Does Technostress Affect Skill Development? A Study among the Covid-19 Batch College Students in Alappuzha District, Kerala State, India

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4 June 2024

Does Technostress Affect Skill Development? A Study among the Covid-19 Batch College Students in Alappuzha District, Kerala State, India

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Abstract

The sole intention of this paper is to understand the technostress and its impact on the skill development of students who underwent online education during the time of Covid-19 Pandemic. Analyzing data obtained from 23 students who attended online classes from selected colleges in the Alappuzha district of Kerala state, India, the study has found that the students experienced technostress of a mild level on account of their immediate exposure to the online learning methods, although the problems did not turn out to be as serious as many previous studies point out. Students did take no longer time to adapt to the new methods of teaching. But, they were of the view that online learning took away their private time. The Study has also shown that technostress that the students experienced has had certain undesirable, albeit not so severe, adverse consequences on their skill development.

Keywords: Technostress, Online Learning, Private Time, Free Time, Skill Development

The unprecedented hike in the number and frequency of the AI (Artificial Intelligence) assisted teaching and learning methods that have been widely observed among the undergraduate students particularly in the backdrop of Covid-induced lockdown and social distancing appear to be ultimately ending up with the creation and exacerbation of technostress among the students. Despite the perceived tall claims that AI assisted services generally offer, it is evident that the frequent and inadvertent use of such learning methods have irreparable consequences on the quality of learning and the general health status that the students accomplish in their life (Seo, Tang, Roll, Fels, & Yoon, 2021). The problem *per se* is likely to be more severe and

widespread among the undergraduate students who generally use low standard devices having no precautionary measures, and due to the compulsion in learning process and apparent absence of any supervision, as it is generally expected in the case of well-learned and well-to-do parents, these students are more likely to be vulnerable to the long-term consequences of technostress. Against this background, this study intends to enquire into the impacts of technostress on the skill development among the undergraduate students

I.   Statement of the Problem

The issue of technostress mainly driven by excess and unsupervised use of Chatbot services and other online facilitating technologies has been witnessing an unprecedented increasing trend in recent times thanks to the overemphasis being attached to the online learning materials. It is true that technology assisted learning methods enhances the learning experience of students in a most efficient way by ensuring that learning becomes more competitive and productive (Battaglino, Halderman, & Laurans, 2012). This is particularly true when students at large face many access barriers to offline mode of education. However, it has been shown that the end result of the excess use of technology supported learning and teaching experience in terms of health, mental and social issues has surfaced as an important issue in recent times (Lynch, 2018). It becomes matter of concern that such adverse consequences often go unnoticed, resulting in no apparent technological and policy corrections. Although it has been widely acclaimed that the use of technology adds to the skill development of students, studies have shown that it negatively impacts their skill acquisition and impair their psychological development (Wang, Hsieh, & Kung, 2023). Skills like reading and writing may be adversely affected by the excess use of technology (Alhumaid, 2019). Hence, it is imperative that these undesirable consequences need to be fathomed in order to contain such negative effects, and to take precautionary steps to limit the creation of such bad consequences. The learning in Covid-19 times was a tiresome for the College going students as they had to immediate shift to a new platform of online learning recommended by the teachers. Many studies have shown that even in Covid-19 times, students really preferred class room face-to-face instructional method instead of Online methods although it was not possible given the severity of the Pandemic (Aguilera-Hermida, 2020). Students had to rush to the device stores to purchase smart phones or laptops to engage in Online learning. For students belonging to poor income families purchasing a smart phone was luxury. Yet, many could arrange either by borrowing funds or through any other means. Many education institutions and organizations offered smartphones to low income students so that they could continue their online learning process. Three years

down the line since Covid-19 disrupted our offline classroom instructional methods, it is interesting to probe into the technostress that these students went through, and whether such technostress has created any perceptible changes in the skill development of the students. The preset study intends to look into these aspects among the Covid-19 College batches in different colleges in the district of Alappuzha in Kerala state that comes under the Indian Union.

Objectives

The broad objectives of the present study center on the following:

1. To examine the problems that students encountered pertaining to online learning.
2. To analyze the impact of technostress on their further skill development.

II. Methodology

The present study makes use of primary data to delve into the above narrated objectives. Questionnaire was prepared keeping in mind the above objectives. Information were obtained from the respondents using the Google forms. Three streams of students were chosen as sample frame. From each batch, students were chosen using simple random sampling methods, and such selected students were sent the Google forms, and requested them to complete and submit the forms within a stipulated time frame. Although google form embedding the questionnaire was sent to selected students, only 23 responses have been actually recorded.

Conceptual Framework

Before we dwell into the crux of the analysis, it is necessary to throw some light on the concepts that come across with the study. Coined by psychologist Craig Brod in 1984 in his book 'Technostress: The Human Cost of Computer Revolution', the word 'technostress' has gained wide currency in academic as well as in applied fields particularly in the backdrop of the speed with which the world has been digitalized in recent times (Salazar-Concha, Ficapal-Cusí, Boada-Grau, & Camacho, 2021). Simply put, for operational purpose, the word 'technostress' may be used to connote a condition of stress that people (in our context, College going students) pass through on account of the use and application of Information and Communication system and associated technologies (Tarafdar, Q, Ragu-Nathan, & Ragu-Nathan, 2007). To a greater extent, technostress can be considered as psychology related issue although the reasons for it are attributed to the engagement of people in fields where technological advancement is all pervasive (Burke, 2009). It might not surprise one that the problem of technostress has been reported widely from the emerging economies of the world like China, India and Indonesia

which shows that the attempt to economies to incorporate the involvement of ICT in the production of goods and services costs more to human beings (Sinkovics , Stottinger , Schlegelmilch , & Sundaresan, 2002). Interestingly, Craig Brod, the introducer of the term 'technostress' defines it in a negative way in the sense it is nothing but the 'inability' of the human being 'to cope with the new computer technologies in a health manner' (Brod, 1984). Studies have shown that 'technostress' often manifests in five dimensions: techno-overload, techno-invasion, techno-complexity, techno-insecurity and techno uncertainty (Chen, 2015).

III.   Literature Survey

Studies have shown that technostress has negatively impacted the work productivity and the quality of life of people (Hung, Chang, & Lin, 2011). Several studies have shown remarkable gender disparity in the impact of technostress. It has been pointed out generally that male students can easily withstand the undesirable consequences of technostress and they have been found to be easily coping with the problem of technostress (Broos, 2005). However, studies also question this male oriented capacity to cope with the technostress phenomenon. Labour market studies throw light on the fact that male often experience much untoward things related to technostress compared to their female coworkers (Tarafdar, Q, Ragu-Nathan, & Ragu-Nathan, 2007).

IV.   Findings and Discussion

Looking at the socio-economic profile of the respondents, it may be specified that only important features like gender, income status into APL/BPL, location viz. Rural/Urban and employment status have been considered here. The fact a little more than 70 percent fall under the female category might not surprise one given the declining number of male students attending higher education institutions in Kerala (Table No.1). In the case of APL/BPL category where only 49.3 coming under the APL might raise the eyebrows of many as the tall claims of poverty having been reduced in recent times. However, given the fact that the responses are opinions of surveyed people, over-reporting especially in the case of BPL can be taken as quite natural. Again 78.7 percent coming from Rural area is a little surprising as Kerala has already become near urbanized state.

**Table 1 Socio-Economic Profile of Respondents (in Percent)**

Gender

|	
Male	29.3
Female	70.7
APL/BPL	
APL	49.3
BPL	50.7
Rural/Urban	
Rural	78.7
Urban	21.3
Employment Status	
Employed	13.3
Not Employed	86.7
Previous Degree Batch	
BCom	70.7
BA	29..3

Source: Primary Data, 2024

Students as we know normally prefer offline classroom interactive classes to online classes. Moreover, online classes offered by google meet and zoon were new to the students. In this background, it might appear as not surprising, although disheartening, around half of the respondents strongly agree with the fact that there were forced to use online platforms for attending classes during the pandemic days (Figure No.1). Further it may be noted that among those who strongly agree with this opinion, 53 percent are female, showing that female students were found to be have been forced to attend online class compared to their male counterparts (Figure No.2).

Figure 1 In Covid Days, I was forced to use Online Platforms for attending classes
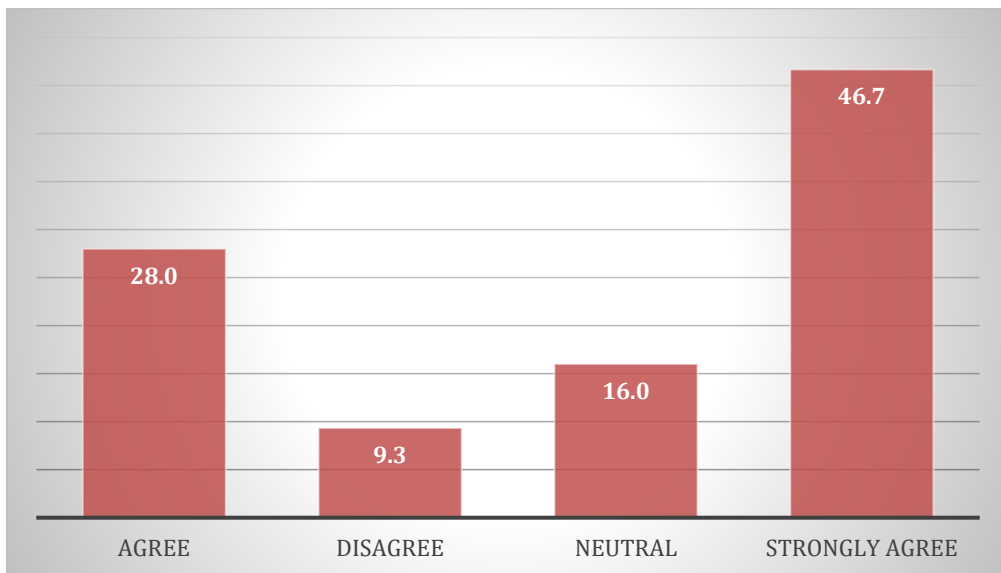
Source: Primary Data, 2024

**Figure 2 Gender Wise Distribution of ' In Covid Days, I was forced to attend Online Platforms'**
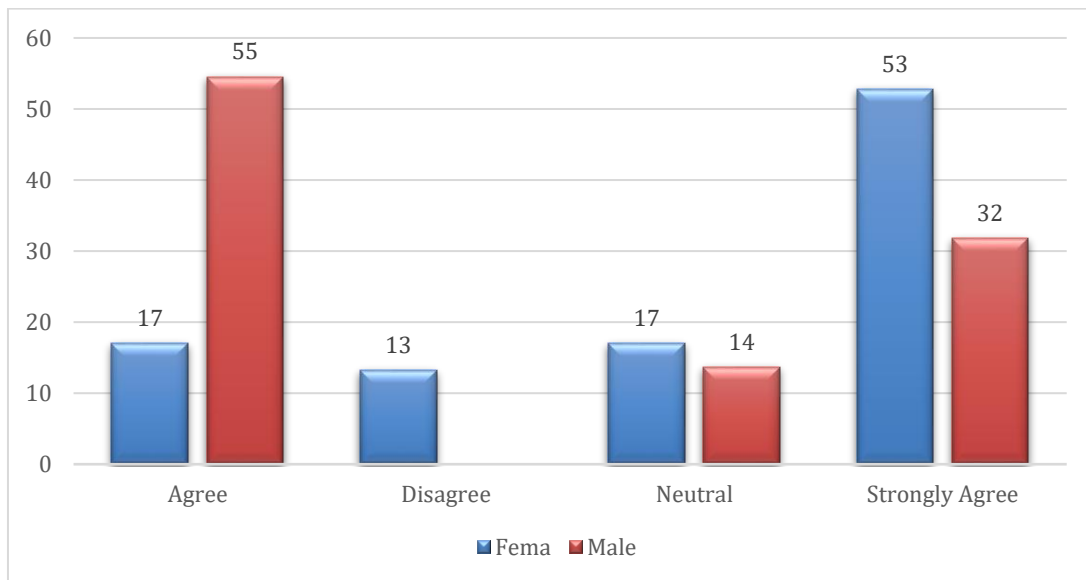
Source: Primary Data, 2024

Attending online classes at homes eats into the free time of students. Free time is the time when you are free of all works. Free time is not private time. Private time is the time when you are not officially or professionally put at no work. If you see a film with your child to satisfy the interest of the child, it cannot be considered as your free time. Free time has more value, perhaps equal to the work time, as free time helps one to be more productive and constructive

in further works. At homes students especially those hailing from poor background may supplement to the household income by engaging in productive works. It is found that female students engage in household non-remunerative works and sometimes in care works. It is disheartening that a major part of the students who attended online classes are of the view that such classes has had adverse effect on them as it took away their precious free time which they could have even used for some productive activities leading to supplementing their household income (Figure No.3).

Figure 3 In Covid times, at home, I was forced to change my free times to attend online classes
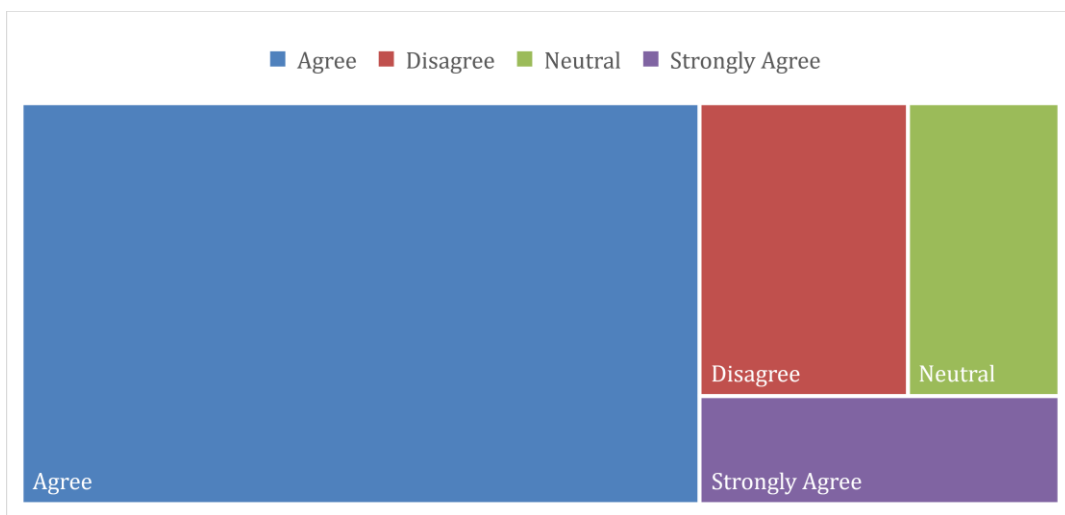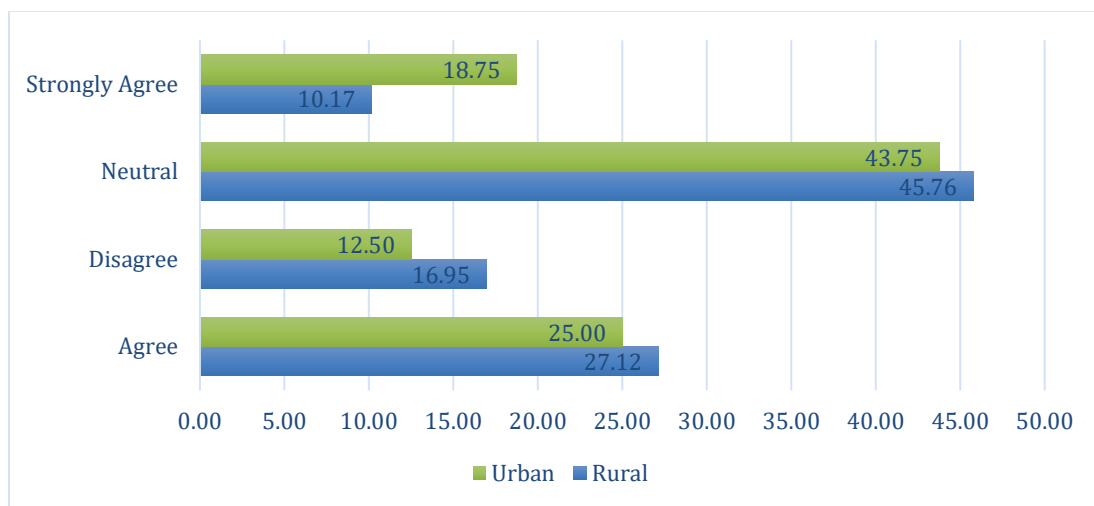

Source: Primary Data, 2024

Coming to the loss of private time due to the Pandemic, it is observed that majority of students are neutral about the view that online classes ate into their private time (Table No.2). It needs to be mentioned here that private time is not the same as the free time. Private time is 'any time which is not controlled by anyone else and is entirely yours and this could be anywhere, anytime'. Your free time could be used for anything that even becomes beneficial for others, but your private time is to be used for your purpose. That means your free time can be used by other for their own purpose, of course with your permission. Looking at the rural/urban wise distribution of the opinion regarding the private time being eaten by the online classes, it can be observed that there is much difference between the student coming from rural and urban locations (Figure No.4)

Table 2 I lost my private time to attend the classes

Opinion	Percent
Agree	26.67
Disagree	16.00
Neutral	45.33
Strongly Agree	12.00
Total	**100.00**

Source: Primary Data, 2024

Figure 4 Rural/Urban Distribution of ' I lost my private time to attend the classes'

Source: Primary Data, 2024

One important aspect that leads to the creation of technostress is the difficulty that students encounter in using the technology. Although attending online classes does not require much technical knowledge, for students exposed to the online world suddenly on account of the Covid-19 Pandemic, it might have created certain issues. To simply elicit the opinion of students, the study just probed into whether they found online classes more complex or difficult (Table No.3). To our surprise, the response turned out to be a mixed one, and 37 percent was neutral about their opinion and none was found to be strongly agreeing to the statement (Table No.3). It does mean the technically speaking online classes offered through the platforms of Zoom and Google Meet were not so complex and difficult for the students.

Table 3 I found online classes more complex and difficult to follow

Opinion	Percent
Agree	25.33
Disagree	21.33
Neutral	37.33
Strongly Disagree	16.00
Total	**100**

Source: Primary Data, 2024

For many, as we know, the online classes were quite new as they might not have come across with it prior to the Pandemic times, and they might have taken a longer time to understand it. In fact, this actually creates technostress among the students at the initial stage of their online learning, although the intensity of this would be reduced subsequently. The study shows that students didn't take much time to understand the technology. Surprisingly, it could be observed that 34.7 percent disagree with the opinion that we put as the statement, and only 12 percent opined that they took much longer time to understand the technology of online learning (Table No.4). Clearly it shows that technology appeared friendly to the students during the Pandemic time.

**Table 4 I didn't know the technology and took a long time to understand it.**
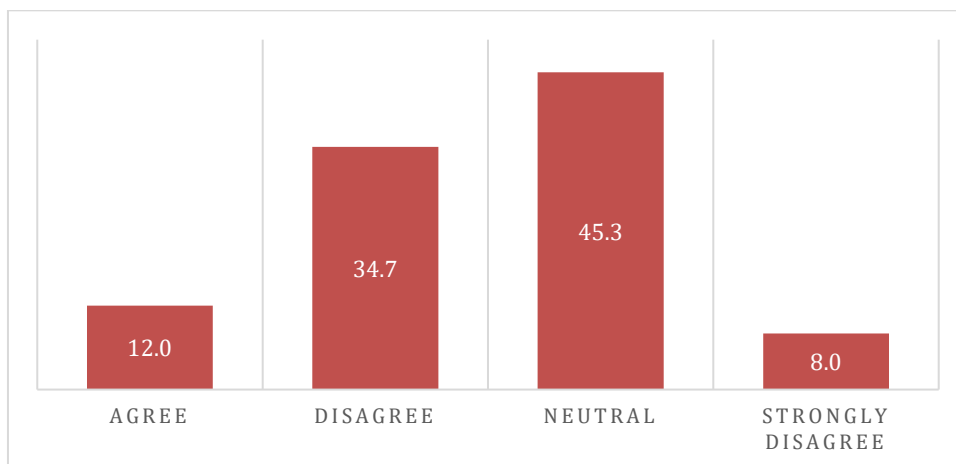
Source: Primary Data, 2024

Turning to the improvement of skill, we could observe mixed responses. Of course online learning might have added the new skill of using the online technology, but it is sure that it might have resulted in losing their time and interest in sharpening and improving their innate and essential skills in life. For instance, it is evident that as students spend more time to engage

in online classes looking at the computer or mobile screen for longer time, they lose the opportunity to read and write, adversely affecting their reading and writing skills. Although none strongly disagree with the statement that *'I didn't get time to upgrade my other skills'* 32 percent agree with it and 12 percent strongly agree with it (Figure No..5). It evidently shows that a good percent of students found it difficult to upgrade their skills on account of their hectic engagement with the online classes.

Table 5 I didn't get time to upgrade my other skills
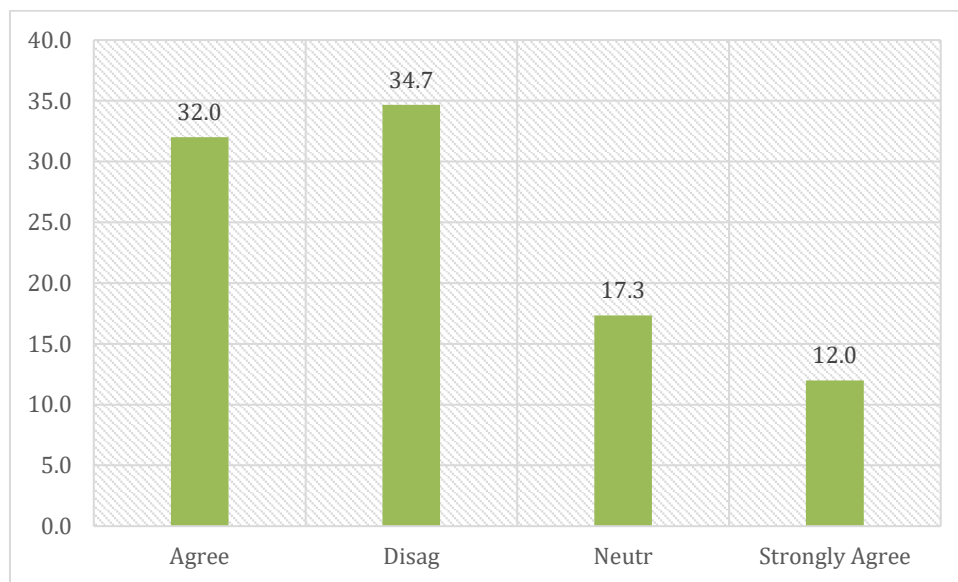
Source: Primary Data, 2024

Many studies have shown that online classes during the time of Pandemic have had adverse consequences on the development skills including reading and writing skills among the students. In the present study, it appears that to the statement *'I believe that my skills have been badly affected by Online Classes'*, respondents have given an almost unclear and mixed responses. But, it is quite obvious that none of them strongly disagrees with it while 20 percent and 28 percent *strongly agree* and *agree* with it respectively (Figure No.5). Hence, it can be said that for slight majority of students online classes have affected their future skill development.

Figure 5 I believe that my skills have been badly affected by Online classes
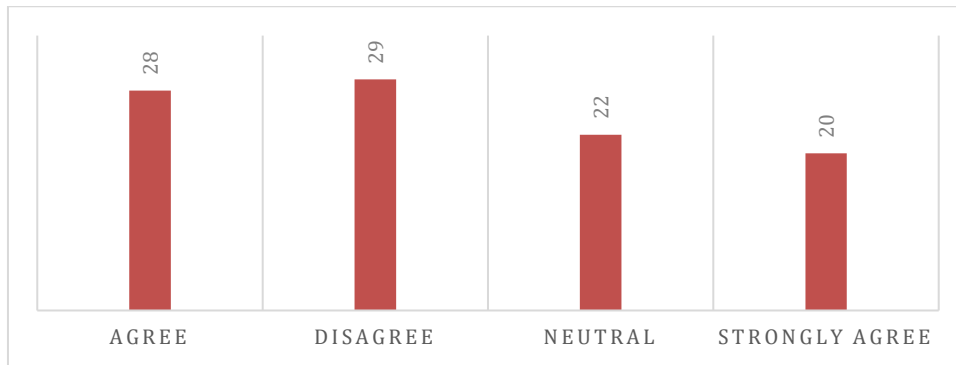
Source: Primary Data, 2024

V.   Conclusion

This paper has twin objectives: First, to examine the problems that students encountered pertaining to online learning. This objective has been put with the intention of understanding whether students went through any technostress during the Pandemic times. Secondly, to analyze the impact of technostress on their further skill development. The study has found that students had to pass undergo the technostress at different times of their online learning, although its intensity was not so severe. Regarding the second objective, the study clearly shows the encounter of students with online classes has had adverse consequences on their skill development.

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