

ATTITUDE OF STUDENTS TO ONLINE TEACHING-LEARNING DURING COVID-19 PANDEMIC: A COMPARATIVE ANALYSIS OF UPPER PRIMARY AND SECONDARY CLASS STUDENTS OF MAHARASHTRA

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Abstract

Online education is an area of curiosity intended to be prolonged and has gained a lot of attention from various sectors. Keeping this in view, the current study explored the attitude of Upper Primary and Secondary students towards online teaching -learning process in the current COVID 19 Pandemic situations, especially from Thane District of Maharashtra. This is a research study based on the opinion of SVB SCER Groups schools' students towards the online teaching learning process. The study was conducted with the help of self-made Google Form (Due to tough access to the schools to go in person, as the world is in lockdown state and also India too). The students' Attitude scale has 22 items, which has been developed with the help of initial interaction with teachers, parents and students. 50 students from each standard i.e. Standard 7th, 8th, 9th and 10th are randomly selected from the two institutes of SVB SCER group.

The comparative analysis was done to find out the attitude of the students from various standards and their schools too. The result showed a positive attitude towards online learning irrespective of standards and schools. However, most students disagreed to continue with the online classes after the situation got normalized as they all preferred coming to school. The study concludes that though students preferred online classes in the current situation, they preferred more attending the school in person i.e. love to come to school.



Keywords: COVID -19 Pandemic, ONLINE Education, Attitude, Upper Primary Group, Secondary Group



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Introduction:

COVID-19 is an infectious disease instigated by a new trauma of coronavirus. 'CO' stands for corona, 'VI' for a virus and 'D' for the disease. The COVID-19 virus may be a new virus linked to an equivalent family of viruses as Severe Acute Respiratory Syndrome (SARS) and a few sorts of cold.

COVID-19 has shaken the entire world and made it upside down and brought the entire mankind to its knees. All the offices, Industries even Educational Institutions had to shut down completely. But during these testing times, schools have started online classes to impart education to students. This pandemic posed a huge challenge for students. They had to change the mode of learning overnight as the digital mode of learning was an alien task for many of them. Online learning was a great encounter for students and they had to adapt it overnight to enrich their knowledge. It is also a question for the survival of the entire student community. Immediately they learned the techniques of online learning and started to learn with ease.

Some teachers use synchronous classes where teachers and students meet virtually at the same time and students learn with the help of Laptops/Mobile phones/PCs. In the synchronous class, the teacher can directly teach students, ask questions, give activities, monitor students whether they are attending class regularly, make them for group discussion etc. Also, some teachers use asynchronous classes where they provide recorded lectures and send them to students in the form of videos. The students have to learn by themselves by watching the video and solving the worksheets which are provided by the teachers. It helps to develop their self-learning skills. In both cases, the students need to learn attentively to understand the subject matter.

Most of the students started to miss their face-to-face learning and classroom environment as they were compelled to learn through online classes from home. Indian students are not trained to be taught online. Many don't own a smart phone, especially those from economically poor backgrounds. Buying an Internet pack is a common hassle. Moreover, these students often struggle to get a proper Internet connectivity. Even teachers are not used to teaching online.



They are trained to teach in classrooms using the blackboard. Teaching on a mobile phone gets very difficult as how to hold the phone, and it becomes a problem to concentrate on the topic they are trying to teach.

The purpose of this study is to find out the attitude of upper primary and secondary school students towards on-line classes during COVID-19.

Many recent studies have focussed on 'online education'.

Effectiveness of online classes:

Neuhauser, C. (2002) revealed that, there were no significant differences between learning styles, participation and grades in both the groups. The study showed that online and face to face learning are equally effective. Moreover, more technology-based activities should be included in the face-to-face classroom to give the equal richness of the online classes.

Johnson S. D., et.al, (2000) Compared learning outcome and students' satisfaction and other perceptions concerning a human resource development graduate online course with an equivalent course taught in a traditional face-to-face format. Results showed that, in the oncampus course held slightly more positive perceptions about the instructor and overall course quality, although there was no difference between the two course formats in several measures of learning outcomes.

Navarro and Shoemaker (2000) found that, the students who use cyberspace learn as well as, or better than, traditional learners regardless of background characteristics such as gender, ethnicity, academic background, computer skills, and academic aptitude and that the students were greatly satisfied with online learning.

Simonson et al. (2000) listed the delayed feedback in asynchronous discussion as a limitation of online courses.

Wang and Newlin (2002) identified that, in online classes, discussion with instructor to students and students to students is slow. They had less communication and did not have any feelings of human connection.

Bernard et al. (2004), found that overall, there was no significant difference in achievement, attitude, and retention outcomes between online education, and the traditional face-to-face education.

Johnson and Howell (2005) indicated that when students are required to use a variety of



technology, students reported positive attitude changes toward technology and used more optional online materials.

Joiner, et al. (2005) reported that "Ease with technology, interest and motivation to learn with the usage of technology were related to satisfaction of online learning experience" (p. 371).

Martyn (2005) examined the need to purposely create an environment which supports collaboration among all students as well as the between students and the instructor. In other words, the social aspects of learning should be deliberately planned and analysed for students to be successful in an online environment.

Johnson & Johnson (2006) found that college students (70%) preferred face-to-face classes to asynchronous while 60% preferred face-to-face to synchronous online discussion and that 40% of college students preferred synchronous to asynchronous chats.

Tallent-Rummerls et al. (2006) concluded that, asynchronous communication seemed to facilitate in-depth communication, students interested to learn at their own pace, learning outcomes were same as in traditional courses, and students with have previous knowledge and interest to the usage of technologies were more satisfied with online courses.

Levine (2007) suggested various approaches for the effective asynchronous online courses: online instructors should (a) construct an interesting and supportive learning situation, (b) Make a clear framework of the expected learning outcomes and learning activities of the, (c) proper motivation (d) view students and instructors as "co-investigators" (p. 70), (e) create various opportunities for discussion forum for students (f) communicate with students and (g) conducting formative assessments like quiz and (h)provide immediate feedback.

DeLoach and Greenlaw (2007) recommended the teachers in online courses to "facilitate, but not lead" (p. 420) the discussion as a means to promoting effective interaction. Fischer (2003) recommended that the instructor should be act as a facilitator rather than the strict disciplinarian. Specifically, DeLoach and Greenlaw (2007) stressed that the discussion group should have clear goals; personalised levels of involvement by the teacher; and the grades that are tied to both quantity and quality of student discussion.

Doreen Gosmire,et.al,(2009) revealed that, the Graduate students in online courses perceive the use of Elluminate Live more positively than that of a reader and the instructor synchronously.



Demand for Online classes:

As soon as the lockdown started during COVID-19, all the teachers started to teach their students in an online mode. The demand of online classes has become increased in the entire world. But before COVID-19, itself many students started to learn by online classes.

Kim, K.J., & Bonk C.J., (2006) surveyed instructors and administrators in postsecondary institutions. This survey forecasted enormous growth in online certification and recertification programs, as well as some growth in associate's and master's degree programs during the coming decade.

Online learning demands to various populations of students with stretching academic needs where traditional education classes are lacking. The demand for online courses is resulted from a push "to provide quality education to all students, irrespective of locality and time" (Chaney, 2010, p.21).

In the "2013 Survey of Online Learning," conducted by Babson Survey Research Group, revealed that there were 7.1 million of students studying in higher education enrolled in at least one online course, approximately 33 percent of higher education students (Babson Study, 2014). The number of students enrolled in online course increased by approximately 411,000 students from the fall 2012 term to the fall 2013 term (Babson, 2014). Responses from 2,800 academic leaders where recorded and ninety percent of the participants "believe that it is likely or very likely that a majority of all higher education students will be taking at least one online course in five years' time" (Babson, 2014, p. 1). The extension of online courses and enrolment in elementary, high school and higher education continues to swiftly expand with no signs of reducing.

The mental health of college students should be monitored during epidemics, as anxiety can be as common as 21% of college students in China during the COVID-19 epidemic (Cao et al., 2020). On top of normal school work, being stuck at home due to the fear of Coronavirus, leads to a sense of fear, stress, and anxiety not normally felt (Singh & Singh 2020). Concomitantly, misinformation appears to be widespread, highlighting a disconnect between the medical scientific community and the public related to COVID-19 (Mian & Khan 2020). Moreover, psychological effects of quarantine due to coronavirus include infection fears, confusion, frustration, inadequate supplies and inadequate information (Brooks et al., 2020).



Isolation and lack of social contact may be increased as stay at home orders are issued during COVID-19, which may lead to anxiety and depression (Hiremath et al., 2020).

From the above discussion, it is clear that online classes are more effective than face to face traditional class especially in this pandemic situation, if the knowledge and content delivery of the instructor and overall course quality, and the assignment of grades that are tied to both quantity and quality of student discussion. Students are interested to learn through online mode because they can learn by their own pace with the usage of variety of technology. It also develops their self- learning skills. Also the limitations of online courses are delayed feedback and lack of communication and social skills. So, considering the above discussions in mind the researchers tried to see the attitude of students to online teaching-learning during covid-19 pandemic, especially conducted a comparative analysis of upper primary and secondary class students of Maharashtra.

Objectives:

- To study the attitude of Upper Primary students towards online classes
- To study the attitude of Secondary students towards online classes
- To compare attitude of Upper Primary and Secondary students of Oxford school towards online teaching.
- To compare attitude of Upper Primary and Secondary students of SVB Shankara Vidyalaya towards Online teaching.
- To compare the attitude of Oxford school and SVB Shankara Vidyalaya of Upper Primary students towards online teaching.
- To compare the attitude of Oxford school and SVB Shankara Vidyalaya of Secondary students towards online teaching.

Hypotheses:

On the basis of above objectives, following hypotheses had been framed by the researchers:

- 1. There is no significant difference of mean on the attitude of Upper Primary and Secondary students of Oxford school towards online teaching.
- 2 There is no significant difference of mean on the attitude of Upper Primary and Secondary students of SVB Shankara Vidyalaya towards Online teaching.
- 3 There is no significant difference of mean on the attitude of Oxford school and SVB Shankara Vidyalaya of Upper Primary students towards online teaching.



There is no significant difference of mean on the attitude of Oxford school and SVB Shankara Vidyalaya of Secondary students towards online teaching.

Operational Definitions:

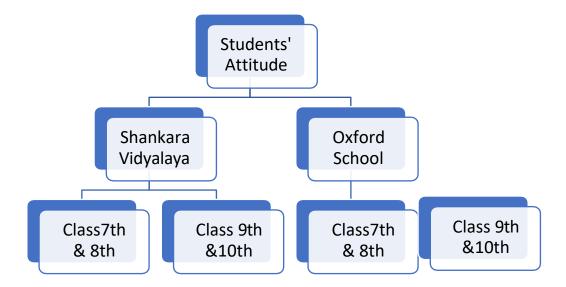
- ONLINE Education: According to Encyclopaedia.com- Online education is a flexible instructional delivery system that encompasses any kind of learning that takes place via the Internet. Online learning gives educators an opportunity to reach students who may not be able to enrol in a traditional classroom course and supports students who need to work on their own schedule and at their own pace.
- <u>Attitude:</u> According to OXFORD dictionary- A settled way of thinking or feeling about something. In the present study attitude refers to the feeling or thinking about online teaching learning of Upper Primary and Secondary school students.
- <u>Upper Primary Group:</u> According to Maharshtra State Board: classes VI-VIII are considered as upper primary group for school education.
- <u>Secondary Group:</u> According to Maharshtra State Board: classes IX & X are considered as Secondary group for school education.

Research Design And Methodology:

• Method:

For the present study, Cross Sectional and Descriptive Survey method was employed by the researchers.

• Research Design:

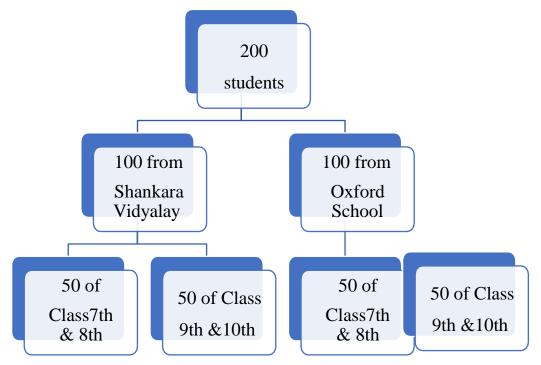




The figure given below is the indicative of the attitude of students studying in different schools and the standards.

• <u>Sample:</u> Considering the current situation of Lockdown due to Pandemic Covid-19, the present study was dealt with purposive random sampling, which was an appropriate and accurate technique for the present study.

The following figure shows the number of students of various standards studying in different schools.



- <u>Variables:</u> The variables included in the study are primarily divided into independent and dependent variables. In the present study School and standard are independent variable and attitude is dependent variable.
- <u>Instrument:</u> Data was gathered with the use of Self-Developed Google form through online mode consisting of three options like Always, Sometimes and Never. The items of Google Form developed with the help of online search on various articles related with the Topic (URLs are attached in references).

Data Analysis And Interpretation:

Data collected through Google Form on Attitude of Students towards online teaching learning was analysed using M.S. Excel. Initially the raw scores of each student was calculated. Then



the subtotal and total score of each school with special references to the standard were tabulated and calculated in a systematic manner. The data gained were explored with the help of descriptive statistics i.e. Mean, Variance and F-test. In the present study, the data was collected through online mode. So, to know whether data is normally distributed or not, the researchers calculated the skewness of the distribution and found that the data and the scores were moderately normally distributed (Refer: Table No.1)

It is already clarified that the technique to collect data is purposive random sampling, but the scores skewness showed that it was a moderate normal distribution. So, parametric versions of F-test were employed to measure the differences in attitude across two schools and standards. The following representations shows the summary of demographics, with Special reference to School name, Standard, skewness and mean for further statistical analysis.

Table-1: Demographic table shows Skewness, Mean & SD

S.R.	School Name	Standard	No.Of	Skewness	Mean	SD
No.			Students		Value	
1.	Shankara	7 th & 8 th	50	0.914	40.38	14.89
	School					
2.	Shankara	9 th & 10 th	50	0.983	39.76	14.36
	School					
3.	Oxford School	7 th & 8 th	50	0.882	43.52	12.67
4.	Oxford School	9 th & 10 th	50	0.865	39.76	13.07

The above table shows the mean scores, SD and skewness of the scores of the data collected from various schools. As we know if the score is in between 0.5 and 1, the data are moderately skewed. According to the above scores it is observed that the distribution were moderately and positively skewed i.e. "skewed right" distribution in which the tail is on the right side.

Table: 2

F-test for Ox 7/8 and 9/10				
F-Test Two-Sample for Variances				
School & Standard	ox7/8	0x9/10		
Mean	43.52	39.76		
Variance	160.5404	170.88		
Observations	50	50		
Df	49	49		
F	0.939492			
$P(F \le f)$ one-tail	0.413977			
F Critical one-tail	0.622165			

The above table shows mean scores of the attitude of Oxford school students of upper primary



and secondary students' i.e 43.52 and 39.76 respectively. The F- ratio computed is 0.939 and F critical value is 0.622 which shows there is significant difference at 0.01 levels in the attitude of both the standards on the online teaching learning attitude. It is also observed from the table that the deviation of the scores from the mean in Secondary standard is greater than the Upper-Primary standard whereas mean score in Upper primary Standard is higher than Secondary standard.

Therefore, the Null Hypothesis no.1 i.e. there is no significant difference of mean on the attitude of Upper Primary and Secondary students of Oxford school towards online teaching is rejected. It means both the standards of Oxford school are different in the attitude to online teaching learning process during covid-19 situation.

Table:3

F-test for Svs 7/8 and 9/10			
F-Test Two-Sample for Variances			
School & Standard	sv7/8	sv9/10	
Mean	40.38	39.76	
Variance	221.7506	206.1861224	
Observations	50	50	
Df	49	49	
F	1.075488		
$P(F \le f)$ one-tail	0.399985		
F Critical one-tail	1.607289		

The above table shows mean scores of the attitude of Shankara Vidyalaya students of upper primary and secondary students' i.e 40.38 and 39.76 respectively. The F- ratio computed is and F critical value is 1.60 which shows there is no significant difference at 0.01 levels in the attitude of both the standards on the online teaching learning attitude. It is also observed from the table that the deviation of the scores from the mean in Secondary standard is lower than the Upper-Primary standard and also the mean score in Upper primary Standard is higher than Secondary standard.

Therefore, the Null Hypothesis No. 2 i.e. there is no significant difference of mean on the attitude of Upper Primary and Secondary students of SVB Shankara Vidyalaya towards Online teaching is rejected. It means both the standards of Shankara Vidyalaya are not different in the attitude to online teaching learning process during covid-19 situation.



Table:4

F-test for Ox and Svs 7/8 Standard				
F-Test Two-Sample for Variances				
School & Standard	ox7/8	sv7/8		
Mean	43.52	40.38		
Variance	160.5404	221.7506122		
Observations	50	50		
Df	49	49		
F	0.723968			
P(F<=f) one-tail	0.130856			
F Critical one-tail	0.622165			

The above table shows mean scores of the attitude of Oxford School and Shankara Vidyalaya students of upper primary standards i.e 43.52 and 40.38 respectively. The F- ratio computed is 0.723 and F critical value is 0.622 which shows there is significant difference at 0.01 levels in the attitude of both the standards on the online teaching learning attitude. It is also observed from the table that the deviation of the scores from the mean in Sankara Vidyalaya is more than Oxford school where as the mean score of the Oxford school is more than Shankara school Therefore, the Null Hypotheses no3. i.e. There is no significant difference of mean on the attitude of Oxford school and SVB Shankara Vidyalaya of Upper Primary students towards Online teaching is rejected. It means the students of upper Primary standards of both the schools (Oxford School and Shankara Vidyalaya) differ significantly with respect to the attitude towards online teaching learning system.

Table:5

F- test for Ox and SVs 9/10				
F-Test Two-Sample for Variances				
School & Standard	0x9/10	sv9/10		
Mean	39.76	39.76		
Variance	170.88	206.1861224		
Observations	50	50		
Df	49	49		
F	0.828766			
P(F<=f) one-tail	0.256704			
F Critical one-tail	0.622165			

The above table shows mean scores of the attitude of Oxford School and Shankara Vidyalaya



students of Secondary standards i.e. 39.76 and 39.76 respectively. The F- ratio computed is 0.828 and F critical value is 0.622 which shows there is significant difference at 0.01 level in the attitude of both the standards on the online teaching learning attitude. It is also observed from the table that the deviation of the scores from the mean in Sankara Vidyalaya is more than Oxford school where as the mean score of the Oxford school and Shankara school are same.

Therefore, the Null Hypotheses no4. i.e. There is no significant difference of mean on the attitude of Oxford school and SVB Shankara Vidyalaya of Secondary students towards Online teaching is rejected. It means the students of secondary standards of both the schools (OxfordSchool and Shankara Vidyalaya) differ significantly with respect to the attitude towards online teaching learning system.

Result And Discussion:

To make the above analysis coherent and interpretable, we need proper discussion of the results. The findings of the Table no.2. revealed that there were significant differences in the attitude of Oxford school students with respect to their standards i.e. the students of upper primary and secondary standards. Here, the study revealed that the upper-Primary group are more positive towards online teaching learning programme than the secondary standard students. Whereas, to counter it, In Table no.3. It revealed that the both the standards of Shankara Vidyalaya are not different in the attitude to online teaching learning process during covid-19 situation. It means that both the standards of Shankara school are equally positive towards online teaching learning programme during covid-19.

Further, the table no. 4. Revealed that the students of upper Primary standards of both the schools (Oxford School and Shankara Vidyalaya) differ significantly with respect to the attitude towards online teaching learning system. And the same result we can also found in case of Secondary standard of both the school. It means the students of secondary standards of both the schools (Oxford School and Shnkara Vidyalaya) differ significantly with respect to the attitude towards online teaching learning system.

Overall, except the Hypothesis No2, all other hypotheses have been rejected and we can say that we found positive and significant differences in the attitude of the students irrespective to name of school and also standards.



Implications & Recommendations For Further Study:

The present study as pointed out on the Attitude of students to online teaching-learning during covid-19 pandemic with special reference to upper primary and secondary class students of Maharashtra, came out with following **IMPLICATIONS**.

For students: The students must utilise the online mode of teaching-learning in this pandemic situation. They must be attentive and ask their doubts based on the access of online technology/ online teaching learning process. It would be better if the students will join in specified time to logging in to any specific class. Rather than wasting their times in other annoyance activities, the students can use this online class for their betterment. Problems in facing the various technical devices and also difficulty in internet access should be informed in a systematic manner to the authority of online teacher to maximise the utilisation of the allotted time.

For Teachers: The teacher can use this study to see what particular reasons are there in the difference of opinion of various groups. On the basis of the outputs the teacher can train their students first before conducting any online class. Besides, the teacher should consider all domains of education before preparing any teaching plan for online class. The teacher also, can guide both the parents and the students in sensible manner.

For Parents: The parents can find out the actual causes behind the interest/ disinterest in online teaching learning process of their children. They can also directly interact with the teacher regarding any issues of their children.

As the present study is limited to two private schools, it is very difficult to generalise the results of this study to larger group or population. So, following **RECOMMENDATIONS** can be suggested for further research:

- Larger sample can be taken for to access the attitude of students during this Covid-19 pandemic
- A comparative analysis can be done on both Government and Private school
- Inter District/ Inter State comparison can also be undertaken for better implication of the result.
- As this study is entirely based on online Google form, After COVID-19 19 Research can also be conducted on the same research



Conclusion:

Providing education through online mode during this pandemic situation is obviously a welcoming step and also welcomed by all the students. But the side-effects of the too much access to electronic devices shall not be ignored. So, wise distribution of curriculum and time must be undertaken to conduct online teaching learning process. According to this study, though the students welcomed the online mode of teaching learning process, we cannot deny the positive responses to physical attendance in regular classes by the students. So, to conclude we can say that online education is the need of the hour but should not be imposed after Covid19. The regular classes shall be emphasised after this pandemic stress.

Acknowledgement:

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