Online Education: Impact and Outcomes

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Abstract

The Covid-19 pandemic has permanently changed many things the world over. One of the immediate impact of the pandemic was the shift in Teaching -learning processes, at the Primary, Secondary and Higher Education levels. Online methods of teaching -Learning has become the new normal, in times of Social Distancing.

Online Education appears to have the capability to revolutionize the entire system of Education in terms of reach, affordability, flexibility and ability to bring back dropouts into mainstream education. This makes it imperative to study, analyze and understand the effectiveness and impact of this mode of Education, as it is being used today, in terms of upskilling and holistic development of learners.

This paper is an attempt to study the impact of online education on Learning outcomes, attributes and Overall development of the Learner.

Keywords: Online Education, Social Distancing, Teaching -learning processes.

INTRODUCTION

The sudden closure of educational institutions the world over due to the norms of social distancing imposed by Governments has caused a paradigm shift in the Education sector like never before. The internet revolution has made the process easier for the learner as well as the teacher. Institutions moved from classroom teaching to online teaching in a big way. For most institutions this was not a planned activity, but something that had to be adopted as an emergency measure. The mandate of Institution Accreditation bodies has introduced ICT enabled education to some extent, but most Institutions and Faculty members were unprepared for a complete shift to online Teaching Learning.

As per the AISHE report for 2018-19, India has an average of 28 colleges per 1 lakh eligible population i.e., population in the age group of 18 to 23 years, with the lowest density being in Bihar and the Highest in Karnataka (1), which is highly insufficient for a country which has around 14.15 crore of its literate population in the age group of 18 to 23 years. (2). The enrollment rate in Institutes of Higher education for the year 2018-19 is 37.4 million which includes around 47,427 foreign nationals (1). This accounts for 26.39% of literate learners in the country. This shows an alarming dropout percentage of 73.61%. Of these, majority of the students drop out due to external factors, such as marriage, domestic work or paid work. (3)

Online education, with its cost effectiveness and flexibility, can prove to be the tool which can bridge this gap and bring back the drop outs to main stream education, thus increasing the Human Resource of the country.

We have attempted to analyze the effectiveness of the online teaching process as it is used today, as a process of upskilling and for the holistic development of learners and also its efficacy as a tool for improving the quality of Human Resource of the country.

Method

Data from across the country was collected through a structured online questionnaire. The parameters used were Faculty, Level (UG /PG), types of study material provided , Platform used , learning level achieved , Discipline of students, Student responsiveness , Student interaction , diligence , Motivation , regularity , Availability of Resources , Profiling of students , Pedagogies employed.

The data of the 137 teacher respondents was analyzed.

Results and Discussion
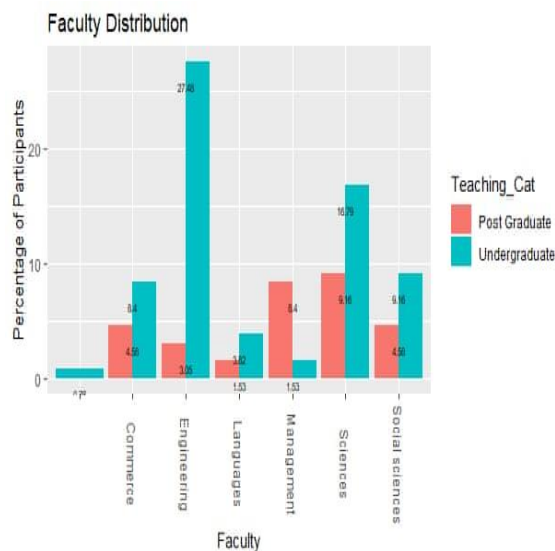
Graph 1: *Faculty wise percentage of Teacher Respondents*

30.5% of the respondents were from the faculty of Engineering, 25.95% from Science faculty, 13.74% and 12.98 % respectively for Commerce and Social Sciences respectively. Only 5.35% of the respondents were from the area of languages. 63.36 % respondents teach at UG level, whereas 35.12% teach at the PG level. (Graph 1).
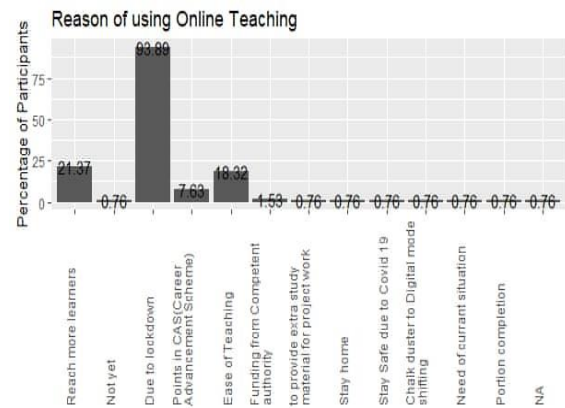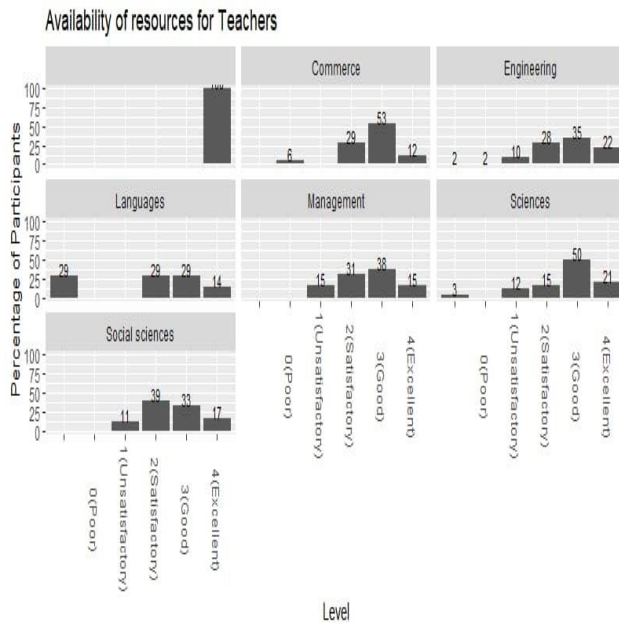

Graph 2: *Reasons for online Teaching*

An analysis of the data shows that an overwhelming 93.89 % of the respondent teachers took up online teaching as an emergency measure due to lockdown. Around 21.37% engaged online lectures to reach more learners, whereas only 18.32% have mentioned ease of teaching as a reason for Online teaching (Graph 2).
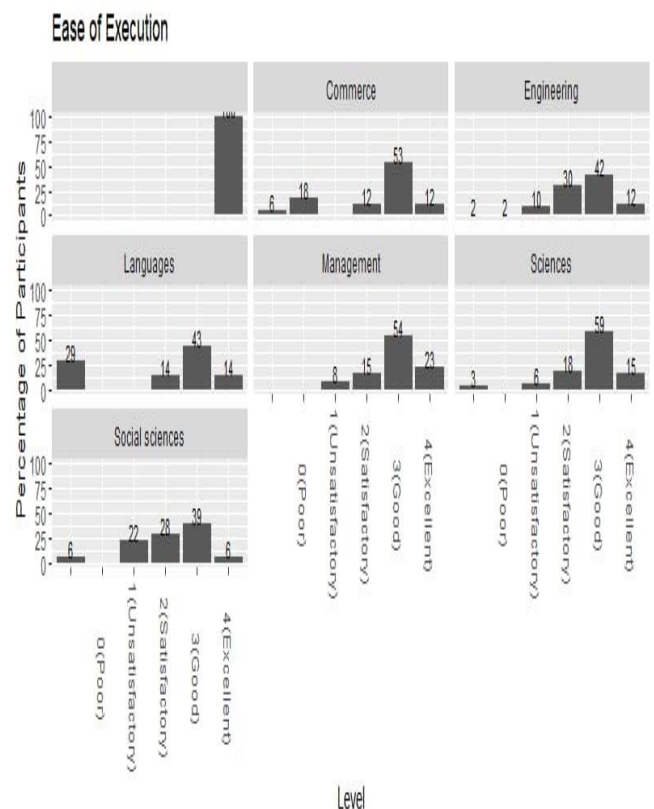

Graph 3: *Faculty wise ease of execution of teaching on online platforms*

Graph 4: *Faculty wise Availability of Resources for online teaching*

From Graph 3 and 4 it is seen that between 65 to 75% of the teacher in the faculty of Engineering, Commerce, Management, Social Sciences and Sciences found the ease of execution on online platforms to be satisfactory or Good. The ease of teaching Languages on the Online platforms was marginally less. Only a marginal 12 to 22% found it to be excellent.

Availability of Resources was also satisfactory or Good for 63 to 69% for Engineering, Management and Sciences faculty members. A slightly higher percentage of teachers of Social Sciences (72%) and a significantly higher percentage of Faculty of Commerce (82%) had resources available for teaching. Again, the Faculty for languages found resources to be less satisfactory.
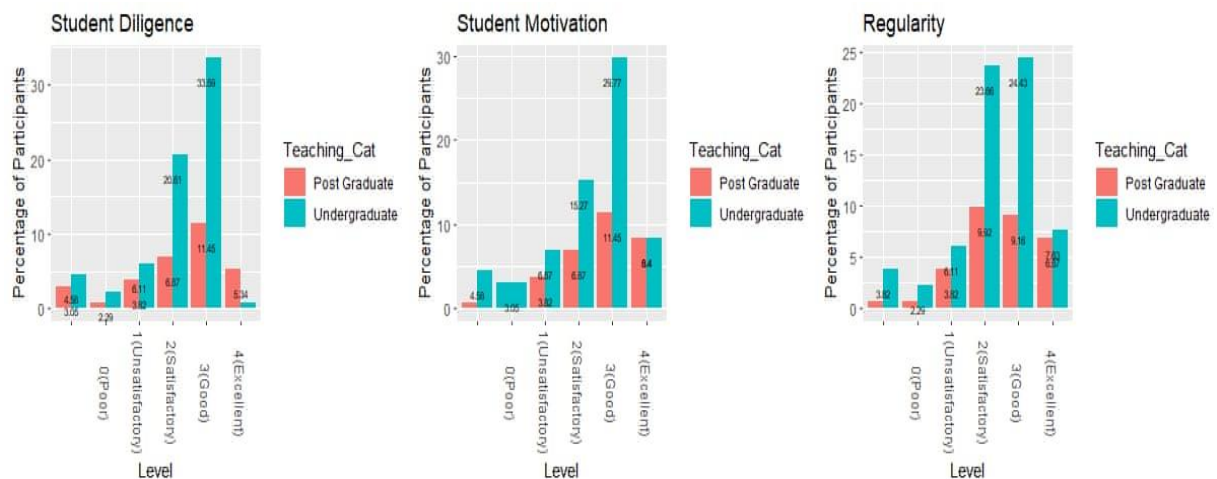
Graph 5 *Teacher's Observation on students' response to Online Teaching (1)*
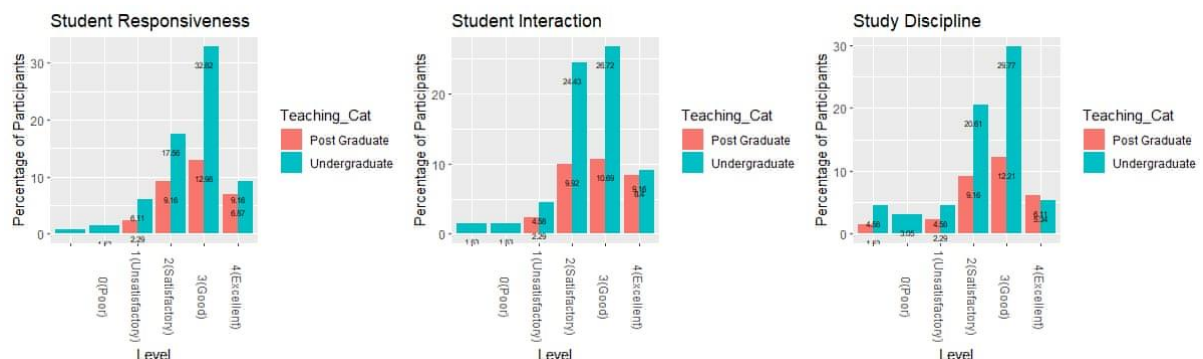
Graph 6 *Teacher's Observation on students' response to Online Teaching (2)*

Table 1: *Online teaching observation regarding students as % of total response and as % of UG and PG separately (from Graph 5 and 6)*

score	Poor		Unsatisfactory		Satisfactory		Good		Excellent	
Attribute	**UG**	**PG**	**UG**	**PG**	**UG**	**PG**	**UG**	**PG**	**UG**	**PG**
Diligence	2.29	0.76	6.11	3.82	20.61	6.87	33.59	11.45	0.76	5.34
%	3.61	2.16	9.64	10.87	32.52	19.56	53.01	32.60	1.19	15.20
Discipline	3.05	--	4.58	2.29	20.61	9.16	29.77	12.21	5.31	6.11
%	4.81	0.00	7.22	6.52	32.52	26.08	46.98	34.76	8.38	17.39
Motivation	3.05	3.05	6.87	3.82	15.27	6.87	29.77	11.45	8.40	8.40
%	4.81	8.68	10.84	10.87	24.10	19.56	46.98	32.60	13.25	23.91
Regularity	2.29	0.76	6.11	3.82	23.66	9.92	24.43	9.16	7.63	6.87
%	3.61	2.16	9.64	10.87	37.34	28.24	38.55	26.08	12.04	19.56
Responsiveness	1.50	--	6.11	2.29	17.56	9.16	32.82	12.98	9.16	6.87
%	2.36	0.00	9.64	6.52	27.71	26.08	51.79	36.95	14.45	19.56
Interaction	1.53	--	4.58	2.29	24.43	9.92	26.72	10.69	9.16	8.40
%	2.41	0.00	7.57	6.52	38.24	28.24	43.17	30.43	14.45	23.91

From Table 1 we can see that,

1. For UG Students:

•   Between 45 to 53% of the UG teachers found the students to be Good in terms of Diligence, Discipline, Motivation, and responsiveness. The % was lesser for Interaction and Regularity.43.17% and 38.55% respectively. 37.34% and 38.24 % found students satisfactory in terms of interaction and regularity.

•   We can safely conclude that the UG student's response in terms of the above parameters is either satisfactory or Good,

accounting for around 75% of responses. Very few found the response of students to be excellent (12% to 14.5% for diligence, responsiveness, motivation and interaction around 8.5% for discipline and less than 1.5% for Diligence)

•   On the other hand, very, few teachers found the response in all categories to be poor (Less than or equal to 3.05%).

2. For PG students:

•   Between 32% to 36% of the PG teachers found the students to be Good in terms of Diligence, Discipline, Motivation, and responsiveness.

•   The % of response of Good for Interaction and Regularity is 26.08% and 30.43% respectively. As compared to other attributes, higher % of teachers reported excellence in these 2 criteria.

•   We can safely conclude that the PG student's response in terms of the above parameters is either satisfactory or Good, accounting for around 52 to 60% of responses. A higher percentage (Around 19 to 23%) found the student response to be Excellent, which is higher than that for UG students,

•   On the other hand, very, few teachers found the response in all categories to be poor (Less than or equal to 2.16%). Surprisingly, 8.68% teachers reported poor motivation amongst PG students.
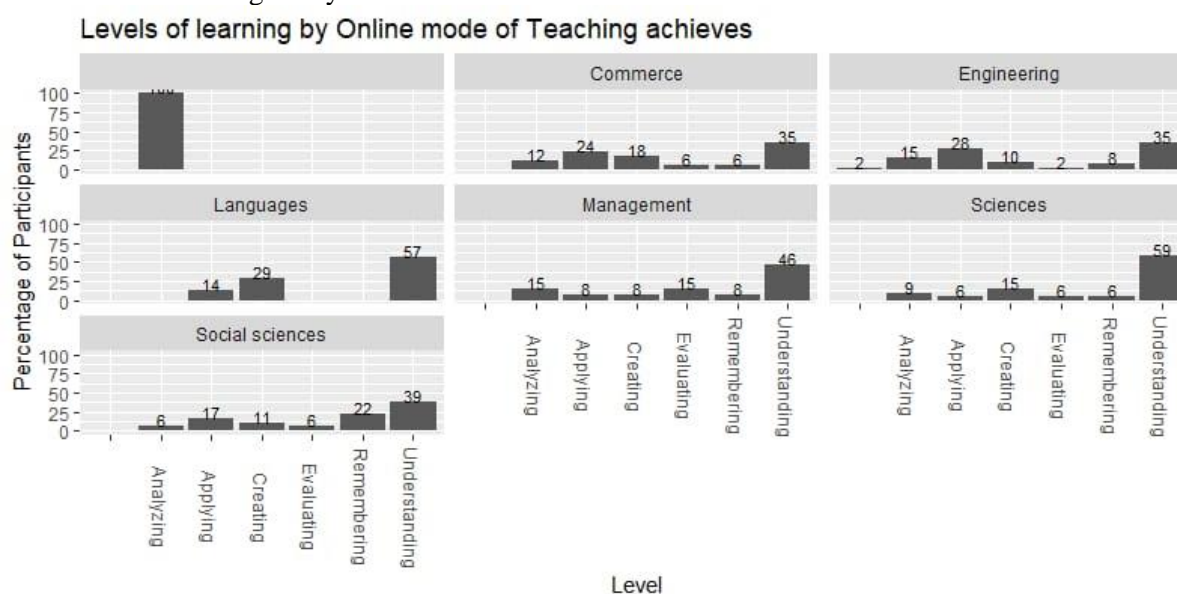
Graph 7: *Faculty wise learning levels achieved by online Teaching Learning*

From Graph 7 it can be seen that, "Understanding" is the level of learning that is achieved, across Faculty members. Attainment of higher levels of learning of Creating, analysing and applying is reported by around 30 to 33 % of respondents.

Analysis of the data showed that there was no process in place to apply different pedagogies for Advance and Slow learners, although some of the teachers have done student profiling.

Conclusion

Student engagement is a vital parameter for achieving learning outcomes in an Institutional set up. Student Engagement in Academics is high in the Online mode of Teaching, but levels of Learning are poor, and do not conform to the Levels as per Blooms Taxonomy, where the ultimate outcome of Education is developing Analysing and Applying ability of learners.

Although the teachers are equipped for online teaching learning Process and have the resources for the same, there are no process in place to cater to differing needs of students with different learning abilities.

Thus, we are of the opinion that a totally online mode of education has the scope of integrating the drop outs back into mainstream Education,

but is not effective in upskilling them to making them gainfully occupied.

There is also need to analyse the situation from a learner's point of view, which the group proposes to undertake.

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