

To examine the challenges of students while ‘studying from home’ amid covid-19 pandemic: An Exploratory Factor Analysis.

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Abstract

The pandemic of covid-19 has created a gloomy pall across the world. All events across the world are either cancelled or postponed, most of the countries are under lock down, the cases of Covid-19 are rising day by day. School, colleges and universities are completely closed in most of the countries due to positive cases of covid-19, rising day by day. Not only businessman, legal professional, medical professional, politician, teachers, organizational employees etc, are facing problems for the smooth working of their profession but also students are facing a big challenge while studying from home. The emergence of communication technology in the form of smart phone and other electronic gadgets are helping the students to pacify their challenges. Keeping the problem or challenges, students are facing and its impact on their studies while studying from home, the research study is conducted to identify the challenging factors of students while ‘studying from home’ during complete close of schools, colleges and universities due to lock down. So the main objective of my research is to identify various challenging factors of students while studying from home’ amid covid-19 pandemic. A data was collected by distributing self designed questionnaire with 250 students of colleges and universities of Uttarakhand. A Google-form was prepared to collect the responses from the students. Data collection is done with the help of convenience sampling method. Exploratory factor analysis is used to determine the various factors of challenges of students while studying from home during lock down. SPSS and Microsoft Excel was used to analyse the data.

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INTRODUCTION

Spread of Covid-19 pandemic has brought that situation which the present mankind have never seen. Every sphere of life is not only halted but has started degrading. Like all the other sectors of the country, the education system is also facing extremely unforeseen challenges. Students have been disconnected from the regular routine of the education system. Lock down has brought the discontinuity of the regular classes i.e. breaking the system of educational and skill development of the

students. Students who are in the final year of their courses and are about to appear for an interview to get a good job, are confined in the walls of their houses. Because of prolonged lock down due to Covid-19 pandemic, they are not only getting distressed or facing challenges while studying from home, but also experiencing that their dreams of future are getting shattered. In order to help these students for coping up the confinement due to covid-19 pandemic, development in the Information Technology in the form of communication technology has made the life of the students easy for

accessing information, getting connected with the teachers, friends and relatives through social media. During lock down, where the life of the students are confined in the houses, development of smart phones, access of high speed internet and various apps has made their life easy to compensate their losses. During lock down due to Covid-19 pandemic, students are completely dependent on social media for their studies.

Now social media has become the only tool for imparting knowledge from faculties to the students.

Not only one challenge the students are facing while studying from home, there are numbers of challenges which students are experiencing in their daily life. The first challenge, they are facing during lock down i.e. collection of study material related to their curriculum. They can't approach the library and other resources to collect the study material due to lock down. They have only one option i.e. use of social media. The second challenge which they are facing i.e. poor connectivity of network. Due to lock down, the working of all sectors is completely dependent on online by using social media, leading poor network connectivity. Due to poor speed of internet, students are finding difficulty to access the information or the study material provided by the faculties. Some students are staying in rural areas where there is no internet connectivity or poor network. In the rural areas where there is no internet connectivity, students have no option to study during lock down. The third challenge, they are facing i.e. lack of resources in the form of limited mobile at home if students are having school or college going siblings. Some parents of students are daily earner; they can't afford purchasing new mobile during the period of lockdown. The factor of limited resources is also becoming a challenge for the students while studying from home. The fourth challenge during lockdown is that they are not getting any education which is enhancing their skills. They are not getting any formal education in a formal manner which can enhance their practical knowledge. The fifth challenge which they are facing i.e. the students, who are about to complete

their courses, may face a tough time to get the job opportunity due to prolonged lockdown. The challenges of students are not limited; they are uncountable.

REVIEW OF LITERATURE

According to L. Fishbane & A. Tomer(2020), using mobile phone and laptop is only the option for the students 'studying from home' during Covid-19 Pandemic. They also expressed that due to poor network, students are facing a big challenge to access the information. In order to clarify, Angelo (1995) developed a model which tells the strategies of teaching or assessment goals for the students. Teaching goals consists of work and career preparation as well as personal development; liberal arts and academic values; discipline-specific knowledge and skills; basic academic success skills; higher-order thinking skills. E-learning is helping the students to get the study material sent by teachers through social media or to access the information from various apps through social media. According to Hameed et., al., (2008), e-learning is not providing them the same level of explanation of the study material and clarification of doubts which they get through face to face interaction. Social networking sites or social media are providing the opportunities to the students to connect with teachers, classmates, friends, administrators in education field (Mills, N.,2011).

STATEMENT OF THE PROBLEMS

Covid-19 pandemic has created the biggest challenge for the present mankind. In order to avoid the spread of Covid-19 pandemic, most of the countries are under lock down condition. The whole system of the country is functioning through online. Because of the dependability of the whole system on internet for the continuous functioning, has made the speed of the network low. So working with such a low speed of network is not easy for most of the sectors for their smooth functioning and creating hindrances and many challenges for the mankind.

Education system is also not untouched with the challenges, the students are facing while 'studying from home' during lock down due to corona virus pandemic. Their regular face to face interaction with the faculties is disconnected. They are completely dependent on the social media for their studies. In order to access information or study material sent by faculties, use of social media is not effective as the speed of network is very poor. Many challenges like lack of resources, poor speed of network, distraction from family members, no formal education for skill development, limited interaction with the faculties through social media, loss of job opportunities, students are facing while studying from during lock down. Therefore, observing these all things as a challenge of the students while studying from home, the research study is done to determine the various challenging factors of students while studying from home during lock down due to Covid-19 pandemic.

Research objective

The basic purpose of the study is to examine the challenges of students while 'studying from home' amid covid-19 pandemic.

Sub Objectives:

- 1- Determination of various challenging factors of students while 'studying from home' amid covid-19 pandemic..
- 2- Formation of conceptual model of various challenging factors of students while 'studying from home' amid covid-19 pandemic.

Research Methodology

Colleges and universities of Uttarakhand were taken to conduct the research. The challenges of the students while 'studying from home', is more or less same all over the country. Data was collected from the students, studying in colleges and universities of Uttarakhand. The nature of the study was exploratory research. Random sampling technique was used to collect the primary data. A self structured questionnaire was prepared in Google form to collect the data from the students. The

responses were collected from 217 students of universities and colleges. In research, out of 217 students, 62.4% were the male and 37.6% were the female. A questionnaire consists of 19 questions, based on demographic profiles of the students and variables of challenging factors of students while studying from home. Responses were collected on Likert's 5 point scale, ranging from Strongly Disagree(1), Disagree(2), Neutral(3), Agree(4) and Strongly Agree(5) for collecting the responses. Internet, Websites and Newspaper Were used for collection of secondary data. SPSS Statistical package 21 and Microsoft-Excel were used for data analysis.

Results and Discussion

Reliability

Cronbach's alpha test was used to determine the reliability of collected data. In our research, .745 is the reliability of collected data. The value of Cronbach's alpha shows the accuracy of the collected data and indicates that the collection of responses is accurate to conduct the research analysis statistically.

Table 1:

Reliability Statistics	
Cronbach's Alpha	N of Items
.745	19

Descriptive Statistics

In order to determine the features of sample surveyed, demographic factors of the respondents are summarized with the help of Descriptive analysis. Analysis of demographic profile was conducted with the help of descriptive statistics test. Table 2 shows the characteristics of respondents. 217 respondents were taken for the study. Percentage of male were 62.4 and female were 37.6. 66% respondents belongs to the age groups of 17-25, 28% belong to the age group of 26-30 and 6% belongs to the age group of above 30. Percentage of students studying in BBA, MBA and Ph.D. were 38.8, 54.2 and 7 respectively. Percentage of the

students having siblings 1, 2 and more than 2 were 36, 51.5 and 5 respectively. Percentage of the students living in areas like urban, semi urban and rural were 28, 43.7 and 28.3 respectively.

Table 2: Demographic profile

Demographic Factors	Categories	%
Gender	Male	62.4
	Female	37.6
Age	17-25	66
	26-30	28
	Above 30	6
Education	BBA	38.8
	MBA	54.2
	Ph.D.	7
Siblings	1	36
	2	51.5
	More than 2	12
		.5
Area of Residence	Urban Area	28
	Semi Urban Area	43.7
	Rural Area	28.3

Exploratory Factor Analysis

In order to determine common variables, exploratory factor analysis was used to analyse interdependent correlation among a number of items. Factors were extracted with the help of Principle Component Analysis. Kaiser Meyer Olkin measure was used to check the adequacy of the sample. .681 is the value of KMO, which is greater than the acceptable limit 0.5 (Field 2009). Bartlett's test of sphericity, chi-square value at p value 0.000 indicates that use of

exploratory factor analysis is appropriate, as the values are given in the Table 3.

Table 3:

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.681
Bartlett's Test of Sphericity	Approx. Chi-Square	1957.646
	df	171
	Sig.	.000

each variable's Eigen value in the factors was determined with the help of exploratory factor analysis. Six factors were determined and eigen value of each factor is higher than '1' Kaiser's criterion, explaining 61.465% of the variance. The identified variables, gathered on the factors, explaining that the first factor explains interference from family members during study, second factor tells Study without gaining practical knowledge, the third factor expresses Poor performance due to lack of resources, the fourth factor shows Social media is only the option, the fifth factor tells Poor speed of network and the sixth factor shows Sufficient time to complete the task. Names were given to the clustered variables, extracted via exploratory factor analysis.

On the basis of the clustered variables, extracted through Exploratory Factor Analysis were given their name. The main objective of the study is to extract factors of perception of students about use of social media through Exploratory Factor Analysis.

Table 4 Extracted variable's summary

Factors' Name	Eigen Value	% of variance	Variables extracted	Factor loading
Interference from family members during study.	3.853	12.831	You feel double pressure to handle both responsibilities and study from home.	.782

			<p>You cant concentrate due todisturbance created by siblings.</p> <p>Your family expects some help in household work</p>	<p>.743</p> <p>.682</p>				<p>social media.</p> <p>You are fully dependent on social media for the completion of assignment and studies.</p>	<p>.735</p>	
Study without gaining practical knowledge	2.323	10.720	<p>Due to lock down, enhancement in skill development will not take place.</p> <p>You use social because face to face interaction is not possible with friends and relatives.</p>	<p>.964</p> <p>.964</p>		Poor speed of network.	1.309	9.116	<p>Excessive use of internet has reduced the speed of network. Poor network sometimes creates the problems to access the social media</p>	<p>.765</p> <p>.738</p>
Poor performance due to lack of resources.	1.550	10.432	<p>You face challenges to solve the doubts in numerical subjects.</p> <p>You feel study from home is more challenging than study at college.</p> <p>You have a fear of losing percentage</p>	<p>.773</p> <p>.756</p> <p>.680</p>		Sufficient time to complete the task.	1.141	8.640	<p>During lockdown, you are studying more than normal days.</p> <p>You are able to meet the deadline of submission of assignment via study from home.</p>	<p>.773</p> <p>.666</p>
Social media is only the option.	1.502	9.726	<p>Most of your valuable time you spend on</p>	<p>.782</p>						

Rotated Component Matrix^a

	Component					
	1	2	3	4	5	6
You feel double pressure to handle both responsibilities and study from home.	.782					
You cant concentrate due to disturbance created by siblings.	.743					
Your family expects some help in household work	.682					
Study from home give rise to mental stress						
Due to lock down, enhancement in skill development will not take place.		.964				
You use social because face to face interaction is not possible with friends and relatives.		.964				
You face challenges to solve the doubts in numerical subjects.			.773			
You feel study from home is more challenging than study at college.			.756			
You have a fear of losing percentage			.680			
Most of your valuable time you spend on social media.				.782		
You are fully dependent on social media for the completion of assignment and studies.				.735		

You find difficulty to explore the information from other resources, except social media.						
To manage stress you have increased your hours of sleeping						
Excessive use of internet has reduced has reduced the speed of network.					.765	
Poor network sometimes creates the problems to access the social media					.738	
To manage stress, you have started taking alcohol and tobacco.						
During lockdown, you are studying more than normal days.						.773
You are able to meet the deadline of submission of assignment via study from home.						.666
Study from home gives flexibility to study anytime						

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Description of the extracted factors

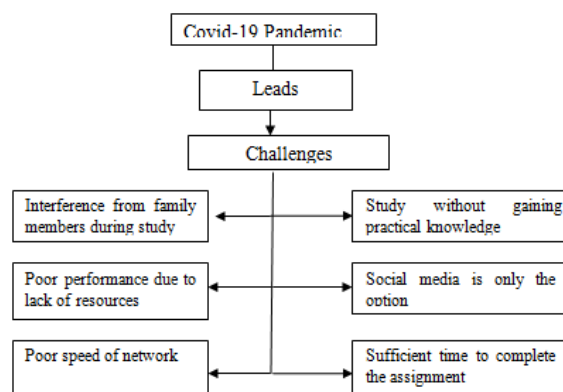
- 1 Interference from family members during study:** The whole country is under lock down during Covid-19 pandemic and schools, colleges and universities are closed. Students have no other options rather than studying at home. Students with siblings and other family members are finding difficulties

to study with concentration. Family members expect some help in household work from them. If the siblings are too young, they create distraction by making noise at home. So this factor has emerged in the form of the most significant factor of our study with a percentage of value of total variance is 12.831 & Eigen value is 3.853.

- 2 **Study without gaining practical knowledge:** It is the biggest challenge for the students to study without experiencing practical knowledge during lockdown. These days' students don't have any face to face interactions with the teachers, classmates, friends etc. Teachers are unable to enhance their practical knowledge due to lack of interactions. Students can't access the lab and library also. Students are facing problems to develop their skills and enhance their practical knowledge due to lock down. So this factor has emerged in the form of significant factor of our study with a percentage of value of total variance is 10.720 & Eigen value is 2.323.
- 3 **Poor performance due to lack of resources:** The next challenge which the students can face during Covid-19 pandemic is scoring fewer marks. They are fully dependent of social media to access the study material. They have no other option rather than using mobile and laptop to study while 'studying at home'. Because face to face interaction with the teachers, classmates and friends is not possible during lock down. They are left with the limited resources to access the information. Due to limited resources during lock own, their performances may suffer. So this factor has emerged in the form of significant factor of our study with a percentage of value of total variance is 10.432 & Eigen value is 1.550.
- 4 **Social media is only the option:** Most of their valuable time, people spend on social media. During lock down due to Covid-19 pandemic, students are fully dependent on social media to access information and for completing assignments and research work. Due to lack of face to face interaction, they have no other option to explore the information. So this factor has emerged in the form of significant factor of our study

with a percentage of value of total variance is 9.726 & Eigen value is 1.502.

- 5 **Poor speed of network:** The whole system of a country is completely dependent on social media for the working. Excessive use of internet has reduced the speed of network. Poor network sometimes creates the problems to access the social media for searching the information. Poor speed of network acts as a challenge for the students to study at home during lock down. . So this factor has emerged in the form of significant factor of our study with a percentage of value of total variance is 9.116 & Eigen value is 1.309
- 6 **Sufficient time to complete the assignment:** During lockdown, students have enough time to study at home. Due to sufficient time, they are able to meet the deadline of the submission of assignment while studying from home. This factor is not only giving the freedom to the students but making the students lazy also. Because they have enough time to complete the assignment any time. So this factor has emerged in the form of significant factor of our study with a percentage of value of total variance is 8.640 & Eigen value is 1.141.



Conceptual Model of Extracted Factors

CONCLUSION

A number of challenges, students are facing while 'studying from home' during lock down due to covid-19 pandemic and leading no face to face interaction between the students and the faculties. Due to lack of interaction, students are experiencing many difficulties to solve the subject related queries. It has been observed that students are completely dependent on internet to access the information and to complete the assignments. Due to the excessive use of internet, the speed of network is very slow. Students residing in rural areas, where the speed of network is very slow, are finding difficulty to access the study material. They are also not getting any formal education which can enhance the practical knowledge and can develop their skills. Six factors such as interference from family members during study, study without gaining practical knowledge, poor performance due to lack of resources, social media is only the option, poor speed of network, sufficient time to complete the assignment are determined by using exploratory factor analysis.

Suggestions

Lock down is creating many challenges for the students. In order to minimize the challenges, students should have frequent interaction with the faculty members during their working hours. Teachers should also have interaction with the students once in a day through social media. So that the queries of the students can be handled. In order to enhance the practical knowledge and develop the skills of the students, teachers should give them some task which the students can do at home like case studies, role playing, quiz, course related games etc.

Limitations

Due to limited time and incapability to approach the students, further research study was not conducted to check the relationship of different factors with the study status of the students. During lockdown due to covid-19, it was not possible to approach the other state's students.

Future Scope of the study

The impact of challenges of the students on their studies while 'studying from home' in the universities of other states may be determined

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