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The Impact of E-Learning Platforms

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Abstract
This report aims at determining the effects of e-learning platforms on students in Kristu Jyoti College of Management and Technology. A survey of 60 students revealed that they access e-learning platforms 2-3 times a week, mainly for academic and skill development courses. Users were generally satisfied with their user interface and design but faced technical issues, limited instructor interaction, and difficulty in staying engaged. Results indicate moderate improvement in achievement and successful online assessment. The study therefore concludes that e-learning platforms are beneficial, flexible, and effectively meet the different learning styles. Some recommendations will be focusing on technical issues and instructor interaction for improvement in e-learning experience.

Keywords: *E-Learning, Online Education, Student Satisfaction, Academic Performance.*

1. Introduction
According to Rosenberg (2001) and Wentling et al. (2000), e-learning is the use of Internet technologies that can provide a wide range of solutions to enhance knowledge and performance. It facilitates and enhances the learning through and based on the computer and communication technology. Education enlightens a person and puts them in the proper direction. It broadens one's knowledge and improves one's capacity to think critically. With the advancement of technology, both students and teachers must be imaginative in order to apply an innovative way of teaching called online tutoring. Definition of E-learning*: E-learning is actually an educational provision where the internet is used as a basis for providing education through the use of computers and communication technologies. It is flexible and can be accommodated to the learner's own pacing and location. E-learning began as correspondence courses in the 19th century, evolving further with advancements in technology, such as the internet and computers. Despite the availability of massive youthful population and educational infrastructure, quality disparities are there in education in terms of social background and teacher training calls for different approaches such as web-based learning. The concept of traditional education has changed radically within the last couple of years. Being physically present in a classroom isn't the only learning option anymore not with the rise of the internet and new technologies, at least. Nowadays, you have access to a quality education whenever and wherever you want, as long as you can get online. We are now entering a new era the revolution of online education [1].

1.1. Significance of the Study
The present study on e-learning platforms focuses on assessing their current state, effectiveness, and impact on education with special emphasis on Changanacherry Taluk. It aims at better access to and affordability of education quality for all-most importantly, the marginalized sections. The study will influence the design of online learning material activities and assessments. Decisions about efficient resource allocations would be framed on the basis of this study. It will identify best practices to boost student engagement and achievement, contributing to lifelong learning and workforce development strategies. It will also find out the means of developing criteria for assessment and evaluation frameworks to be used when assessing online learning programs. Study on impact of e-learning helps decision-makers allocate resources efficiently,

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ensuring that investments yield positive educational outcomes. It also allows educators to identify best practices and innovative approaches that enhance student engagement and achievement.

Research in this area can inform the development of lifelong learning strategies and workforce development initiatives. The research findings can contribute to the development of assessment criteria and evaluation frameworks for online learning programs [2].

1.2. Statement of Problem

The purpose of this study is to investigate the current state and effectiveness of e-learning platforms in India. Despite the rapid advancement of technology and the increasing availability of online education resources, there is a need to assess the impact of e-learning platforms on educational outcomes, accessibility, and inclusivity in the Indian context. The problem statement for this study is two-fold. Firstly, there is a lack of a comprehensive research and understanding regarding the various e-learning platforms operating in India, their features, strengths, limitations, and user experiences. This knowledge gap hampers the development of effective strategies to improve and optimize e-learning platforms for learners and educators.

Its aims at identifying those difficulties that students, educators, as well as institutions, face while trying to effectively adopt and implement e-learning technologies. Although e-learning platforms are becoming extremely popular with each passing day, significant barriers persist, such as inadequate digital infrastructure, lack of personalized learning experiences, limited access to quality content, and varying levels of digital literacy among users. The research focuses on detailing these problems, analyzing their impact on learning, and finding possible solutions that could increase the access, effectiveness, and sustainability of e-learning in the Indian context.

1.3. Objectives of the study

- To know about the impact of e-learning platforms on students.
- To analyze the satisfaction of users on e-learning platforms.
- To assess the effectiveness of e- learning platforms.
- To identify the challenges faced by students while using e-learning platforms.
- To know about the Current Scenario of E-Learning Platforms in India
- To suggest measures to improve learning on e-learning platforms [3].

2. Methodology of The Problem

The data collected are analyzed with the help of both mathematical and statistical tools. The major techniques used in the study include graphs and tables, and the analysis and interpretations were done by using bar diagrams and pie charts [4].

- **Tools for Analysis:** The data collected through questionnaire were analyzed using percentage analysis. Percentages were obtained when ratios are multiplied by 100. In the calculation of percentages, figure is taken as base and is represented by 100.
- **Tools for Presentation:** The data collected through questionnaire were presented using pie charts and bar diagrams is represented in percentage values.
- **Sample Design:** Here in the study the sample was drawn from the students of Kristu Jyoti College of Management and Technology. Convenient sampling was the type of sampling used for collecting data.
- **Sample Size:** Sample of 60 students were randomly selected from the population.
- **Type of data resources:** Data required for the study were collected from primary and secondary sources. Primary data were collected by providing structured questionnaires among the college students. The secondary data were collected from websites, published articles, journals etc.

2.1. Limitations of the Study

The research was confined to Kristu Jyoti College of Management and Technology, a college in Changanecherry Taluk.

- The number of respondents were limited in number due to place constraints.
- The time available to study a research problem is constrained.
- The number of respondents may be

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insufficient to make an appropriate conclusion.

2.2. Review of Literature

E-learning, one of the tools emerged from information technology, has been used by many students, shifting from traditional learning to electronic environment. To analyse the literature available on the topic "E-learning" various papers were referred to conduct the study. These are as follows: “An investigation of mobile learning apps in higher education in India," Mohd Shoaib Ansari (2017) stated that mobile learning apps can engage students with their learning environment at anytime and anywhere, and that in terms of effectiveness, nearly 42.64 percent respondents find mobile apps very effective, while 34.64 percent students find it effective. Learning apps assist the 4C's (Communication, Collaboration, Corporation, and Creativity) & 4S's (Communication, Collaboration, Corporation, and Creativity), according to Shahjad & K. Mustafa's (2019) study article "A trendy analysis on learning apps research" (Speed, Simplicity, Security & Sharing). SHARMA, 2014 explored the relationship between scholars' disciplines and their elearning responses and attitudes. the researchers applied the pc and e-learning angle scale to 477 students in various courses spanning half dozen major disciplines at the geographical area university in Chandigarh, India, using survey questionnaires. The researchers found a close relationship between student disciplines and scale on pc and e-learning angle variables that set stress on the department's role in learning and scholars' satisfaction level. They also noted that educational applications help children understand things more easily. Apps are fantastic tools for including children in studies and other brain exercises; they broaden learning and allow children to progress at their own speed. (MORAVEC, 2015) clarified how e-learning resources influence student success. Nearly 2000 students attended the study. The research contrasts the results of questions from the area of law where the tool was given in a pilot edition with the results of questions from the area of law where the e-learning tool was not provided, according to Moravec (2015). The students’ outcomes were influenced by the e-learning methods, the researchers found. Even so, the hypothesis that the e-learning tool can have a detrimental impact on students who rely on given materials has been debunked. (FISCHER, 2015) studied however proceedings of scientific conferences may be used for trend studies within the field of e-learning. They examined the abstracts of 427 scientific articles of leading German-speaking e-learning conferences from 2007 to 2013. The study was conducted at German-speaking conferences and, thus, reflects the case in Germany, svizzera and Austria. Fischer et al. (2015) created a crucial contribution to the diffusion of digital media in educational activity. The researchers found that the careful analysis of the distribution over the seven years reflects the intensity of scientific discussion towards elearning trends, and conclusions concerning the instructive or technical potentials of innovations may be introduced. Specifically, they found the event potential of learning management, mobile learning, virtual worlds, e-portfolio, social media, and big open online courses are crucial for e-learning in German educational activity. (AJADI, SALAWU, & ADEOYE, 2008) Technology rapidly evolves and its innovations have had a positive impact on our daily lives. It also brings revolution in the field of education and research. E-learning can refer to the situation where the interaction between the students and the teacher is done through online system. Students receive training and teaching through online system and teacher may also in the same building with them.

2.3. Theoretical Framework

2.3.1. Meaning of e-learning

- The term e-learning refers to the utilization of electronic technologies to access learning material, typically via the internet. It encompasses a wide range of learning experiences, including online courses, virtual classrooms, webinars, and digital resources such as videos, interactive quizzes, and assignments. E-learning involves accessing material at one’s own pace, which makes it flexible and convenient. It is, therefore, used both in academic institutions and professional development programs.

2.3.2. Advantages of e-learning Platforms

- Flexibility: These platforms ensure access to

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courses anytime, anywhere, allowing learners to balance education with personal and professional commitments.
- Cost-Effective: These reduce expenses caused by travel, accommodation, and physical learning material.
- Wide Range of Resources: They can enable wide ranges of resources within one platform, including diverse content, expert instructors, and interactive tools to cater to various learning styles.
- Self-Paced Learning: It allows learners to learn at their own pace while being able to review content.
- Global Connectivity: It allows interaction with other learners across the world as well as professionals, providing a collaborative learning environment.
- Eco-Friendly: It reduces the use of paper and physical infrastructure, henceforth reducing the environmental footprint.

2.3.3. Disadvantages of e-learning Platforms

- Limited Social Interaction: Does not provide for face-to-face communication that can demote personal relationships and teamwork.
- Technical Issues: Depends on stable internet and devices, which would not be so easy to get along with in the areas that lack proper connectivity or resources.
- Self-Motivation Required: A great amount of discipline and time management is required, which may not be possible for many learners.
- Quality Concerns: The credibility and accuracy of content would vary across platforms.
- Health Issues: Continued exposure to screens may lead to physical discomfort, such as eye strain and poor posture.
- Digital Divide: Removes from the pool the non-tech users and internet ones, thus widening the educational gap.

2.3.4. Top e-learning Platforms in India are;

- Byju's: Famous for its interactive video lessons and learning options with other online resources for K-12 and competitive exams.
- Unacademy: A popular platform offering live classes and test preparation for competitive exams such as UPSC, SSC, etc.
- Vedantu: The name is synonymous with live online tutoring and personalized learning for school students and competitive exams.
- Coursera: Offers a variety of university-level courses, certifications, and specializations it partners with international institutions.
- EdX: High-class courses by top universities from around the globe, created for higher education and skill development.
- UpGrad: Specializing in professional courses as well as industry-relevant certifications for career progression.

2.3.5. Challengers Faces by the e-learning Users

E-learning platforms are very advantageous, but they come with various problems when used by the users. Some of the main problems e-learning users face are discussed below:

2.3.6. Technical Issues

- Connectivity: Limited or unstable internet connectivity mainly in rural areas.
- Device Accessibility: Inaccessible laptops, tablets, and smartphones.
- Software Compatibility: Inadequate platform requirement and related compatibility issues

2.3.7. Digital Literacy

- Most users especially older learners feel frustrated when they cannot understand how to use the e-learning tools and the interfaces of the platforms.

2.3.8. Lack of Interaction

- Probably least interaction or having less face-to-face interaction that may cause isolation.
- They lack a real-time feedback channel from their instructors or receive it after a delay in most cases.

2.3.9. Motivation and Engagement

- The course requires self-discipline, and most students lack motivation to continue.
- Most students do not engage effectively because of the absence of a structured learning environment.

2.3.10. Content Quality

- Some platforms have content that is outdated,

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unassociated with our needs, or poorly designed. For non-native learners, language will also be a barrier to learning.

2.3.11. Assessment and Credibility

- Concern about online assessment and certification credibility.
- It's hard to assess practical skills where the subject needed to be practiced.

2.3.12. Cost Barriers

- Expensive premium courses or platforms may be inaccessible to many learners.
- Cost invisible: good device or computer and software are sometimes required.

2.3.13. Health Issues

- Use of screens contributes to adverse effects such as eye strain and physical distress.
- Sedentary lifestyles while learning online can contribute to reduced physical activity.

2.3.14. Cultural and Linguistic Barriers

- Platforms may not cater to diverse cultural contexts or regional languages.
- Limited representation of local content and examples.

2.3.15. Cybersecurity Risks

- Concerns about data privacy and the security of personal information.
- Risks of phishing attacks or misuse of online platforms.

2.4. Tables

Table 1 Distribution of Showing Respondents Effectiveness of Online Assessments

Effectiveness	Frequency	Percentage
Very effective	7	12%
Effective	31	51%
Neutral	16	27%
Ineffective	4	7%
Very ineffective	2	3%
Total	60	100%

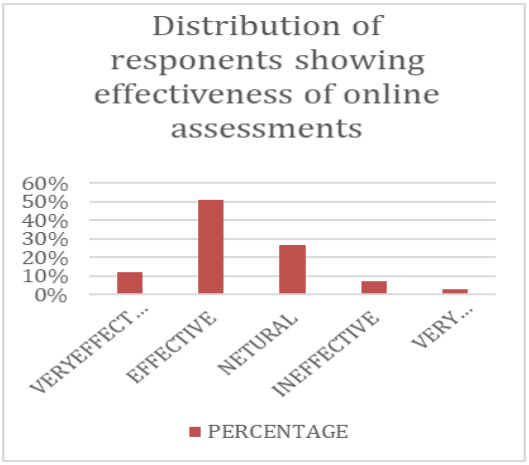

Figure 1 Effectiveness of Online Assessments

Figure 1 shows 12% of the respondents' rate e-learning platforms as very effective.51% of the respondents' rate e-learning platforms as effective. 27% of the respondents' rate e-learning platforms as neutral. 7% of the respondents' rate e-learning as ineffective3% of the respondents' rate e-learning platforms as very ineffective. Thus, most respondents find it effective, shown in table 1 & table 2.

Table 2 Distribution of Respondents Showing Courses Mostly They Use

Courses	Frequency	Percentage
Academic Course	14	23%
Skill development course	9	15%
Both	31	52%
Others	6	10%
Total	60	100%

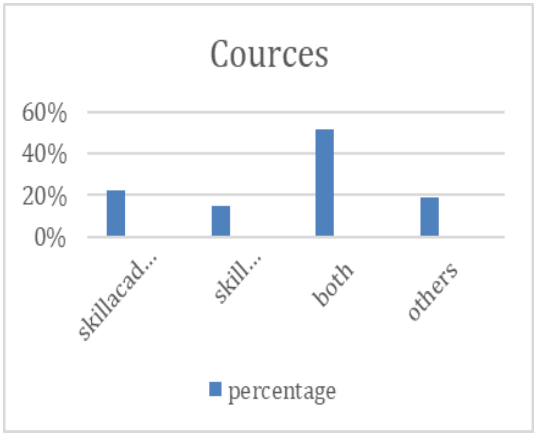

Figure 2 Percentage

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Figure 2 shows 23% of the respondents uses academic courses on e-learning platforms. 15% of the respondents uses skill development courses on e-learning platforms. 52% of the respondents uses both courses on e-learning platforms. 10% of the respondents uses other courses on e-learning platforms. Most respondents use both courses according to the data.

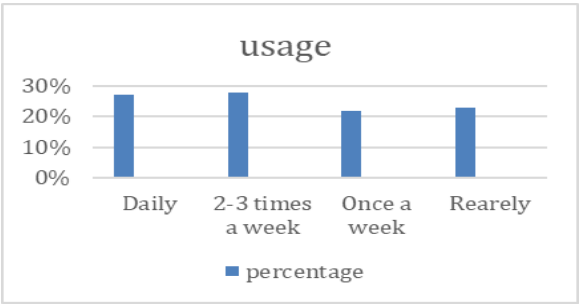

Figure 3 E-Learning Platforms on a Daily Basis

Table 3 Distribution of Respondents on The Basis of Usage of E-Learning Platforms

USAGE	FREQUENCY	PERCENTAGE
Daily	16	27%
2-3times a week	17	28%
Once a week	13	22%
Rarely	14	23%
TOTAL	60	100%

Figure 3 shows of the respondents 27% uses the e-learning platforms on a daily basis. 28% of the respondents uses the e-learning platforms 2-3 times a week. 22% percentage uses the e-learning platforms once a week. 23% of the respondents uses the e-learning platforms rarely. Most of the users uses the e-learning platforms 2-3 times a week, table 3.

Table 4 Distribution of Respondents Showing the Level of Accessibility

Level of accessibility	Frequency	Percentage
Very accessible	22	37%
Somewhat accessible	23	38%
Not very accesible	13	22%
Not accessible at all	2	3%
Total	60	100%

Figure 4 shows 37% of the respondents find e-learning very accessible. 38% of the respondents find it somewhat accessible. 22% of the respondents find e-learning not very accessible. 3% of the respondents find e-learning not accessible at all. Thus, most of the respondents find it accessible, table 4.

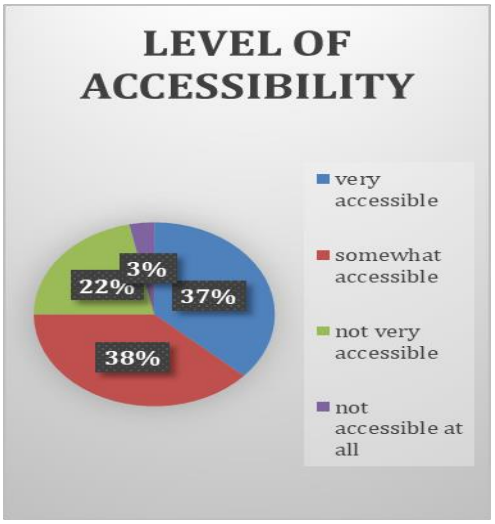

Figure 4 Level of Accessibility

Table 5 Facing Challenges

Challenges	Frequency	Percentage
Technical issues	17	29%
Lack of motivation	17	28%
Difficulty in staying motivated	17	28%
Poor internet	9	15%
Total	60	100%

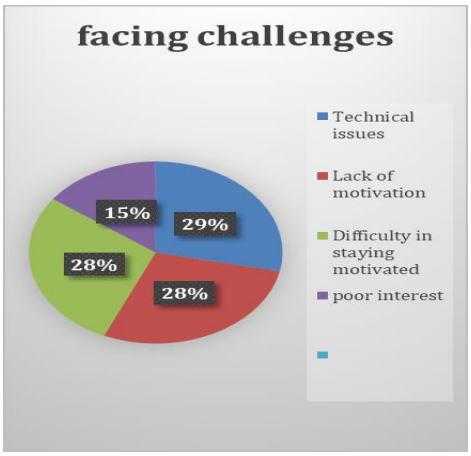

Figure 5 Facing Challenges

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Figure 5 shows 29% of respondents are facing technical issues while using elearning platforms.28% of the respondents are lacking interaction with instructors while using e-learning platforms. 28% of respondents are lacking motivation.15% of the respondents are facing poor connectivity, table 5.

Table 6 Level of Application

Level of application	Frequency	Percentage
Significantly	14	23%
Moderately	38	63%
Slightly	7	12%
Not at all	1	2%
Total	60	100%

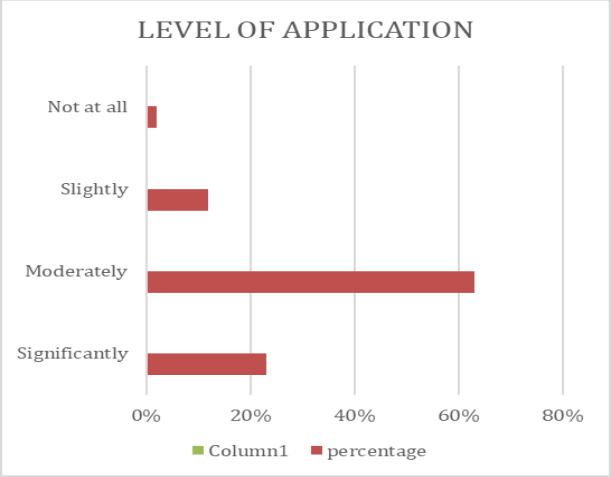

Figure 6 Level of Application

3. Results and Discussions

3.1. Results

The result of the project is a detailed reflection of how successful the project was in reaching pre-established goals and producing value towards stakeholders. It encompasses the tangible and intangible outcomes from the completion of project tasks and activities. Tangible results usually represent such deliverables as products and services, or delivered reports, while intangible benefits aim to illustrate improvement in processes, skills, or relationships. Some essential components of project results relate to the completion of scope within a set timeframe and budget, meeting stakeholder expectations, and overcoming identified challenges. For instance, the project might yield such results as improved operational efficiency, cost cutting, better customer satisfaction, or team cooperation. Also, the innovative solutions developed during the project may produce long-term benefits, such as new opportunities or improved organizational reputation. The evaluation of the result is, therefore, the assessment of the extent to which the goals of a project have been met, the quality of outcomes, and their sustainability. It also considers lessons learned and areas for improvement that contribute to the success of subsequent projects. Of course, a mere result means pursuing outputs but ensuring meaningful impact, continuous learning, and value for all parties involved, shown in TABLE 6 Figure 6.

3.2. Discussion

Students use e-learning platforms 2-3 times a week, mainly for academic and skill development courses, and are generally satisfied with the user interface and design. However, challenges such as technical issues, lack of interaction with instructors, and difficulty staying engaged remain prominent. While the platforms have moderately improved academic performance and online assessments are effective, improvements needed in teacher-student feedback, reduction of learner isolation, and usage of the platforms for the greater good. Further, creating awareness among digitally illiterate individuals and addressing issues of accreditation and quality assurance is critical for broader access and reliability.

3.3. Findings

- E-learning platforms are used 2-3 times a week by most students.
- Both academic and skill development courses are mostly accessed on e- learning platforms
- Challenges faced while using e-learning platforms are technical issues, lack of interaction with instructors and difficulty in staying involved.
- Influence of e-learning platforms on overall academic performance has improved moderately.
- Online assessments conducted were effective.
- E-learning platforms to students with disability are somewhat accessible.

3.4. Suggestions

- Improve Teacher to Student Feedback and

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vice versa.

- The feel Isolation of learner should be eliminated.
- Make sure all these platforms are used fruitfully.
- Inaccessible to digitally illiterate people, so they need to be made aware of this.
- Issues with Accreditation and Quality Assurance.
- Requires self-motivation and efficient time management skills

Conclusion

E-learning is nothing but learning with the help of internet using device that poses hardware and software. An online learning platform allows students to access and absorb educational content in a strictly digital fashion, in either groups or individual settings. Online learning can take place live at set times, or it can entail pre-recorded lessons for students to complete on their own time. The platforms used for learning are nothing but e-learning platforms like JARO EDUCATION, IGNOU, UNACADEMY, TOPPR and much more. E-learning platforms are very useful for studies, and it makes studies in a interesting way. Most of the students are satisfied with the subscription of E-Learning apps and agrees that the apps are flexible, comfortable and effective. Remote learning platforms are the future of education. Even after the global health crisis is over, there will likely be a surge of students looking to improve their knowledge and career through self-paced online training. A significant advantage of online learning is that students can learn anything they want. They can advance their academic career or choose to study something else entirely. They can polish their soft skills or take those art or music production lessons they have always wanted to attend.

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