

A STUDY OF AWARENESS AND USE OF TECHNOLOGY MEDIATED INSTRUCTIONAL TOOLS AND SERVICES AMONG POSTGRADUATE STUDENTS

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ABSTRACT

This write-up explores the awareness and use of technology-mediated instructional tools and services among postgraduate students. As part of this academic inquiry, postgraduate students have considerably favorable moderate awareness towards technology-mediated instruction with hardly any difference found between a) male and female; b) rural and urban; and c) with Internet access and without Internet access at home. To mention a few, technology mediated instructional tools and services i.e. e-resources, smartphone, computer lab, YouTube, blogs, Email, Instant messaging, Social networking, etc. are used by the students for learning and more importantly communicating with students' groups. The analysis of the study also recognizes technology-mediated instruction as an innovatively integrated provision of curriculum transaction promoting collaborative learning activities in the classroom and beyond.

KEYWORDS: *ICT, Awareness and Use, Technology Mediated Instruction, Higher Education*

INTRODUCTION

Integration of technology in the teaching-learning process can be as important to the academic and professional successes as the teaching-learning process in real classroom situations. There are considerable evidence that the technology-mediated instruction has relatively greater impact comparing to the traditional instructional process adopted by the universities, colleges and other institutions of higher learning and research. Technology has been ubiquitous in almost all spheres of human life. Increased participation, greater interests, and better motivation are provided with help of new information and communication technologies, devices, apparatus and other applications. Technology-mediated instruction has equally raised the issues pertaining to the accessibility and affordability etc. however this investigation is aimed at studying the awareness and use of technology-mediated instruction with regard to technological infrastructures, frequency of use. In a more dynamic fast-changing knowledge rich world, the technology brings challenges that have encouraged the academia to restructure the higher education institutions while integrating the technology in the process of teaching, learning, evaluation, and research.

Technology Mediated Instruction

Technology-mediated instruction refers to all those instructional activities that use technological innovation in the

development and delivery of course-contents to students for learning in the classroom and beyond. TMI can be defined as customizable instructional tools designed to enhance the development and delivery of course content (Williams, B., 2007, p.01). To initiate, stimulate and strengthen the learners' learning activities at various levels technological supports are required and thereby provided from time to time. Besides the high quality of learning materials, the institution has to facilitate learners' learning by providing needed supports in terms of mentoring, resolving queries, extending library facility, making use of ICTs, providing timely feedback etc. Given the ubiquity of technology, a flexible network of technology-mediated instruction along with customization support for technological integration may be much more required.

Research studies and documents (M. Josua, 2017; Tochukwu and Fatma, 2017; Gulshat, 2016; Hossain et al., 2016; Thanuskodi, S., 2013; Williams, B., 2007 and several others) have tried to explore the awareness, availability uses, opinions, responses, perceptions and challenges experienced by the students engaged in different institutions. Given the fact, it is significant here to study the awareness of technology-mediated instruction among postgraduate students with reference to gender, locality and Internet access at home.

OBJECTIVES OF THE STUDY

- to examine the awareness of technology-mediated instructional tools and services among the postgraduate students,
- to find out the use of technology-mediated instruction among the postgraduate students, and
- to analyze the significant difference, if any, in the awareness of technology-mediated instruction among the postgraduate students in terms of gender, locality and Internet access at home,

HYPOTHESES

- the postgraduate students have a considerably moderate level of awareness towards technology-mediated instruction,
- technology-mediated instructional tools and services are moderately used for the postgraduate students, and
- there exists no significant difference in the awareness of technology-mediated technology-mediated instruction among the postgraduate students in terms of gender, locality and Internet access at home.

METHODOLOGY

In the present investigation, descriptive survey method has been applied wherein awareness and use of technology-mediated instructional tools and services for the postgraduate students with respect to their gender, locality and Internet access at home were investigated. Keeping the objectives in view, a total of 72 students enrolled in two-year full-time regular programmes offered by various Departments at Gorakhpur University, were selected using simple random sampling technique. A sample consists of 72 wherein 31 (43.10%) male and 41 (56.90%) female respondents pursuing two-year full-time regular postgraduate programmes were selected. A five-point Likert type scale developed by the investigators was used to examine the awareness and use of respondents towards technology-mediated instruction in postgraduate learning activities.

Data Analyses and Interpretation

The respondents’ awareness and use of technology-mediated instruction were presented and discussed with the relevant tables in the following section of the study.

Table 1: Level of Awareness on Technology Mediated Instruction among Postgraduate Students

Sl. No.	Awareness	N	%	Mean	SD
1	High	08	11.11	44.25	2.71
2	Moderate	23	31.95	34.61	2.08
3	Low	41	56.94	27.59	2.12
Total		72	100.00		

It can be inferred from the table -1 that only 11.11% postgraduate students possess a high level of awareness towards technology-mediated instructional tools and services. While 31.95% of postgraduate students have moderate awareness level and remaining 56.94% with a low level of awareness towards technology-mediated instructional tools and services.

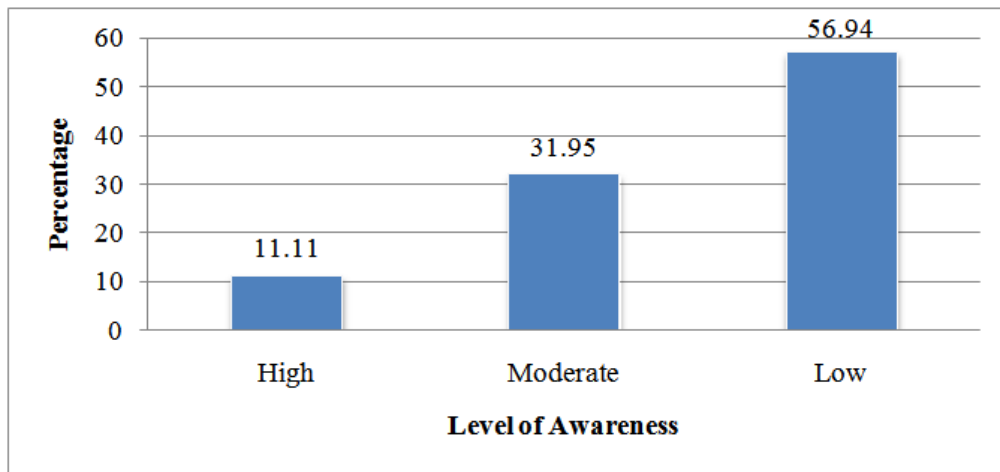


Figure 1: Percentage Distribution of Awareness

This reveals that a relatively significant number (31.95%) of the respondents have moderate awareness level towards technology-mediated instructional tools and services. Besides, a majority (56.94%) has a low level of awareness, which indicates that they need more support and knowledge about the considerable effects of technology-mediated instructional tools and services.

The use of technology-mediated instructional tools and services by the respondents for learning purposes are shown in figure 2 below:

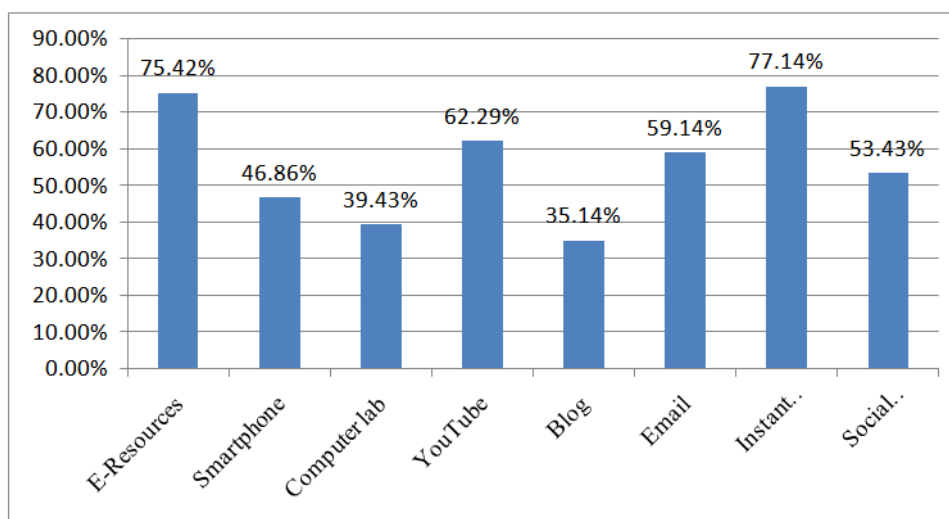


Figure 2: Use of Technologies for Learning Purposes

The distribution of sample and scores of mean and standard deviation is presented in the following table.

Table 2: Distribution of Sample, and Scores of Mean and Standard Deviation

Statistical Data	Sample	Gender		Locale		Internet access at home	
	Total (N=72)	Male (N=31)	Female (N=41)	Rural (N=19)	Urban (N=53)	Yes (N=42)	No (N=30)
Mean	31.68	31.81	31.59	27.89	33.04	33.95	28.50
SD	5.90	6.23	5.73	3.38	6.04	6.25	3.48

The significance of differences observed between means obtained on the basis of gender, locale, and Internet access at home is analyzed below with the help of statistical test i.e. mean, standard deviation and t-test.

Table 3: Significance of Mean Difference between Male and Female Students

Variable	Variable Distribution	N	df	Mean	SD	T-Value	Inference
Gender	Male	31	70	31.81	6.23	.876	Not Significant @ 0.05 Level
	Female	41		31.59	5.73		

Table 3 shows that the t-value calculated for the significance of the scores of male and female respondents is .876 which is less than the required tabulated value for significance at 0.05 level. The null hypothesis (H_0) is hereby accepted. Hence, it is concluded that there is no significant difference in the awareness of male and female postgraduate students towards technology-mediated instruction.

Table 4: Significance of Mean Difference between Rural and Urban Students

Variable	Variable Distribution	N	df	Mean	SD	T-Value	Inference
Locality	Rural	19	70	27.89	3.38	.001	Not Significant @ 0.05 Level
	Urban	53		33.04	6.04		

It is also evident that the t-value obtained for the significance of the scores of rural and urban respondents is .001 which is less than the required tabulated value i.e. 1.98 for significance at 0.05 level. Hence, the null hypothesis (H_0) is accepted. Therefore, it is concluded that there is no significant difference in the awareness of rural and urban postgraduate students towards technology-mediated instruction.

Table 5: Significance of Mean Difference between Students with Internet Access and without Internet Access at Home

Variable	Variable Distribution	N	df	Mean	SD	T-Value	Inference
Internet access at home	Yes	42	70	33.95	6.25	.281	Not Significant @ 0.05 Level
	No	30		28.50	3.48		

As evidence that the t-value obtained for the significance of the scores of respondents in terms of Internet access at home is .281 which does not exceed from the required table value i.e. 1.98 for significance at 0.05 level. Hence, the null hypothesis (H_0) here is accepted. Therefore, it is concluded that there exists no significant difference in the awareness of postgraduate students having Internet access at home and having no Internet access at home towards technology-mediated instruction

CONCLUSIONS

Technology-mediated instruction and related practices are yet to be fully realized in numerous institutions in the country, it is clear that an informed outline of theory and practices supported by an understanding of relevant pedagogy, needs to be reiterated in order to enable teachers and learners to collaboratively engage with each other in order to realize the objectives of education. Therefore, the challenge here is not just to institutions, it is to all venues of education, in order to make sure that the technology-mediated instruction continually allows the learners to develop and enhance the required knowledge, attitudes, and skills.

Educational Implications

A flexible network of technology-mediated instruction along with customization support for technological integration is much more required. The study argues that much can be learned by the awareness and use of technology - mediated instructional tools and services by the postgraduate learners irrespective of their gender, locality and Internet access at home. The analysis also emphasizes on not only the need for policy framing but also effective implementation strategies in order to determine and ensure optimum use of technology that supports the efficient teaching-learning process in the twenty-first century.

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