

Attitude of Post Graduate Students towards Online Learning During covid 19 Pandemic Situation in Sidhokanho-Birsha University: A Single Sight Study

Dr.Laxmiram Gope¹, Guriya Sharma²

¹Assistant Professor, SKB University

²Former Student, Department of Education, University of Calcutta

Abstract - Student's attitude plays critical role in the educational environment although online learning is not a new concept but converting the whole learning system to online mode may be a matter of concern for all the stakeholders specially students. In a thirst to understand the post graduate students towards online learning in the Purulia district of West Bengal. The study focuses on exploring the relationship between Post Graduate students' attitudes towards online learning, with a special reference to their gender and residence. A self-structured closed questionnaire with 5-point Likert scale was administered for data collection from a sample of 60 post-graduate level students. Findings of the study showed moderate attitude towards online learning, gender and residence does not have any significant effect on the attitude of Post Graduate students towards online learning during Covid pandemic. Some important findings are 29.20 % students agree that online learning is helpful for remote leaning, 75.20 % student agree that online learning can bring reduction in the habit of book reading, 68.30% believe that instructional material is not good through online learning during covid pandemic.

Index Terms - Attitude, online learning, University Students, ICT.

1.INTRODUCTION

In 2019, in a city of Wuhan, China, a new virus was identified that can causing illnesses such as the common cold, fever, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). Gradually this virus took the form of a Pandemic and took the life of more than 5 million people globally (WHO, 2021). The most dangerous thing of this virus is that it gets transmitted via the respiratory route when people inhale droplets and small airborne particles of infected people and it spread through human touch as well (Wang et al., 2021) Due to this most devastating characteristic of

this virus most of the countries took the strong decision of lock down. Lock down was a great setback for every aspect of human life starting from economic to health (physical and mental) among this educational system has been facing great difficulties though with time the educational system has been shifted from face-to face to online mode. Converting the mode of education is not a simple thing it consists equal number of advantage and challenges. Online learning has facilitated remote learning, cut down the transport cost, helpful for physically handicapped person, saves time and many more. While on the other side it also holds some challenges such as technical problem, lack of internet accessibility, digital illiteracy, data privacy and security, a lot of human resource, financial resource and great acceptance are bases for success of online Learning. In most of the developing countries only about 35 percent of the population has access to internet contrasting to developed countries which has about 80 % of population having internet accessed (The World Bank, 2021). Online Learning is not a new concept, rather it dated back to 170 years old and originated in the form of Correspondence course in Britain where teacher used to send lesson and receive completed assessments from students through mail (Peterson's, 2017). Gradually with gained popularity various forms of online learning arises such as MOOC programs, E-Libraries, Digit resources and many more, all these initiatives were running before the Pandemic situation but the attitude towards these digital programs was different from now. Previously Students, teachers and other stakeholder used online resource as a supplementary object to enhance their understanding and quality of study note but currently Online Learning is the only means through which learning can take place. Educational Institution has

adopted the various online platform to continue their educational course but it should be noted that weather the decoder of the information (Students)is having a proper attitude towards online learning, because without proper attitude no information can be understood. Previously School and other educational institution used to be a great place for having collaboration, fun-based activity and a great place to learn which not only increased the knowledge and intelligence of the students but it also used to provide them opportunity for recreational activity ultimately enhancing the mental health of the students. A study found that there is close linkage between the student's satisfaction and E-learning according to this study a student's attitude towards online learning depends on the E- service quality provided by the institution (Shahzad et al., 2020). Another study from Jordan showed that university students decrease willingness towards online learning due to personal challenges (such as economic and psychological stress) whereas the quality of the instruction and assessment increases their interest for online learning (Al-Salman & Haider, 2021). Whereas 91.5% students believed that online learning would not be the same as classroom learning during pandemic situation (Unger &Meiran, 2020). While another study conducted on both faculty members and students have shown an optimistic opinion about online classis (Kulal & Nayak, 2020). So, there is lots of variation on the attitude of post graduate students towards online learning during covid-19 pandemic situation. According to our knowledge no study of this type is present in the Purulia district of west Bengal. So, through this single sight study researcher wants to identify the attitude of post-Graduation students towards online learning.

2. NEED FOR STUDY

Students attitude towards teaching -learning process play a key role in making a students' education a successful journey. Positive attitude encourages students to be focused and attentive towards information provided and in long run this information is retained by the students. On tertiary level where the students are mostly self-learner has to collect updated information, solve their queries, interact with other educational groups through online medium. During covid pandemic educational institutions has been shifted to a complete digital mood and all the

instructions are provided with the help of educational technology, in this situation a positive attitude of both the faculty and students are the main necessity for success of teaching learning process. This attitude is influences by certain socio-economic factors such as digital illiteracy, poverty, lack of access to technological devices and student's own personality characteristics, having a positive attitude towards online learning can brighten not only student academic career but also influences their perspective towards life. All the educational institution has been shut down from about 20 months globally as a result student are all locked inside of wall of their houses which has created several types of psychological distress such as lack of interest in studies, lack of motivation, loneliness, hopelessness, disappear about career etc. If a student's mind is surrounded with lot of uncertain thoughts and having no readiness to learn how can learning take place? There is urgent need to access students' attitude towards online learning so that proper attitude can be build and flow of information continues.

3. THE STATEMENT OF THE PROBLEM

The proposed study as stated "Awareness of online education of post graduate students of Sudho- Kanho- Birsha university in corona situation".

4. OPERATIONAL DEFINITION OF THE STUDY

4.1. Attitude:

Attitude means a set of emotions, belief and behavior towards a particular object, person, thing or event. According to Gordon Allport, "An attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related. "Another definition of attitude is given by Anastasi as "A tendency to react favorably or unfavorably towards a designated class of stimuli, such as a national or racial group, a custom or an institution." (iEduNote, 2021)

4.2. Online Learning:

A Learning system based on formalized teaching but with the help of internet and e- resources is known as Online learning. All the learning instructions, assessments and evaluation are done through virtual environment. It is another form of distance and open

learning; it can take the form of synchronous and asynchronous learning.

4.3. Postgraduate students:

Postgraduate students are those who has successfully completed undergraduate degree course at a college or university and is undertaking further study at a more advance level.

4.4. Covid-19 situation:

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. This virus originated in China, spreads through the infected person's mouth or nose in small liquid particles when they cough, sneeze, speak, sing or breathe. So, it in the form of preventing this disease governmental lock down was adopted which has impacted all the aspects of human life.

5. OBJECTIVES OF THE STUDY

Objective 1. To find out the attitudinal difference of online education between boys and girls.

Objective 2. To find out the attitudinal difference of online education among urban boys and rural boys.

Objective 3. To find out the attitudinal difference of online education among urban girls and rural girls.

6. NULL HYPOTHESIS OF THE STUDY

H₀₁-There is no significance attitudinal difference of online education between boys and girls.

H₀₂- There is no significance attitudinal difference of online education among urban boys and rural boys.

H₀₃- There is no significance attitudinal difference of online education among urban girls and rural girls.

7. DELIMITATION OF THE STUDY

i)This study is conducted on the PG students of Sidho-Kanho-Birsha University.

ii)This study emphasized only on the educational awareness among the P.G student in S.K.B.U.

8. REVIEW OF THE RELATED LITERATURE

8.1.Law (2021)-Conducted a study on university student's attitude and satisfaction towards online learning during COVID-19 in Malaysia. The survey was conducted on 97 students of university in Kuching. The finding of this study suggest that

students are having positive attitude towards online learning. But the success of this method of instruction totally depends on the instructional pedagogy approach and appropriate integration of technological tools than only the continuous success of online learning is possible in Covid1-19 situation.

8.2. Ullah et al.(2017)Conducted a study on "Students Attitude towards online learning at Tertiary level". The objectives of this study were to examine interest of students towards computer in relation to the acquaintance to online learning at undergraduate level in district Peshawar. Results of the study revealed no significant relationship between interest level of students in computer and the acquisition of knowledge through online learning at U.G level. This result difference may be due to the unfamiliarity of the students with this new emerging program at University of Peshawar. The difference in Results may be due to the facilities provided to the student in those countries.

8.3.Nachimuthu(2020).Studied to determine the attitude towards online learning by the student teachers in the Covid-19 Period. In this research, the survey type of tool used as google forms. Here online learning supported instruments are independent variable and attitude of student teachers towards computer learning as a dependent variable. Result reveals that normal classroom practice does not affect attitudes of students towards online learning and there is no significant difference between the male and female attitude scores of student teachers toward online learning practice in Covid-19.

8.4.ZHU et al. (2013) Conducted a study on "UNIVESITY STUDENT'S ATTITUDE TOWARDS ONLINE LEARNING IN A BLENDED COURSE "the main Objectives of this study was Students prior experiences and Student's motivation in learning. The present study was a part of the research project conducted among a group of university student. The research consisted of two phases. Phase one: questionnaire survey of per-and post-test weekly reports about the course experience, and Phase two: interview. The results revealed that the students more positive towards online learning by the end of course at a significant.

8.5. Behera et al.(2016) conduct a study on "ATTITUDE OF B.Ed. STUDENT- TEACHER'S TOWARDS E-LEARNING". Objective of the study

was to ascertain the attitude of B.Ed. college student-Teachers in Purulia district of West Bengal towards e-learning. To find out the difference between male and female B.Ed. college student teachers in respect of their attitude towards e-learning. Methodology of the present study is based on survey method, particularly, the normative survey method. Finding of the study suggest is the effective learning process created by combining digitally delivered content with support and service.

8.6. Sao et al(2018). conducted a study on “Attitude of B.Ed. student -teacher’s M-learning” Objective: To find out the difference between male and female B.Ed. college students-teachers in respect of their attitude towards M-learning. To find out the difference between rural and urban B.Ed. college student-teachers in respect of their attitude towards M-learning. Methodology: For selecting the student teachers stratified random sampling was adopted. Finding of the study was Mobile learning has gained worldwide popularity with the progress of information and communication technologies. The contribution to the education of M-learning is beyond the dream.

8.7. Afroz et al.(2021)conducted a study on “Student and Teachers’ Attitude Towards Online Class During Covid 19 Pandemic”. Objective of the study: The main objective of the study was to investigate the students and teachers’ attitude towards online learning during the covid 19 situation in Bangladeshi Government Colleges. Methodology was the qualitative and quantitative research method with semi-structured interview conducted via zoom, FOCUS group discussion, Google Platform. Result reveals that all the students are enjoying but they are missing face-to-face classes. They also miss their friends, who lives in remote area of villages are unable to attend the classes due to internet network problem. Teachers thought about students’ attitude towards online learning is anti-academic and there is a lack of seriousness in all cases. We can say their proper disciple and concentration is difficult in online learning.

8.8.Abbasi et al.(2020). The study conducted on the medical college students to determine the perceptions

of students towards e-learning during the lock down. A descriptive cross-sectional study was conducted at Liaquat College of Medicine and Dentistry. Data were collected from the participants through mailed questionnaire. Overall, 77% students have negative perceptions towards e-learning. 76% of the students use mobile device for their e-learning. Students did not prefer e-teaching over face-to-face teaching during the lock down situation.

9. METHODOLOGY OF THE STUDY

9.1.1 Scope of the Study: The study was undertaken in the S.K.B.U in the Purulia district.

9.1.2 Variables:

Independent Variables: Gender and Locality.

Dependent Variables: Attitude towards Online learning.

9.1.3 Methodology: Descriptive survey method was used for this study.

9.1.4 Population: The population of the study will be all P.G students of S.K.B.U Purulia district.

9.1.5 SAMPLE: Simple random sampling technique has been used for the selection of sample: A sample of 60 students has been taken for the study.

9.1.6 Tools: Data were collected through the self-made questionnaire. Researcher administer self-made close ended questionnaire.

9.1.7 Statistical Techniques: Researcher express data through various statistical techniques- mean, standard deviation, t-test.

9.1.8 Methods of Data Collection:

- Primary Data: Primary data were collected from 50 students through questionnaire.
- Secondary Data: Secondary data were collected from books, websites and international Journal.

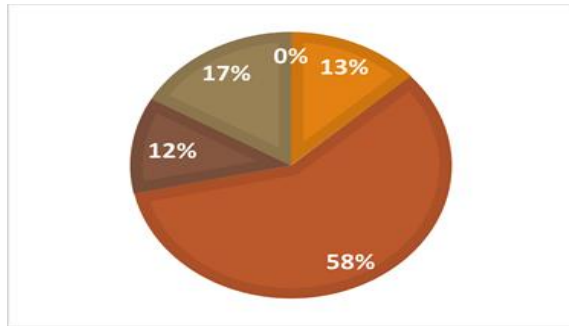
Table I: Showing Items assessing students’ attitude towards online learning among Post Graduation students

Items	SA	A	N	D	SD	Mean	SD
-------	----	---	---	---	----	------	----

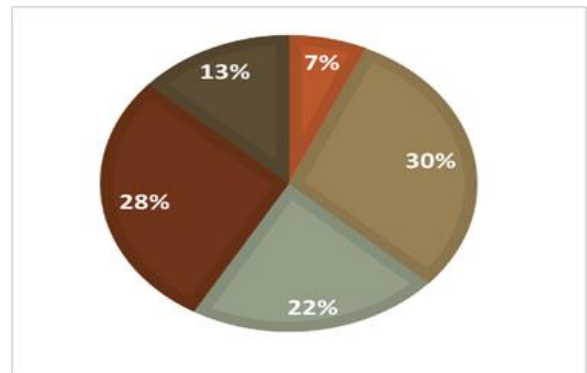
1. Online learning is a good way of learning for the PG students of SKBU	13.30%	58.30%	11.70%	16.70%	0%	0.15	0.22
2. Online learning as a medium of instruction helpful for PG students during Covid-19 Pandemic.	15%	51.7%	18.30%	13.50%	1.50%	0.12	0.18
3. Through online learning PG students are getting vast knowledge regarding study subjects.	6.70%	30%	21.70%	28.30%	13.30%	0.08	0.09
4. The instructional material was easily understandable through online mood of learning	16.70%	55%	12%	14.70%	1.60%	0.14	0.20
5. During Covid -19 Pandemic remote learning through online method is helpful for PG students.	2.50%	26.70%	33.30%	35%	2.50%	0.14	0.16
6. Online learning Saves time and money of the PG students.	10.20%	54%	21.30%	12.40%	2.10%	0.14	0.20
7. Through online learning the study pressure of the students has decreased to a great extent	3.30%	56.80%	22%	13.30%	4.60%	0.15	0.21
8. Online Learning has reduced the habit of book reading among PG students.	11.20%	64%	20.6	3.80%	0.40%	6.52	9.12
9. Quality of instructional material is not good through online learning.	13.30%	55%	23.30%	4.2%	4.20%	0.15	0.20
10. Through online leaning bias assessment and evaluation result are obtained.	11.70%	26.70%	15%	45%	1.60%	0.12	0.16

Note-SA-Strongly Agree, A- Agree, N- Neutral, D- Disagree, SD- Strongly Disagree, SD- Standard Deviation

1. Online learning is a good way of learning for the PG students of SKBU.

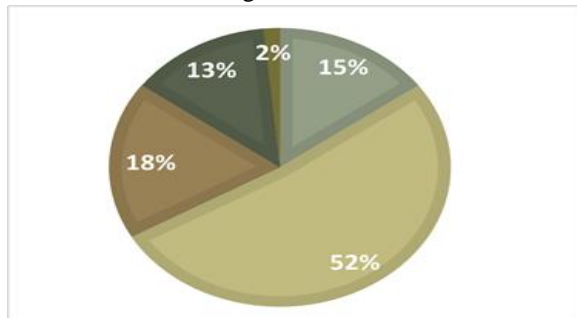


SA	A	N	D	SD
13.30%	58.30%	11.70%	16.70%	0%



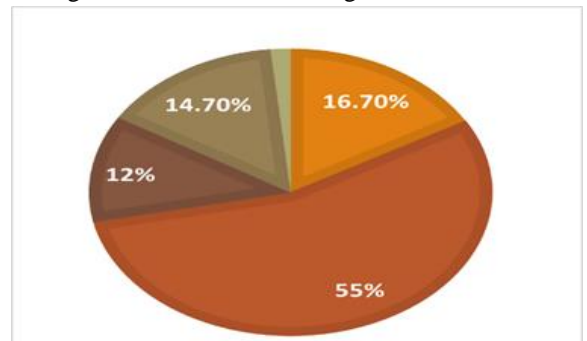
SA	A	N	D	SD
6.70%	30%	21.70%	28.30%	13.30%

2. Online learning as a medium of instruction helpful for PG students during Covid-19 Pandemic.



SA	A	N	D	SD
15%	51.7%	18.30%	13.50%	1.50%

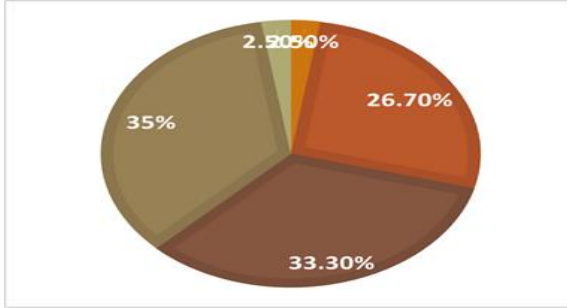
4. The instructional material was easily understandable through online mood of learning.



SA	A	N	D	SD
16.70%	55%	12%	14.70%	1.60%

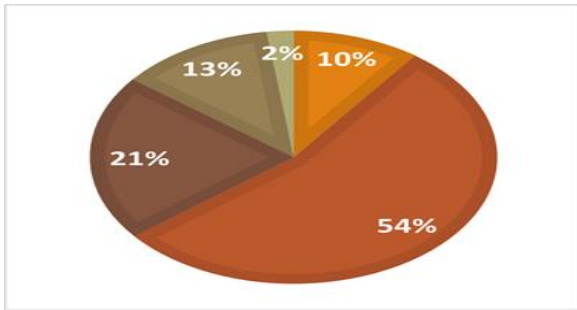
3. Through online learning PG students are getting vast knowledge regarding study subjects.

5. During Covid -19 Pandemic remote learning through online method is helpful for PG students.



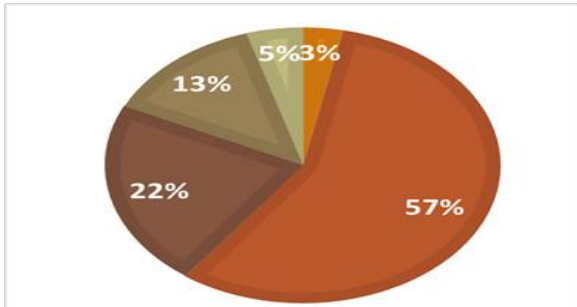
SA	A	N	D	SD
2.50%	26.70%	33.30%	35%	2.50%

6. Online learning Saves time and money of the PG students.



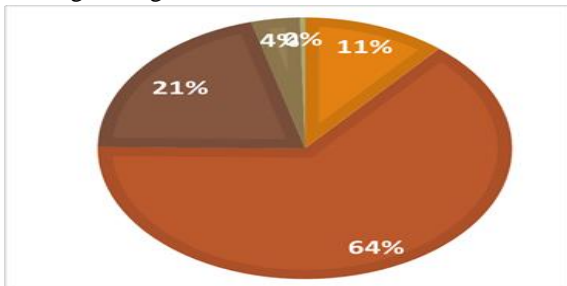
SA	A	N	D	SD
10.20%	54%	21.30%	12.40%	2.10%

7. Through online learning the study pressure of the students has decreased to a great extent.



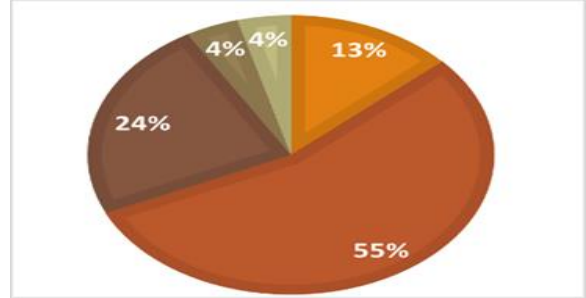
SA	A	N	D	SD
3.30%	56.80%	22%	13.30%	4.60%

8. Online Learning has reduced the habit of book reading among PG students.



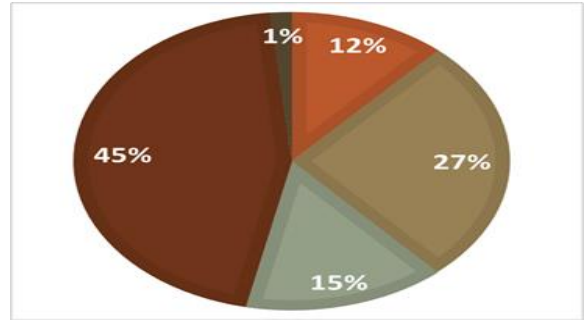
SA	A	N	D	SD
11.20%	64%	20.60%	3.80%	0.40%

9. Quality of instructional material is not good through online learning.



SA	A	N	D	SD
13.30%	55%	23.30%	4.2%	4.20%

10. Through online learning bias assessment and evaluation result is obtained.



SA	A	N	D	SD
11.70%	26.70%	15%	45%	1.60%

10. DATA ANALYSIS AND INTERPRETATION

Objective: 1. To find out the attitudinal difference of online education between boys and girls.

H₀ 1: There is no significance attitudinal difference of online education between boys and girls.

Table -II: Showing attitudinal difference of online education between boys and girls.

Designation	N	M	SD	Df	Calculate d Value t-value	Critical t-value
Boys	30	33.36667	5.176094	54	1.344359	at 0.05 level (2.01) at 0.01 level (2.68)
Girls	30	31.76667	3.962613			

From the Table 2, it is found that the mean score of both boys and girls are 33.36667 and 31.76667 respectively. When the t-test applied to compare the

mean score of the both the groups It was found that calculate t-value 1.344359 which is not significant difference at 0.05 and 0.01 level of significant. Hence the null hypothesis is accepted at 0.05 and 0.01 level of significant. That means there is no significant difference between boys and girls in relation to the attitudinal variance of online education during Covid-19.

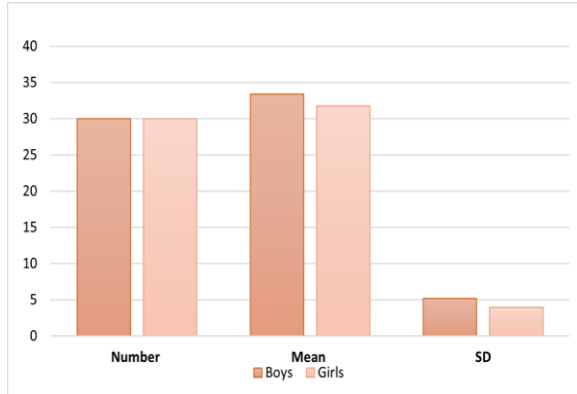


Fig. I. Showing attitudinal difference of online education between boys and girls

Objective: 2. To find out the attitudinal difference of online education among urban boys and rural boys.
 H0 2. There is no significance attitudinal difference of online education among urban boys and rural boys.

Table II: Showing attitudinal difference of online education among urban boys and rural boys.

Designation	N	M	SD	Df	Calculated Value t-value	Critical t-value
Urban boys	15	35.1333	3.92549	25	1.958745243	at 0.05level (2.06) at 0.01level(2.79)
Rural boys	15	31.6	5.77927			

From the table 2, it is found that the mean score of both urban boys and rural boys are 35.13333333 and 31.6 respectively. When the t-test applied to compare the mean score of the both the groups It was found that calculate t-value 1.958745243 which is not significant difference at 0.05 and 0.01 level of significant. Hence the null hypothesis is accepted at 0.05 and 0.01 level of significant. That's mean there is no significant difference between Urban boys and Rural boys in relation to the attitudinal variance of online education during Covid-19.

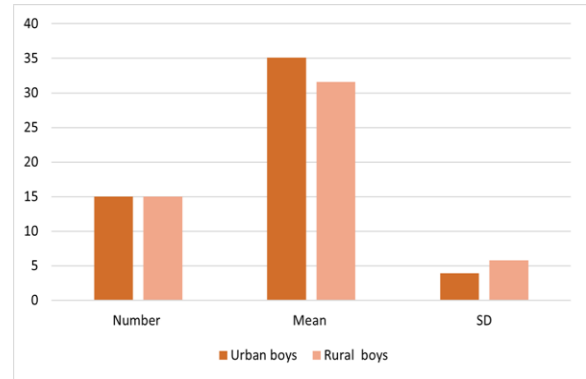


Figure II.. Showing attitudinal difference of online education among urban boys and rural boys.

Objective 3. To find out the attitudinal difference of online education among urban girls and rural girls.
 H0 3. There is no significance attitudinal difference of online education among urban girls and rural girls.

Table 3: Showing attitudinal difference of online education among urban girls and rural girls.

Designation	N	M	SD	Df	Calculated Value t-value	Critical t-value
Urban girls	15	31.86666667	3.961721607	28	0.13586	at 0.05level (2.05) at 0.01level(2.76)
Rural girls	15	31.66666667	4.099941928			

From the table 3, it is found that the mean score of both urban girls and rural girls are 31.86666667 and 31.66666667 respectively. When the t-test applied to compare the mean score of the both the groups It was found that calculate t-value 0.13586 which is not significant difference at 0.05 and 0.01 level of significant. Hence the null hypothesis is accepted at 0.05 and 0.01 level of significant. That's mean there is no significant difference between Urban girls and Rural girls in relation to the attitudinal variance of online education during Covid-19.

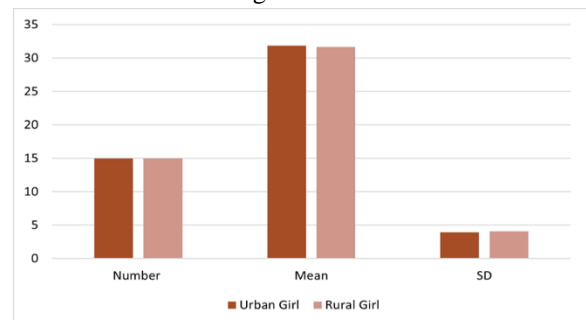


Figure III. Showing attitudinal difference of online education among urban girls and rural girls.

RESULT

The attitude of the Post Graduate students towards online learning was measured through ten self – made questionnaire and answered on 5-point type rating scale. The result showed That 13.30% students strongly agree, 58.30 % Agree, 11.70% remain Neutral, 16.70% Disagree and 0% strongly disagree for online learning as a good way of learning. Another question assessing online learning as a helpful medium of instruction shows that 15% Strongly Agree, 51.7% Agree, 18.30% Neutral, 13.50% Disagree and 1.50% Strongly Disagree. Online learning as a provider of vast knowledge is responded by the students in as 6.70% Strongly Agree, 30% Agree, 21.70% Neutral, 28.30% Disagree and 13.30% strongly disagree. Student's attitude towards instructional material to be easily understandable if presented online medium shows 16.70% Strongly agree, 55% Agree, 12% Neutral, 14.70% Disagree and Strongly Disagree 1.60%. During covid pandemic remote learning through online method has become helpful is believed by 2.50% students as strongly agree, 26.70% Agree, 33.30% Neutral, 35% Disagree and 2.50% as strongly disagree. In the next item measuring the advantages of online learning in the form of time and cost saver shows that 10.20% students strongly agree, 54% agree, 21.30% neutral, 12.40% disagree and 2.10% strongly disagree. Online learning as a reducer of study pressure among post graduate students has depicted as 3.30% Strongly Agree, 56.80% Agree, 22% Neutral, 13.30% Disagree and 4.60% Strongly disagree. In another question 11.20% Students Strongly Agree, 64% Agree, 20.60% Neutral, 3.80% Disagree and 0.40% Strongly Disagree. Online learning doesn't provide good quality instructional material is Strongly agreed by 13.30% students, agreed by 55%, 23.30% students remained neutral, 4.2% disagree and 4.20% students were strongly disagreed. Last question assesses the student's opinion regarding biased assessment and evaluation result obtained through online learning is Strongly agreed by 11.70%, Agreed by 26.70%, 15% remained Neutral, disagreed by 45% and Strongly Disagreed by 1.60% see table 1. In most of the question the approximately 50% of students

chosen agree option which means that student's attitude towards online learning in moderate among post graduate students. The result also indicates that there is no difference between the attitude of girls and boys toward online learning. There is no significant difference between Urban- Rural boys and Urban - Rural girls in relation to the attitudinal variance of online education during Covid-19.

DISCUSSION

Online learning is a magical innovation in all the aspects of human life and its importance and usage has expanded in the fight toward covid pandemic. One of the most important aspect of human life and a nation is the education system and the proper implication of new rules in the changing environment, specially in regard of attitude towards online learning. Various previous studies have shown positive as well as negative attitude towards online or E-learning. The present study was conducted to identify the attitude of post-graduation students during Covid pandemic for this the present study has randomly selected 60 PG students from SKBU. The finding of the study indicates that student's attitude for online learning is moderate and there is no significant difference on the bases of gender and residence among the post-graduation. Study finding revealed that only 30 % of PG students agree and 6.70 % strongly agree that through online learning vast knowledge can be acquired, this means that only 36.70 % students think that online learning can cater vast source of knowledge in related area. Another finding indicates that only 29.20 % students agree that online learning is helpful for remote leaning during covid pandemic. Result has also identified that online learning can bring reduction in the habit of book reading as in this study 64% of students agreed and 11.20% students strongly agree that students involving in online learning reduced the habit of book reading, now coming to the quality of instructional material majority of students (68.30%) believe that through online learning the quality of instructional material is not good ,but only 38.40 % students believe that through online learning biased assessment and evaluation result are obtain. Analyzing the data, we can say that students have mixed or moderate attitude for the online learning procedure in Purulia district.

CONCLUSION

Attitude is something which can be modified with the plenty of information, it can be molded negatively or positively, with huge information about online learning and proper awareness and opportunity a positive attitude can be build up in contrast negative attitude comes with sigma and uncovered facts. Through this study can be concluded that student's attitude is moderate and they are more prone toward online learning in this difficult time of covid pandemic. Question also comes about the fact that online learning requires a fixed amount of money to manage and maintain the smooth flow of online teaching learning process, and this is an important matter to be consider as this also impact students' attitude towards learning. Government from time to time has come up with various programs in the form of online free libraries, governmental portals, and various schemes but the unfortunately students don't have knowledge and awareness regarding these services so most of the student cannot avail the opportunities, it I not only the governments responsivity to spread awareness rather students and their family member must by provided with awareness programs by the respective educational institution because this institution are the miniaturized forms of society with every student attains with great zeal.

REFERENCE

- [1] S. Abbasi, T. Ayoob, A. Malik, and S. I. Memon. (May 2020). Perceptions of students regarding E-learning during Covid-19 at a private medical college. *Pakistan Journal of Medical Sciences*, 36(COVID19-S4). <https://doi.org/10.12669/pjms.36.covid19-s4.2766>
- [2] R. Afroz, N. Islam, S. Rahman, & N. Zerine Anny, N. (April 2021). Students' and teachers' attitude towards online classes during Covid-19 pandemic. *International Journal of Research in Business and Social Science* (2147- 4478), 10(3), 462–476. <https://doi.org/10.20525/ijrbs.v10i3.1155>
- [3] S. Al-Salman, & A.S. Haider. (March 2021). Jordanian University Students' Views on Emergency Online Learning During COVID-19. *Online Learning*, 25(1). <https://doi.org/10.24059/olj.v25i1.2470>
- [4] S.K. Behera, S. Sao, & S. Mohamed. (2016). Attitude of B.Ed. Student-Teachers towards E-Learning. *International Journal of Computer Science Engineering (IJCSE)*, Vol. 5(No.06), 305–311. Connecting for Inclusion: Broadband Access for All. (n.d.). The World Bank. Retrieved October 20, 2021, from <https://www.worldbank.org/en/topic/digitaldevelopment/brief/connecting-for-inclusion-broadband-access-for-all>
- [5] A. Kulal, & A. Nayak. (2020). A study on perception of teachers and students toward online classes in Dakshina Kannada and Udupi District. *Asian Association of Open Universities Journal*, 15(3), 285–296. <https://doi.org/10.1108/aaouj-07-2020-0047>
- [6] M. Y. Law. (January 2021). Student's Attitude and Satisfaction towards Transformative Learning: A Research Study on Emergency Remote Learning in Tertiary Education. *Creative Education*, 12(03), 494–528. <https://doi.org/10.4236/ce.2021.123035>
- [7] K. Nachimuthu. (2020). Student Teacher's Attitude Towards Online Learning During Covid-19. *International Journal of Advanced Science and Technology*, Vol. 29(No. 6), 8745–8749.
- [8] S. Sao, G.C. Sutradhar, P. Chanda, & R. Gayen. (2018). Attitude of B.Ed. Student-Teachers' Towards Mobile Learning. *IJRAR- International Journal of Research and Analytical Reviews*, VOLUME 5(ISSUE 3), 414–420.
- [9] A. Shahzad, R. Hassan, A.Y. Aremu, A. Hussain, & R.N. Lodhi. (2020). Effects of COVID-19 in E-learning on higher education institution students: the group comparison between male and female. *Quality & Quantity*, 55(3), 805–826. <https://doi.org/10.1007/s11135-020-01028-z>
- [10] The History of Online Education. (November 2017). Peterson's. Retrieved May 2021, from <https://www.petersons.com/blog/the-history-of-online-education/>
- [11] O. Ullah, W. Khan, & A. Khan. (2017). Students' Attitude towards Online Learning at Tertiary Level. *PUTAJ – Humanities and Social Sciences*, Vol.25,(No.1-2), 63–82. https://www.academia.edu/35679975/Students_Attitude_towards_Online_Learning_at_Tertiary_Level
- [12] S. Unger, & W. Meiran. (2020). Student Attitudes Towards Online Education during the COVID-19 Viral Outbreak of 2020: Distance Learning in a Time of Social Distance. *International Journal of*

Technology in Education and Science, 4(4), 256–266. <https://doi.org/10.46328/ijtes.v4i4.107>

- [13] C.C. Wang, K.A. Prather, J. Sznitman, J.L. Jimenez, S.S. Lakdawala, Z. Tufekci, & L.C. Marr. (2021). Airborne transmission of respiratory viruses. *Science*, 373(6558). <https://doi.org/10.1126/science.abd9149>
- [14] WHO Coronavirus (COVID-19) Dashboard. (n.d.). World Health Organisation. Retrieved September 26, 2021, from <https://covid19.who.int/table>
- [15] Y. ZHU, W. AU, & C. R. YATES, G. (2013). University Students Attitude Towards Online Learning in A Blended Course. Australian Association for Research in Education. Published.