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A Study on Student's Perception Towards Online Classes

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ABSTRACT: This study, which includes 114 participants with a range of academic backgrounds, explores how students view online classes. It investigates device use, internet quality, engagement, and learning efficiency. The most popular gadget for attending classes was a mobile phone. Although they valued the flexibility and lecture recordings, students also mentioned issues like eye strain and trouble focusing. One of the main factors affecting learning satisfaction was internet speed. A robust association between eye strain and poor concentration was found using statistical tools. There was no discernible effect of age or gender on participation. Students' opinions were generally mixed, but they did offer suggestions for enhancing digital learning.

KEYWORDS: Online Learning, Student Perception, Digital Education, Mobile Device Usage, Internet Quality, Engagement, Learning Effectiveness, Eye Strain, Concentration

I. INTRODUCTION

Education has undergone a digital revolution in the twenty-first century, which was greatly accelerated by the COVID-19 pandemic, which compelled educational institutions all over the world to switch from traditional classroom instruction to online learning. This sudden change brought to light both possibilities and difficulties for both teachers and students. Once a supplement, online learning has taken over as the main teaching method, requiring flexibility, ingenuity, and fortitude. Virtual classrooms present special challenges like limited in-person interaction and disturbed student-teacher dynamics, and they demand greater levels of self-discipline and technology access than traditional learning settings. This research explores how students experience online learning, analysing factors like device usage, internet speed, content delivery, and peer interaction. Additionally, it looks into how student attitudes are influenced by demographic factors like location, gender, and age. Distractions, eye strain, and low engagement are still major issues. To find patterns and connections in student feedback, the study employs statistical techniques. A successful digital education depends on both teacher interaction and technical quality, according to insights.

1.1 REVIEW OF LITERATURE

Alvin B. Badong (2025), A study to investigate the online learning experiences of second-year BTVTED Fish Processing students at Camarines Sur Polytechnic Colleges-Nabua during the COVID-19 pandemic. According to the study, students had to deal with issues like poor communication, trouble understanding the lessons, and more distractions. The quality of education declined as a result of these problems. The results show that better online course design is required to increase student success and engagement.

Seyum Getenet, et.al (2024), This study investigates the ways in which students' self-efficacy and attitudes toward digital technology impact their digital literacy and online learning engagement. Self-efficacy and technology attitude were found to be strongly positively correlated in 110 first-year students. The results highlight how crucial it is to address every facet of student engagement. These elements should be taken into account by educators when creating blended or online learning environments.

Fathi shamma, (2024), This study explores the ways in which teachers' and parents' attitudes affect students' online learning experiences. It examines attitudes and worries about digital education based on answers from 800



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participants. The results highlight how effective online learning is when parents and teachers work together closely.

Adnan Ullah, et.al (2024), This study highlights the necessity of integrating technology and human interaction in education in a balanced way, based on data from 225 students. It emphasizes how important traditional classroom settings are still for both successful learning and student satisfaction. The study provides insightful information that will help shape future teaching methods and educational policies.

1.2 NEED FOR THE STUDY

The shift to online learning has transformed education, making it critical to understand students' attitudes toward this mode of instruction. Online learning is becoming more and more popular at universities and other institutions, but student engagement and satisfaction are still major issues. The purpose of this study is to investigate how students view online learning, its efficacy, and the difficulties they encounter. Learning outcomes can be impacted by elements like digital literacy, teacher interaction, and internet connectivity. When comparing online learning to traditional classroom settings, many students may find it difficult to stay motivated and participate. By recognizing these obstacles, instructors can create more effective online courses. Additionally, the study will evaluate how students' past technological experiences affect their success in online learning. Institutions can use the research's insights to improve their e-learning tactics.

1.3 OBJECTIVE OF THE STUDY

Primary Objective:

- To Understand student's perception towards online classes.

Secondary Objective:

- To identify the challenges students faces while attending online classes.
- To explore the impact of online classes on student engagement and participation.
- To study the role of teacher interaction and support in online education.
- To suggest improvement for better online learning experiences.

1.4 SCOPE OF THE STUDY:

This study aims to comprehend how students view online learning, including their degree of engagement, satisfaction, and difficulties. It seeks to investigate the attitudes, experiences, and opinions of students regarding online learning. The 11th, 12th, UG, and PG academic levels are the focus of this study. Students from various colleges and schools are included in the scope. It looks at important topics like how well online teaching techniques work, how involved students are, and how digital tools affect learning. The study will assist in identifying common issues and advantages. Additionally, it seeks to compile student recommendations for enhancing the online learning environment. The results will assist institutions and teachers in creating better online courses

1.5 RESEARCH METHODOLOGY

Research methodology is the systematic plan for conducting research. In order to accomplish the goals of the study, it describes the methods, strategies, and procedures used for data collection, analysis, and interpretation.

RESEARCH DESIGN:

An organized plan for conducting a research study is called a research design. It describes the methodical setup of the parameters for data collection and analysis.

DESCRIPTIVE RESEARCH DESIGN:

A descriptive research design is appropriate for studies that seek to describe current conditions, attitudes, or practices. The purpose of this study is to evaluate how students feel about taking classes online by using data gathered from a structured questionnaire. The collected data is analyzed to determine preferences and influencing factors.



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SAMPLE DESIGN

The study's non-probability convenience sampling design was chosen because of real-world constraints like accessibility, cost, and time. The selection of respondents was based on their willingness to participate and availability. This approach effectively gathered pertinent data using the resources at hand, despite not being random.

SAMPLE SIZE

The survey was completed by 114 people in total. This sample size was thought to be sufficient for descriptive analysis and enabled insightful interpretation of preferences and consumption trends. It made sure that people of all ages were represented.

SAMPLING TECHNIQUE

Convenience sampling was used in the study. This indicates that students were chosen based on their willingness to complete the survey and their ease of availability. This approach was useful for gathering information from college and high school students.

STATISTICAL TOOLS

H-TEST (KRUSKAL-WALLIS H TEST)

The Kruskal-Wallis H Test is a non-parametric statistical test that determines whether there are significant differences between the medians of three or more distinct groups. It was used in this study to compare how students of various ages perceived their level of participation in online courses.

U-TEST (MANN-WHITNEY U TEST)

The Mann-Whitney U Test is a nonparametric test that determines whether two independent groups differ significantly in terms of a specific variable. This study looked at the differences between respondents who were male and female and who experienced more distractions during online classes.

CORRELATION ANALYSIS

Correlation analysis determines the strength and direction of a relationship between two variables. Spearman's Rank Correlation Coefficient was used in this study to evaluate correlations between respondents' location and internet speed.

1.6 LIMITATIONS OF STUDY

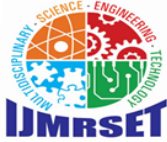
- The study was based on responses from only 114 students, which may not represent the entire student population
- The data was collected at a specific time, so perceptions may change over time.
- The responses were based on the subjective opinions of the students, which may be erroneous or biased.
- Participation was limited to students with digital devices and internet access, potentially excluding underprivileged groups.
- Because convenience sampling does not guarantee a representative or random sample, it may result in sampling bias.

II. DATA ANALYSIS AND INTERPRETATION

2.1 PERCENTAGE ANALYSIS

1. TABLE SHOWING AGE WISE CLASSIFICATION OF THE RESPONDENTS

GE	NO OF RESPONDENTS	PERCENTAGE
15 - 17	32	28
18 - 21	59	51.8
Above 22	23	20.2
TOTAL	114	100



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INTERPRETATION:

The table shows the distribution of individuals by age group. The data indicates that 51.8 % of survey participants are between the ages of 18 - 21, and a sizable portion 28%, are between the ages of 15 - 17. The age group of 22 and over has a lower percentage 20.2%

2.2.1 KRUSKAL-WALLIS H TEST

A Kruskal-Wallis H test was conducted to determine whether there is a significant difference across different age groups regarding their participation level.

H₀: There is no significant difference in the level of active participation across different age groups.

H₁: There is a significant difference in the level of active participation across different age groups.

2. TABLE SHOWING KRUSKAL-WALLIS H TEST BETWEEN AGE AND THEIR LEVEL OF ACTIVE PARTICIPATION

Statistic	Value
Kruskal-Wallis H	4.172
Degrees of Freedom (df)	4
Asymp. Sig. (p-value)	0.383

INTERPRETATION:

The Kruskal-Wallis H test showed a p-value of 0.383, which is greater than 0.05. Hence, the null hypothesis is accepted, indicating no significant difference in participation levels across age groups.

2.2.2 MANN-WHITNEY TEST

A Mann-Whitney U Test was conducted to examine whether there is a significant difference between male and female respondents who faced more distraction during online classes

H₀: There is no significant difference in distraction levels between males and females. H₁: There is a significant difference in distraction levels between males and females.

3. TABLE SHOWING MANN WHITNEY U TEST BETWEEN GENDER AND THEIR DISTRACTION LEVELS

Test Statistic	Value
Mann-Whitney U	83.500
Wilcoxon W	119.500
Z	-1.409
Asymp. Sig. (2-tailed)	0.159
Exact Sig. (2-tailed)	0.236

INTERPRETATION:

A Mann-Whitney U test was conducted to check the distraction levels between the gender. The p- value obtained was 0.159, which is greater than 0.05. Hence, the null hypothesis is accepted. It shows no significant difference in distraction levels between males and females.



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2.2.3 CORRELATION

A correlation analysis was conducted to examine the relationship between respondents' Eye Strain Issue and Difficult Concentration

H₀: There is no significant relationship between Eye Strain Issue and Difficult Concentration H₁: There is a significant relationship between Eye Strain Issue and Difficult Concentration

4. TABLE SHOWING CORRELATION BETWEEN EYE STRAIN ISSUE AND DIFFICULT CONCENTRATION

Measure Type	Correlation Value	Asymptotic Std. Error	Approximate T	Approximate Significance (p-value)
Pearson's R	0.409	0.076	4.749	< 0.001
Spearman Correlation	0.443	0.081	5.234	< 0.001
N (Valid Cases)	114			

INTERPRETATION:

There is a significant, moderate positive correlation between eye strain and difficulty in concentration during online classes. As students experience more eye strain, their ability to concentrate tends to decrease

III. FINDINGS

- Most respondents were female (50.9%), between the ages of 18 and 21 (51.8%), undergraduate students (32.5%), and from urban areas (57%) with 43% primarily using mobile phones for online classes.
- With 41% strongly agreeing that online learning is effective and 43% agreeing that it provides easy access, students generally thought it was both convenient and effective.
- Although 34% of students said they always participated in class, there was still opportunity for improvement as evidenced by the mixed responses regarding syllabus coverage (29% agreement) and instruction clarity (41% neutral).
- While 45% of respondents strongly agreed that internet speed should be good, more people had neutral opinions about audio and video quality (35% and 38%, respectively). Major challenges were identified as eye strain (34%), distractions (49%), and difficulty concentrating (31%).

3.1 SUGGESTIONS

- Enhance internet infrastructure by working with service providers or providing offline resources, and make learning platforms more mobile-friendly and data-efficient.
- Use interactive tools (such as polls and quizzes), multimedia content, and group projects and virtual office hours to encourage more interactions between students and teachers as well as between peers.
- Encourage screen breaks, offer ergonomic advice, and provide recorded lectures and self-paced modules to meet a range of learning needs in order to address both cognitive and physical challenges.
- Expand peer collaboration opportunities through forums that foster a greater sense of community and belonging in online classes, organized group discussions, and cooperative projects.



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IV. CONCLUSION

This study provides valuable information about how students view online courses, emphasizing their adaptability, practicality, and the benefits of recorded lectures for independent study. However, significant challenges remain, particularly distractions and eye strain from prolonged screen use in the home. The most important element affecting a successful learning experience was found to be dependable internet quality, which was followed by access to high-quality study materials and productive teacher interaction. The results highlight the necessity of strong technical infrastructure and improved instructional assistance. Enhancing digital content delivery, reducing physical strain, and encouraging interactivity are crucial for optimizing online learning. A comprehensive approach that balances flexibility and engagement will be essential for creating a more effective and sustainable online learning environment for students.

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