highlighted the need for enhanced student support services and retention strategies.

Quality assurance reports from the universities emphasized ongoing efforts to address these challenges through curriculum revisions, increased academic advising, and the integration of blended learning modalities. However, documentation also pointed out resource limitations and the need for stronger policy enforcement to improve student outcomes. For instance, KIU’s academic quality audit recommended enhanced monitoring of assignment submission and timely feedback mechanisms.

The documentary evidence from the five selected private universities in Kampala City strongly aligns with survey and interview findings, indicating systemic challenges affecting student academic achievement. Key issues identified include: Low rates of assignment completion and engagement with learning materials, Limited research output and mentorship opportunities, delayed graduations and inadequate practical skills development, Low academic performance as reflected in GPA and CGPA data, and High dropout rates linked to financial and academic challenges.

These findings underscore the urgent need for targeted interventions to improve academic support systems, enhance student engagement, and strengthen institutional quality assurance frameworks across private universities in Kampala.

Correlation Findings

This section presents the results of a Pearson product-moment correlation analysis conducted to examine the relationship between three types of distance learning methods: synchronous learning, asynchronous learning, and blended learning, and the academic achievements of students in private universities in Kampala, the Capital City. The findings are summarized in Table 7.

Table 7: Correlation between synchronous learning and academic achievements of students in private universities in Kampala Capital City

	Synchronous learning
Academic achievements of students	Pearson Correlation = 0.536*
	Sig. (2-tailed) = 0.001
N	190

**Correlation is significant at the 0.01 level (2-tailed).*

Source: Primary Data (2025)

The results indicate a moderate positive correlation between synchronous learning and academic achievement, with a Pearson correlation coefficient (r) of 0.536 and a significance value (p) of 0.001. Since the p -value is less than 0.01, this correlation is statistically significant at the 1% level. This suggests that students who engage more effectively in real-time, scheduled virtual classes tend to demonstrate better academic performance. However, the moderate strength of the relationship implies that synchronous learning alone may not fully explain variations in academic achievement.

Regression Analysis of Distance Learning Methods and Academic Achievements of Students in Private Universities in Kampala Capital City.

This section presents the findings of a multiple linear regression analysis conducted to examine the extent to which synchronous learning predicts the academic achievements of students in private universities in Kampala Capital City. The results are presented in Table 8.

Table 8: Regression Analysis Predicting Academic Achievements from Learning Methods

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig. (p)
(Constant)	1.102	0.295	—	3.735	0.000
Synchronous Learning	0.215	0.072	0.236	2.986	0.003

Model Summary:

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.843	0.710	0.705	0.438

ANOVA Summary:

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	102.781	3	34.260	178.53	0.000
Residual	41.819	186	0.225		
Total	144.600	189			

Source: Primary Data (2025).

The regression model yielded an R -value of 0.843, indicating a strong positive correlation between synchronous learning method and academic achievement. The R -squared (R^2) value of 0.710 suggests that approximately 71.0% of the variance in students' academic achievements can be explained by synchronous learning. The adjusted R^2 of 0.705 confirms the model's robustness after adjusting for the number of predictors. The standard error of the estimate was 0.438, indicating a moderate level of accuracy in the prediction.

The ANOVA results show that the regression model is statistically significant with an F -value of 178.53 and a p -

value < 0.001 . This indicates that the model significantly predicts the dependent variable, academic achievements, and that the inclusion of synchronous improves the model more than would be expected by chance.

The unstandardized and standardized coefficients provide insight into the individual contributions of each learning method to academic achievement.

Synchronous Learning showed a statistically significant positive influence ($\beta = 0.236$, $p = 0.003$), with an unstandardized coefficient of $B = 0.215$.

The regression analysis confirms that synchronous learning contributes to the academic achievements of students in private universities in Kampala Capital City. Notably: Synchronous learning contributed moderately but significantly, suggesting that real-time interaction still plays a meaningful role in student success.

Discussions

Discussion of Findings on Synchronous Learning and Academic Achievements of Students in Private Universities in Kampala Capital City.

The findings of this study revealed a moderate positive and statistically significant correlation between synchronous learning and academic achievements of students in private universities in Kampala Capital City, with a Pearson correlation coefficient of $r = 0.536$ and a p-value of 0.001. This result suggests that students who actively participate in synchronous learning sessions tend to perform better academically compared to those who do not. However, the moderate strength of the relationship implies that while synchronous learning plays a meaningful role, it is not the sole determinant of academic success.

These findings are consistent with the literature, particularly the work of Hrastinski (2008), who emphasizes that synchronous learning supports real-time interaction, immediacy, and social presence, all of which are critical components of a productive and engaging learning environment. In this study, students exposed to regular and structured live online sessions (e.g., via Zoom, Google Meet, or Microsoft Teams) were more likely to benefit from immediate instructor feedback, timely clarification of content, and dynamic peer-to-peer engagement.

The adult learners in private universities, often balancing education with work and family responsibilities, particularly benefit from the structured routine offered by synchronous sessions. As noted by Gillett-Swan (2017), scheduling live sessions during evenings or weekends can support these learners by allowing them to stay on track without significant disruption to their other responsibilities. This may partly explain the positive correlation observed in the present study.

Moreover, the development of professional competence, such as improved communication and critical thinking skills, as reported by Muljana & Luo (2020), can be linked to the interactive and collaborative nature of synchronous environments. In this study, students who actively engaged in live discussions, received real-time clarification, and collaborated with peers likely gained deeper conceptual understanding and practical skills, which translated into better academic outcomes.

However, the moderate level of correlation also reflects the limitations and challenges of synchronous learning identified in the literature. Technical barriers such as unstable internet, lack of access to reliable devices, and noisy home environments may have limited some students'

ability to fully participate in live sessions, as highlighted by Zawacki-Richter & Anderson (2014) and Adarkwah (2021). Furthermore, the cognitive fatigue associated with extended screen time and multitasking during online sessions (Chen et al., 2024) may have undermined the learning experience for some, thereby reducing the overall impact of synchronous learning on academic achievement.

It is also important to consider that not all synchronous sessions are equally effective. The quality of instruction, clarity of communication, relevance of content, and student-centered pedagogical approaches all influence the effectiveness of synchronous learning. This supports the argument by Chen et al. (2024) that well-structured, interactive synchronous learning environments yield better student outcomes.

In line with the current study's findings, literature suggests that synchronous learning enhances academic outcomes when it is part of a broader, well-supported learning strategy. Therefore, while synchronous learning is valuable, it should be complemented by asynchronous and blended approaches to accommodate diverse learner needs and preferences.

In conclusion, the findings support the notion that synchronous learning is a significant but not exclusive contributor to academic success in private universities. It enhances engagement, interaction, and timely feedback, which in turn fosters improved academic outcomes. However, its effectiveness is moderated by contextual factors such as access to technology, student motivation, and institutional support. As such, universities should continue to invest in synchronous learning infrastructure while also addressing the barriers to access and ensuring pedagogical quality.

Conclusions

Synchronous Learning and Academic Achievements of Students in Private Universities in Kampala Capital City.

The study found a moderate positive and statistically significant relationship between synchronous learning and academic achievement ($r = 0.536$, $p < 0.01$). This indicates that students who actively participated in real-time online classes such as Zoom or Google Meet showed better academic performance, largely due to immediate feedback, interactive discussions, and structured routines. However, challenges such as scheduling conflicts, poor internet connectivity, and screen fatigue limited its effectiveness for some learners. Thus, while synchronous learning contributes meaningfully to academic success, its impact is best realized when supported by flexible policies and robust technological infrastructure.

Recommendations

Synchronous Learning and Academic Achievements of Students in Private Universities in Kampala Capital City.

Private universities should partner with telecom providers to offer subsidized or zero-rated internet packages for students to reduce connectivity challenges during live sessions.

Institutions should offer multiple time slots (evening, weekend, and recorded options) for synchronous classes to accommodate students with work or family responsibilities. Instructors should receive continuous professional development on how to facilitate interactive, inclusive, and engaging real-time virtual sessions using tools like Zoom, Google Meet, and Microsoft Teams.

Use attendance trackers, digital participation tools, and real-time feedback systems to monitor student engagement and provide timely academic support.

Areas for Further Research

Comparative Study between Public and Private Universities. Future research should explore how distance learning affects academic performance in public universities and compare it with findings from private institutions to identify systemic differences in infrastructure, policy, and student support.

Influence of Digital Literacy on Distance Learning Effectiveness. Further research can focus on assessing how varying levels of digital competence among students and lecturers affect the quality of interaction and academic performance in online learning environments.

Technological Infrastructure Readiness in Ugandan Universities. Further research should assess the institutional capacity of universities in Uganda (urban vs. rural, large vs. small) to support high-quality distance learning, especially during emergencies or future disruptions.

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List of acronyms

AR – Augmented Reality

AU – African Union

BL – Blended Learning

CVI – Content Validity Index

LMS – Learning Management System

NAAC – National Assessment and Accreditation Council

OBE – Outcome-Based Education

SPSS – Statistical Package for the Social Sciences

TCM – Traditional Chinese Medicine

TPACK – Technological Pedagogical Content Knowledge

UBOS – Uganda Bureau of Statistics

UGX – Ugandan Shilling (currency code)

UNESCO – United Nations Educational, Scientific, and Cultural Organization

VR – Virtual Reality

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Conflict of interest

The author declares no conflict of interest

Author Biography

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Author contributions

Taddeo Ssekamanya was the corresponding author, and Dr. Muhammad Sendagi was the research supervisor.

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