

# A Study of Virtual Learning Experience of Student Teachers: Learner's Satisfaction and Learning Needs

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**Abstract:** The COVID-19 pandemic constrained educational establishments all throughout the country to close down indefinitely. This unexpected closure of institutes across the country has affected the learning schedules. Most educational institutes have moved to web based learning modes to make all the difference for the learning. The institutes were not ready for such a change and their web based learning measure is advancing step by step or gradually.

Nonetheless, the inquiries concerning the readiness, planning and viability of e-learning is as yet not plainly saw, especially for a nation like India, where the specialized requirements like reasonableness of technology and information transfer capacity accessibility represents a genuine test. With these requirements in see a study was directed with fundamental focus is to examine the satisfaction level and needs of contemporary student teachers about the virtual learning measure.

A pre-planned survey was canvassed as google form to get student responses. It targets the gaps existing in the present virtual learning and assemble crucial necessities of the students to further develop their satisfaction levels on virtual learning. The survey was partitioned into 3 sets dependent on the idea of inquiries. As it would be profoundly hard to address the students' requirements without knowing their current encounters and in this manner recognize essential requirements of progress. Set1: General and Demographic Characteristics, Set2: Satisfaction levels on virtual learning and Set3: Learning Needs Assessment.

The study along these lines centers on understanding student teacher's insight and inclination towards the virtual learning through an online survey of 71 D.El.Ed II year student teachers (55 Female and 16 male). It additionally investigated their inclinations for different attributes of online classes, which will be useful to plan successful virtual learning climate.

The outcomes showed that practically half of the respondents are showing inclination of usefulness for online classes and opined that virtual learning is viable for them to deal with the educational plan during this pandemic. The student teachers opined that flexibility and comfort of online classes makes it appealing alternative, while broadband network issues, disturbed study environment at home, non-accessibility of devices, less freedom for vis-à-vis interaction with each other and educators presents challenge for student teachers to utilize virtual learning successfully. In education system where educator are preparing programs usefully to best of their understanding, moving totally to online mode may not be conceivable and need to circle around a hybrid mode, the experiences from this study can be useful in planning the model of internet learning for the new normal.

**Key words:** E-Learning; Factors Influencing E-Learning; Personalized E-Learning; Learner Satisfaction.

## I. INTRODUCTION

The prevalence of the web innovation and ongoing advances in information produced additional opportunities for preparing and training conveyed through web based learning or virtual learning. With a variety of electronic devices, applications and management systems accessible, virtual method of educating and learning has arisen as a crucial other option/supplement to conventional "chalk and talk" method of educating.

The web and World Wide Web turned into the best methods of communicating in present days. Communication dependent on web could be either synchronous or asynchronous. The idea of e-learning incorporates a variety of operations, processes and learning strategies. It can likewise be alluded to as utilizing Information and Communication Technology (ICT) to work with educating and learning assets through online applications. The objective of this study is to investigate the satisfaction levels of contemporary student teachers in teacher training institutes on virtual learning and perceive the different perspectives forestalling the use and development of virtual figuring out how to recognize ways to deal with work on the satisfaction of the student teachers.

"The pandemic forced various organizations to suddenly modify their workflow strategies and adopt new technologies. In most cases, these organizations did not get enough time to reflect upon how the new strategies and the associated technologies should be introduced and integrated to their existing setup (Carroll & Conboy, 2020)". "Researchers have tried to understand the viewpoint of students on online education during the COVID-19 pandemic using empirical studies in India (Mishra, Gupta, & Shree, 2020)". "There existed substantial infrastructure for online education in many countries before the pandemic (Mishra et al., 2020)". "However, no university was ready for a complete shift to online education. Empirical studies have found that students feel that they learn better in physical classrooms than through online education (Bojovic et al., 2020)". Nevertheless, students feel that online education helped them to continue their study during the pandemic (Mishra et al., 2020). "Universities are now using innovative strategies to ensure continuity of education for their students (Zhu & Liu, 2020)".

"Professors are now delivering course content through various

platforms. Professors are using online educational platforms, video-conferencing software, and social media to teach their courses (Patricia, 2020)". The online educational platforms likewise permit student teachers to turn in their tasks and teachers to monitor the advancement of the student teachers. Video conferencing devices, similar to Google Meet, Zoom, and Microsoft Teams, help in getting sorted out online communication and interaction meetings. Such instruments regularly support slideshows and a chatbox. There is an absence of studies on how productively student teachers can interact with their teachers and individual student teachers through different online devices and how viable online appraisal procedures are. A couple of researchers have covered these issues. For example, Patricia (2020) reported that "students prefer face-to-face interaction with professors and Bojovic et al. (2020) reported that many professor lack confidence on online assessment techniques."

There are a variety of theoretical frameworks available on usage of technology in education, cognitive learning styles, and pedagogical approaches suitable for e-learning. However, this study mainly focuses on knowing learner satisfaction on the existing e-learning technologies with emphasis on the key areas of improvement.

The theoretical framework used to contemplate the satisfaction levels of the student teachers on e-learning depends on the Technology Acceptance Model (TAM) proposed by Davis. As indicated by TAM, the adoption of technology by student teachers relies upon the utility and the usability of the system. The Davis model on selection of technology in learning depends on internal and external factors. The internal factors in the model portray that the disposition of the student on the utilization of current technology is clarified by the apparent usability and the apparent handiness of that technology. The theory upholds the impact of apparent helpfulness of e-learning technology on the acknowledgment of e-learning system by student teachers to seek after e-learning. The theory perceives the impact of the impression of usability of the highlights of e-learning platforms or systems on the selection of e-learning. The external factors identify with the model are gathered by different perspectives affecting student's acknowledgment of e-learning systems in educating and learning and they are required to affect the aims of e-learning appropriation through convenience and handiness.

The achievement of e-learning relies upon educational, systematically organized content, and quality of design plan. Notwithstanding, realizing student's prerequisites prior to executing idea would be gainful to meet the assumptions for the students. A portion of the vital regions on which the student should be investigated are learning goals, prior knowledge, anticipated results, technical necessities or limits, and learning inclinations. Albeit the student can be assessed during the genuine interaction of learning through his/her feedback.

### *Research Questions*

The main objective of this study is to explore the satisfaction levels of student teachers over the use of virtual learning. In the process, inhibiting factors for the success of virtual learning could also be identified. The experience of learners in using internet and web, flexibility, content and, prior knowledge are the assumed external variables that impact the success of virtual learning.

The following are the research questions in the present study.

- Are the student teachers satisfied with the present virtual learning?
- Are the student teachers assessed on their learning needs before the transaction of the concept via virtual learning?

### *Objectives of study*

- To assess the satisfaction level of student teachers over the use of virtual leaning mode.
- To assess the learning needs of student teachers for virtual learning mode.

## II. METHODOLOGY

In order to explore the satisfaction levels of the learners on present virtual learning mode, and to identify their virtual learning needs, a survey was conducted via google link among student teachers of teacher training institute of North West B of Delhi. The gathered responses were then analysed on the basis of stated objectives.

### *The Population of study*

The participants in this study comprised of 96 student teachers of D.El.Ed II year from teacher training institute in North West B district of Delhi who were using various e-learning systems personally.

### *Sample*

A population size was small so survey was organized with whole population out of which 71 student teacher of the academic year 2020-2021 undertook the survey.

### *Design of the study*

A descriptive survey method is used

### *Survey Instrument*

A pre-designed questionnaire was used in the study which was distributed online via google form. The questionnaire was divided into 3 sets with each set comprising of questions related to factors that impact satisfaction on virtual learning and learning needs. The first set contains questions about demographic and general characteristics of the sample, such as age and gender. The second set contains questions related to the satisfaction levels of learners on virtual learning. The third set of questions is related to key aspects of learner needs assessment assumed important for the success of virtual

learning.

The questionnaire contains 6 and 9 total 15 questions within first and second objectives respectively stated in above section. In order to ensure unbiased responses from the participants, the context of the survey was clarified to the participants with its description, when the questionnaire was distributed online.

Results along with parts of the questionnaire, survey items, satisfaction levels and learning needs are presented in forthcoming sections.

#### Analysis and Interpretation of data

On analysis the findings from the survey are represented in the following tables. Result tables display the satisfaction levels of learners for each question along with the percentage of responses to each of the levels.

Table - 1: Satisfaction levels of contemporary learners on virtual learning (n=71)

S.No.	Item	Level of Satisfaction	Responses
			%
1	How much are you satisfied with virtual/online learning?	Excellent	11.3%
		Very good	15.5%
		Good	57.7%
		Fair	15.5%
		Poor	0.0
2	How do you feel about effectiveness of virtual/online learning?	Not at all effective	4.2%
		Slightly effective	23.9%
		Moderately effective	52.1%
		Very effective	16.9%
		Extremely effective	2.8%
3	How supportive your institute has been in providing to you the resources to learn from home?	Not at all helpful	8.5%
		Slightly helpful	25.7%
		Moderately helpful	27.1%
		Very helpful	34.3%
4	How stressful is virtual/online learning for you?	Extremely helpful	4.2%
		Not at all stressful	11.3%
		Slightly stressful	38%
		Moderately stressful	25.4%
5	Do you enjoy learning virtual/online?	Very stressful	21.1%
		Extremely Stressful	4.2%
		Yes, absolutely	21.4%
		Yes, but I would like to change a few things	45.7%
6	Are you satisfied with the technology and software being used for virtual/online	No, there are quite a few challenges	28.6%
		No, not at all	4.2%
		Slightly	11.3%

learning?	Moderately	36.6%
	Very much	38%
	Extremely	7%

The results indicated that almost 50% of the respondents are overall feel good for virtual classes and opinioned that this mode of learning is effective for them to manage the curriculum during this pandemic. 34% of students feel that institute is helpful in offering resources to learn from home. For 38% of students the virtual/online learning is stressful during covid 19 pandemic. Majority of the students viewed that if given chance they would like to change few things in online learning. Hardly 38% of students are satisfied with the technology and software being used during online learning.

Results on second objective related to learning needs assessment are shown in Table-2 below.

Table - 2: Online learning needs of contemporary learners (n=71)

S.No.	Item	Assessment of Learning Needs	Responses %
1	Do you have access to a device for learning virtually/online?	Yes	78.6%
		Yes, but it doesn't work well	20%
		No, I share with others	1.4%
2	What device do you use for virtual/online learning?	Laptop	4.2%
		Desktop	1.4%
		Tablet	0
		Smartphone	94.4%
3	How much time do you spend each day on an average on virtual/online learning?	1-3 hours	42.9%
		3-5 hours	42.9%
		5-7 hours	12.9%
		7-10 hours	0
		10+ hours	1.4%
4	How well you manage playtime while virtual/online learning?	Not at all	8.4%
		Slightly	29.6%
		Moderately	38.0%
		Very well	21.1%
		Extremely well	2.8%
5	How well you manage your academic schedule while virtual/online learning?	Not at all	1.4%
		Slightly	14.1%
		Moderately	43.7%
		Very well	39.4%
		Extremely well	1.4%
6	How supportive are your facilitators while studying online?	Not at all helpful	0.0%
		Slightly helpful	12.7%
		Moderately helpful	25.4%
		Very helpful	52.1%
		Extremely helpful	9.9%

7	How peaceful is your home environment while online learning?	Not at all	16.9%
		Slightly	14.1%
		Moderately	32.4%
		Very well	33.8%
		Extremely well	2.8%
8	How much important is face-to-face communication for you while virtual/online learning?	Not at all	1.4%
		Slightly	8.5%
		Moderately	16.9%
		Very well	40.8%
		Extremely well	32.4%
9	How often do you have a one to one interaction with facilitators during online learning?	Not at all	5.6%
		To some extent	29.6%
		Moderately	42.3%
		Extensively	15.5%
		Very extensively	7.0%

Large percentage of students (78.6%) have access to a device for online learning showing their adaptability to situation. At the same time few students have access but it didn't work well. Such group of students needs special attention for institute. Most of the students (94.4%) preferred to use smart phone for online learning. Equal number of students spend 1-3 hours or 3-5 hours each day on an average on virtual/online education. Playtime and academic time is moderately managed by nearly equal percentage of students during their online learning schedule. Half of the respondents feel that their teachers are moderately helpful during virtual learning. Further the learning environment being provided to students at home is moderately or very well peaceful for nearly 30% of students. The nearly 41% of students opined that face-to-face communication is very much important for them while learning remotely.

Table 2 and 3 revealed that the students are given less opportunity to interact with teachers on one to one discussion during virtual learning. The students opined that flexibility and convenience of online classes makes it attractive option, whereas broadband connectivity issues, peaceful environment at home, non-availability of devices, less opportunity for face-to face interaction with one another and teachers poses challenge for students to make use of online learning initiatives. However, in education system where teacher training programmes are practical oriented, shifting completely to online mode may not be possible and need to device a hybrid mode, the insights from this study can be helpful in designing the model of online learning for the new normal.

It can be observed from the data that the scores of majority of item are lower than 50% of respondents. Learner's assessment of personal needs and context, preferred teaching styles or pedagogy, assessment of prior knowledge are the few factors that displays a satisfaction level of online learning. It is evident from tables above, that the surveyed students were

either rarely or never assessed on learning their learning needs.

The survey results displayed that the students were not fully satisfied with present virtual learning mode although versatile in using internet and web. The survey focused on the important aspects of virtual learning which drive learner satisfaction and also the personalization factors influencing the success of virtual learning. The survey results clearly revealed the need for personalized and more adaptive virtual learning systems with possible moderator support to satisfy the needs of contemporary learners.

### III. CONCLUSIONS AND SUGGESTIONS

It is evident from the results of the present study that majority of student teachers displayed low or no positive contentment on the present virtual learning systems in use although most of them were comfortable in using internet and web for learning purposes. Further it is clear that majority of the learners were not assessed on their learning needs before the start of virtual learning and also during transaction. The results also show that critical factors for success of virtual learning like learning objectives, context, preferences, individual learning habits, learning skills and abilities on virtual learning and prior knowledge of the concepts were not clearly known to the teacher educators/facilitators to personalize learning experiences of the learners.

During this internet era where e-learning is intruding into the daily life of teachers and learners across numerous higher education institutes, learner satisfaction on e-learning becomes key for its success. Hence, referring to the results of this study, the following suggestions are recommended to improve learning experiences of the learners.

- Assess the learning needs and objectives of learner before starting the e-learning.
- Assess the prior knowledge of the learner on intended e-learning content before start of the class.
- Gather personal learning preferences of the learners so as to customize their learning experience.
- Teachers/facilitators should map the presentation of content with the learner's objectives, preferences and learning styles.
- Flexibility be provided to learners to navigate through the learning resources.
- Ample opportunity be provided to the learners to interact among themselves and with teacher.

In conclusion, it is essential to personalize the E-learning environment, pedagogy, objectives, content, and assessments to suit individual requirements of the learners so as to make their learning experience pleasurable for desired learning outcomes.

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