

21st Century Skills - Perception of College Students Towards e-learning

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Abstract

Digital education is an innovative approach in the present education era. E-learning is known as the use of digital tools, devices and technologies in the teaching-learning process. It depends upon the technological devices, applications and internet facility. Different kinds of educational platforms and tools are available, which are used by the teacher to deliver the content through online learning. The objective of this present study is to find out the perception of college students on e-learning, particularly skills required for 21st century learners. 109 students studying in UG and PG programmes were selected as samples. A questionnaire was used to find out the perception of e-learning among the samples. The study results revealed that the samples are having good perception of e-learning. They also shared that the skills such as communication skills, presentation skills, critical thinking, technical skill and time management are improved through e-learning.

Keywords: E-Learning, College students and 21st Century Skills

Introduction

Web-based learning is referred to as e-learning. Allencor company (2018) describes that e-learning is an instructional method that utilizes digital assets to deliver content to grow knowledge, shape behaviours, and increase motivation. In these learning systems, electronic devices such as computers, mobiles, tablets and the internet play a major role in the teaching-learning process. Live lectures, video conferencing and webinars are the various modes to transfer the content and knowledge. E-learning enhances the ability to learn and implement the learned content among the learners. The audio-visual materials help in remembering knowledge for a longer time. This e-learning system allows the teachers to cover the curricular content easily and regularly. Students can also

avail the learning materials at anytime and anywhere.

Review of Literature

Abooki & Kitawi (2014) examined the impact of methodology, ideologies, output and ecology of Information and Communication Technology (ICT) strategies and their students' performance. The finding shows that the e-learning strategies adopted at the University positively impacted students' academic performance.

Zare et al (2016) conducted a study to investigate the effect of using self-directed e-learning among students learning on basic chemistry and creativity. The result indicates that the self-directed e-learning group achieves better marks in chemistry and their creativity is higher than the traditional group.

Elfakil et al (2019) explained that there is a significant difference in learning outcomes besides positive attitudes between online and traditional learners which can be a viable alternative learning method for higher education.

Need and Significance of this Study

E-learning includes information such as syllabus, course materials, teaching, evaluation and progression status, which are helpful for the students to understand the content and to check their performance also. This e-learning system allows the students to learn the content at their own pace (anywhere & anytime). But this system of learning requires electronic devices, technical knowledge, computer literacy, time management skills, interest and motivation among the learners to undergo the programme effectively. Switching from the traditional classroom with face-to-face instructor training to computer-based training in a virtual classroom makes the learning experience entirely different for students (Kumar, 2015). 21st century learner requires the following skills, namely critical thinking, creativity, collaboration, communication,

information literacy, media literacy, technology literacy, flexibility, leadership, initiative, productivity and social skills. So, this study intended to find out the perception of college students about e-learning about the enhancement of 21st century skills through e-learning.

Methodology

Objective of the Study

To find out the perception of college students towards e-learning related to the enhancement of 21st century skills.

Research Design

A Survey method under descriptive research design was adopted for this present study.

Sampling Method and Sample Size

109 students studying in UG and PG programmes of various higher education institutions from Coimbatore District, Tamil Nadu were selected as a sample for this present study through the convenience sampling method under the non-probability sampling technique.

Table-1: Sample Details based on Gender & Programme

Programme	UG Programme	PG Programme
	59%	41%
Gender	Male	Female
	32%	68%

Research Questions

1. What is the status of the availability of e-learning resources among samples?
2. Can students follow the teaching in the e-learning process?
3. Does e-learning improve 21st

century skills among college students?

Research Tool

A questionnaire with 20 questions about the various aspects of e-learning namely availability of resources, teaching-learning process and enhancement 21st skills was developed

by the researcher to collect the data.

Data Collection Procedure

The objective of this study and the instructions about the questionnaire was spelt out with the samples. The questionnaire was circulated to the students through Google form. The collected data were then analyzed for further interpretation.

Findings and Discussion

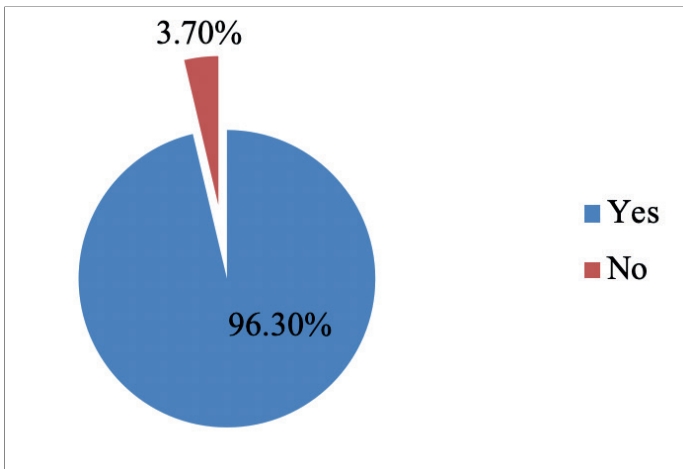
The findings and discussion of this study are explained based on the following aspects such as the availability of ICT facilities, the teaching-learning process and various skills required for 21st

century learners.

Finding and Discussion based on Availability of ICT facilities

The e-learning system works based on ICT devices and the internet. 96.3 per cent of the samples informed that they have ICT facilities (mobile/ tablet/ laptop/ desktop) at their home and the remaining 3.7 per cent of the samples do not have these facilities. 91.7 per cent of the samples shared that they have an internet facility (mobile network/ LAN). The remaining 8.3 per cent of the students were not having an internet facility because of staying in the remote area.

Figure-1: Availability of ICT facilities



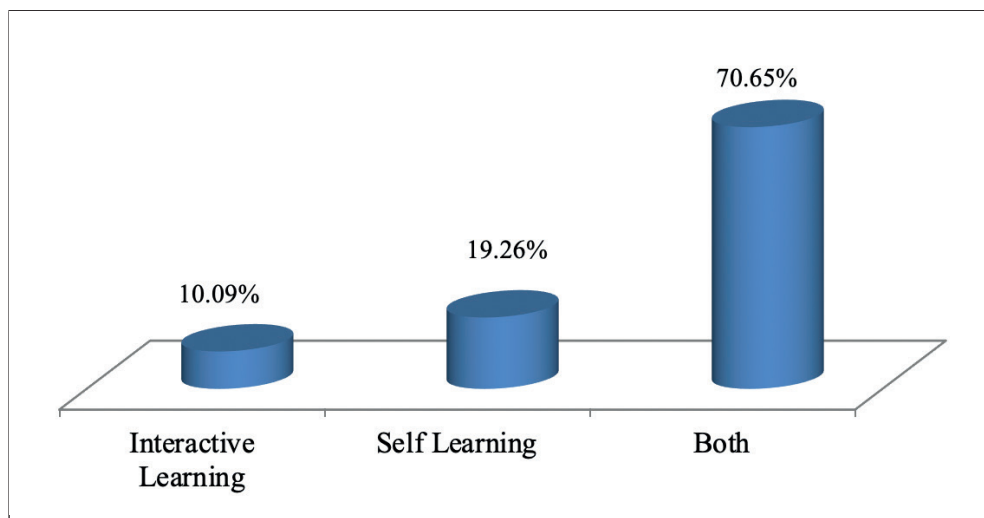
Findings and Discussion based on Teaching-Learning Process

Success in the teaching-learning process depends on the interest and motivation of the students. 91.7 per cent of the samples pointed out that e-learning creates interest and motivation for learning and also they stated that it provides an opportunity to enhance their knowledge. 87.1 per

cent of the samples were able to follow the instructions given by the teachers during the e-learning classes.

Method of Learning: 11 per cent of the samples stated that they prefer the interactive learning type, 19 per cent of the students preferred the self-learning type and the remaining 70 per cent of the students preferred both types of learning.

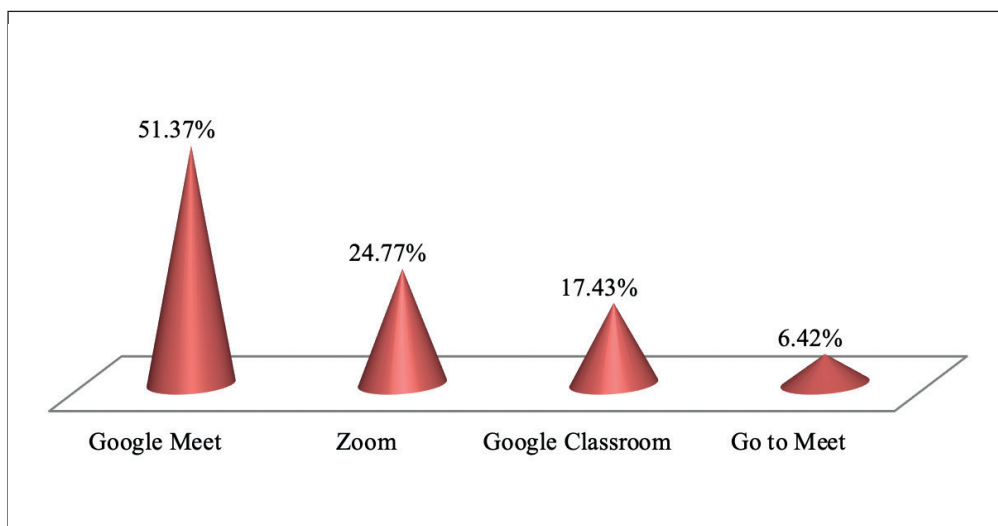
Figure-2: Method of learning preferred by students



Mode of E-learning: Different learning platforms are available and used by the teachers for e-learning. 51.37 per cent of students preferred Google Meet, 24.77

per cent of samples preferred Zoom, 6.42 per cent of samples preferred Go to Meeting and 17.43 per cent of students preferred Google Classroom.

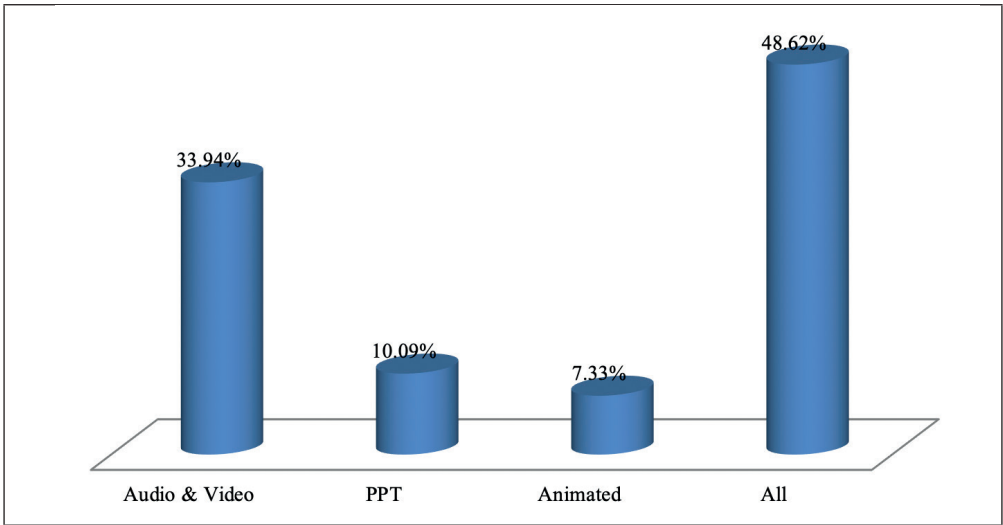
Figure-3: Mode of learning preferred by students



Teaching Learning Materials: Teaching learning materials (TLM) play a significant role in the teaching process. It makes learning. 33.94 per cent of the students preferred video and audio content, 10.09 per cent of the students

preferred PowerPoint presentations, 7.33 per cent of the students preferred animation materials and 48.62 per cent of the students mentioned that they preferred the combination of all.

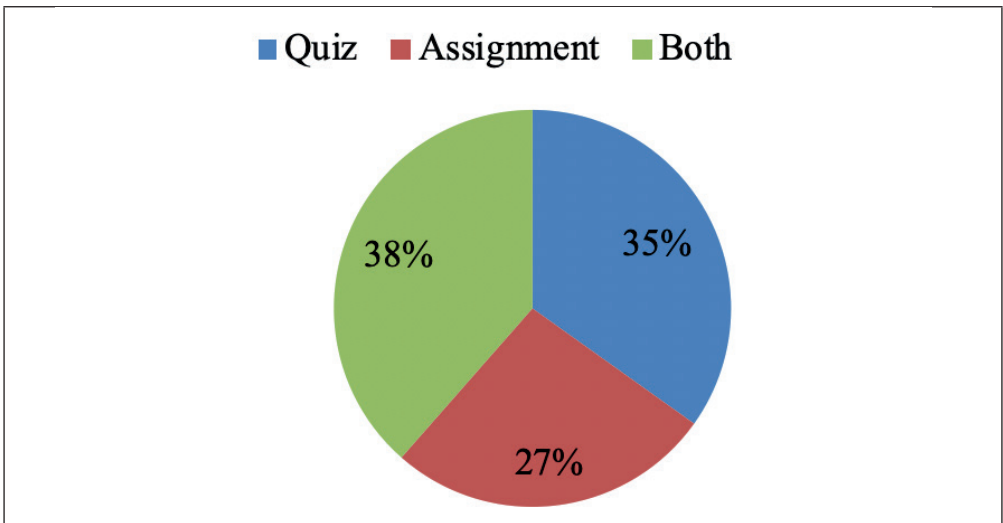
Figure-4: TLMs preferred by students



Evaluation: 34.86 per cent of students preferred to participate in a quiz and 26.6 per cent of students preferred the assignment method for evaluation and the remaining 38.53 per cent preferred both quizzes and assignments. 80.73

per cent of students opined that the assessment and evaluation in e-learning were useful to enhance their learning. 88.07 per cent of students expressed that they were satisfied with the grading procedure.

Figure-5: Evaluation strategy



Findings and Discussion based on 21st Century Skills

In the education process, it was believed by the educators that 21st century skills are important for students to succeed in

life. The 21st century skills were classified into three areas, namely learning skills, literary skills and life skills. Learning skills that are mentioned in this study include critical thinking, creativity and communication. The literary skills are

information literacy, media literacy and technology literacy. Flexibility and social skills are considered life skills.

Learning Skills: These skills are related to mental processes. Learning skills are important to develop knowledge which includes critical thinking, reasoning, problem-solving, analyzing, research skills and communication. In this study, most of the students have agreed that the e-learning system improves their learning skills.

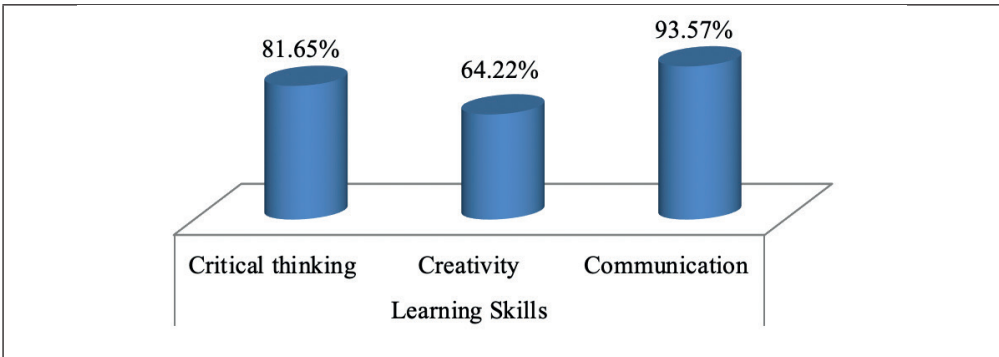
Literary Skills: Literacy skills include the ability to access digital information through different media and technology. It is also to understand different aspects of content and information without any confusion. The majority of the students agreed that they can access different

media and technology devices through e-learning and at the same time they can understand the information. The result was supported by the research done by Suresh et al (2018) stating that e-learning has a positive influence on the academic performance of undergraduate students. They also mentioned that E-learning offers an alternative that is faster, cheaper, and potentially better. E-learning has to be implemented and made available to everyone easily.

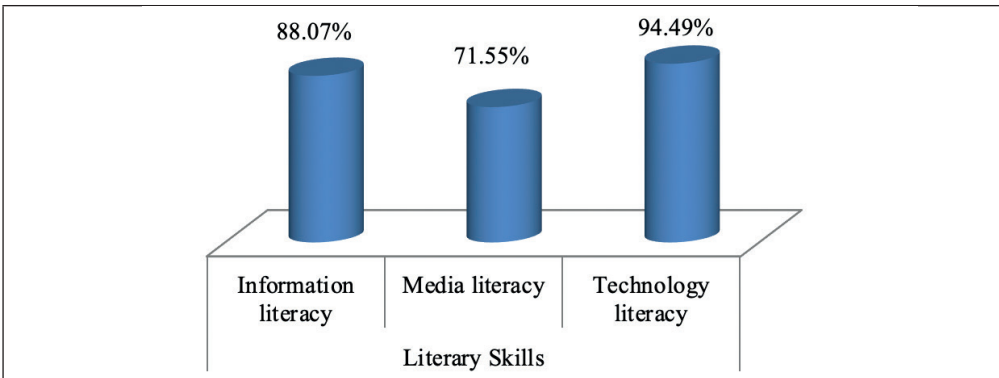
Life Skills: In the present study, life skills refer to flexibility and social skills, which students learned through e-learning. The students opined that they can use different apps and devices for communication purposes.

Figure-5: (a,b,c) - 21st Century Skills

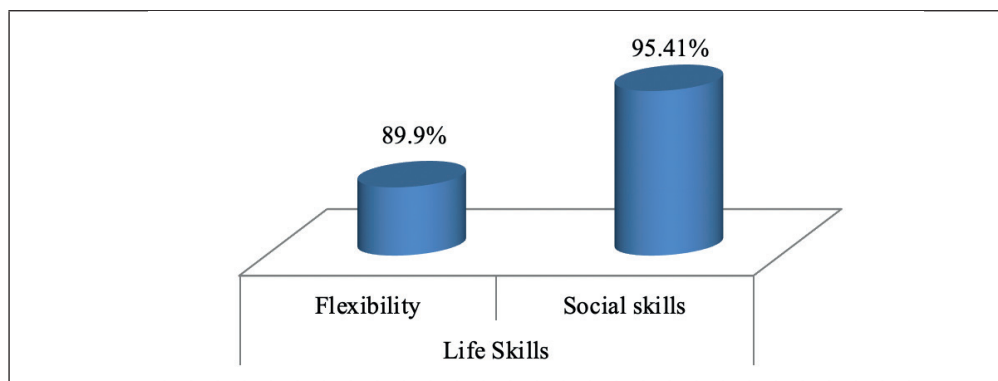
5a. Learning Skills



5b. Literacy Skills



5c. Life skills



Educational Implications

Successful e-learning depends on the students' interest in searching for information in different media. E-learning has the following implications, namely

- It promotes active and independent learning among the learners.
- It also creates the possibility for the students to make use of self-paced learning and they can choose their learning environment.
- This digital education system helps both teachers and students to share and equip their knowledge which makes the teaching-learning process more effective.

Conclusion

E-learning is one of the fastest growing systems in higher education. Through e-learning, teachers can incorporate 21st century skills where they can create and manage a learners group effectively. Students can improve these 21st century skills such as self-directed learning, critical thinking, analytic reasoning, effective communication and technical skills through digital education. The online education platform accumulates students from different environments and it integrates solutions to meet the educational needs of all learners

which enhances the quality of learning among students. The online resources and materials are always available and reachable to the students at anytime and anywhere. The present study was supported by the research done by Wani (2013) that argues that the development of new technologies and the use of e-learning in teaching and learning are of great benefit for integrating digital technology into the educational environment.

Their skills and competencies to work effectively with digital technologies are pre-requisites for successful and responsible solving and presentation of scientific problems and cases. The development of new technologies and the use of e-learning in teaching and learning are of great benefit for integrating digital technology into the educational environment and can increase the efficiency and the quality of the education system. Their skills and competencies to work effectively with digital technologies are pre-requisites for successful and responsible solving and presentation of scientific problems and cases. The development of new technologies and the use of e-learning in teaching and learning are of great benefit for integrating digital technology into the educational environment and can increase the efficiency and the quality of the education system. Their skills and competencies to work effectively with

digital technologies are pre-requisite for successful and responsible solving and presentation of scientific problems and cases. The development of new technologies and the use of e-learning in teaching and learning are of great benefit for integrating digital technology into the educational environment can increase the efficiency and the quality of the education system

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