Attitude towards E-learning among Rural and Urban School Teachers in Relation to their Technostress

Gagandeep Kaur (Research Scholar)
Department of Education
Desh Bhagat University
Mandi Gobindgarh, Punjab

Dr. Rajan Sethi
Desh Bhagat University
Mandi Gobindgarh,Punjab

ABSTRACT

This article is output of the study conducted to examine school teachers' attitude towards e-learning and the attitudinal difference with respect to background variables. The main findings of the study are: 1) Rural school teachers significantly score higher than urban school teachers with respect to ease of e-leaning, e-learning confidence and total attitude towards e-learning. 2) Rural school teachers score little higher than urban school teachers on e –learning interest and usefulness of e-learning. 3) Most of the rural as well as urban school teachers have medium level of techno stress. 4) Techno stress has weak but positive relationship with usefulness of e-learning. With all other dimensions the relation is very weak.

Keywords: Attitude, e-learning, techno stress, information, technology

Introduction

E-teachers are the new generation of teachers who will work in an internet environment in both regular and virtual class room situations. They will build new concepts of working in time and space. E-teachers collaborate, build and discover new learning communities and explore resources as they interact with information, materials and ideas of their students and colleagues. With this background, it is time to find some answers so that as e-teaching and e-learning are given support and recognition in the new global school house.

E-learning covers a broad area within ICT Education and comes in many media formats. Today the most common format for e-learning is the internet, which itself is a broad field of study as outlined by Palmer (2001): The internet offers a new range of educational technologies to educators that includes: electronic mail, file transfers, the multimedia capability of the World Wide Web, low cost desktop video conferencing, online interactive tutorials, real time group conferencing, remote access to laboratory experiments and 3D interactive modeling. E-learning involves the use of computers to aid in the learning.

Scholl (2002) defined attitude as a mental predisposition to act that is expressed by evaluating a particular entity with some degree of favor or disfavor, individual generally have attitude that focus on object, people or institute."An attitude is a more or less stable set or disposition of opinion, interest or purpose, involving expectancy of a certain kind of experience and readiness with an appropriate response" (Trivedi, Tripta, 2012).

An individual faces a plethora of demands, opportunities and challenges on an everyday basis both at the work place and life in general. Some of these demands or events produce a stress reaction for the individual. If the individual is working and is experiencing job stress, it also has serious results on his work behavior and hence the organization where he works (Mohan, 2004). Tarafadar et al., (2007) defined techno-stress as a problem of adaptation as a result of a person's inability to cope with or to get used to information and communication technologies (ICT). Other terms that were synonymous with techno-stress indentify by other researchers include technophobia, cyber phobia, computer phobia, computer anxiety, and computer stress. In addition, the term digital depression has also been used to identify the feeling of an employee when being overwhelmed by technology (Chua, Chen and Wong 1999; Durndell And Haag, 2002; Mustaffa, Yusof, and Saad, 2007).

Review of Related Literature

Jones and Jones (2005) compared teacher and student attitudes concerning use and effectiveness of Web-based course management software. His result indentified that attitudes of both faculty and students were positive- both believed that the World Wide Web was a beneficial e-learning tool in learning process. They considered themselves computer literate, active and competent course info users. Faculty, significantly more than students, believed that both teacher-student and students communication was facilitated. Students, much more than faculty felt that the Web had improved student learning.

Babo and Azevedo (2012) discussed a new way of e-learning evaluation approach on learners relating to organizing the team work and Learning Management Systems. E-learning courses are commonly assisted by Learning Management System. E-learning became more common in the current time so the researcher has assessed learners by using E-learning methods. The results of this study showed this study is suitable for moving from a traditional way to E-learning method.

Glazer (2004) investigated teachers who successfully learned to use a variety of technology tools in a workshop setting still needed additional support to concertize their applicable to his/her students learning. However, educators do not use computer as a tool for their profession due to factors such as Techno-stress and Technophobia, many teachers do not utilize computers as a tool for learning (Humphery, 2000).

Coklar, Efilti et al. (2016) find the reasons leading to techno-stress experienced by teachers, who are the addressee of an intensive use of technology as a result of an integration process to which they are subjected in this study. For this purpose, qualitative data were collected from 64 teachers, who benefit from technology intensively and themes were prepared using 117 different opinions after the content analysis. According to this, there are five main reasons indicating techno-stress experienced by teachers: individual problems, technical problems, education oriented problems, health problems and time problem. It was also observed in the study that the distribution of reasons leading to techno-stress experienced by teachers also differs in terms of gender.

Objectives
1) To study attitude towards e-learning among rural and urban school teachers.
2) To study association of techno-stress among school teachers with the rural and urban schools.
3) To study the relationship of the attitude towards e-learning with techno-stress among rural and urban school teachers.

Hypothesis
> H.1.1: There is no significant difference in rural and urban school teachers with respect to total attitude towards e-learning and its dimensions viz:

a) E-learning interest
b) Usefulness
c) Ease of e-learning
d) E-learning confidence
> H.1.2. There is no association between school teacher's techno-stress levels with the rural and urban schools.
> H.1.3. There is no relationship of total attitude towards e-learning and its dimensions with techno-stress levels among school teachers.

Delimitations of the study
1) The area of the current research was taken from dist. Sri Muktsar Sahib (Punjab).
2) The area of the research was delimited to Rural and Urban schools of Punjab.

Methodology of the study
The present study employed survey method and is descriptive in nature. Stratified random sampling was employed for the selection of schools. 30 schools were selected for the present study. i.e. 15 from rural and 15 from urban back ground areas respectively.

A total number of 400 teachers were selected by using stratified random sampling technique. Here the units in the sample are proportional to their presence in the population. From the selected schools, 200 teachers were chosen from rural schools and 200 from urban schools. Out of 400 teachers 200 male and 200 female teachers were taken up for the study.

Tools Used
1) Attitude towards E-learning scale by Dimple Rani (2015).
2) Techno-stress Questionnaire by Ragu-Nathan and Ragu-Nathan (2002).

1. Analysis of attitude towards e-learning scores of rural and urban schools

Table 1.1: Descriptive statistics and Independent sample t-test of E-Learning Interest with respect to locality of school

Variable	Group		N	Mean	S.D.	T	Df	P
E-Learning Interest	Locality of school	Rural	200	3.4707	.37452	1.675	798	.094
		Urban	200	3.4254	.39015			

Note: N= Sample size; S.D. = Standard deviation; df= degree of freedom; p= Significance value; t= Student's t- statistics value

Interpretation:
The table 1.1 shows the average e-learning interest for the teachers from rural and urban school. It is clear from the table that average score of e-learning interest is higher for the rural school teachers as compared to urban school teachers. This difference in mean values was tested for statistical significance with the help of independent sample t-test. As evident from the table p value is more than assumed level of significance (0.05). Therefore, there is no significant difference in e-learning interest among teachers working in rural and urban schools of Punjab.

Hence, null hypothesis i.e. H1.1 there is no significant difference in rural and urban school teachers with respect to e-learning interest is accepted.

Table 1.2: Descriptive statistics and Independent sample t-test of usefulness of e-learning respect to locality of school

Variable	Group		N	Mean	S.D.	T	Df	P
Usefulness of e-learning	Locality of school	Rural	200	3.4077	.33013	1.611	798	.108
		Urban	200	3.3714	.30546			

Note: N= Sample size; S.D. = Standard deviation; *df*= degree of freedom; *p*= Significance value; t= Student's t- statistics value

Interpretation:

            The table 1.2 depicts the usefulness of e-learning for the teachers from rural and urban schools teachers. It can be seen from the table that average score of usefulness of e-learning is higher for rural school teachers as compared to the urban school teachers. Independent sample t-test as performed to test its statistical significance. As it is depicted from the table that *p* value is greater than assumed level of significance (0.05). Therefore, there is no difference in usefulness of e-learning in rural and urban schools teachers of Punjab.

Hence, null hypothesis H1.1 i.e. there is no significant difference in rural and urban school teachers with respect to usefulness of e-learning is accepted.

Table 1.3: Descriptive statistics and Independent sample t-test of ease of e-learning with respect to locality of school

Variable	Group		N	Mean	S.D.	t	*Df*	*P*
Ease of e-learning	Locality of school	Rural	200	3.2703	.34781	3.645	798	.000
		Urban	200	3.1788	.36186			

Note: N= Sample size; S.D. = Standard deviation; *df*= degree of freedom; *p*= Significance value; t= Student's t- statistics value

Interpretation:

            The table 1.3 shows the average ease of e-learning for the teachers from rural and urban school. It is evident from the table that average score of ease of e-learning is lower for the rural school teachers as compared to urban school teachers. This difference in mean values was tested for statistical significance with the help of independent sample t-test. As evident from the table *p* value is less than assumed level of significance (0.05). Therefore, there is significant difference in ease of e-learning among teachers working in rural and urban schools of Punjab. **Hence, null hypothesis H1.1 i.e. there is no significant difference in rural and urban school teachers with respect to ease of e-learning is rejected.**

Table 1.4: Descriptive statistics and Independent sample t-test of E-Learning confidence with respect to locality of school

Variable	Group		N	Mean	S.D.	t	*Df*	*P*
E-Learning confidence	Locality of school	Rural	200	3.5331	.46307	3.798	798	.000
		Urban	200	3.4093	.45887			

Note: N= Sample size; S.D. = Standard deviation; *df*= degree of freedom; *p*= Significance value; t= Student's t- statistics value

Interpretation:

            The above table 1.4 depicts the average of e-learning confidence for rural and urban school teachers. It is evident from the table that average score of e-learning confidence is higher for the rural school teachers as compared to urban school teachers. This difference in mean values was tested for statistical significance with the help of independent sample t-test. As shown in the table *p* value is less than assumed level of significance (0.05). Therefore, there is significant difference in e-learning confidence among teachers working in rural and urban schools of Punjab.

Hence, null hypothesis H1.1 i.e. there is no significant difference in rural and urban school teachers with respect to e-learning confidence is rejected.

Table 1.5: Descriptive statistics and Independent sample t-test of total attitude towards E-Learning with respect to locality of school

Variable	Group		N	Mean	S.D.	T	*Df*	*P*
Attitude towards E-Learning	Locality of school	Rural	200	3.4206	.29239	3.584	798	.000
		Urban	200	3.3462	.29431			

Note: N= Sample size; S.D. = Standard deviation; *df*= degree of freedom; *p*= Significance value; t= Students's t- statistics value

Interpretation:

            The table 1.5 depicts the usefulness of e-learning for the teachers from rural and urban schools teachers. It can be seen from the table that average score of total attitude towards e-learning is higher for rural school teachers as compared to the urban school teachers. Independent sample t-test as performed to test its statistical significance. As it is depicted from the table that *p* value is less than assumed level of significance (0.05). Therefore, there is difference in total attitude towards e-learning in rural and urban schools teachers of Punjab. **Hence, null hypothesis H1.1 i.e. there is no significant difference in rural and urban school teachers with respect to total attitude towards e-learning is rejected.**

2. Analysis of techno stress scores with respect to locality of school

Table 2.1: Association of school teacher's techno-stress with the locality of school

Locality of school	High techno-stress	Low techno-stress	Medium techno-stress	Chi-square Value	Df	P value
Rural	40	15	145	1.625	2	.444
Urban	39	10	151			

Note: *df*= degree of freedom; *p*= Significance value

Interpretation:

         Table 2.1 shows school teacher's techno-stress levels with the locality of school. It evident from the table that medium techno-stress is much higher than high and low techno-stress for both rural and urban school teachers. Chi-square was performed to test the statistical significance of the association of school teacher's techno-stress with the locality of school. So, there is no association between school teacher's techno-stress with the locality of schools of Punjab.

Hence, null hypothesis H1.2 i.e. there is no association between school teacher's techno-stress levels with the locality of school (i.e. rural and urban) is accepted.

2. **Relationship of attitude towards e-learning with techno-stress among school teachers**
Table 3.1 Point Bi-serial correlation of attitude towards e-learning and it's dimensions with techno-stress

Variables	E-Learning interest	Usefulness of e-learning	Ease of e-learning	E-learning confidence	Total attitude towards e-learning
Techno-stress	.002	.081*	.037	-.017	.028

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Interpretation: The table 3.1 shows the relationship of attitude towards e-learning with techno-stress levels among school teachers. The relationship is tested with the point Bi-serial correlation. Techno-stress has been found significantly and positively related with usefulness of e-learning only.

Thus following relationship has been established with respect to following hypotheses:

H1.3: There is very weak positive relationship of total attitude towards e-learning and its dimensions with techno-stress levels among school teachers.

EDUCATIONAL IMPLICATIONS
❖ Teachers need to be prompted to make use of internet for updating their knowledge and general awareness skills.
❖ Orientation courses for government teachers need to be organized for motivating them to go for online courses.
❖ Social science teachers need to be made aware about the benefits of e-learning.

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