

A Study on Knowledge, Skills and Attitude Among Under Graduate Students of Government Colleges Regarding E-learning in Dakshina Kannada District, Karnataka, India

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Abstract

The development in Information Communication Technology has resulted in changing trend in learning. The digital learning platform has shifted the momentum of information-gathering than in traditional learning methods and plays a vital role in transforming Information/Knowledge in the most efficient way with effective audiovisuals. In India, the COVID-19 pandemic has opened the way to rise the use of digital platforms for learning in higher education. During the pandemic, the digital learning method helped the students a lot to keep consistency and continuity in learning. These experiences have even more increased the intensity of implementing digital learning methods in higher education for improved performance, skilling and mastery in the field of study of students. The objective of the study is to know the level of knowledge, skills, and attitude of the students of under graduation regarding E-learning. The aim of this study is understanding and analyzing the knowledge, skills, and attitude of undergraduate students regarding digital learning so as to identify the barriers and necessary actions to be taken for implementing digital learning in higher education as aspired in NEP 2020. The online survey method was used through Google form for the collection of primary data and a simple mathematical method of percentage calculation is used to analyze the data.

Keywords: E-learning, knowledge, skills, attitude, under graduate

INTRODUCTION

The educational system has been undergoing various changes of its development. At every phase, the change is significant. Indian educational system has been putting off its age-old traditional method

of education and putting on the new one with expeditiously changing times. Earlier, it was a traditional and classroom-based constricted one. Presently, it has become a more modernized and digitalized one. E-learning is part of the education system in developed nations for decades but developing nations started adopting online learning after the COVID-19 pandemic which disrupted education all over the world for almost 3 years from 2019 to 2021. Learning through Online became as an alternative to face-to-face education during COVID-19 pandemic. Internet and education have been integrated to provide students with the necessary skills in the future [1].

A learning system based on formalized teaching but with the help of electronic resources is known

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as E-learning. Elliott Maisie who is considered to be the expert in the field of technical education has coined the term “E-learning” in 1999. As E-learning developed, the ability to integrate components such as audios, videos, images and graphics have proved to be a more suitable way of keeping learners engaged compared to traditional classroom-based learning.

“We need to bring learning to people instead of people to learning.”

—Elliott Masie

As we are living in an era of the Internet and Information Technology providing plenty of opportunities to gain knowledge, it should be utilized for the betterment of students. This can be achieved only by the use of Information Technology and the web based platforms as the medium of delivery of knowledge. As India is a country having the largest young population in the world unable to provide quality education for all due to constraints such as financial and social problems. To fulfill the educational demand, India adopted the E-learning method in the higher education system. To achieve this, Ministry of Education, Government of India has implemented New Education Policy 2020 emphasizing Digital learning.

In this research work, researchers are examining the knowledge, skills and attitude of students of under graduation regarding E-learning so as to suggest necessary actions to be taken to facilitate E-learning in higher education to achieve the aspiration of NEP 2020.

REVIEW OF LITERATURE

The illiterate of this era is the person who does not know to use a computer. Traditional learning provides limited knowledge of the specific subject as it depends on printed sources. E-learning can be a useful tool in enhancing the learning experience and students are more open to the upcoming change in teaching methods. The lack of knowledge in computer skills along with poor technological infrastructure and resources can be a challenge for the implementation of E-learning [2]. The clinical field is developing more rapidly, and inventions are made every day. E-learning plays an important role in acquiring knowledge and skills along with other learning methods in an educational institute. Thus, there is a need to improve the necessary infrastructure and include E-learning as a part of the curriculum in education [3]. Technological interventions in communication make the knowledge available on the tip of everyone’s finger. Undergraduate students have a positive attitude towards E-learning because they understand that it is easy to use and also effective for their studies. It can also be concluded that if E-learning is readily/easily available, then students’ attitudes will be favorable toward its use [4]. Students can get instant information through online. Perception of the students using E-learning is that it helps increase the knowledge and skills than that of traditional learning [5]. Students studying in humanities subject lag behind in learning online as they think computers are useful to only students studying technical stream.

The attitude of undergraduate students belonging to the Commerce stream is higher as compared to others is significant. So that, essential actions should be taken to develop the attitude similarly of the undergraduate students in the Arts and Science stream toward E-learning [6]. The children of the present day have a better understanding of using different applications to get information that they desired. E-learning is emerging as the future trend of learning in India and it would be most influential in the upcoming times [7]. All the services being given by the government are becoming online based since last decade. With the vision of Digital India program, transforming India into a digitally empowered society and knowledge economy, the education sector of India will be witnessing major growth in the upcoming years. Education system led by technology will bring about a socio-economic difference in the lives of Indian learners [8]. Though, learning online misses human contact and students may become insensitive to human relations and there might be chances of being diverted from the aimed knowledge. Perhaps, learning online worked as a temporal alternative because of

COVID-19, it cannot be substitute for face-to-face learning. The blended learning would help in providing a rigorous learning environment [9].

METHODOLOGY

Descriptive research design is used to describe the knowledge, skills and attitude of undergraduate students regarding E-learning. This research study is based on the primary data collected through an electronic questionnaire prepared and circulated by researchers among the students through electronic media.

Aim of the Study

The aim of the study is to analyze the knowledge, skills and right attitude of students of under graduation towards E-learning, so as to achieve the aspiration of NEP 2020 which emphasizes digital learning.

Objectives of the Study

1. To test the knowledge of undergraduate students of Dakshina Kannada district regarding E-learning.
2. To test the skills of undergraduate students of Dakshina Kannada district regarding E-learning.
3. To get an understanding about the attitude of undergraduate students of Dakshina Kannada district regarding E-learning.

Population and Sample Size

The population of the study is students studying graduation in government first-grade colleges of Dakshina Kannada district of Karnataka state of India. Total number of students studying graduation in Dakshina Kannada District is 6918.

The sample size is 82 students studying different undergraduate courses in different government first-grade colleges of Dakshina Kannada district of Karnataka state of India.

Tools of Data Collection

The electronic questionnaire containing 50 questions dividing four parts is used. The first part contains questions on demographic details such as name, age, gender, place of college and place of respondents. The second part contains 12 questions on the knowledge of respondents regarding E-learning. The third part contains 8 questions on the skills of respondents regarding E-learning. The fourth part contains 30 questions on attitudes of respondents regarding E-learning.

Method of Data Collection

The questionnaire was designed electronically on Google forms and the link was shared with faculty members of different undergraduate colleges in Dakshina Kannada District asking them to circulate the questionnaire with their students' groups via electronic communication media to fill it out. A precursor was presented on the first page of the Google form explaining the purpose of the study so as to encourage the respondents to participate in the study.

ANALYSIS

Data analysis was performed through statistical technique of percentage.

The majority of the respondents (70.7%) are females, 26.8% are males and only one respondent (2.4%) preferred not say gender. The majority of the respondents (53.6%) are studying BSW course, 24.4% are B.Com., 12.2% are B.Sc. and 9.8% are BA. The majority of the respondents (46.3%) are studying in their second year of graduation, 36.6% in their final year and 17.1% in their first year.

Regarding knowledge about E-learning, the majority of the respondents (68.3%) know what does "E" stand for when we say E-learning and 31.7% gave wrong answers. Only 51.2% of the respondents

knew the meaning of E-learning and 48.8% of the respondents think wrong. 51.2% of the respondents say they know some E-learning platforms such as Byju's, LMS, Unacademy, Coursera, Skillshare, Udemy and springboard, and 48.8% say 'don't know'. The majority of the respondents (58.5%) do not know the meaning of virtual classroom and only 41.5% of respondents know it. The majority of the respondents (90.2%) know the full form of LMS and 9.8% do not know.

The majority of the respondents (58.5%) feel that relevant content and interactivity is very important in E-learning, 29.3% say a web page, 7.3% say course fee and 4.9% students say attractive titles. The majority of the respondents (51.2%) do not know the full form of MOOCS and 48.8% know it. The majority of the respondents (58.5%) do not know full form of SWAYAM and 41.5% know it.

On basis of the above responses given by the respondents, we can conclude that 60.9% of students have knowledge of regarding E-learning which we can consider as moderate level (Table 1).

With regard to assess the skills of undergraduate students regarding E-learning, the researchers gave 8 statements reflecting skills necessary for E-learning i.e. good enough at using computer/tab, comfortable in communicating Electronically, capable of submitting my assignments through online, capable of managing time to study through E-learning, maintain, update, and fix technical issues during E-learning, confident in performing basic functions in computer (MS Office), good enough at Internet browsing to search E-sources relevant to study topics and confident enough to understand the information available through E-Sources.

The majority of the students (46.3%) agree that they are good enough at using computers/tab for E-learning, 36.6% are Neutral, 9.8% strongly agree, 4.9% disagree and 2.4% strongly disagree. The majority of the students (46.3%) agree that they are comfortable communicating electronically for E-learning, 36.6% are Neutral, 14.6% strongly agree, 2.4% disagree and none of them disagreed strongly.

The majority of the students (53.7%) agree that they are capable of submitting their assignments online, 17.1% are Neutral, 17.1% strongly agree, 12.2% disagree and none of them disagreed strongly. The majority of the students (63.4%) agree that they are capable of managing their time to study through E-learning, 22% are Neutral, 9.8% strongly agree, 2.4% disagree and 2.4% disagreed strongly.

The majority of the students (48.8%) agree that they can maintain, update, and fix technical issues during E-learning, 29.3% are Neutral, 14.6% strongly agree, 7.3% disagree and none disagreed strongly. The majority of the students (48.8%) agree that they are confident in performing basic functions in computers (MS Office), 24.4% are Neutral, 14.6% strongly agree, 9.8% disagree and 2.4% disagreed strongly.

Table 1. Knowledge of Students regarding E-learning.

S. No.	Questions	Answered correctly	Answered wrong	Total percentage
1	When we say E-learning, what does "E" stands for?	68.3%	31.7%	100%
2	Do you know about E-learning?	51.2%	48.8%	100%
3	Do you know any E-learning Platforms?	51.2%	48.8%	100%
4	What is meant by Virtual Classroom?	58.5%	41.5%	100%
5	What is LMS stands for?	90.2%	9.8%	100%
6	What is the Important element in E-learning?	58.5%	41.5%	100%
7	What is MOOCS stand for?	51.2%	48.8%	100%
8	What is SWAYAM stand for?	58.5%	41.5%	100%
	Average Percentage	60.95%	39.05%	100%

Table 2. Skills of students regarding E-learning.

S. No.	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total percentage
1	I am good enough at using Computer/Tab for E-learning	9.8%	46.3%	36.6%	4.9%	2.4%	100%
2	I am comfortable in communicating Electronically	14.6%	46.3%	36.6%	2.4%	00%	100%
3	I am capable of submitting my assignments online	17.1%	53.7%	17.1%	12.2%	00%	100%
4	I am capable of managing my time to study through E-learning	9.8%	63.4%	22%	2.4%	2.4%	100%
5	I can maintain, update, and fix technical issues during E-learning	14.6%	48.8%	29.3%	7.3%	00%	100%
6	I am confident in performing basic functions in computer (MS Office)	14.6%	48.8%	24.4%	9.8%	2.4%	100%
7	I am good enough at Internet browsing to search E-sources relevant to my study topics	12.2%	58.5%	17.1%	12.2%	00%	100%
8	I am Confident enough to understand the information available through E-Sources	17.1%	61%	14.6%	7.3%	00%	100%
	Average Percentage	13.72%	53.35%	24.71%	7.31%	0.90%	100%

The majority of the students (58.5%) agree that they are good enough at Internet browsing to search E-sources relevant to study topics, 17.1% are Neutral, 12.2% strongly agree, 12.2% disagree and none disagreed strongly.

The majority of the students (61%) agree that they are confident enough to understand the information available through E-Sources, 17.1% strongly agree, 14.6% are Neutral, 7.3% disagree and none disagreed strongly.

On the basis of answers given by the respondents, the Table 2 reflects the students have a moderate level of skills as they responded as agree (53.35%) to the statements and as only 13.72% of respondents say strongly agree, we can say very less number of students have strong skills in learning online.

A 5-point scale (strongly agree, agree, neutral, disagree, strongly disagree) was used to assess the positive attitude of the students with 24 positive attitudinal statements. An average of 46.1% of respondents agreed in favor of positive attitude regarding E-learning, 28.9% are neutral, 11.9% disagreed, 9.3% strongly agreed and 3.9% strongly disagreed.

The majority of respondents (63.4%) have access to E-learning and 36.6% does not have. The majority of the respondents (41.5%) say they do not know how to use Computer/tab, (39%) say signal problem is the reason for not having access to E-learning and 19.5% students say cost of computer/tab and internet connection is too expensive. The majority of the respondents (65.9%) use smart phones for E-learning, 17.1% use laptop, 12.2% use tab and 4.9% use desktop (Table 3).

The majority of the respondents (63.4%) spend 1–2 h for E-learning, 12.2% do not spend and 7.3% respondents spend 2–3 h/day.

Table 3. Attitude of students regarding E-learning.

S. N.	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total percentage
1	I like to learn through online	19.5%	39%	22%	14.6%	4.9%	100%
2	I feel E-learning is very effective	7.3%	51.2%	34.1%	4.9%	2.4%	100%
3	I feel E-learning is Joyful	2.4%	51.2%	36.6%	7.3%	2.4%	100%
4	I feel E-learning is more motivating than Traditional Learning	7.3%	34.1%	31.7%	22%	4.9%	100%
5	I feel E-learning make the study more interesting	4.9%	51.2%	31.7%	9.8%	2.4%	100%
6	I feel E-learning Enhances the self-efficacy of learning	7.3%	34.1%	34.1%	19.5%	4.9%	100%
7	I feel E-learning is helpful in upgrading Knowledge and skills	24.4%	53.7%	12.2%	4.9%	4.9%	100%
8	I feel the information provided in E-learning is easily understandable	2.4%	58.5%	24.4%	9.8%	4.9%	100%
9	I feel the information provided in E-learning is Accurate	7.3%	43.9%	31.7%	14.6%	2.4%	100%
10	E-resources are very helpful rather preparing/making notes	7.3%	53.7%	26.8%	7.3%	4.9%	100%
11	E-learning is helpful in saving time	9.8%	61%	14.6%	2.4%	12.2%	100%
12	I feel, Learner's response is very less in E-learning	7.3%	46.3%	34.1%	7.3%	4.9%	100%
13	I feel, weak signals and disruption in between are lesser the interest of the learner	14.6%	41.5%	29.3%	14.6%	00%	100%
14	I face difficulty in asking questions during E-learning	4.9%	43.9%	31.7%	17.1%	2.4%	100%
15	I feel anonymity in E-learning	12.2%	34.1%	34.1%	19.5%	00%	100%
16	I feel, Discussions are not very effective and intensive in E-learning	4.9%	41.5%	39%	14.6%	00%	100%
17	I feel, teachers will not focus on individual development of the learners	12.2%	36.6%	29.3%	19.5%	2.4%	100%
18	I feel inferior during online class	4.9%	41.5%	39%	12.2%	2.4%	100%
19	I feel that the physical strain (travelling) for getting resources is reduced through E-learning	7.3%	46.3%	31.7%	12.2%	2.4%	100%
20	I feel, we will get ability to connect with experts in the field across the glob	17.1%	58.5%	22%	2.4%	00%	100%
21	E-learning provides possibility updating knowledge as soon as new knowledge added to field	9.8%	58.5%	22%	4.9%	4.9%	100%
22	Self-development becomes easy through E-learning	17.1%	58.5%	14.6%	7.3%	2.4%	100%
23	I prefer E-learning than Traditional learning system	14.6%	43.9%	31.7%	7.3%	2.4%	100%
24	I feel E-learning is stressful	7.3%	24.4%	36.6%	31.7%	00%	100%
	Average percentage	9.3%	46.1%	28.9%	11.9%	3.9%	100%

RESULTS/DISCUSSION

From the analysis of data collected by respondents, researchers have come to conclusion that the undergraduate students studying in government colleges of Dakshina Kannada district have a moderate level of knowledge (60.9%), skills (67%) and positive attitude (55.4%) regarding E-learning. Most of the students do not have proper access to E-learning.

Recommendations

- Awareness and knowledge must be raised among students regarding the meaning, access and platforms of E-learning through introducing subject in under graduate level.
- Skills in using a computer must be increased by providing lab facilities for students studying in government colleges of undergraduate.
- A blended mode of teaching-learning methods is appropriate rather than complete online learning or traditional learning method.

CONCLUSION

As all the areas being digitalized, strategies to improve E-learning environment in higher education institutions is the urgent need for educational development and to meet the learning needs of the students. To achieve this, proper knowledge, awareness and skills are essential. It should be incorporated among students through proper access to E-learning in educational institutes. E-learning alone cannot serve the purpose of education, but the blended learning method can. Teacher-guided online learning method may be appropriate for the students' comprehensive development.

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