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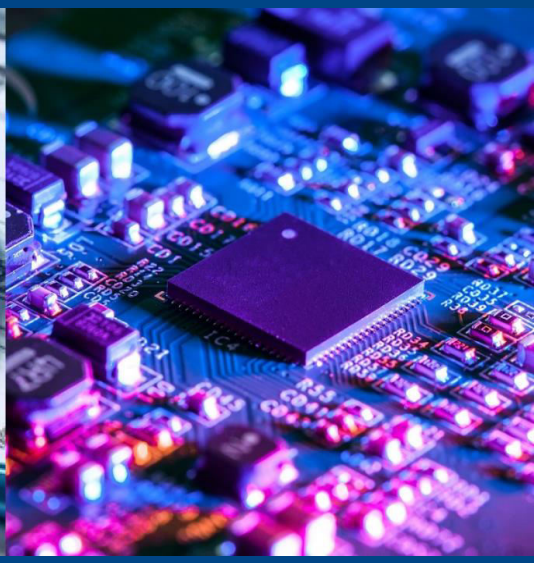

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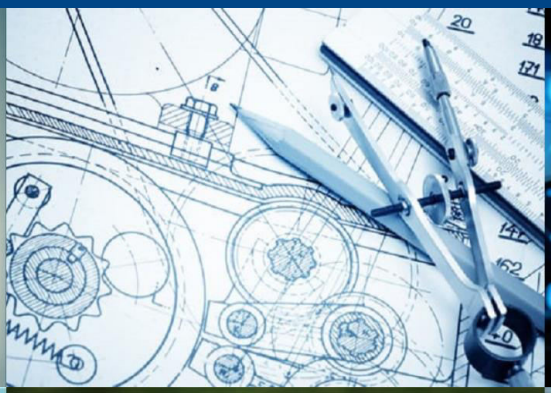

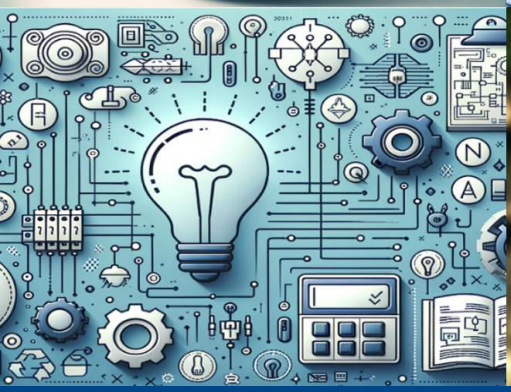

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A Study on Student Satisfaction Analysis on Edtech Tools in Training

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ABSTRACT: In the contemporary digital era, the rapid advancement of technology has brought a paradigm shift in the way education and training is delivered. Traditional methods of teaching, which relied heavily on physical classrooms and face-to-face interaction, are gradually being supplemented and in many cases replaced by technology-driven learning systems. This transformation has led to the emergence and widespread adoption of Educational Technology (EdTech), which integrates digital tools and platforms into the learning process to enhance accessibility, efficiency, and effectiveness. EdTech tools have become an integral component of modern training programs in both academic institutions and corporate environments. These tools include Learning Management Systems (LMS), virtual classrooms, mobile learning applications, video conferencing platforms, webinars, digital simulations, gamified learning systems, and online assessment tools. They facilitate structured learning experiences by enabling the delivery of content in various formats such as videos, presentations, quizzes, and interactive modules. The use of EdTech has significantly expanded the scope of education by breaking geographical barriers and enabling learners from diverse locations to access quality training resources. One of the most significant advantages of EdTech tools is their ability to provide flexible and learner-centric education. Unlike conventional classroom-based training, digital platforms allow learners to access content at their convenience, thereby supporting self-paced learning. This flexibility is particularly beneficial for students who need to balance education with other responsibilities such as work or personal commitments. Additionally, EdTech tools support personalized learning by adapting content to individual learning styles, preferences, and progress levels, thereby enhancing overall learning effectiveness.

KEYWORDS: EdTech tools, Student satisfaction, Digital learning, E-learning platforms, Training effectiveness, online education

I. INTRODUCTION

In the contemporary digital era, the rapid advancement of technology has brought a paradigm shift in the way education and training is delivered. Traditional methods of teaching, which relied heavily on physical classrooms and face-to-face interaction, are gradually being supplemented and in many cases replaced by technology-driven learning systems. This transformation has led to the emergence and widespread adoption of Educational Technology (EdTech), which integrates digital tools and platforms into the learning process to enhance accessibility, efficiency, and effectiveness.

EdTech tools have become an integral component of modern training programs in both academic institutions and corporate environments. These tools include Learning Management Systems (LMS), virtual classrooms, mobile learning applications, video conferencing platforms, webinars, digital simulations, gamified learning systems, and online assessment tools. They facilitate structured learning experiences by enabling the delivery of content in various formats such as videos, presentations, quizzes, and interactive modules. The use of EdTech has significantly expanded the scope of education by breaking geographical barriers and enabling learners from diverse locations to access quality training resources.

One of the most significant advantages of EdTech tools is their ability to provide flexible and learner-centric education. Unlike conventional classroom-based training, digital platforms allow learners to access content at their convenience, thereby supporting self-paced learning. This flexibility is particularly beneficial for students who need to balance education with other responsibilities such as work or personal commitments. Additionally, EdTech tools support personalized learning by adapting content to individual learning styles, preferences, and progress levels, thereby enhancing overall learning effectiveness.

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OBJECTIVES OF THE STUDY

- To analyze the usage pattern of EdTech tools among students.This objective focuses on identifying how frequently students use EdTech tools (daily, weekly, monthly, etc.) and understanding overall usage trends through percentage analysis.
- To measure the level of student satisfaction towards EdTech tools. This objective aims to evaluate how satisfied students are with their learning experience using EdTech platforms, considering factors such as flexibility, engagement, and effectiveness.
- To determine whether there is a significant relationship and difference between usage frequency and satisfaction levels. This objective involves applying statistical tools such as Chi-square, Correlation, and ANOVA to examine:
- Whether usage frequency influences satisfaction
- Whether differences in satisfaction levels across groups are statistically significant

II. REVIEW OF LITERATURE

D. Randy Garrison and Heather Kanuka (2004) introduced the concept of blended learning, which combines online and face-to-face methods. Their research highlighted that blended learning improves satisfaction by integrating the flexibility of digital platforms with the interaction of classroom learning. This approach addresses the limitations of purely online systems, such as lack of personal interaction.

Marc Rosenberg (2001) discussed the advantages of e-learning, including cost efficiency, scalability, and accessibility. He emphasized that digital learning platforms enable organizations to deliver consistent training to a large number of learners. However, he also pointed out that user satisfaction depends on ease of use and system reliability.

Kurt Kraiger (2002) proposed that training effectiveness should be evaluated across cognitive (knowledge), skill-based, and affective (attitude and satisfaction) dimensions. This highlights that student satisfaction is not just about enjoyment but also about how learners perceive the usefulness and applicability of the training.

Eduardo Salas et al. (2012) emphasized that learner motivation, feedback mechanisms, and opportunities for practical application are critical for training success. Their study suggests that even well-designed EdTech tools may fail if learners are not motivated or engaged.

III. RESEARCH METHODOLOGY

This study adopts a descriptive research design. Convenience sampling is adopted in this study. Both primary data and secondary data are applied to the study. The size of the sample to be used in this study is 102 respondents.Simple percentage analysis, chi square analysis, correlation and anova has been used in this study.

Data analysis and interpretation

Table No. 1 FREQUENTLY DO YOU USE EDTECH TOOLS

Frequency	Number of Respondents	Percentage (%)
Daily	30	29.41%
Weekly	28	27.45%
Occasionally	24	23.53%
Rarely	20	19.61%
Total	102	100%

Source: primary data

Interpretation

The frequency of using EdTech tools among the respondents. Out of a total sample size of 102, 30 respondents use EdTech tools daily, accounting for 29.41%, 28 respondents use them weekly representing 27.45%, 24 respondents use

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them occasionally accounting for 23.53%, and 20 respondents use them rarely representing 19.61%. The data indicates that respondents use EdTech tools at different levels of frequency.

Table No. 2 TYPES OF EDTECH TOOLS USED

Types of EdTech Tools	Number of Respondents	Percentage (%)
Learning Management Systems (LMS)	22	21.57%
Video Conferencing Tools	25	24.51%
Mobile Learning Apps	20	19.61%
All of the Above	35	34.31%
Total	102	100%

Source: primary data

Interpretation

The types of EdTech tools used by the respondents. Out of the total sample size of 102, 22 respondents use Learning Management Systems accounting for 21.57%, 25 respondents use video conferencing tools representing 24.51%, 20 respondents use mobile learning apps accounting for 19.61%, and 35 respondents use all of the above tools representing 34.31%. The data indicates that respondents use different types of EdTech tools in their learning process.

Table No. 3 OVERALL SATISFACTION WITH EDTECH TOOLS

Satisfaction Level	Number of Respondents	Percentage (%)
Highly Satisfied	26	25.49%
Satisfied	30	29.41%
Neutral	20	19.61%
Dissatisfied	14	13.73%
Highly Dissatisfied	12	11.76%
Total	102	100%

Source: primary data

Interpretation

The overall satisfaction of respondents with EdTech tools. Out of the total sample size of 102, 26 respondents are highly satisfied accounting for 25.49%, 30 respondents are satisfied representing 29.41%, 20 respondents are neutral accounting for 19.61%, 14 respondents are dissatisfied representing 13.73%, and 12 respondents are highly dissatisfied accounting for 11.76%. The data indicates that respondents have varying levels of satisfaction towards EdTech tools.

Table No. 4 EDTECH TOOLS IMPROVE SKILL DEVELOPMENT

Opinion	Number of Respondents	Percentage (%)
Strongly Agree	28	27.45%
Agree	32	31.37%
Neutral	18	17.65%
Disagree	14	13.73%
Strongly Disagree	10	9.80%
Total	102	100%

Source: primary data

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Interpretation

The opinions of respondents on whether EdTech tools improve skill development. Out of the total sample size of 102, 28 respondents strongly agree accounting for 27.45%, 32 respondents agree representing 31.37%, 18 respondents are neutral accounting for 17.65%, 14 respondents disagree representing 13.73%, and 10 respondents strongly disagree accounting for 9.80%. The data indicates that respondents have different opinions regarding the role of EdTech tools in skill development.

CORRELATION ANALYSIS

Relationship between how long have been using edtech tools and overall satisfaction with edtech tools.

Correlations			
		HOW LONG HAVE BEEN USING EDTECH TOOLS	OVERALL SATISFACTION WITH EDTECH TOOLS
HOW LONG HAVE BEEN USING EDTECH TOOLS	Pearson Correlation	1	0.116
	Sig. (2-tailed)		0.247
	N	102	102
OVERALL SATISFACTION WITH EDTECH TOOLS	Pearson Correlation	0.116	1
	Sig. (2-tailed)	0.247	
	N	102	102

INTERPRETATION:

The above table indicates that out of 102 respondents, co-efficient of correlation between how long have been using EDTech tools and overall satisfaction with EDTech tools is 0.116. It is below 1. So there is positive relationship between how long have been using EDTech tools and overall satisfaction with EDTech tools.

ANOVA TEST

To analyze the impact of types of Edtech tools used and Edtech tools improve skill development.

HYPOTHESIS TESTING

- **Null hypothesis (Ho):**

There is no significant relationship between types of Edtech tools used and Edtech tools improve skill development.

- **Alternate hypothesis (H1):**

There is a significant relationship between types of Edtech tools used and Edtech tools improve skill development.

ANOVA					
TYPES OF EDTECH TOOLS USED					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.68	4	2.92	2.093	0.088
Within Groups	135.34	97	1.395		
Total	147.02	101			

Interpretation

The table clearly shows that types of Edtech tools used and Edtech tools improve skill development has a figure on 2.093 values and significance around .088 level than the sum of squares between groups and within groups values have 11.680 and 135.340 respectively. Hence, the significant value is greater than 0.05 for which the significant percentage is above 95%, hence null hypothesis accepted. Thus, rejecting alternative hypothesis i.e., There is no significant relationship between types of Edtech tools used and Edtech tools improve skill development.

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IV. SUGGESTIONS

Based on the findings of the study, several important suggestions are proposed to improve the effectiveness of EdTech tools and enhance student satisfaction. Organizations and educational institutions should focus on improving the quality and relevance of content. Since satisfaction is not directly linked to usage frequency, providing well-structured, updated, and practical content will have a greater impact on learner experience. EdTech platforms should enhance user interface and ease of accessibility. A simple, intuitive, and user-friendly platform ensures that learners can navigate easily without confusion, thereby improving their overall experience. Incorporating interactive and engaging features is essential. Features such as live classes, quizzes, gamification, discussion forums, and real-time feedback can significantly improve engagement levels and reduce monotony in digital learning.

Institutions should emphasize personalized learning experiences. Adaptive learning systems that cater to individual learning speeds and preferences can help improve satisfaction levels among diverse learners. Improving technical infrastructure is crucial. Stable internet connectivity, minimal technical glitches, and responsive platform performance are necessary to ensure uninterrupted learning. Institutions should encourage active interaction between learners and instructors through doubt-clearing sessions, mentorship programs, and discussion-based learning approaches. Regular feedback collection and performance evaluation should be conducted to identify gaps and continuously improve the system.A balanced learning approach should be adopted by integrating digital tools with other effective teaching methods where necessary, ensuring better understanding and engagement.

Finally, organizations should focus on continuous innovation and updates in EdTech platforms to meet changing learner expectations and technological advancements.

V. CONCLUSION

The present study was conducted to examine the relationship between the frequency of usage of EdTech tools and student satisfaction levels. With the growing importance of digital learning, it becomes essential to understand whether increased usage leads to higher satisfaction among students. The findings reveal that a significant proportion of respondents are active users of EdTech tools, with 41.2% using them daily, 35.3% using them weekly, and 23.5% using them occasionally. In terms of satisfaction, a majority of respondents show a positive attitude, with 29.4% satisfied and 23.5% highly satisfied, contributing to an overall positive response rate of 52.9%.However, the Chi-Square test results indicate that the calculated value ($\chi^2 = 2.38$) is much lower than the table value (15.507) at a 5% level of significance with 8 degrees of freedom. Since $2.38 < 15.507$, the null hypothesis is accepted, confirming that there is no statistically significant relationship between usage frequency and satisfaction levels. This clearly shows that student satisfaction is independent of how frequently EdTech tools are used. Even though usage levels vary among respondents, satisfaction levels remain relatively consistent across all groups.

The study therefore concludes that the effectiveness of EdTech tools is not determined by usage frequency alone but is largely influenced by factors such as content quality, usability, engagement, and overall learning experience. In conclusion, to enhance student satisfaction and improve learning outcomes, institutions should adopt a quality-oriented and learner-centric approach rather than focusing only on increasing usage. By continuously improving platform features, content delivery, and user experience, organizations can ensure better acceptance and effectiveness of EdTech tools in the long run.

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