ORIGINAL RESEARCH PAPER

Education

PERCEIVED ATTITUDE TOWARDS ONLINE LEARNING, ITS IMPACT, AND COMPARISON OF EFFECTIVENESS OF ONLINE AND FACE TO FACE LEARNING OF MIDDLE SCHOOL STUDENTS OF MUMBAI.

KEY WORDS: Perceived attitude, Online learning, and Face to face learning.

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ABSTRACT

The pandemic shifted learning from the face to face to online mode. In this entire year of online learning to what extent did the learners engage with the online classes, did the use of digital devices for the purpose of learning distract the students, did it impact their social and physical health and how did they perceive the effectiveness of online learning and face to face learning was of interest and concern. A study was conducted on a sample of 190 middle school students of SSC and ICSE Board in suburban Mumbai.

INTRODUCTION

In March 2020 due to the lockdown, schools and colleges were shut initially, but then teaching learning shifted to the online mode, seamlessly. Accommodations had to be made, like having a digital device such as a smart phone, tablet, laptop or PC with a strong internet connection for the learners and teachers and in addition, the ability to conduct online classes for teachers. In the past one and a half year although teaching and learning, tests and exams continued in the online mode, the effectiveness of which was a cause of concern.

As the students were attending the classes from the comfort of their homes, distractions and lack of engagement was expected. There was a complete lack of the warm social interactions between the teacher and students and among students resulting in a feeling of isolation. Learning of skill-based subjects like Mathematics and languages was affected and there was also a limitation to the vigilance by teachers and hence students could be inattentive and switch over to playing games or checking out social media during classes.

To what extent did the students engage in the online classes, how did they get their doubts resolved from their teachers, did they like the digital tools used for teaching by their teachers, did they miss learning in the face-to-face mode, did they find the face-to-face mode of learning more effective, these were some unanswered questions paramount in the minds of the educators.

Did this increased exposure result in sleep related problems, eye related problems or reduced social interactions was also a concern. With online teaching gradually shifting to face to face mode, the researcher felt the need to find out the attitude of the learners towards the online teaching, the impact of the online teaching and a comparison of the online or face to face teaching.

Statement:

Perceived Attitude towards Online Learning its impact and Comparison of effectiveness of Online and Face to Face Learning of Middle School Students of Mumbai.

Operational Definitions:

Online Teaching: teaching that took place live on the platform of Zoom and Google Meet.

Effectiveness of online and face to face learning-in the current research, effectiveness was operationalised as clarity in understanding, ease of doubt solving, interest generated through activities during online and face to face learning.

Impact: Effect of being on the digital devices for online learning on their social lives, sleep and eyesight.

Middle school: Grades VII and VIII of Indian schools.

OBJECTIVES:

* To find the attitude of students towards online teaching.
* To compare students' perception of effectiveness of online and face to face teaching.
* To find the impact of regular online classes on student social life, eye health and sleep.

Hypothesis:

Null hypothesis was used to find the attitude of students towards online teaching which are as follows:

* There is no significant difference in the attitude of boys and girls in middle school towards online teaching.
* There is no significant difference in the attitude of students of SSC and ICSE schools towards online teaching.

Research Methodology

In the present study, the researcher used the Survey method to gather data, analyse and arrive at conclusions.

Population And Sample

All students of Grades VII and VIII studying in ICSE and SSC schools in suburban Mumbai. The sample was boys and girls studying in Grades VII and VIII in ICSE and SSC schools in suburban Mumbai.

Tools For The Study

A self-made tool- a questionnaire that had i) a five-point scale with ten items to gather data on the attitude towards online teaching (The maximum score for the positive statements was 5 and minimum was 1; while for negative statements, the maximum score was 1 and minimum was 5.)

ii) Eleven multiple choice questions to compare their perceptions of effectiveness of online and face to face learning and

iii) Four Yes or No type of questions to find the impact of online learning was used.

Data Collection

The link of the Google Form was shared with the students that were still attending online classes, they accessed the rating scale online and entered their responses. Hard copies of the questionnaire were shared with those who were attending face to face classes.

Analysis And Interpretation

Null Hypothesis was used to compare the means to find the attitude of students towards online teaching. Percentages were calculated to compare their perception of effectiveness. Percentage of responses to Yes and No was also calculated to find the impact of exposure to the digital devices for online learning.

Table 1 Relevant Data for Testing Hypotheses

Hypothesis 1	N	MEAN	SD
Boys	102	36.72	6.42
Girls	88	36.65	5.41
Hypothesis 2			
SSC	110	36.01	4
ICSE	80	36.88	7.21

Hypothesis 1
There is no significant difference in the attitude of Total Boys and Girls towards online teaching.

The difference in the obtained means of boys and girls is negligible and hence the hypothesis is retained.

Hypothesis 2
There is no significant difference in the attitude of students of ICSE and SSC towards online teaching.

The difference in the obtained means of students studying in ICSE and SSC boards is negligible and hence the hypothesis is retained.

Table 2-Comparing effectiveness of online and offline learning of student perception.

Statements	Student response in percentage	
	Online Classroom	Face to face Classroom
I can understand better	50%	54%
I get to interact with my peers.	50%	71%
It helps me develop various skills	50%	55%
Doubts/questions are solved quickly by the teacher.	62%	80%
I did not waste time traveling during online classes.	55%	-----
I can learn anytime/anywhere.	50%	-----
I can view the concept taught multiple times with recorded sessions.	75%	____
Maps, models and other teaching aids used in the face-to-face class are interesting.	-----	80%
Digital activities in the online classes are interesting.	55%	-----
Internet connectivity issues is an obstacle in learning.	56%	
Distractions while learning were high.	35%	40%

Comparing student perception of effectiveness of online and face to face learning, it was observed the difference was negligible (50% online mode) and (54% face to face mode) Switching over to online learning was the need of the hour and students acclimatized to it quite well.

The percentage of students who felt peer interaction was better in the face-to-face mode was substantially more, this could be because of limited social interactions during online learning unless the teachers, devised activities like break out rooms for them.

80% students felt that it is easier to get their doubts clarified in the face-to-face mode as opposed to 62% in the online mode. This is because it is easier for students to interact with their teachers in between the classes as well as during free periods or other occasions, which online classes do not offer.

55% students found videos, PPTs, Quizzes in the online mode interesting while 80% found use of maps, models, and teaching aids in the face-to-face mode interesting. This difference can be due to the fact, that despite the best efforts of the teachers, connectivity issues can hamper the clarity of teacher's instructions while conducting the activities While

the face-to-face mode offer tangible learning experiences.

Lecture and classroom talk is ephemeral, while it was possible to view the online recorded lectures multiple times if required, and hence 75% students found online teaching effective.

50% of students felt that online learning gave them the opportunity to learn anytime/anywhere while 55% of students felt that online learning saved their traveling time.

Skills like mathematical and computational, reading and writing in language requires more prolonged face to face interactions and online learning can have certain limitations in developing them. 50% students felt that online and 55% felt that face to face learning was effective in developing the skills. The difference is not substantial.

35% students responded that they switched to checking social media or played games while doing their assignments online. While 40% students responded that they were distracted in the face-to-face learning by friends or due to monotony.

The student responses to both online and face to face seemed balanced, in sync with the advantages and disadvantages.

Table 3-impact Of Exposure To Digital Devices Due To Online Learning

Question	Response In Percentage
Do you spend all your waking hours before the digital devices?	6%
Is your sleep affected due to an increased exposure to digital devices?	15%
Do you avoid going out with friends and family to spend time on digital platforms?	17%
Have you faced eye related issues due to an increased exposure to digital devices??	25%

6% of students responded that they spent all their working hours before the digital devices. As students had to attend their classes and later do their assignments and submit it inline it gave them legitimate reasons to be on their devices for a long time.

15% responded that their sleep patterns were disturbed as they could be using the net to do online work till late.

17% responded that they would avoid spending time with family and friends and preferred to on their devices.

25% responded that they faced eyes related issues such as redness and soreness of the eyes, burning sensation and fatigue of the eyes.

Major Findings And Conclusion
1) The obtained Mean scores tends towards the higher side when compared to the expected population Mean. Hence it can be said that students had a positive attitude towards online teaching. They adapted themselves to the new mode of teaching as it was the need of the hour and did not bring a break in their learning.

2) On comparison of the two modes of learning students had a balanced view of both and as expected responded judiciously to the advantages and disadvantages of both.

3) The students did experience the impact of exposure to online devices to a small extent, like discomfort to eyes and disturbed sleep patterns. The disturbed sleep patterns could be due to lack of a routine and discipline besides exposure to the digital devices.

Recommendations
During a crisis like the pandemic, online learning was a

necessity, nevertheless in the near future the blended mode, can be used at the school level for lectures, participative activities in discourse-based subjects and assignments, while skill-based subjects and practical oriented subjects can be taught in the face-to-face mode.

School authorities should upgrade the infrastructure to continue online teaching in the future. Training sessions need to be conducted to upgrade teachers in online teaching and support systems for students of disadvantaged section for the devices and network connections need to be constructed.

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