STUDENTS' ATTITUDE TOWARDS WEB BASED LEARNING (WBL) AT UNDER GRADUATE LEVEL IN KOLKATA

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Abstract: This study aimed to examine the attitudes of undergraduate students towards Web Based Learning in online learning in Kolkata in relation to their gender, locality & category. A self–structured closed questionnaire with 5-point Likert scale was designed for data collection from a sample of 136 undergraduate level students of Social Science. Attitude towards Web Based Learning Scale developed by was used to collect the data. The findings of the study conclude that there exists no significant difference in attitude towards Web Based Learning with respect to gender and category of the students but there exists significant differences in attitude towards Web Based Learning with respect to locality. The findings of the study have been analyzed and discussed in details in the paper. Though slow and meagre internet facilities, with least understanding of students about online learning, often develop negative approach among students regarding Web Based Learning.

Index Terms: **Web Based Learning, Online learning, Attitude, Technology, Undergraduate.**

I. INTRODUCTION

In the recent years, the unprecedented growth and development of Information and Communication Technology (ICT) has almost impacted all forms of human activities, including teaching-learning activities at all levels of education. Although the use of ICT in the teaching and learning process has been there for quite some time, the scale of its use has expanded during 2020 in the wake of outbreak of Corona Pandemic. Online learning platforms using various ICT tools are being used by teachers and educational institutions to provide learners learning experiences in different subject areas, and several teaching-learning interventions through webinars, symposia, etc. Online learning not only encourages, among learners, individualized learning, but also enhances their learning competence. ICT based instructional system develops in the learners the skills of observation, exploration, learning and doing by themselves, thereby making their learning more effective and meaningful. Further, the software packages make the learning more accessible and user friendly. Online learning platforms help the learners to learn at their own pace, without any restricted standard. The current society is witnessing growth in every arena with the everyday expansion of science and technology. Predominantly, the development of information and communication technology has made specific and general impacts on the society. Web-based instruction not only facilitates synchronous communication between learners and teacher but also asynchronous communication beyond time. Above all, it has the benefit of obliging many students at the same time without any boundary or physical space. Web-Based Instruction (WBI) is a hypermedia based teaching method that utilizes the characteristics of the web and the materials provided through the web (Kahn, 1997). Web Based Technology (WBT) is considered to be more idealistic than other instructional technologies in learner-centred teaching.

II. REVIEW OF LITERATURE

According to Asabere (2012), online learning aims to seek changes in the pattern of whole academic process. Online learning is known with many names and terms like learning through web, online learning, instruction through computer assistance.

According to Bertea (2009), some specialists were of the notion that online learning is a way of teaching in which multiple integration of technology are sought while some were of the notions that it is substitute of distance education, which is facilitated by the application of internet considered as an effective way of rapid communications.

Nichols (2003: 01) stated that online learning is a set of integration of various types of technologies solely for the purpose of promoting education. Online learning is a broad term, which provides complete description of various types of online learning adopting the modern Information and Communication Technologies (ICT).

According to Legris (2003), Technology Acceptance Model (TAM) helps in providing an overview about the behavior of students while using information technology. This model was first proposed by Davis in 1986.

As according to Ajzen (1980), the Theory of Reasoned Action (TRA) have multifaceted rings among which Technology Acceptance Model (TAM) is of the strong patch.

Davis (1989), considered TAM as the baseline protocol for defining the attitude of client to accept or reject the utilization of information technology through operating TRA. TAM actually provide a base with which the pattern of influencing confidence, attitudes and plan of using the information technology in a specified duration of time can be observed and trailed.

According to UNESCO (2006), in many developing countries, online learning emerge as profound way of teaching and learning, thus making the ratio of trained teachers towards negative directions. With the advancement and availability of technologies on fingertip (internet connection, LAN, WLAN and IT Supports) in many developing countries, the use of online learning has been increased with great pace (Williams, *et.al.* 2011:1-20) however, still some challenges are being faced in developing countries. In developing countries, the active and participative students, deemed for interactive type of learning are minute while the teaching and learning through traditional methods are numerous (Andersson, 2009; 1-6). In the same context, developing countries have least capability to apply modern practices in education.

Several studies indicated that online learning and their adoption was widely affected by students' characteristics, which were regarded as important factors in online learning in developing countries (Bhuasiri, *et.al.* 2012:843-855). These traits consists self-efficacy of internet, and experience in computer and internet, anxiety with computer usability and approaches to online learning (Chu, 2010:145-154). Students' attitudes are also affected via the excellence and easiness of using course of online learning, usability of online learning, and students' level and skills in computer (Aixia, 2011:264-268). Their computer experiences, which consists apparent self use, gratification and effectiveness and application of online learning play a dominant role (Liaw, 2011:28-32). After all, positive attitudes of students' and behaviours regarding online learning are important and necessary towards the acceptance and adoption of online learning (Selim, 2007:396–413).

The practice of Web Based Learning in increasing leaps and bounds in Kolkata as several parallel systems of school education, higher education, technical education are organized in school, college and university of West Bengal. But it was observed that students are used to misuse the new technology based Web Based Learning as they are involved with different social media activities during the use of Web Based Learning (WBL).

There are several reasons responsible for the slow growth of online learning system in Kolkata. Deep and thorough study of the literature indicated a significant and positive association between students' interest towards online learning, the usability and easiness in application of computer. Majority of past research works identify the barriers in use of online learning and the factors, which have impact on the interest of students' towards online learning. Similarly, Al-Fahad (2009) concluded from his research that

students extensively accepted m-learning (mobile learning) because wireless network make it easy for them to search, gain and work independently on learning materials and resources in a short span of time. The finding of Woo (2000: 132–139) studies showed that discussions about adoption of online learning have been time consuming and difficult. Similarly the attitudes towards online learning, Warnet, *et.al.*(2000:487-504) conducted a research on students frequently using Web CT in the course of social work, proclaimed that majority of the respondents were of the notion about the course material of online learning, which was beneficial to their overall learning experience. In the same context, Sanders (2002:251-262) evaluate students' attitude regarding enabling of learning components through Web in the course of biology at tertiary level. Findings of the study revealed progressive impact on the learning of students' with reference to their problem solving approach and development of critical thinking abilities. Similarly, Paris (2004:98-112) also assessed and examine cognition, affective and behavioural domains among the 52 students of public school in Australia with a special reference to their attitudes towards online learning. His results indicate a better response of students in support of online learning programme, while differences regarding gender wise attitude were recorded. Yang (2006) conducted a quantitative study, using structured questionnaire at the University of Taiwan, School of Nursing to explore attitudes towards web based distance learning and found positive atitutdes of students toward online learning because of the feasibility and new ways of learning. In another study, Kirkwood (2003: 155-176) used a survey and focused a group to determine the attitude of nursing students towards online learning technology at the Open University in the United Kingdom. The findings of the study showed strongly positive student's attitude regarding the application of multimedia technologies in online learning.

Similarly, Shang (2005:197-212) conducted a study on Taiwanese university students' attitudes towards the use of e-mail journaling, as a mean for learning second language. An open-ended survey was used to elicit feedback and attitude. The results revealed that students while using e-mail have positive effects on their learning, moreover, such approaches positively contributed in the improvement and performance of reading second language.

The negative attitudes of students towards online learning were also found in some past research studies. The negative attitudes of students towards online learning were identified with low level of computer skills, technological anxiety, and computer hardware problems, as well as poor study skills, low motivation, and an inability to work independently (Smith, *et.al.*2000:59-81, Govindasamy, 2001; Rosenberg, 2001). Another negative factor regarding online learning was that online classes lack personal contact with the teacher and peers. Several research studies reported that some students had feelings of isolation and loneliness when they were required to face a computer screen.

They were in mode of privation regarding face-to-face contact with the instructor as found in traditional classroom (Ponzurick, et. al, 2000:180-187).

Moreover, Furlong, et al., (2000) used a mixed method design to study the use of computer and attitude of 800 students of elementary and secondary schools in United Kingdom. The findings of the study reveal that students using computer at home has positive attitude while negative at school.

This topic is of crucial importance and needs special attention from the researcher point of view. Being an emerging and new field, it is necessary to conduct studies on every aspect of online learning. A majority of the past research work identifies barriers regarding the use of online learning and the factors, which has impact on students' interest towards online learning. However, few studies have fully investigated students' attitude towards online learning at tertiary level. The aim of the current study was to analyze students' attitude towards Web Based Learning at Under Graduate level in Kolkata.

III. OBJECTIVES OF THE STUDY

1. To study the effect of gender on attitude of Under Graduate students towards WBL.
2. To study the effect of locality on attitude of Under Graduate students towards WBL.
3. To study the effect of category on attitude of Under Graduate students towards WBL.

IV. RESEARCH HYPOTHESES

The following research hypotheses were formulated for testing:
1. There exists no significant difference in attitude of UG students towards WBL with respect to gender.
2. There exists no significant difference in attitude of UG students towards WBL with respect to locality.
3. There exists no significant difference in attitude of UG students towards WBL with respect to category.

V. SIGNIFICANCE OF THE STUDY

Web Based Learning is a need of the day and in Kolkata, it is very much crucial. The government and other educational organizations had established policies for Web Based Learning to implement in education field at university level, but due to lack of infrastructure, the policies fails to achieve the desired outcomes. A number of researches were made on various dimension of Web Based Learning regarding barriers and impact of Digital Learning or online learning in the students' academic achievements, but least study was made on the attitude of students towards Web Based Learning. As the undergraduate level is a crucial stage in academics and the students are more motivated and energetic at this level to perform tangible research work, therefore, to know their attitude regarding Web Based Learning is of great importance.

VI. METHODOLOGY

The nature of the study was non-experimental research designed with a special reference to descriptive research study. This research design was opted due to the exploration of various ideas, notions and thoughts of respondent of the study. This research study followed standard ethical protocol.

VI.A. POPULATION AND SAMPLE OF THE STUDY

All the students of General Degree colleges at UG level under Calcutta University are taken as population. A total of 136 undergraduate students (62 Boys and 74 Girls) were randomly selected.

VI. B. INSTRUMENT FOR DATA COLLECTION

A closed questionnaire with 5-points Likert scale having three themes was designed in the light of research objectives. The data was collected from undergraduate students of higher education of Calcutta University. The primary data was collected by Google form (online) which consisted of five questions related to different dimensions of Web based Learning. The Likert scale was used in the study which was ranked from 1 to 5 with 1 representing "Strongly Disagree", 2 for "Disagree" 3 shows "Neutral" 4 for "Agree" and 5 being "Strongly Agree".

Table 1. Sample items for measuring attitude towards Web Based Learning

SN	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	I know the use of Web Based Learning					
2	I use web browser for my study					
3	I download materials from website.					
4	I face different problems when I use Web Based Learning.					
5	I learn from online library through WBL					
6	I use different educational blogs for interaction					
7	Web Based learning is much more comfortable					
8	I learn many things from Web Based Instruction					
9	I prefer to transfer material through e-mail to my friends, teachers					
10	I enjoy learning through WBI					

VII. VALIDITY AND RELIABILITY OF THE RESEARCH INSTRUMENT

The validation of the questionnaire was made by focus group (experts) in the field of education i.e. Associate Professor from Degree college and then subjected to collect the data from the respondents. For pilot study, 10 % of respondents were selected through the rule of thumb, from the population, which were not included in the original study. The reliability coefficient used was Cronbach

alpha, having the value of 0.9 or 90%, which means that the questionnaire was appropriate to collect the data from the original sample

VIII. DATA COLLECTION

The questionnaire was subjected to respondents for data collection after the piloting phase. The response of questionnaire was 78% from the respondents.

IX. STATISTICAL TECHNIQUES

Mean, SD and t-test were used to compare the attitudes towards Web Based Learning among UG level students with respect to gender, locality and category.

X. DATA ANALYSIS AND DISCUSSION OF RESULT

Comparison of Attitude towards Web Based Learning among Under Graduate level students with respect to Gender

In this section, attitude towards Web Based learning among Under Graduate students has been compared with respect to gender.

Table -2

t-value for Mean Scores of Attitude towards Web Based learning among Under Graduate students in relation to Gender

Gender	No. of Sample	Mean	SDs	t-value
Boys	62	125.18	15.79	1.58
Girls	74	150.21	17.37	(NS)

The above Table- 2 depicts that the t-value 1.58 for the mean scores for the attitude towards Web Based Learning among UG students in relation to gender is not significant even at both the levels i.e., at 0.05 and 0.01 levels of significance. Therefore, there exists no significant difference in attitude towards Web Based Learning among Under Graduate students in relation to gender. In the context of mean scores, the female students were found having greater mean scores of attitudes towards Web Based Learning than their counterparts. This shows that female students have a positive attitude towards Web Based learning than their counterparts.

Comparison of Attitude towards Web Based Learning among Under Graduate Students with respect to Locality

In this section, attitude towards Web Based Learning among Under Graduate Students has been compared with respect to locality. Table-3 presents the means, SD's and t- value of attitude towards Web Based Learning among Under Graduate Students with respect to locality.

Table -3

t-value for Mean Scores of Attitude towards Web Based learning among Under Graduate students in relation to Locality

Gender	No. of Sample	Mean	SDs	t-value
Urban	92	113.90	12.30	6.01
Semi Urban /Rural	44	120.61	18.31	(Significant)

The above Table- 3 depicts that the t-value 6.01 for the mean scores for the attitude towards Web Based Learning among UG students in relation to Locality significant even at both the levels i.e., at 0.05 and 0.01 levels of significance. Therefore, there exists significant difference in attitude towards Web Based Learning among Under Graduate students in relation to locality. So null hypothesis is rejected. In the context of mean scores, the urban students were found having greater mean scores of attitudes towards Web Based Learning than their counterparts. This shows that Urban students have a positive attitude towards Web Based learning than their counterparts.

Comparison of Attitude towards Web Based Learning among Under Graduate Students with respect to Category

In this section, attitude towards Web Based Learning among Under Graduate Students has been compared with respect to locality. Table-4 presents the means, SD's and t- value of attitude towards Web Based Learning among Under Graduate Students with respect to locality.

Table -4

t-value for Mean Scores of Attitude towards Web Based learning among Under Graduate students in relation to Category (i.e General & Reserved)

Gender	No. of Sample	Mean	SDs	t-value
General	70	125.03	14.98	0.65
Reserved (SC/ST/OBC/OTHERS)	66	125.82	15.63	(NS)

The above Table- 4 depicts that the t-value 0.65 for the mean scores for the attitude towards Web Based Learning among UG students in relation to category even at both the levels i.e., at 0.05 and 0.01 levels of significance. Therefore, there exists no significant difference in attitude towards Web Based Learning among Under Graduate students in relation to category. So null hypothesis is accepted. In the context of mean scores, the Reserved category students were found having slightly greater mean scores of attitudes towards Web Based Learning than their counterparts. This shows that Reserved category students have a slightly positive attitude towards Web Based learning than their counterparts.
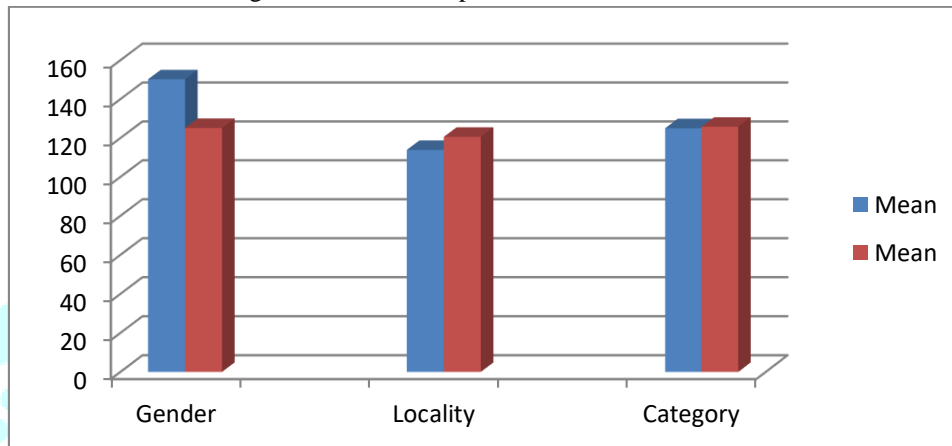

Fig 1: Mean scores for Under Graduate students' Attitude towards Web Based Learning in relation to gender, locality and Category.

XI. FINDINGS OF THE STUDY

1. Gender has no significant effect on the students' attitude towards Web based learning. However, male students have a little bit positive attitude towards Web Based Learning than their counterparts.
2. Locality has a significant effect on the students' attitude towards online learning. Semi urban and Rural students have favourable attitude towards online learning than their counterparts.
3. Category has no significant effect on the students' attitude towards Web based learning. However, reserved category students have a little bit positive attitude towards Web Based Learning than their counterparts.

XII. EDUCATIONAL IMPLICATIONS

The findings of the study have direct implications in the field of education especially 21st century in the age of digitization. Teachers can encourage rural students to be self-aware of the importance of WBL. Teachers and Educational institutions should encourage the Boys to be self aware of the importance of this learning. Parents' especially rural parents' involvement in online learning must be encouraged. Governments must give some financial aid to the poor parents so that they can purchase technological equipment's needed for Web Based learning. Immediate steps should be taken to improve the attitude of students towards Web Based learning because technology is an integral part in every aspect of human life, especially in education.

XIII. REFERENCES

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