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Influence of Home-environment on Online Teaching-Learning during COVID-19 Pandemic Lockdown among Teacher-trainees

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ABSTRACT

Purpose: The ongoing circumstances due to overall COVID-19 pandemic and the subsequent lockdown made the institutions and the teacher-trainees dependent and involved in the innovative teaching-learning methods. The compelling circumstances mandated the involvement of teacher-trainees in online teaching-learning from home as the pedagogical tool as well as an obligatory part of their curriculum. So, this paper attempts to study the views of teacher-trainees for the current transition to online teaching-learning and the influence of home-environment on it during the COVID-19 pandemic lockdown.

Design/ Methodology/ Approach: A questionnaire comprising 35 items on a Likert scale, was formulated to study the views of teacher-trainees on the influence of home-environment on online teaching-learning process. This study was conducted on a sample of 271 teacher-trainees from different colleges/universities from Uttar Pradesh (India), using snowball non-probability sampling. The questionnaire was circulated and administered over a period of one month. The study employed quantitative descriptive survey method to identify the influence of home-environment on online teaching-learning process.

Findings: The data revealed that close to three-fourths of the participants (73.06%) responded that they had a good/positive experience of online teaching-learning from home in the course of their training/internship during COVID-19 pandemic lockdown. About 72% participants reported that they had an overall increased workload due to online teaching-learning from home during lockdown in comparison to the situation prior to lockdown. About three-fourths (74.54%) of the teacher-trainees responded that learning online is easy, but teaching online is difficult from home. Two-thirds (67.16%) of the participants reported experiencing stress engaging in online teaching-learning from home during COVID-19. Close to 60% (59.41%) respondents strongly agreed that their families supported them while teaching-learning online from home during COVID-19 pandemic lockdown. About two thirds of the respondents (65.69%) recommend the continuation of online teaching-learning for the school students, and a similar proportion (65.68%) were found to be in favour of continuation of online teaching-learning post-COVID-19 for teacher training courses.

Originality/ Value: The paper is the original research work based on the primary data collected from the teacher-trainees of Uttar Pradesh, India. This study will provide useful insights into the challenges of online teaching-learning and has implications for researching teacher-trainees' use of technology in the future. The present study suggests to incorporate and adopt Blended learning methodologies in the school education and teacher training programmes.

KEYWORDS Online Teaching-Learning | Home-Environment | Innovative Teaching-Learning Methods | Blended Learning | Teacher-Trainees | Covid-19 Pandemic

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Introduction

The lockdown due to COVID-19 pandemic has created the worrying situations everywhere including the education sector. However, in this critical time, the innovative teaching-learning methods has shown an immensely supportive and transformative potential, and worked out well when all the institutions are shut down. The learners of all levels had the opportunity to experience the innovative teaching-learning methods since almost all the institution adopted the online teaching-learning approach (UNESCO, 2020). On the one hand, it provided the great possibilities to carry on the education while sitting at home; however, on the other hand, learning online from home is a different experience. Since, the learning environments of a learner has a great influence (Muñoz-Cantero, et.al., 2016); thus the home as learning environment has a great influence on the learner's psychology and thus impacts the whole teaching-learning process. Teacher-trainees are in the transitional phase of becoming a professional teacher. In the lockdown, they have experienced online teaching-learning as they have a twin-role of a student and a prospective teacher. It is believed that only the 'quality education' is the key that can bring an all-round improvement in these ever-changing scenarios (OECD netFWD, 2019); which can prepare competent, committed and professionally well qualified teachers who can meet the demand of the present as well as our future, who can lift towards an enhanced educational system (OECD, 2011). In the past few years, online learning has become an important part of our education (U.S. Department of Education, Office of Educational Technology, 2012). Prior to COVID-19 pandemic we all were moving/growing with technology on a slow pace (Dhawan, 2020). However, due to recent COVID-19 pandemic lockdown, the learners from all levels (i.e., primary, secondary, senior secondary or tertiary education) globally got the opportunity to experience online mode of learning United Nations Policy Brief (2020). The teacher-trainees are the present learners and future teachers. Therefore, it is important to study how they will withstand with the changing scenarios. Thus, this study attempts to find out the responses of teacher-trainees for this sudden shift to online teaching-learning and the influence of their home-environment; along with their views on this online mode of teaching learning for future education.

Review of Related Research

The home-environment plays a very crucial and effective role in determining various factors of a learner, such as the values, aspirations, problems, cognitive, emotional and social development of children (Daniel, 2005). According to Rani & Siddiqui (2015) home is the first socializing agent, value indicator, which imparts desirable and undesirable social norms. Psycho-social climate of home has an impact on the cognitive, emotional and social aspects of an individual within the home (Daniel, 2005; Rani & Siddiqui, 2015). Hence, online teaching-learning that took place in the COVID-19 pandemic lockdown (Johannes et al., 2020), within the four-walls of home has an impact of the learners' psychology. A teacher is considered a nation builder (Saharan & Sethi, 2009). It is, therefore, essential for a teacher to be competent, having high teaching aptitude and motivated enough in his tasks. There is a positive correlation between the home-environment and the training success of the teacher-trainees (Rani & Siddiqui, 2015). However, there are some personal and interpersonal factors also, which affect the efficiency of a teacher, these few factors involve the home-environment (Rani & Siddiqui, 2015). Various educational technologies and tools have been advanced as potential vehicles to transform the teaching and learning process (Katherine et al., 2016). Technology improves teaching-learning process, and proved helpful in making successful conversions to digitally enhanced classroom or technology-enhanced teaching-learning (Kumar et al., 2002; Katherine et al., 2016). The perceptions of students regarding virtual education were positive however it was observed that primary school teachers struggle to integrate technology in meaningful ways (Drew, 2014). Riley and Schibeci (1986) did a study to investigate the influence of students' background and perceptions on science attitude and achievement and concluded that home-environment has substantial influence on students' achievement in science. Garbe et al. (2020) investigated parents' experiences and struggles during school closure during lockdown. The results indicated that the Parents described having difficulties with balancing responsibilities, learner motivation, accessibility, and learning outcomes. Kapasia et al. (2020) assess the impact of lockdown amidst COVID-19 on undergraduate and postgraduate learners of various colleges and universities of West Bengal, India; and found that students have been facing various problems related to depression anxiety, poor internet connectivity, and unfavourable study environment at home.

In another study Cole, (2011) found that family and/or home-environment has a strong impact on educational achievement. Many, background variables affect the impact of the family and home-environment (such as socio-economic status, level of parental education, family size, etc.) but parental attitudes and behaviour, especially parents' involvement in home learning activities, can be crucial to learners' achievement and can overcome the influences of other factors (Cole, 2011). According to Johannes et al. (2020), teachers of schools in Germany were confronted with the need to adapt to online teaching due to the COVID-19 pandemic lockdown. In a regression analyses, Johannes et al. (2020), analysed the extent to which the teachers maintained social contact with students and mastered core teaching challenges, potential factors (such as school computer technology), teacher competence (such as their technological pedagogical knowledge), and teacher education learning opportunities (pertaining to digital teaching-learning); and concluded that ICT tools, particularly digital teacher

competence and teacher education opportunities to learn digital competence, are instrumental in adapting to online teaching during COVID-19 pandemic lockdown. Learners also faced academic stress during COVID-19 pandemic lockdown (Moawad, 2020). A Delphi study employing descriptive and quantitative analysis (Olmos_Gomez, M. C., 2020) to analyze the impact of learning environments and psychological factors in university students during a period of teaching placements in Spain in the COVID-19 pandemic lockdown, determined associations between learning environments and psychological factors in relation to the group to which they belonged (whether undertaking a degree in primary education, physical education and sport, early education or social education), and sex; and the data of the study demonstrated that learning environments differ according to the degree course studied which revealed significant differences in relation to learning environments and psychological factors in adaptive confinement contexts. Daniel et al. (2006) found connections between multiple components of the home-environment, and reported that the virtual environment allowed a temporal depiction of home-environment issues and solutions. According to Rasmitadila et al. (2020) online learning is a success during COVID-19 pandemic lockdown which was determined by readiness of technology, with curriculum that included the support and collaboration of all the stakeholders. Researchers emphasize that the way young people function in cyberspace and the choices they make regarding their use of Internet resources, computer games or software depend mostly on communication and socialization in their home-environment (Wasinski & Tomczyk, 2015).

Review of related literature revealed that home-environment is a significant dimension influencing attitudes, behaviour of the learner. It is generally reported that un-conducive home-environment reduces the possibilities of learning capabilities. The environment of a learner is significantly correlated with the success or achievement.

Research Objectives

The objectives of the study are-

• To ascertain the perceptions of teacher-trainees about undertaking online teaching-learning during COVID-19 pandemic

• To determine the influence of home-environment on online teaching-learning during COVID-19 pandemic lockdown among teacher-trainees

• To seek the opinion of teacher-trainees regarding undertaking online teaching-learning post- COVID-19 pandemic

Methodology

Keeping the objectives of the study in view, quantitative descriptive survey method was used for the study. In view of the lockdown and need for maintaining social distancing due to COVID-19, the study was conducted using an online survey tool - Google forms. Data was analysed using statistical methods and then interpreted for arriving at conclusions. According to the objectives the questionnaire comprised of 35 items on a Likert scale to study the influence of home-environment during online teaching-learning during COVID-19 pandemic lockdown among teacher-trainees. Also, the opinion of teacher-trainees for undertaking online teaching-learning post- COVID-19 pandemic was studied.

Population and Sample

To conduct the survey, a sample of 271 teacher-trainees was taken up through Snow-ball non-probability sampling from different colleges/universities of Uttar Pradesh, India. The candidates were identified from two state universities; and two private universities viz., MJP Rohilkhand University (Bareilly) & CCS University (Meerut); Teerthanker Mahavir University (Moradabad) & IFTM University (Moradabad) respectively. The data thus collected showed that the respondents were from six cities i.e., Moradabad, Bareilly, Sambhal, Meerut, J.P. Nagar and Rampur of Uttar Pradesh, India.

Instruments for Data Collection

A structured self-made questionnaire based on five-point Likert scale comprising 35 items was developed to for administering on the teacher-trainees using Google forms and sent digitally via email as well as through sharing link of Google form through WhatsApp with the teacher-trainees. The survey questionnaire had three sections.

The first section explains the respondents of the survey details and instructions for filling the survey. The second section collected socio-demographic details of the respondents. The rest of the questionnaire comprised 35 Likert type items to know their perceptions, influence of home-environment, and to seek the opinion of teacher-trainees regarding delivery of online teaching-learning. All the Likert items had five options ranging from strongly disagree (1) to strongly agree (5).

Reliability & Validity

To establish the face and content validity, the developed questionnaires was evaluated by the subject-area experts. A pilot study was conducted by administering the survey questionnaire on a set of 48 teacher-trainees from the sample. To find the reliability, the Cronbach alpha value was calculated which came out as 0.8; signifying a good reliability of the questionnaire. Thereafter, the questionnaire was circulated to be administered over a period of one month (September-October, 2020) and this way a data of 271 teacher-trainees was collected from Uttar Pradesh, India.

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Data Analysis

The data generated based on the questionnaire was analysed quantitatively through descriptive statistical techniques, and presented through various charts and tables.

The Likert type scale consisted of 35 statements; 22 item statements showed a mean value greater than 4.0 which indicates that most of the respondents reflects their agreement towards the item statement to the questionnaire. The remaining 13 statements showed the mean value lies between 4.0 and 3.0, which suggests that only a few respondents remained indecisive in their responses to the item statements of the questionnaire.

Further the standard deviation with respect to most of the statements was found to be a small value. Since, the standard deviation is the statistical measurement of the amount of the number varies from the average number in a series; and a low value of standard deviation suggests that the data is very closely related to the average and thus very reliable.

Table 1: Mean & Standard deviation of Item-statements

S. No.	Item statement	Mean	Standard Deviation
1	My University/college offers online teaching-learning during COVID-19 pandemic	4.5	0.84
2	I, myself turned to online learning for my studies during COVID-19 pandemic?	4.47	0.78
3	I have a good knowledge regarding the use of technology for online Teaching-learning	4.13	1.06
4	I have my own digital device for virtual/online learning	4.4	0.9
5	I used to study virtually/online even before the COVID-19 time	3.6	1.22
6	I had increased usage of digital technologies for learning during the COVID-19 pandemic	4.3	0.96
7	I had a good availability of electricity for learning online during the COVID-19 pandemic	4.0	1.03
8	I had a good availability of internet for the smooth functioning of online teaching-learning during COVID-19 pandemic during COVID-19 pandemic	3.73	1.21
9	I use WhatsApp with teachers to connect with them before COVID-19	4.13	1.02
10	I use WhatsApp with teachers to connect with them during COVID-19	4.3	0.89
11	Online teaching-learning from home, during COVID-19, helped me stay motivated towards my goal of becoming a professional teacher	4.3	0.8
12	Studying online from home gives me the freedom and flexibility to study at my pace	4.07	1.08
13	I feel at ease in appearing in online sessions from home	4.05	0.99
14	During my training/internship I felt the relevance of online teaching-learning for school students	4.04	0.93
15	During my training/internship I felt school students motivated for their studies through Online mode from their home	4.12	1.01
16	I have a dedicated study area at home for my online teaching-learning	3.99	1.0
17	At my home, I had a good availability of economic resources to me for my Online teaching-learning	3.8	1.16
18	My Family felt satisfied finding me teaching-learning from home during COVID-19	4.08	1.09
19	My family would like me to carry out teaching-learning online from home post-COVID-19 also	3.84	1.16
20	Most of the members in my family are educated	4.40	0.89
21	My Family Supported me while teaching-learning online from home during COVID-19	4.40	0.84

S. No.	Item statement	Mean	Standard Deviation
22	I think, an educated family supports more in studying virtually from home	4.2	0.96
23	I think, studying virtually from home is influenced by the learners' marital status	4.07	0.94
24	I cannot complete the given work/activities after the online session due to home tasks	3.71	1.25
25	House-hold chores distract me in learning online from home	3.60	1.27
26	Online teaching-learning from home gives me a monotonous feeling	3.97	1.01
27	I miss my peer group while learning online from home	4.22	1.02
28	Online teaching-learning from home, during COVID-19, makes me stressful	3.80	1.13
29	I felt learning online is easy, but teaching online is difficult from home	4.0	1.11
30	Online teaching-learning from home during lockdown has increased my overall workload in comparison to the situation prior to lockdown	4.0	1.06
31	I feel online teaching-learning should be provided compulsorily with regular teaching-learning	3.66	1.29
32	My overall experience of bringing the teacher in the home for online teaching-learning during COVID-19 pandemic lockdown was positive	4.05	1.1
33	I had a good/positive experience of teaching students online from home during my training/internship during COVID-19 pandemic lockdown	3.92	1.09
34	I recommend the continuation of online teaching-learning for the school students	3.83	1.2
35	I prefer for the continuation of online teaching-learning post-COVID-19 for teacher training courses	3.8	1.22

Findings & Interpretation of Data

The findings of the study based upon the data analysis of the sample are described as below:

Table 2: Demographical details of the sample

Category	Sub-category	No. of Respondents	Percentage
University	CCSU	4	1.50%
	IFTM	8	3.00%
	MJPRU	37	13.70%
	TMU	222	81.90%
	Total	**271**	
Type of University	Private	230	84.90%
	State	41	15.10%
	Total	**271**	

Category	Sub-category	No. of Respondents	Percentage
Teacher Training Course	B.A. B.Ed. (4-year Integrated)	4	1.50%
	B.Ed. (2 years)	46	17%
	B.El.Ed.	78	28.80%
	B.Sc. B.Ed. (4-year Integrated)	3	1.10%
	D.El.Ed.	140	51.70%
	Total	**271**	
Medium	English	52	19.20%
	Hindi	219	80.80%
	Total	**271**	

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The data of Table-2 revealed that the respondents were found pursuing D.El.Ed. (51.7%), B.El.Ed. (28.8%), B.Ed. (2 years) (17%), B.A. B.Ed. (4-year Integrated) (1.50%) and B.Sc. B.Ed. (4-year Integrated) (1.10%), from two state universities; MJP Rohilkhand University (Bareilly) & CCS University (Meerut), and two private universities viz. Teerthanker Mahavir University (Moradabad) & IFTM University (Moradabad). The demographic details of the respondents are graphically represented in Figure 1.
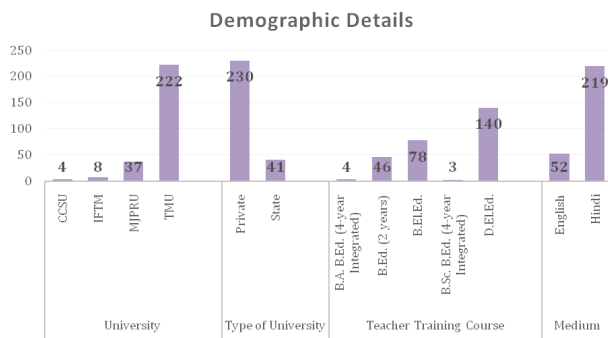

Fig. 1: Demographic Details of the sample

Since, the present research is focussed on the influence of home-environment on online teaching-learning during COVID-19 pandemic lockdown among teacher-trainees, the socio-demographic data collected from the sample is described below.

The study of influence of home-environment finds its relevance as the teaching-learning took place completely in the environment of home during the lockdown period. Also, the previous researches have revealed that the socio-demographic details like gender, age, background, marital status and family immensely contribute to the home-environment of a learner, and has a close association to the learners' participation (Mansour et al., 2016) in the teaching-learning process.

Table 3: Socio-demographic data of the respondents

Category	Sub-category	No. of Respondents	Percentage
Gender	Female	187	69.1%
	Male	84	30.9%
	Total	271	
Age Group	21-25	227	83.8%
	26-30	30	11.1%
	31-35	10	3.7%
	36-40	4	1.5%
	Total	271	

Category	Sub-category	No. of Respondents	Percentage
Background	Rural	147	54.3%
	Urban	124	45.8%
	Total	271	
Marital Status	Married	38	14%
	Unmarried	233	86%
	Total	271	
Employment Status	Employed	60	22.2%
	Unemployed	211	77.8%
	Total	271	
Family Size	Large	65	24%
	Small	206	76%
	Total	271	
Family Type	Joint	132	48.7%
	Nuclear	139	51.3%
	Total	271	

Table 3 reveals that 83.8% respondents were young (i.e., age group 21-25 years) and 69.1% were female and 30.9% were males. Also, most of the respondents were found unemployed (77.8%), unmarried (86%). More than half (54.3%) were from rural background. About three-fourths (76%) had a small family and 51.3% belonged to a nuclear family. The socio-demographic data of the respondents are graphically represented in Figure 2.
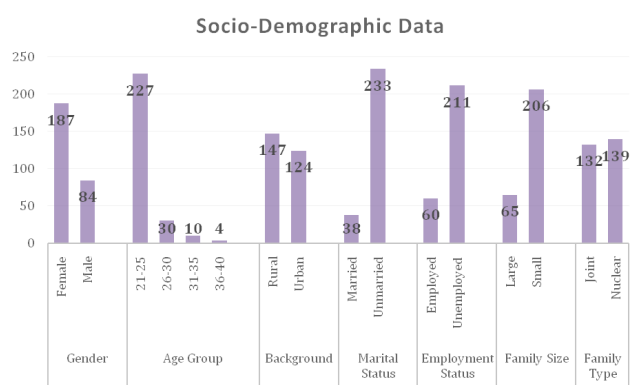

Fig. 2: Socio-Demographic Data.

During COVID-19 pandemic lockdown, the whole teaching-learning process has witnessed a random and sudden shift to the online methods, which made all of us carry out all the teaching-learning activities from the four-walls of home.

The physical characteristics of learning environments can affect learners emotionally, with cognitive and behavioural consequences (Graetz, 2006). So, the home-environment has a great influence of an individual's participation in teaching-learning as well their psychology. The present study attempts to study their preferences for the use of digital device, digital platform, etc.

Table 4: Digital Use for Online teaching-learning

Category	Sub-category	No. of Respondents	Percentage
Preference for Digital Device	Computer Desktop/ Laptop	43	15.9%
	Mobile	228	84.1%
	Total	271	
Preference of social media Group	Facebook	47	17.4%
	WhatsApp	224	82.6%
	Total	271	
The platform used by my University	Google Meet	101	37.3%
	Zoom	154	56.8%
	WhatsApp	16	5.9%
	Total	271	
Classes taken during training	Primary	122	45%
	Upper-Primary	89	32.8%
	Both	60	22.2%
	Total	271	
Platform used by me for teaching students	Google Meet	29	10.7%
	WhatsApp	171	63.1%
	Zoom	71	26.2%
	Total	271	

Table 4 reveals that most of the respondents prefer to use mobiles (84.1%) to carry out their teaching-learning. However, it was observed that their preference for the use of mobile devices is due to its easy availability, affordability and the convenience of its use. It is in coherence with the research of Male & Burden (2014), which reported that the flexibility of use and portability of the digital mobile devices has the potential that allows ease of access with no bounds of time. Thus, it was also in consonance with data collected about the preference to use the social media groups which revealed the preference for WhatsApp groups (82.6%), over the Facebook groups (17.4%).

Further, it was revealed that the respondents use the Instagram, Twitter etc just to have the new knowledge about the ongoing educational process globally.

The data also revealed that the respondent teacher-trainees are taking their own subject-classes via Zoom (56.8%) and Google-Meet (37.3%) as their University or College is using it to connect with them; however, when it comes to their internship for teaching the students most of the respondent teacher-trainees prefer to use WhatsApp (63.1%) to teach the students.

The use of WhatsApp again is due to its easy availability as well as its user-friendly interface among the students, whom the teacher-trainees are teaching during their training in lockdown period as well as for the teacher-trainees.

The data about the digital use for online teaching-learning of the respondents are graphically represented in Figure 3.
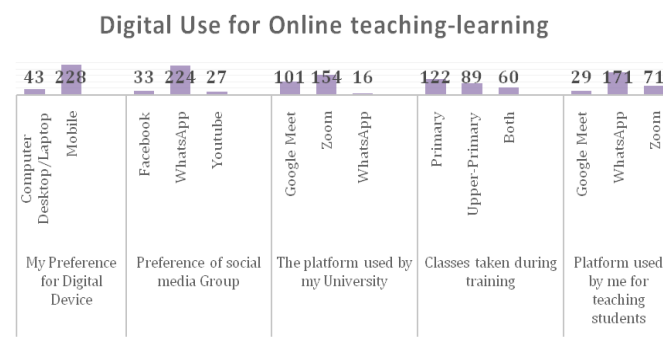

Fig 3: Digital Use for Online teaching-learning

Discussion

I. *Perceptions of teacher-trainees about undertaking online teaching-learning*

The data about the perceptions of teacher-trainees about undertaking online teaching-learning is given in the table 5.

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Table 5: Perceptions of teacher-trainees about undertaking online teaching-learning

S. No.	Item statement	Strongly Disagree		Dis-agree		Neutral		Agree		Strongly Agree	
		No.	%	No.	%	No.	%	No.	%	No.	%
1	My University/college offers online teaching-learning during COVID-19 pandemic	2	0.74%	10	3.69%	21	7.75%	55	20.3%	183	67.53%
2	I, myself turned to online learning for my studies during COVID-19 pandemic?	2	0.74%	3	1.11%	28	10.33%	70	25.83%	168	61.99%
3	I have a good knowledge regarding the use of technology for online Teaching-learning	10	3.69%	13	4.80%	38	14.02%	79	29.15%	131	48.34%
4	I have my own digital device for virtual/online learning	3	1.11%	11	4.06%	27	9.96%	62	22.88%	168	61.99%
5	I used to study virtually/Online even before the COVID-19 time	24	8.86%	18	6.64%	66	24.35%	78	28.78%	85	31.37%
6	I had increased usage of digital technologies for learning during the COVID-19 pandemic	3	1.11%	13	4.80%	40	14.76%	51	18.82%	164	60.52%
7	I had a good availability of electricity for learning online during the COVID-19 pandemic	8	2.95%	13	4.80%	58	21.40%	82	30.26%	110	40.59%
8	I had a good availability of internet for the smooth functioning of online teaching-learning during COVID-19 pandemic during COVID-19 pandemic	16	5.90%	32	11.81%	54	19.93%	75	27.68%	94	34.69%
9	I use WhatsApp with teachers to connect with them before COVID-19	6	2.21%	13	4.80%	51	18.82%	70	25.83%	131	48.34%
10	I use WhatsApp with teachers to connect with them during COVID-19	2	0.74%	13	4.80%	25	9.23%	70	25.83%	161	59.41%

The data of table 5 reveals that almost all the institutions used and offered Online teaching-learning during COVID-19 pandemic.

61.99% of the respondents were strongly agreed that they themselves turned to online learning for their studies during COVID-19 pandemic, finding the relevance of online teaching-learning especially during COVID-19 pandemic lockdown.

48.34% of the respondents were strongly agreed that they have a good knowledge regarding the use of technology for online teaching-learning.

61.99% of the respondents were strongly agreed that they have their own digital device for virtual/online learning.

31.37% of the respondents were strongly agreed that they used to study virtually/Online even before the COVID-19 time. However, about one-fourth of the respondents (24.35%) were unsure to answer for their use to study virtually/online even before the COVID-19 time. 8.86% of the respondents showed their disagreement studying virtually/online even before the COVID-19 time.

60.52% of the respondents strongly agreed that they had increased usage of digital technologies for learning during the COVID-19 pandemic.

Also, most of the respondents agreed that they had a good availability of electricity for learning online during the COVID-19 pandemic as well as internet for the smooth functioning of online teaching-learning during COVID-19 pandemic during COVID-19 pandemic.

Also, more than half of the respondents agreed that they had not used WhatsApp with teachers to connect with them before COVID-19; however, most of the respondents agreed that they had an increased use of WhatsApp with teachers to connect with them during COVID-19.

II. *Influence of home-environment on Online Teaching-Learning during COVID-19 Pandemic lockdown among teacher-trainees*

The data about the influence of home-environment on online teaching-learning during COVID-19 Pandemic lockdown among teacher-trainees is given in Table 6.

Table 6: Influence of home-environment on Online Teaching-Learning during COVID-19 Pandemic lockdown among teacher-trainees

S. No.	Item statement	Strongly Disagree		Dis-agree		Neutral		Agree		Strongly Agree	
		No.	%	No.	%	No.	%	No.	%	No.	%
11	Online teaching-learning from home, during COVID-19, helped me stay motivated towards my goal of becoming a professional teacher	2	0.74%	7	2.58%	36	13.28%	71	26.20%	155	57.20%
12	Studying online from home gives me the freedom and flexibility to study at my pace	11	4.06%	15	5.54%	40	14.76%	83	30.63%	122	45.02%
13	I feel at ease in appearing in online sessions from home	6	2.21%	13	4.80%	53	19.56%	88	32.47%	111	40.96%
14	During my training/internship I felt the relevance of online teaching-learning for school students	7	2.58%	7	2.58%	49	18.08%	111	40.96%	97	35.79%
15	During my training/internship I felt school students motivated for their studies through online mode from their home	5	1.85%	18	6.64%	41	15.13%	82	30.26%	125	46.13%
16	I have a dedicated study area at home for my online teaching-learning	6	2.21%	22	8.12%	36	13.28%	111	40.96%	96	35.42%
17	At my home, I had a good availability of economic resources to me for my online teaching-learning	12	4.43%	30	11.07%	49	18.08%	83	36.63%	97	35.79%
18	My Family felt satisfied finding me teaching-learning from home during COVID-19	10	3.69%	20	7.38%	31	11.44%	85	31.37%	125	46.13%
19	My family would like me to carry out teaching-learning online from home post-COVID-19 also	15	5.54%	19	7.01%	60	22.14%	76	28.04%	101	37.27%
20	Most of the members in my family are educated	5	1.85%	8	2.95%	23	8.49%	71	26.20%	164	60.52%
21	My Family Supported me while teaching-learning online from home during COVID-19	3	1.11%	6	2.21%	29	10.70%	72	26.57%	161	59.41%
22	I think, an educated family supports more in studying virtually from home	4	1.48%	11	4.06%	45	16.61%	70	25.83%	141	52.03%
23	I think, studying virtually from home is influenced by the learners' marital status	5	1.85%	9	3.32%	54	19.93%	95	35.06%	108	39.85%
24	I cannot complete the given work/activities after the online session due to home tasks	19	7.01%	35	12.92%	45	16.61%	78	28.78%	94	34.69%
25	House-hold chores distract me in learning online from home	30	11.07%	17	6.27%	65	23.99%	78	28.78%	81	29.89%
26	Online teaching-learning from home gives me a monotonous feeling	7	2.58%	15	5.54%	56	20.66%	92	33.95%	101	37.27%
27	I miss my peer group while learning online from home	7	2.58%	13	4.80%	37	13.65%	68	25.09%	146	53.87%
28	Online teaching-learning from home, during COVID-19, makes me stressful	13	4.80%	26	9.59%	50	18.45%	95	35.06%	87	32.10%
29	I felt learning online is easy, but teaching online is difficult from home	13	4.80%	17	6.27%	39	14.39%	90	33.21%	112	41.33%
30	Online teaching-learning from home during lockdown has increased my overall workload in comparison to the situation prior to lockdown	8	2.95%	19	7.01%	48	17.71%	84	31.00%	112	41.33%

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The data revealed that 57.20% of the respondents strongly agreed that online teaching-learning from home, during COVID-19 pandemic lockdown, helped them stay motivated towards their goal of becoming a professional teacher. 45.02% of the respondents strongly agreed for studying online from home gave them freedom and flexibility to study at their pace; and 40.96% and 32.47% responded that they feel at ease in appearing in online sessions from home during COVID-19 pandemic lockdown. 35.79% of the respondents said that during the training/internship of their teacher training programme, they felt the relevance of online teaching-learning for school students. 46.13% responded that they find school students motivated for their studies through online mode from their home.

Home-environment plays a major role when it comes to teaching-learning from home, which includes the availability and affordability of the space to study to a learner. Situations and scenario were entirely different in the lockdown as everybody had a different experience of lockdown. Teaching-learning online from home requires a dedicated space to use and set all the digital equipment at one place to use it as per the requirement. The present data revealed that only about one-third (35.42%) of teacher-trainees had a dedicated study area at home for online teaching-learning. A similar proportion (35.79%) recorded the response that they had a good availability of economic resources for their online teaching-learning. 46.13% of the participants responded in agreement that their families felt satisfied finding them teaching-learning from home during COVID-19. Also, 37.27% responded that their families would like them to carry out teaching-learning online from home post-COVID-19 as well.

60.52% of the respondents said that most of the members in their families are educated, and 59.41% strongly agreed that their families supported them while teaching-learning online from home during COVID-19 pandemic lockdown. Also, 52.03% agreed they think that an educated family supports more in studying virtually from home, which suggests that if their families had not been educated, they would not have got the required support to carry out their teaching-learning online. 39.85% respondents also agreed that studying virtually from home is influenced by the learners' marital status, since being married they handle more responsibilities of their families. 34.69% respondents said that they could not complete the given work/activities after the online session due to home tasks. And, 29.89% respondents strongly agreed, that house-hold chores distracted them in learning online from home. However, 23.99% were undecisive.

Out of total respondents 37.27% strongly agreed and 33.95% were simply agreed (on the Likert scale) that they had a monotonous feeling while online teaching-learning from home. However, 20.66% were undecisive. 53.87% strongly agreed that they missed their peer group while learning online from home during COVID-19 pandemic lockdown, and 13.65% were undecisive.

It has been debated among the researchers about the increase of stress level among the learners while teaching-learning online. This study found that 32.10% respondents strongly agreed and 35.06% simply agreed on Likert scale, i.e., a total of two-thirds (67.16%) agreed that they experienced stress engaging in online teaching-learning from home during COVID-19. However, 18.45% showed a neutral response. According to Melhuish et al. (2008), there is an influence of home-environment on the pre-school learners in the achievement of literacy and numeracy. Since the respondent teacher-trainees took the primary and upper-primary sections during their internship from home during COVID-19 pandemic lockdown, which involves a lack of resources to carry out their teaching effectively, keep their students motivated to learn online, as well as manage this with all their household chores, it made their online teaching more challenging; however, they find online learning for themselves comparatively easier. A total of 74.54% (i.e., 41.33% who strongly agreed and 33.21% who simply agreed on Likert scale) responded that they faced difficulty in 'online-teaching', however they find 'online-learning' is comparatively easier from home.

Undoubtedly the ubiquitous integration of technology into teaching-learning has helped people to continue to teach and learn from home. It has allowed us to experience new learning models beyond the classroom (Milrad et al., 2013); but these new teaching-learning models of teaching-learning online from home has compelled the learners and teachers to experience new challenges and an increased workload that has resulted in stress, since it was a rapid and sudden shift due to COVID-19 pandemic lockdown. The present research revealed that during COVID-19 pandemic lockdown the overall workload increased. 41.33% respondents strongly agreed and 31.00% simply agreed on the Likert scale, which suggests that a total of 72.33% agreed that they had an increased overall workload due to online teaching-learning from home during lockdown in comparison to the situation prior to lockdown and only 17.71% were neutral and indecisive for their response.

III. Opinion of teacher-trainees for undertaking online teaching-learning post- COVID-19 pandemic

The views of the respondents regarding undertaking online teaching-learning post- COVID-19 pandemic is given in Table 7.

Table 7: Opinion of teacher-trainees for undertaking Online teaching-learning post- COVID-19 pandemic

S. No.	Item statement	Strongly Disagree		Dis-agree		Neutral		Agree		Strongly Agree	
		No.	%	No.	%	No.	%	No.	%	No.	%
31	I feel online teaching-learning should be provided compulsorily with regular teaching-learning	31	11.44%	16	5.90%	55	20.30%	80	29.52%	89	32.84%
32	My overall experience of bringing the teacher in the home for online teaching-learning during COVID-19 pandemic lockdown was positive	15	5.54%	6	2.21%	49	18.08%	80	29.52%	121	44.65%
33	I had a good/positive experience of teaching students online from home during my training/internship during COVID-19 pandemic lockdown	13	4.80%	18	6.64%	42	15.50%	101	37.27%	97	35.79%
34	I recommend the continuation of online teaching-learning for the school students	18	6.64%	20	7.38%	55	20.30%	74	27.31%	104	38.38%
35	I prefer for the continuation of online teaching-learning post-COVID-19 for teacher training courses	20	7.38%	22	8.12%	51	18.82%	77	28.41%	101	37.27%

The data of Table 7 revealed that 37.27% of the respondents strongly agreed and 29.52% agreed and feel that online teaching-learning should be provided compulsorily with regular teaching-learning, however 20.30% were neutral towards the continuation of online teaching-learning with regular teaching-learning.

44.65% and 29.52% of the respondents affirmed their agreement on the Likert scale that their overall experience of bringing the teacher in the home for online teaching-learning during COVID-19 pandemic lockdown was positive.

About 35.79% of the respondents strongly agreed and 37.27% simply agreed on the Likert scale, which suggests that a total of 73.06% were agreed that they had a good/positive experience of teaching students online from home during their training/internship during COVID-19 pandemic lockdown.

38.38% of the respondents were strongly agreed and 27.31% were simply agreed on Likert scale i.e., a total of 65.69% respondents recommended the continuation of online teaching-learning for the school students. However, only 20.30% were indecisive or neutral to the continuation of online teaching-learning for the school students.

37.27% of the respondents were strongly agreed and 28.41 % were simply agreed on Likert scale i.e., a total of 65.68% respondents showed their preference the continuation of online teaching-learning post-COVID-19 for teacher training courses.

Thus, the data revealed that besides facing the various challenges, the teacher-trainees have a positive opinion on the use and continuation of online teaching-learning even post-COVID-19 pandemic lockdown.

Conclusion

Since, the study focusses on the online teaching-learning during COVID-19 pandemic lockdown and influence of home-environment on teacher-trainees in the context of the sudden shift to the online teaching-learning methodologies in the current scenarios of pandemic COVID-19 pandemic and the influence of home-environment. It revealed a positive perception of online teaching-learning among the teacher-trainees. It was observed that the teacher-trainees struggled due to the sudden shift to online teaching-learning. Adoption of online teaching-learning demands sincere efforts in the direction of managing and reducing the stress and workload of teacher-trainees i.e., the future teachers.

Thus, keeping in view the findings of the study, it is recommended that the institutions should use the digital platform which is easily available, convenient to use as well as affordable by the learners, which can monitor their learning activities and performance. Also, in teacher training

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programmes, capacity-building of teacher-trainees should be focussed more in order to enhance their competencies to teach in a technology-enhanced environment. Also, availability of digital device for the students and the teacher-trainees should be ensured to increase the access; despite providing the trainings to the teacher-trainees.

The data revealed that besides facing the various challenges, the teacher-trainees have a positive opinion on the use and the adoption of Innovative teaching-learning methods. The study concludes that online pedagogy and digital skills need to be strengthened for future; ensuring increased availability and accessibility to innovative teaching-learning methods with an improved quality. Thus, the present study suggests incorporating and adopting blended learning methodologies in the school education and teacher training programmes, as school education and teacher training programmes are closely inter-connected to each other.

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Annexure 1

Submission Date	Submission Id	Word Count	Character Count
15-Oct-2020	D94763492 (Urkund)	6915	47252

Urkund Analysis Result

Analysed Document:	Noor & Dr Ratra Mam Paper_influence of Home Environment - (D94763492)
Submitted:	10/15/2020 7:11:00 PM
Submitted By:	amiteshwar@ignou.ac.in
Significance:	1 %

Sources included in the report:

https://www.researchgate.net/publication/342882491_E-readiness_of_senior_secondary_school_learners_to_online_learning_transition_amid_COVID-19_lockdown

Instances where selected sources appear: 1

Reviewers Comment

Reviewer's Comment 1: COVID-19 has affected every sector and education is not an exception to it. It was provided the possibilities to carry on the education while sitting in the home but learning online from home is a different experience. Thereby the research is very significant and original as it is based on primary data collected from the teacher-trainees of Uttar Pradesh, India.

Reviewer's Comment 2: The study focuses on studying the views of teacher-trainees for the current transition to online teaching-learning and the influence of home-environment on it during the COVID-19 pandemic lockdown. The suggestions of the study are very practical and suggest incorporating and adopting Blended learning methodologies in the school education and teacher training programmes.

Reviewer's Comment 3: Authors have collected data from 271 teacher-trainees from different colleges/universities from Uttar Pradesh (India), using snowball non-probability sampling, which is quite a large number and the findings of the study can be generalized for a larger sample.

Citation

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Conflict of Interest: Author of a Paper had no conflict neither financially nor academically.

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Editorial Excerpt

The article has 01% of plagiarism which is the accepted percentage as per the norms and standards of the journal for the publication. As per the editorial board's observations and blind reviewers' remarks the paper had some minor revisions which were communicated on a timely basis to the authors (Aisha & Amiteshwar) and accordingly all the corrections had been incorporated as and when directed and required to do so. The comments related to this manuscript are noticeably related to the theme "**Influence of Home-environment on Online Teaching-Learning during COVID-19**" both subject-wise and research-wise. The present research article aims to study the views of teacher-trainees for the current transition to online teaching-learning and the influence of home-environment on it during the COVID-19 pandemic lockdown. This study will provide useful insights into the challenges of online teaching-learning and implications for researching teacher-trainees' use of technology in the future. The present study suggests incorporating and adopting Blended learning methodologies in the school education and teacher training programmes. Overall, the paper promises to provide a strong base for the further studies in the area. After comprehensive reviews and editorial board's remarks the manuscript has been categorised and decided to publish under "**Empirical Research Paper**" category.

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