A Study of Technostress Among Higher Education Teachers

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Abstract

People use technology to complete their tasks effectively and efficiently. Using Information Communication and Technology in Education is beneficial for reducing time and place barriers in the teaching-learning process. It gives more output with minimum effort and ultimately increases the work productivity of teachers as well as students. The present study aimed at studying technostress among teachers at higher education institutions. A questionnaire developed by Ragu-Nathan and Ragu-Nathan (2008) was used to measure the level of technostress of higher education teachers. Sixty-two higher education teachers were selected using a simple random sampling technique from Bareilly District. The findings revealed that the majority of higher education teachers fall under the category of a high level of technostress. No significant difference was found between male and female teachers on technostress; both groups exhibit high technostress. Higher education teachers were not found to differ significantly in the level of technostress. Researchers also found that Science, Arts, and Commerce teachers had no significant difference in the level of technostress, but higher education teachers of these streams were facing a high level of technostress.

Keywords: *Technostress, higher education teachers, Science, Arts, Commerce.*

Introduction

Advancements in technology result in benefits for every sector, whether it is the education sector or the business sector, but technological advancements have created some negative perceptions among employees. Including technology in education makes teaching-learning easy, saves time, and reduces the difficulty level. In contrast to this, on the other hand, technology increases physical and psychological workload.

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It also happens due to the rapid advancement in technology. Unless and until the user understands the present system and software, the new version of that software is released. It is one of the reasons for stress among users.

Brod (1984) defined the concept of techno-stress as a "modern adaptation disorder resulting from failure in coping with new technologies in a healthy way" (as cited in Salazar et al., 2021). Technostress is the inability of an individual who is feeling unable to use technical devices. It is the feeling of anxiety while adopting new technical devices and doing work with these devices for a long period of time.

The teacher's role is very crucial while integrating technology in the teaching-learning cycle. Teachers are facing a number of problems in integrating technology. Teachers who are glued to the technology can handle the work easily; otherwise, they feel fear or resistance to go with the technology. There may be a number of devices they need to work with, such as internet connectivity, smartphones, tablets, webcams, personal computers, laptops, microphones, projectors, etc. Regular use of these devices may lead a person towards technostress.

A strong belief in using technology will be helpful in reducing technostress (Harahap & Effiyanti, 2015). The teacher's level of technostress is medium and is not affected by gender (Coklar et al., 2016). Confidence level increases with the increase in experience of using technical devices (Daling, 2017). An inverse relationship was there between psychological capital and technostress (Efilti & Coklar, 2019). Important factors in experiencing technostress include difficulty in adopting technology, privacy issues while using technology, and benefits of technology. To reduce technostress of teachers, support by co-workers is very crucial (Khlaif et al., 2023). Technical issues work as the main contributor towards technostress and motivate teachers to leave their profession (Siddiqui et al., 2023).

Objectives of the study

1. To study the level of technostress among higher education teachers.
2. To compare technostress of higher education teachers on the basis of gender.
3. To find out the difference between technostress among rural and urban higher education teachers.
4. To compare technostress of higher education teachers in relation to their stream.

Hypotheses of the study

H0 1. There is no significant difference between male and female higher education teachers on their technostress.

H0 2. There is no significant difference between rural and urban higher education teachers in reference to technostress.

H0 3. There is no significant difference in Science, Arts and Commerce teachers in relation to their technostress.

Sample

The present study comprises of 62 higher education teachers as sample. Both rural and urban higher education teachers of different streams (Arts, Science and Commerce) were selected randomly for the study. The sample comprises of both male and female higher education teachers.

Tool

Technostress questionnaire developed by Ragu-Nathan and Ragu-Nathan (2002) was used by the researcher. This questionnaire consists of 24 items under the five dimensions namely techno- overload, techno- invasion, techno-complexity, techno-insecurity and techno-uncertainty.

Discussion and Findings

The main objective of the research is to know the level of technostress among higher education teachers and to compare them in relation to their technostress.

Table 1: Level of technostress among higher education teachers (N= 62)

S. No.	Level of technostress	Raw score range	Number of students	Percentage
1	High technostress	77 & above	36	58.06
2	Moderate technostress	37- 76	25	40.32
3	Low technostress	36 & below	1	1.62
	Total			**100**

Table 1 presents the percentage distribution of technostress levels among higher education teachers. Interpretation of the table revealed that out of sixty-two teachers

from higher education, thirty-six teachers (58.06%) had a high level of technostress; twenty-five teachers (40.32%) had a moderate level of technostress, whereas only one teacher (1.62%) had a low level of technostress. After analysis, it is found that most of the teachers are experiencing a high level of technostress. It means teachers are facing problems while using technology.

Table 2: Technostress of higher education teachers on the basis of gender

Groups	N	Mean	SD	df	t		Remark
Male	28	81.21	13.76	60	0.30	Not Significant	Null hypothesis accepted
Female	34	82.35	10.60				

The data in Table 2 shows the comparison of male and female teachers on technostress. The obtained 't' value, i.e., 0.30, is found to be not significant at the 0.05 level of significance. It indicates that there is no significant difference in technostress between male and female higher education teachers. Therefore, the null hypothesis, "There is no significant difference between male and female higher education teachers on their technostress," is accepted.

Table 2 presents the mean scores of technostress of higher education teachers with respect to gender, which are found to be 81.21 and 82.35, respectively. On the basis of mean scores, it is found that the technostress of female teachers is slightly higher than that of male higher education teachers, but both groups fall under the category of a high level of technostress. Coklar (2016) also found no difference between male and female levels of technostress. Both groups in that study fell in the medium level of technostress.

Table 3: Technostress among rural and urban higher education teachers.

Groups	N	Mean	SD	df	t		Remark
Rural	18	82.66	12.67	60	0.282	Not significant	Null hypothesis accepted
Urban	44	81.5	15.51				

The data in Table 3 compares the technostress of rural and urban higher education teachers. The calculated 't' value, i.e., 0.282, is found to be not significant at the

0.05 level of significance. It shows that there is no significant difference between rural and urban higher education teachers. Therefore, the null hypothesis, "There is no significant difference between rural and urban higher education teachers in reference to technostress," is accepted.

Further, Table 3 presents the mean scores of rural and urban higher education teachers, which are found to be 82.66 and 81.5, respectively. It is interpreted that the technostress of rural higher education teachers is slightly higher than that of urban higher education teachers, but both groups fall under the category of high-level technostress.

Table 4: Comparison of technostress of higher education teachers with regard to stream (Science, Arts & Commerce)

Groups	Count	Sum	Mean	Variance
Science	25	2013	80.52	153.01
Arts	25	2025	81.00	285.33
Commerce	12	1028	85.66	191.87

ANOVA

Source of Variation	SS	df	MSS	F	P-value	F crit
Between Groups	235.8675	2	117.93	0.55087	0.57937	3.15312
Within Groups	12630.91	59	214.08			

Table 4 clearly shows that the calculated F-value (0.5508) is not significant at the 0.05 significance level. It is inferred that the mean scores of teachers do not differ significantly in relation to their stream of teaching. Therefore, the null hypothesis is accepted.

Table 4 also shows that teachers from Science, Arts, and Commerce streams do not differ significantly at the 0.05 level of significance. The mean value indicates that the technostress level of Commerce teachers is higher than that of Science and Arts teachers. Badoni (2023) found Social Science/Commerce stream teachers having lower technostress than Science/Mathematics stream teachers.

Summary

The present research work aims to study the technostress among higher education teachers. On analyzing, it was found that majority i.e. 58.06% of higher education teachers had a high level of technostress followed by 40.32% of teachers showing a moderate level of technostress. Only a few i.e. 1.62% had a low level of technostress. The result indicated that the excessive use of technology in workplace increases the level of technostress on teachers. No significant difference was found in the level of technostress on the basis of gender, locality and stream. However, female teachers, rural teachers and teachers with the Commerce stream had slightly higher mean scored on technostress than their counterparts. On interpreting the mean scores, it was revealed that both male and female teachers, as well as rural and urban teachers, were experiencing a high level of technostress.

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