

A STUDY ON THE PREFERENCE AND PERCEPTION OF STUDENTS TOWARDS ONLINE EDUCATION IN THE ERA OF COVID-19 PANDEMIC IN INDIA

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Abstract: Covid-19 pandemic has influenced almost every sector in a negative way and hardly any industry has remained uninfluenced by the pandemic. The corona virus crisis has led to act people in a different way which created havoc among the living beings. Globally the education sector is among the most effected one's ever since the inception of the virus. Schools, Colleges and Universities were shut down in no point of time after the virus affected severally in India and therefore the idea about social distancing has to be maintained since it is one of the measures to combat the virus from spreading. The concept of online education was then effectively applicable since studies should be continued and there should be no loses due to closure of educational institutions. There is always a problem to start something new and the idea about online education for the educational institutions was new which affected both the teachers and the students, where they have to handle a completely new medium of infrastructure, tools and techniques. Students are the future of any economy, and the sudden disruption will definitely affect them in the short or long term. Therefore, based on the social significance of the study, the researcher tried to conduct the study on the basis of primary survey through Google forms to understand the perception and preference of students towards online education among different age groups in the phase of the pandemic. Non-parametric test has been used to study the perception and preference among different age groups of students and based on the results, logical conclusion along with recommendations have been given by the researcher.

Keywords: Corona Virus, Kruskal Wallis Test, Online Education, Preference.

JEL Classification: C12, C14, C83, I21 Y10

Background

The pandemic caused because of corona virus has been disruptive all over the world. It has not only taken life of human beings but also led individuals to think and act in a different way since it have

affected every aspect of life. The pandemic created a major havoc globally and have affected every sector possible. Introduction of the Covid-19 pandemic led to introduction of the terms

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quarantine, lockdown and new normal which suggested a different way of dealing and living life. Several lives were lost in the pandemic and the fear and anxiety among human kinds on surviving has become a herculean task all together. Different people had to deal differently in the pandemic but the children and students were among the worst affected ones since their life remained almost standstill from the external environment and offline classes. There was a time when a student had to make themselves ready to go to their institution and attend face to face classes but the pandemic forced the generation to attend everything virtually. Online education is not a new term which was inducted and started way before the corona crisis but the significance and effectiveness of online education can be enlightened in the toughest time period where it is the only option left to continue with your studies. Students along with the teachers had to adapt the new mode of learning in the new normal situation but a sudden acceptance of a different mode all together is not an easy task. Moreover, there are several problems associated with online learning from technological difficulties to issues in network, especially in a vast diversified country like India. Online education is also a major problem to the poor and disadvantaged sections of the population of our country. Evaluation of students in the online mode of education is also one of the biggest challenges and is a matter of concern. Looking at the divergent aspects of online learning along with the societal value; perception and preference of the students is very

important towards online education in the Covid-19 pandemic such that we can build the futuristic education student centric for the overall development of the society.

Literature Review

Several literature were reviewed by the researcher in the concerned area for the identification of research gap:

Dani et al. (2018) used factor analysis technique that was based on a structured questionnaire and the major findings of study reveals that the crucial factors that affect students perception about online education are technology, interaction among themselves, convenience, popularity, participation and effective teaching.

Pasha & Gorya (2019) studied about the comparison of online and traditional classroom learning in the city of Hyderabad through primary survey and they found that many students are there who are unaware about the online mode of education but surprisingly those who knew about online education, they preferred such mode of education and thought it is an effective way of learning in future.

Biswas & Debnath (2020) found in their study that digital education divided the students into privileged and unprivileged sections where there are deprived ones that needed to be taken care of. The researchers also elaborated that there is inequality among students in online education since a section of students without adequate technology, devices and connection struggle hard to

participate in such learning whereas the better half enjoy significant benefits.

Chandra (2020) observed through the research study that there is a difference in perception about academic failure among different categories of students which is largely because of the home environment in online learning. The researcher also found that the students have also diverted their mind towards other extra circular activities and are also going through courses which will help to enhance new activity and technical skills. The students are trying to cope up with the negative effect of the pandemic by getting distanced from boredom by using emotional intelligence.

Research Gap

Based on the above extensive review of literature in the concerned area, the researcher has found out that there is no detailed and specific research study regarding understanding the perception of student's online education in the corona virus pandemic. The study is from the perspective of the students that is the need of the time which also got a major social significance and considering there is a major research gap, the researcher have tried to conduct the study by identifying several research objectives to fulfil the research gap.

Research Objectives

Based on the above extensive review of the literature, following are the research objectives of the concerned research work as identified by the researcher:

- To find the perception regarding online

classes through its effectiveness and level of interest among different age groups of students amidst the Covid-19 pandemic.

- To find out the cost associated and the mental state of the students while learning virtually among different age groups of students amidst the Covid-19 Pandemic.
- To find the level of interaction and concentration given by the students in online classes among different age groups of students amidst the Covid-19 Pandemic.
- To find out the perception of students about which mode of learning will be preferred and considered in future.

Research Questions

Based on above well mentioned research objectives, following are the research questions raised by the researcher:

- Does there is a variation in effectiveness for online classes among different age group of students amidst the Covid-19 pandemic?
- Does there is a variation of interest for online classes among different age groups of students amidst the Covid-19 pandemic?
- Does the cost associated with online classes vary among different age groups of students with online classes compared to traditional mode of classes?
- Does there is a variation in mental health among the students on account of online classes because of the Covid-19 pandemic?
- Does the students and teachers

interaction varies in virtual classes among different age groups of students amidst the Covid-19 pandemic?

- Does the concentration level among different age groups of students vary in virtual classes in the era of Covid-19 pandemic?
- Does there is a variation in the preference of learning in future among different age group of students?

Hypothesis of the Study

To answer the research objectives and to fulfil the above mentioned research questions, the following research hypothesis has been formulated:

- H_{01} : There is no significant difference in the effectiveness of online classes among different age groups of students amidst the Covid-19 pandemic.
- H_{02} : There is no significant difference in the interest level of online classes among different age groups of students amidst the Covid-19 pandemic.
- H_{03} : There is no significant difference in cost associated with online classes among different age groups of students amidst the Covid-19 pandemic.
- H_{04} : There is no significant difference in student's mental health on account of online classes among different age groups of students amidst the Covid-19 pandemic.
- H_{05} : There is no significant difference in adequate interaction of teachers and students in online classes among different age groups of students amidst the Covid-19 pandemic.

- H_{06} : There is no significant difference in getting adequate concentration in online classes among different age group of students amidst the Covid-19 pandemic.

- H_{07} : There is no significant difference in preferences of learning in future among different student's age group amidst the Covid-19 pandemic.

Research Methodology

The current study is mainly based on primary survey done by the researcher. Several questionnaires were prepared through the medium of Google form and on the basis of the questions, responses were collected from 260 students who are mainly from West Bengal and are engaged in online education in the current scenario. Questions were prepared to understand the perception and preference of different age group of students towards online learning in the corona crisis such that to fulfill the objectives of the study. Based on the questions asked, several hypotheses were formulated by the researcher which was tested using Kruskal Wallis Test since there were different age groups of respondents in the study. The non-parametric test has also been used in the study to see if there is a difference or not in the perception and preference of different age group of students towards online education in the era of the Covid-19 pandemic. SPSS software was used to test the formulated hypothesis and on the basis of the test, results were ascertained which were logically interpreted and analyzed by the researcher. Finally, conclusion was provided by the

researcher based on the findings of the study, and several key recommendations have also been put forwarded such that the students can be beneficial and the overall structure of the education sector can be evolved and developed.

Data Presentation and Analysis

Based on the data collected through primary survey from different age groups of students, data has been presented and analyzed below regarding online education in the era of Covid-19 pandemic:

Table 1: Respondent’s Age Group

	Frequency	%	Valid %	Cumulative %
Below 18	11	4.2	4.2	4.2
18-24	124	47.7	47.7	51.9
18 and Above	125	48.1	48.1	100.0
Total	260	100.0	100.0	

Source: Computed by Author through SPSS

Based on the above Table 1, it can be clearly observed that 18 and above age group of students gave the maximum responses having 48.1% of the respondents out of total 260 respondents. The least responses were from the students age group of below 18 with 4.2% of them responding and 48.1% of the respondents were from the age group of 18 and above.

H₀₁: There is no significant difference in the effectiveness of online classes among different age groups of students amidst the Covid-19 pandemic.

H₁₁: There is a significant difference in the effectiveness of online classes among different age groups of students amidst the Covid-19 pandemic.

Table 2: Do you find Online Classes Effective in Covid-19 Pandemic?

	Frequency	%	Valid %	Cumulative %
Very High	43	16.5	16.5	16.5
High	28	10.8	10.8	27.3
Moderate	104	40.0	40.0	67.3
Low	60	23.1	23.1	90.4
Very High	25	9.6	9.6	100.0
Total	260	100.0	100.0	

Table 3: Kruskal Wallis Test Statistics (a,b)

Do you find Online Classes Effective in Covid-19 Pandemic?	
Chi-Square	8.337
df	2
Asymp. Sig.	.015
a Kruskal Wallis Test	
b Grouping Variable: Respondent's Age Group	

Source: Author's computation through SPSS

Based on the above Table 3, the results are clearly observable that the P value of the table is less than 0.05 at 0.015 which is significant at 5% level of significance and at 2 degrees of freedom. Therefore, the null hypothesis is rejected and there is a significant difference in the effectiveness of online classes among different age groups of students amidst the Covid-19 pandemic.

H_{02} : There is no significant difference in the interest level of online classes among different age groups of students amidst the Covid-19 pandemic.

H_{12} : There is a significant difference in the interest level of online classes among different age groups of students amidst the Covid-19 pandemic.

Table 4: Do you find Online Classes Interesting in the Covid-19 Pandemic?

	Frequency	%	Valid %	Cumulative %
Strongly Agree	65	25.0	25.0	25.0
Partially Agree	47	18.1	18.1	43.1
Neutral	47	18.1	18.1	61.2
Partially Disagree	50	19.2	19.2	80.4
Strongly Disagree	51	19.6	19.6	100.0
Total	260	100.0	100.0	

Table 5: Kruskal Wallis Test Statistics (a,b)

Do you find Online Classes Interesting in the Covid-19 Pandemic?	
Chi-Square	12.782
df	2
Asymp. Sig.	.002
a Kruskal Wallis Test	
b Grouping Variable: Respondent's Age Group	

Source: Author's computation through SPSS

Results from the above Table 5 clearly signifies that the null hypothesis is rejected that can be observed from the P value of the table at 0.002, which is less than 0.05 that is significant both at 5% and 1% level of significance at 2 degrees of freedom. Hence, there is a significant difference in the in the interest level of online classes among different age groups of students amidst the Covid-19 pandemic.

H_{03} : There is no significant difference in cost associated with online classes among different age groups of students amidst the Covid-19 pandemic.

H_{13} : There is a significant difference in cost associated with online classes among different age groups of students amidst the Covid-19 pandemic.

Table 6: Do you find Online Classes less costly and more affordable during the Covid-19 Pandemic?

	Frequency	%	Valid %	Cumulative %
Yes	117	45.0	45.0	45.0
No	86	33.1	33.1	78.1
Indifferent	20	7.7	7.7	85.8
Maybe	37	14.2	14.2	100.0
Total	260	100.0	100.0	

Table 7: Kruskal Wallis Test Statistics (a,b)

Do you find Online Classes less costly and more affordable during the Covid-19 Pandemic?	
Chi-Square	4.059
df	2
Asymp. Sig.	.131
a Kruskal Wallis Test	
b Grouping Variable: Respondent's Age Group	

Source: Author's computation through SPSS

Results from the above Table 7 are clearly observable such that the null hypothesis is accepted which is justified from its P value at 0.131 (>0.05), which is significant at 5% level of significance and at 2 degrees of freedom. Therefore, it can be

concluded that there is no significant difference in cost associated with online classes among different age groups of students amidst the Covid-19 pandemic.

H_{04} : There is no significant difference in student's mental health on account of

online classes among different age groups of students amidst the Covid-19 pandemic.

H₁₄: There is a significant difference in

student's mental health on account of online classes among different age groups of students amidst the Covid-19 pandemic.

Table 8: Do you think Students Mental Health is affected in Online Classes during the Covid-19 Pandemic?

	Frequency	%	Valid %	Cumulative %
Highly Effectuated	75	28.8	28.8	28.8
Moderately Effectuated	90	34.6	34.6	63.5
Neutral	51	19.6	19.6	83.1
Less Effectuated	24	9.2	9.2	92.3
Not Effectuated	20	7.7	7.7	100.0
Total	260	100.0	100.0	

Table 9: Kruskal Wallis Test Statistics (a,b)

Do you think Students Mental Health is Affected in Online Classes during the Covid-19 Pandemic?	
Chi-Square	1.070
df	2
Asymp. Sig.	.586
a Kruskal Wallis Test	
b Grouping Variable: Respondent's Age Group	

Source: Author's computation through SPSS

The results from the above table 9 are clearly visible that the null hypothesis is accepted which is justified and observable from the P value of the table at 0.586 (>0.05), that is significant at 5% level and at 2 degrees of freedom. Therefore, there is no significant difference in student's mental health on account of online classes among different age groups of students amidst the Covid-19 pandemic.

H₀₅: There is no significant difference in adequate interaction of teachers and students in online classes among different age groups of students amidst the Covid-19 pandemic.

H₁₅: There is a significant difference in adequate interaction of teachers and students in online classes among different age groups of students amidst the Covid-19 pandemic.

Table 10: Does there is adequate Student and Teacher interaction in Online Classes during the Covid-19 Pandemic?

	Frequency	%	Valid %	Cumulative %
Yes	73	28.1	28.1	28.1
No	119	45.8	45.8	73.8
Indifferent	29	11.2	11.2	85.0
Maybe	39	15.0	15.0	100.0
Total	260	100.0	100.0	

Table 11: Kruskal Wallis Test Statistics (a,b)

Does there is adequate Student and Teacher interaction in Online Classes during the Covid-19 Pandemic?	
Chi-Square	10.024
Df	2
Asymp. Sig.	.007
a Kruskal Wallis Test	
b Grouping Variable: Respondent's Age Group	

Source: Author's computation through SPSS

Results from the above Table 11 signifies that the null hypothesis is rejected that can be justified from the P value of the table 0.007, which is less than 0.05 that is significant both at 5% and 1% level of significance at 2 degrees of freedom. Thus, the conclusion states that there is a significant difference in adequate interaction of teachers and students in online classes among different age groups

of students amidst the Covid-19 pandemic.

H_{06} : There is no significant difference in getting adequate concentration in online classes among different age group of students amidst the Covid-19 pandemic.

H_{16} : There is a significant difference in getting adequate concentration in online classes among different age group of students amidst the Covid-19 pandemic.

Table 12: Do you concentrate properly in Online Classes in the Covid-19 Pandemic?

	Frequency	%	Valid %	Cumulative %
Poor	50	19.2	19.2	19.2
Moderate	101	38.8	38.8	58.1

Good	55	21.2	21.2	79.2
Very Good	21	8.1	8.1	87.3
Excellent	33	12.7	12.7	100.0
Total	260	100.0	100.0	

Table 13: Kruskal Wallis Test Statistics (a,b)

Do you Concentrate properly in Online Classes in the Covid-19 Pandemic?	
Chi-Square	7.511
df	2
Asymp. Sig.	.023
a Kruskal Wallis Test	
b Grouping Variable: Respondent's Age Group	

Source: Author's computation through SPSS

Based on the above Table 13, the results are clearly observable and it can be said that the null hypothesis is rejected which is justified from the P value at 0.023, which is less than 0.05 that is significant at 5% level of significance and at 2 degrees of freedom. Therefore, it can be said there is a significant difference in getting adequate concentration in online classes among different age groups of

students amidst the Covid-19 pandemic.

H_{07} : There is no significant difference in preferences of learning in future among different student's age group amidst the Covid-19 pandemic.

H_{17} : There is a significant difference in preferences of learning in future among different student's age group amidst the Covid-19 pandemic.

Table 14: Will you prefer online, offline or blended mode of learning in future?

	Frequency	%	Valid %	Cumulative %
Online	53	20.4	20.4	20.4
Offline	110	42.3	42.3	62.7
Blended	97	37.3	37.3	100.0
Total	260	100.0	100.0	

Table 15: Kruskal Wallis Test Statistics (a,b)

Will you prefer online, offline or blended mode of learning in future?	
Chi-Square	7.511
df	2
Asymp. Sig.	.023
a Kruskal Wallis Test	
b Grouping Variable: Respondent's Age Group	

Source: Author's computation through SPSS

On the basis of the above Table 15, the results are clearly observable and it can be said that the null hypothesis is rejected which is justified from the P value at 0.023 (<0.05), that is significant at 5% level and at 2 degrees of freedom. Therefore, there is a significant difference in preferences of learning in future among different age groups of students amidst the Covid-19 pandemic.

Findings and Conclusion

On the basis of the above detailed analysis of the current study, it can be observed that there are mixed responses from different age group of students towards the perception and preference of online education during the period of the pandemic. Therefore, it can be clearly said that different age group of students think differently and thus their perception and preference vary accordingly and same herewith the perception towards online education varied significantly. Brief overview of the overall results suggest that online classes are moderately effective especially in the current situation of crisis since there is no other means of possibility

to continue education but the interaction within students and teachers is low during online classes. Overall the student's perception is that they get moderate concentration in the online classes but it was found that online classes are more affordable and less costly than other means of education as responded by all groups of students. Considering the mental health of the students which is very much important, it was found that majority of the students responded that their mental health is moderately affected because of online education and therefore for all the definite reasons, they wanted to shift towards offline education in the future.

The pandemic was such that the students and the learners have never thought of and it affected badly where life will come to such that they have to learn via online and which will be the only teaching and learning method that will be considered. Online education in the current tough situation is good but it cannot be a solution for future especially in a diversified and vast country like India where still majority of the students come

from the rural areas. The rural area of our country has inequality in technology and digitally accessed medium to attend online classes, which is a major problem for some of the learners in the pandemic situation. Having accustomed with the digitally equipment for online education is also a challenge for many of them at the first instance. There are several problems associated with online education though it is the current solution at this very moment to combat the pandemic. The situation demands online education but there students are in favor of offline education in future. Thus, hopefully we will overcome this pandemic and create a sense of belongingness such that every student gets access to equal education for the overall development of the sector and the country as a whole.

Recommendations

Students during the pandemic have faced numerous problems and challenges that they have hardly faced earlier. Along with several other crises, the corona virus pandemic has also led to education crisis in our country. There is a psychological anxiety and stresses among the learners on account of lockdown because of the pandemic. There is also a large divergent in online education where the unprivileged students are facing the problem whereas the privileged ones are taking the advantages of such education. There are numerous problems associated with online education in our economy which needed to be identified and thereby resolved for the benefit of both the education institutions and the learners. On the basis of the problems associated

with online education, several recommendations are put forwarded by the researcher for the overall benefit of the learners in our country.

- The marginalized and the poor sections of the society should be taken care of with psychological support and such groups of students; especially the children's should get special attention with learning needs and adequate resources from the educational institutions and policy makers.
- Online learning devices should be provided by the government and other institutions to the disadvantaged groups of students such that they can continue their learning in the corona virus pandemic.
- Adequate training to some of the inadequate students shall be provided to those who are not capable of accessing online tools and devices for the purpose of having online classes in the contemporary scenario.
- Along with teaching and learning, teachers along with the parents should ensure that much of the focus is given on student's immunity and both mental and physical health in the current scenario which is very much needed for the future generation students of our country.

Limitations of the Study and Future Research Scope

The current study is based on a small number of respondents collected through Google forms as a primary means of survey which is mainly based on a specific area. So, future researchers can conduct

more elaborative research by collecting more number of responses from the respondents in different areas to better understand the perception of students on online education in the light of the pandemic. Only age group is considered and focused on the current study whereby several other variables could have been considered to diversify the study. The study is done using basic statistical tools and therefore more extensive research can be conducted by taking more sophisticated statistical tools in future. More number of parameters can also be considered along with extending the geographical area to conduct research study on a larger dimension.

Conflict of Interests

The author declares that there is no conflict of interests that are directly or indirectly related to this research work.

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