

EVALUATING STUDENT SATISFACTION WITH ONLINE LEARNING PLATFORMS USING A LIKERT- SCALE SURVEY

1. Background and Problem Statement

With the rise of digital education post-pandemic, universities have adopted various online learning platforms. However, the effectiveness and user satisfaction associated with these platforms remain unclear. A prominent university seeks to measure student satisfaction with its current online learning infrastructure, focusing on aspects like interface usability, content delivery, support services, and student engagement. The goal is to capture feedback systematically and identify potential improvement areas based on empirical evidence.

2. Objectives

- To measure student satisfaction across four key dimensions: usability, content quality, support services, and engagement
- To compare satisfaction levels across demographic groups (e.g., department, year of study)
- To assess internal consistency of survey scales using reliability analysis
- To generate actionable recommendations for improving the digital learning experience

3. Methodology

3.1 Survey Design

- **Structure:** 25 items (5-point Likert scale) divided into 4 dimensions
- **Scale Format:** Strongly Disagree (1) to Strongly Agree (5)
- **Question Categories:**
 - Usability (e.g., “The platform is easy to navigate”)
 - Content Quality (e.g., “Recorded lectures are of high quality”)
 - Support Services (e.g., “Technical support is prompt and helpful”)
 - Engagement (e.g., “I feel motivated during online classes”)
- **Demographics:** Department, Year of Study, Age, Gender, Internet Access Quality

3.2 Distribution

- **Method:** Google Forms
- **Sampling:** Stratified sampling by department
- **Sample Size:** 500 targeted, 362 valid responses received (72.4% completion rate)

3.3 Data Analysis in SPSS

- **Descriptive Statistics:** Mean, SD, and distribution of responses per question
- **Reliability Analysis:** Cronbach's Alpha for each satisfaction dimension
- **Group Comparisons:**
 - ANOVA to compare mean satisfaction across departments
 - Independent-sample t-test for gender-based comparisons
- **Cross-tabulation:** Internet quality vs. platform satisfaction (Chi-square test)
- **Missing Values:** Handled using pairwise deletion

4. Results

- **Overall Satisfaction Mean:** 3.72/5
- **Cronbach's Alpha:**
 - Usability = 0.88
 - Content Quality = 0.84
 - Support = 0.76
 - Engagement = 0.81
- **ANOVA Result:** Significant departmental differences in usability satisfaction ($F = 4.25$, $p < 0.05$)
- **Chi-square:** Poor internet access significantly linked with dissatisfaction in content quality ($p = 0.02$)
- **Open Comments:** Recurring suggestions on lag issues and lack of live interaction

5. Interpretation and Insights

- Usability and content quality received strong average scores but varied significantly across departments, indicating unequal platform experiences.

- Students from departments with practical labs (e.g., Engineering) reported lower satisfaction, particularly in engagement.
- Internet access remains a critical factor influencing satisfaction levels.
- Reliability scores show consistency across all four constructs, validating the survey instrument.

6. Recommendations

- Standardize platform usage guidelines and improve UI training across departments
- Invest in micro-interaction tools (polls, real-time Q\&A) to boost engagement
- Offer recorded alternatives for students with poor internet access
- Set up departmental tech feedback committees to resolve localized complaints

7. Future Work

- Run follow-up surveys bi-annually to monitor satisfaction trends
- Incorporate instructor-side evaluations for a balanced view
- Expand the study to include postgraduate and PhD cohorts
- Add a satisfaction-performance correlation analysis based on GPA

8. Stakeholder Relevance

Academic

- Applicable as a real-world example of Likert-scale-based educational research
- Useful for coursework in Educational Psychology, Research Methods, or Applied SPSS

Corporate / Institutional

- Relevant for EdTech firms and university IT teams to enhance platform usability and student engagement
- Can support procurement decisions for LMS software upgrades