



PERCEIVED USEFULNESS OF ONLINE TEACHING-LEARNING AND ATTITUDE TOWARDS ONLINE LEARNING AMONG STUDENT TEACHERS

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ABSTRACT

Days are gone when knowledge and education attainment were set into the boundaries of educational institutions such as schools, colleges and universities. But now the time has been changed and this change in time has brought development in science and technology which has affected the process of learning and education as well, and in a time of pandemic like COVID 19 it has become more significant to use technology. Nowadays learning, including formal and vocational education take place in a various diversified forms which are facilitated in a number of ways. This Covid-19 is an ideal time to accept technological introduction and its latest offerings to make education delivery to students more efficient and make it more productive through online teaching and learning. Therefore, this paper aims to discuss the Perceived usefulness of online teaching-learning and Attitude towards online learning among student teachers and to find whether there is any significant differences with respect to gender, medium of instruction, type of the management of colleges and locality on perceived usefulness of online teaching-learning and attitude towards online learning. The research design is of normative survey method and the sampling technique used for the study is stratified random sampling. Keeping in view the aim of the study, 300 student teachers belonging to government, government aided and self-finance colleges of education in the Kanchipuram, Thiruvallur and Chennai district were randomly selected. Further, it is observed that student teachers of both genders have similarly perceived usefulness of online teaching-learning and attitude towards online learning. It is observed that student teachers studying in English medium and Tamil medium were similar in their perception of usefulness of online teaching-learning and attitude towards online learning. It is further inferred that student teachers of government, government-aided and self-finance colleges of education had exhibited similar perceived usefulness of online teaching-learning and attitude towards online learning. Further, the student teachers belonging to urban area have more perceived usefulness of online teaching-learning when compared student teachers belonging to a rural area. It is inferred that locality of the colleges of education had not manifested any significant difference in attitude towards online learning among student teachers. Teachers have the power to shape the future of a nation. The perceived usefulness of online teaching-learning and attitude towards online learning among student teachers is determined by how student teachers accept and adapt technology to organize their classes, transact the curriculum and support or help gained by them to overview some of the potential challenges posed in online learning such as remaining focused during online classes, self-regulation and intrinsic motivation to learn. Enhancing teachers' training about the use of digital resources for pedagogical practice and promoting teaching practice adapted to this context extensively is key to ensure that ICT is leveraged effectively.

Keywords: Perceived usefulness of online teaching-learning, Attitude towards online learning, student teachers.

1. INTRODUCTION

The education system is now witnessing a paradigm shift from the traditional chalk-and-board teaching methodology to digitizing the pedagogical approach through technical devices. A transformation would not only increase the capability of the teachers but would also widen the knowledge base of students so as to make them competitive in the international arena. The technology orientation needs to improve in order to equip themselves to face the students belong to the digital era and also to face the challenges in the modern classroom. Critical thinking and creativity of students increase with innovative educational methods according to the world declaration on higher education in the twenty-first century.

Innovative educational strategies and educational innovations are required to make the students learn. There are three vertices in the teaching-learning process viz., teaching, communication technology through digital tools, and innovative practices in teaching. According to Lederman (2020) the COVID-19 crisis forced teachers and students to embrace the digital academic experience as the summum bonum of online education.

The coronavirus pandemic has generated changes in the teaching-learning process in higher education institutions and has influenced the interaction between teachers and students. As a consequence of the pandemic, universities and higher education institutions were constrained to carry out their activity with students exclusively offline. In this regard, many governments took measures in order to avoid spreading the virus and to ensure the continuity of the educational process, and universities worldwide adopted online learning. Hence, online learning has become the new format of Higher Education Institutions that have instantly turned to conduct virtual classes, online assignment submissions, and teacher-student interactions these days.

2. NEED FOR THE STUDY

The COVID 19 pandemic has significantly affected numerous things in world and way of teaching is one of them. It was considered one of the most challenging areas in this pandemic situation to continue their education by students. Online learning helped students to study during this challenging period. Online learning is driving a paradigm shift in how we teach and learn. In order to ensure that education is available to everyone, it is imperative that everyone take part in online teaching. Educational institutions, colleges, and professional organizations all have forced to provide online instruction.

An online instructor should be able to accept the value of facilitated learning as equal to the traditional model. If a teacher feels the only way that true learning can take place is through the traditional means of educating in a classroom, the person is generally not a good fit for the online paradigm. Both an accelerated learning model and the online process depend on facilitative techniques for their success. The online classroom requires new teaching strategies and instructional techniques; teacher should not try to recreate the on-ground classroom in the online paradigm. The person leading a successful online class must be a proponent of facilitative learning, and have confidence in the system in order to make it work.

Today's student teachers are going to be future teachers, who are responsible to monitor, regulate, and shape the future generations. Digital competence is an important twenty-first-century skill for every teacher. Hence, every student teacher should be kept updated with new technological innovations in the field of teaching and learning. Student teachers are trained in a variety of subjects with a diverse cultural background and a range of social and economic backgrounds. Some may be graduates and have experience with technology. Online teaching has been taking place for the past year and a half. During this period student teachers must have gained experience in attending classes submitting assignments and even being evaluated through online. As a result students must have developed looking towards this innovative instructional process and at the same time must also have faced some challenges and as student teachers and educational institutions all had to unexpected adjust to a novel situation. Further the effectiveness of online learning might have been hindered, in some cases, by the lack of basic digital skills among a few student teachers and teacher educators, making them unprepared to adapt to the new situation all of a sudden.

Students' attitudes towards leaning are strong drivers of their academic achievement and this attitude may be crucial in sustaining students' motivation and active leaning in times of attending classes at home through online. At this juncture investigator has made an attempt to study in studying perceived usefulness of online teaching-learning and to determine whether their attitudes towards online learning is positive or negative.

3. OBJECTIVES OF THE STUDY

1. To find out whether there is any significance relationship between perceived usefulness of online teaching-learning and attitude towards online learning among student teachers.
2. To find out whether there is any significance difference in perceived usefulness of online teaching-learning and attitude towards online learning with respect to
 - gender
 - type of management of colleges
 - medium of instruction
 - locality

4. HYPOTHESES OF THE STUDY

- 1) There will be a significant and positive relationship between perceived usefulness of online teaching-learning and attitude towards online learning among student teachers.
- 2) There will be no significant difference between male and female student teachers with respect to
 - (i) Perceived usefulness of online teaching-learning
 - (ii) Attitude towards online learning
- 3) There will be no significant difference among student teachers studying in Government, Government-aided and Self-financing college of education with respect to
 - (i) Perceived usefulness of online teaching-learning
 - (ii) Attitude towards online learning
- 4) There will be no significant difference between student teachers belonging to English medium and Tamil medium with respect to
 - (i) Perceived usefulness of online teaching-learning
 - (ii) Attitude towards online learning
- 5) There will be no significant difference between student teachers hailing from urban and rural areas with respect to
 - (i) Perceived usefulness of online teaching-learning
 - (ii) Attitude towards online learning

5. METHODOLOGY

The research design is of normative survey method and sampling technique used for the study is Stratified random sampling technique.

5.1 POPULATION AND SAMPLE

The population of this study includes all the student teachers studying in colleges of education of Tamil Nadu. The data for the present study were collected from the population of student teachers in Kanchipuram, Thiruvallur and Chennai district. Keeping in view the aim of the study 300 student teachers were randomly selected. Samples were collected from B.Ed students belonging to government, government aided and self-finance colleges of education.

5.2 SAMPLE DISTRIBUTION

The sample of present study consists of 300 student-teachers from Colleges of Education belonging to the Kanchipuram, Thiruvallur and Chennai districts selected randomly. The sample were selected on the basis of gender namely, male (28) and female (272). Further, student teachers studying in Tamil medium (82) and English medium (218) residing at urban (98) and rural (202) areas pursuing their secondary teachers education (B.Ed) course in various government(43), government-aided (226) and self-financing (31) colleges of educations in Chennai district were selected as sample for the present study.

5.3 INSTRUMENTS USED

The tool is an instrument, which is used to collect data from the sample. “Perceived usefulness of online teaching-learning” questionnaire constructed and standardized by Prof. Preethi Sheba Hepsiba Darius, Edison Gundabattini and Darius Gnanaraj Solomon (2021) was used to measure the perceived usefulness of online teaching learning. The questionnaire consists of 12 items relating to assess the perceived usefulness of online teaching-learning. All the items are positive.

Similarly, “Attitude towards online learning” scale developed and standardized by Prof. Anupma Sangwan, Anurag Sangwan and Poonam Sangwan (2020) was used to measure student teachers’ attitude towards online learning. This scale consists of 29 items relating to assess the attitude towards online learning among student teachers. In this scale 10 items distributed under Appreciation for online teaching and learning, 7 items segregated under Responsiveness towards online education, 7 items under Proficiency in handling online teaching and 5 items distributed under Knowledge of technological reforms dimensions. In this scale 20 items were positive and 9 items were negative.

Both the scales were administered to the student teachers’ with the following instructions, “Please read the statements carefully, because some are phrased positively and others negatively. Respond by putting tick mark (✓) against the appropriate one which you feel suitable. All the items were framed on five point Likert scale. In case of positive statements, strongly agree, agree, neutral, disagree and strongly disagree were scored as 5, 4, 3, 2, 1 respectively, while reverse coding was done for negative statements. The maximum score for each statement is 5 and the minimum score is 1. The maximum score for the perceived usefulness of online teaching-learning scale is 60 and the minimum is 12. The maximum score for the attitude towards online learning scale is 145 and minimum is 29. Both the tools were administered to selected sample through Google forms.

6. ANALYSIS AND INTREPRETATION

All data were analysed using statistical package for the social sciences (SPSS). Analysis of Variance (ANOVA), t test and Pearson product moment correlation was performed to examine the association of variables.

TESTING OF HYPOTHESIS

HYPOTHESIS-1

There will be a significant and positive relationship between the perceived usefulness of online teaching-learning and attitude towards online learning among student teachers.

Table 1: The correlation between Perceived usefulness of online teaching-learning and Attitude towards online learning

<i>Variables</i>	<i>Perceived usefulness of online teaching-learning</i>	<i>Attitude towards online learning</i>
Perceived usefulness of online teaching-learning	1.000	0.361*
Attitude towards online learning	X	1.000

*- 0.01 level of significance

The above table shows that there is significant relationship among perceived usefulness of online teaching-learning and attitude towards online learning among student teachers. Perceived usefulness of online teaching-learning is related to attitude towards online learning at 0.01 level. It is inferred that perceived usefulness of online teaching-learning is positively and significantly related to Attitude towards online learning.

Hence, the formulated hypothesis that there will be a significant and positive relationship the perceived usefulness of online teaching-learning and attitude towards online learning is accepted.

HYPOTHESIS-2

There will be no significant difference between male and female student teachers with respect to Perceived usefulness of online teaching-learning and Attitude towards online learning

Table 2: Difference in the perceived usefulness of online teaching-learning and attitude towards online learning among student teachers with respect to Gender

<i>Variables</i>	<i>Gender</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>CR Value</i>	<i>Level of Significance</i>
Perceived usefulness of online teaching-learning	Male	28	24.46	4.940	0.075	NS
	Female	272	24.53	4.311		
Attitude towards online learning	Male	28	97.71	10.227	0.879	NS
	Female	272	96.19	8.593		

NS - Not significant

From the CR-values presented in the above table, it is inferred that there is no significant difference between male and female student teachers with respect to the perceived usefulness of online teaching-learning and attitude towards online learning. Hence, the formulated hypothesis that there will be no significant difference between male and female student teachers in perceived usefulness of online teaching-learning and attitude towards online learning is accepted.

Possibly, this is due to the fact that both male and female student teachers often participate in online teaching-learning activities. Further, it indicates that their perceived usefulness of online teaching-learning and attitude towards online learning is the equal for both genders.

HYPOTHESIS-3

There will be no significant difference among student teachers studying in Government, Government-aided and Self-financing colleges of education with respect to Perceived usefulness of online teaching-learning and Attitude towards online learning.

Table 3: Difference in perceived usefulness of online teaching-learning and attitude towards online learning among student teachers with respect to Type of the management of colleges

<i>Variables</i>	<i>Government-Aided</i>						<i>F-ratio</i>	<i>Levels of significance</i>
	<i>Government (N=43) (1)</i>		<i>(N=226) (2)</i>		<i>Self-finance (N=31) (3)</i>			
	<i>Mean</i>	<i>S.D</i>	<i>Mean</i>	<i>S.D</i>	<i>Mean</i>	<i>S.D</i>		
Perceived usefulness of online teaching-learning	25	4.614	24.60	4.424	23.29	3.359	1.536	NS
Attitude towards online learning	98.81	9.233	95.70	8.698	97.48	7.949	2.617	NS

NS - Not significant

Form the table 3, F ratios calculated for the perceived usefulness of online teaching-learning and attitude towards online learning score with respect to type of the management of colleges are not significant. It is found that students belonging into government, government-aided and self-finance colleges of education did not differ significantly with respect perceived usefulness of online teaching-learning and attitude towards online learning.

Hence, the formulated hypothesis there will be no significant difference among student teachers studying in Government, Government-aided and Self-financing colleges of education with respect to perceived usefulness of online teaching-learning and attitude towards online learning is accepted. The reason may be that student-teachers in government, government-aided, and self-finance colleges are equally impressed and benefitted through online teaching and learning. They also possess similar positive attitude towards online learning.

HYPOTHESIS-4

There will be no significant difference between student teachers belonging to English medium and Tamil medium with respect to Perceived usefulness of online teaching-learning and Attitude towards online learning.

Table 4: Difference in perceived usefulness of online teaching-learning and attitude towards online learning among student teachers with respect to medium of instruction

<i>Variables</i>	<i>Medium of Instruction</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>CR Value</i>	<i>Level of Significance</i>
Perceived usefulness of online teaching-learning	Tamil	82	25.27	4.497	1.820	NS
	English	218	24.24	4.290		
Attitude towards online learning	Tamil	82	96.67	8.243	0.413	NS
	English	218	96.20	8.949		

NS - Not significant

From the CR-values presented in the above table, it is inferred that there is no significant difference between Tamil medium and English medium student teachers with respect to the perceived usefulness of online teaching-learning and attitude towards online learning. Hence, the formulated hypothesis that there will be no significant difference between student teachers belonging to English medium and Tamil medium with respect to perceived usefulness of online teaching-learning and Attitude towards online learning is accepted.

There is an emphasis on teaching both in Tamil and English in the education institution. At present, Internet-based teaching-learning resources are available in both languages. Hence, student teachers of English medium and Tamil medium are found to be similar in their perceived usefulness of online teaching-learning and attitude toward online learning.

HYPOTHESIS-5

There will be no significant difference between student teachers hailing from urban and rural areas with respect to perceived usefulness of online teaching-learning and Attitude towards online learning.

Table 5: Difference in perceived usefulness of online teaching-learning and attitude towards online learning among student teachers with respect to locality

<i>Variables</i>	<i>Locality</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>CR Value</i>	<i>Level of Significance</i>
Perceived usefulness of online teaching-learning	Urban	98	25.76	4.381	3.467	0.01*
	Rural	202	23.93	4.239		
Attitude towards online learning	Urban	98	95.08	8.276	1.727	NS
	Rural	202	96.94	8.929		

*- 0.01 level of significance

NS - Not significant

From the CR values presented in the above table it is observed that there will be significant difference between rural and urban locale student teachers with respect to perceived usefulness of online teaching-learning at 0.01 level. The mean score of perceived usefulness of online teaching-learning shows that urban locale student teachers (25.76) are found to have perceived higher usefulness of online teaching-learning when compared to rural locale student teachers(23.93). Hence, the formulated hypothesis that there will be no significant difference between student teachers hailing from urban and rural areas with respect to perceived usefulness of online teaching-learning is not accepted. Urban student teachers often use the online for their educational activities, and they also have easy access to the online. However, there is less internet access for rural student teachers. This may be due to the fact that urban student teachers are living in an environment of greater advancement and development, their perceived online teaching-learning to be more useful when compared to rural student teachers.

Further, the result shows that the obtained 'CR' value with respect to attitude towards online learning is not significant. Hence, it is inferred that there is no significance difference between urban and rural student

teachers in their attitude towards online learning. Hence, student teachers in urban and rural are found to be similar in their attitude toward online learning.

7. EDUCATIONAL IMPLICATIONS

In the COVID 19 pandemic situation, the use of information and communications technology (ICT) in the education process has triggered many changes in teaching approaches and techniques. Teachers, therefore, have new possibilities to make the pedagogical process more interesting and interactive. They can offer different assignments and ways of communicating without limits (regarding the place and time of teaching and learning). In this way, they go along with the new generations of students that were 'born with smartphones' and are very familiar with the latest technologies. According to Jones et al. (2010) and Kubiatko (2013), today's young generation has a different way of thinking and functioning to previous generations.

The minimum requirement for students to participate in an online learning is access to a computer, the Internet, and the motivation to succeed in a non-traditional classroom. Online teaching provides an excellent method of course delivery unbound by time or location allowing for accessibility to instruction at anytime from anywhere. Learners find the online environment a convenient way to fit education into their busy lives. The ability to access a course from any computer with Internet access, 24 hours a day, seven days a week is a tremendous incentive for many of today's students.

The results show online learning is positively perceived to be usefulness when:

- ❖ Through an online course, the student teachers had the opportunity to engage in their activities.
- ❖ Attitudes of student teachers toward the subject matter and the lecturer's classroom performance have a direct effect on learning.
- ❖ Indirectly, technology acceptance has an effect on student teachers.

Some of the recommendations are:

- ✓ To emphasize online-learning awareness, it is recommended that student teacher developmental program on online-learning should be organized by responsible institutions so as to allow the student teachers improve their skills and knowledge.
- ✓ In the modern world, it is necessary to ascertain that student teachers at colleges of education are up-to-date on the newest technological innovations in the area of online teaching and learning and they should be digitally updated.
- ✓ Training programs can be organized for student teachers in the colleges of education to improve the usage of different Open Educational Resources (OERs).
- ✓ Providing the best opportunity to create and share student teachers' presentations, videos, manuals and internet links, implementing certain functions that make realize the benefits of the online education system.
- ✓ To create an opportunity to take interest in attending workshops/ training programme related with online teaching and MOOCs among student teachers in the colleges of education.
- ✓ Majority of the rural areas especially in Tamil Nadu have no or slow internet connections to attend online classes as well as to carry out online classes, hence, it is very essential component that government/educational institutions should take necessary measures to strengthen our digital infrastructure.

CONCLUSION

Student Teachers are the key stakeholders of education and their perception on adopting online learning also has a significant impact on students' attitude formation towards online learning. Student teachers can use online learning components in different ways to aid the teaching-learning process. Online teaching-learning process helps the teachers to improve the overall efficiency of being students. Rapid developments in education technology have provided educators and students new options in a constantly changing, competitive teaching and learning environment. As the number of online teaching resources continues to increase, research into student attitudes toward traditional and online methods has become.

The impact of the online education at all levels has captured both teachers' and students' attention in recent years. From the findings of the present study, it is to be more useful observed that student teachers had perceived usefulness of online teaching-learning and developed a positive attitude towards online learning due to several online teaching-learning tools like Zoom, Google Meet, Facebook, and YouTube streaming available for both teachers and students were put to need-based use. Most of the teachers were trained by institutions that gained hands-on experience. Efforts should be made both at educational and professional sphere to make online teaching more interactive in order to make it fruitful and effective.

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