

Enhancing Student Engagement and Learning Outcomes through Digital Tools in UBa's Lecture Delivery

Abstract

UBa struggles with student engagement and effective lecture delivery, especially in large classes. This research explores how digital tools like LMS and AI-assisted platforms can enhance teaching and learning. Using surveys, interviews, and observations, the study will assess the impact of digital adoption. Findings will propose strategies for integrating digital tools into university teaching for sustainable improvement.

I. Introduction

(a) Background

Digital tools like Moodle and Blackboard have revolutionized education, fostering interactive learning (Dancsa et al., 2023). However, UBa's limited digital integration restricts student engagement and participation.

(b) Problem Statement

Despite the potential benefits of digital learning, UBa lecturers primarily use traditional methods, reducing student motivation and comprehension. This study examines digital adoption challenges and proposes strategies to enhance engagement and learning efficiency.

(c). Significance of the Study

This research aims to modernize UBa's teaching by integrating digital tools, enhancing engagement, and improving student performance. Overcoming adoption challenges will support faculty training and shape effective educational policies.

II. Literature Review

Several studies emphasize the benefits of digital integration in education. **Bagga & Agrati (2024)** highlight that digitalization fosters personalized learning and optimizes knowledge retention. However, **Dancsa et al. (2023)** note inconsistencies in digital adoption, citing technological limitations as key barriers. This study will build on existing literature to assess the feasibility of digital integration at UBa, contributing new insights into overcoming implementation challenges.

III. Research Questions and Hypotheses

a). Research Questions:

1. How do current teaching methodologies at UBa impact student engagement and performance?
2. What digital tools can be effectively integrated to enhance academic delivery?
3. What challenges prevent lecturers and students from fully utilizing digital learning platforms?
4. How can digital strategies be structured for sustainable adoption in UBa's teaching system?

b). Hypothesis:

H1: The integration of digital tools in lecture delivery will significantly improve student engagement and learning outcomes.

IV. Research Objectives

1. **Teaching Challenges at UBa** – Current lecture methods at UBa may limit student engagement, requiring evaluation to identify barriers and opportunities for improvement (**Bagga & Agrati, 2024**).
2. **Effectiveness of Digital Tools** – Investigating how technologies like LMS and AI-enhanced platforms can enhance academic delivery within different faculties.

- 3. Stakeholder Perspectives** – Assessing how students and lecturers view digital adoption, its benefits, and the challenges of implementation.

V. Methodology

a). Research Design

This study will employ a **mixed-method approach**, integrating qualitative and quantitative techniques.

b). Participants/Data Sources

- **Student Sample:** Undergraduate and postgraduate students from UBa.
- **Lecturer Sample:** Faculty members from various disciplines.
- **Institutional Data:** Policies and records related to digital integration efforts at UBa.

VI. Data Collection Instruments/Procedures

- **Surveys and Interviews:** Structured surveys and in-depth interviews to assess student and lecturer perspectives (**Dancsa et al., 2023**).
- **Case Study Analysis:** Examination of universities with successful digital adoption frameworks (**Bagga & Agrati, 2024**).
- **Observation and Analytics:** Tracking engagement levels before and after digital implementation.

VII. Data Analysis Plan

Quantitative Methods: Statistical analysis of survey responses.

Qualitative Methods: Thematic analysis of interview feedback.

VIII. Timeline

Literature Review (1 Month), Data Collection (Surveys & Interviews) (2 Months), Data Analysis and Interpretation (1 Month), Proposal & Recommendations (3 weeks) Final Review & Submission (1 Month)

IX. Budget

Survey Software for data analysis (100,000frs), Research Assistant (500,000frs), Printing & Stationery (80,000frs)

X. Ethical Considerations

- **Informed Consent:** Participants will be informed of research objectives and their voluntary participation.
- **Confidentiality:** Data will be anonymized to protect participant identities.
- **Data Security:** Secure storage methods to implement unauthorized access.

XI. Expected Outcomes and Dissemination Plan

Expected Findings:

- Identification of obstacles to digital integration in UBa's teaching methods.
- Evaluation of digital tools such as LMS and interactive technologies.
- Development of a digital adoption framework tailored to UBa's academic structure.

(c) Dissemination Plan:

Findings will be shared via; Academic journals and university conferences, digital reports accessible to UBa faculty and Faculty workshops and training programs.

XII. References

- Bagga, M. K., & Agrati, L. S. (2024). Digitalization in education: Developing tools for effective learning and personalization of education. *Frontiers in Education*, 9.
- Dancsa, D., Štempel'ová, I., Takáč, O., & Annuš, N. (2023). Digital tools in education. *International Journal of Advanced Natural Sciences and Engineering Researches*, 7(4), 289-294.