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Effectiveness of Online Learning on Students of Undergraduate Programs During Covid-19 Period: A Study in Dakshina Kannada District

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ABSTRACT

The entire world has been severely affected due to the outbreak of COVID-19 in the year 2020 and education sector was the most affected one due to lack of physical interaction between teachers and students. This has made learning very challenging in undergraduate programs. The colleges chosen for the study have introduced innovative strategies to make learning more interesting and effective. In the present study, an attempt has been made to analyze the effectiveness of online learning on the students of under graduate programs. The information for the study was collected from the students of both private and government colleges of Dakshina Kannada district. The findings of the study revealed that students are satisfied with the teaching through online mode during COVID-19 as there was no other alternative available for teaching-learning process. It was also observed that gender and place of stay of the students had an imperative impact on the effectiveness of online learning as well as satisfaction level of the students of undergraduate programs.

Keywords: *COVID-19, Effectiveness and Online learning, Gender based learning, Performance, Pandemic.*

INTRODUCTION

Our society has witnessed an unprecedented outbreak of COVID-19 pandemic affecting every segment of social/civic life. Navigating stress and anxiety during the period of pandemic was an uphill task for thousands of people, especially during the lockdown period. Many precious lives were lost, numerous children lost their parents and number of families living without the presence of their loved ones is beyond measure. More so, the lifestyle of people has been taken for a toss during the period of lock down. The impact of the pandemic is so severe that it is going to remain for many more years with us. The year 2020 will be earmarked in the history of mankind for witnessing the outbreak of the pandemic.

COVID-19 has affected the entire world in different ways and the education sector has been hit severely due to the absence of physical classes and face to face teaching. The classroom teaching and learning process had to be completely stopped due to the fear of spreading corona virus with one another. This resulted in the shifting of the teaching process to virtual mode. Learning through online platform became the only option to be practiced to keep the momentum of education system. Almost all educational institutions adopted the system of online teaching which compelled every student acclimatize to online learning. Teaching through online channels such as Google meet, Zoom, Cisco WebEx, Microsoft teams etc. replaced the place of physical classrooms. Almost all teachers in schools, colleges and universities had to learn various tools of online teaching & evaluation such as e-content development, video preparation, video editing, Teachmint app, Google forms, Testmoz, Moodle, Live streaming etc. Online learning is an integration of technologies in teaching and learning, Chaturvedi, K. (2021). The current pandemic situation has completely transformed the conventional system of education into a virtual system of education, Hussain, I. et al (2020). The teachers in higher education system have equipped themselves by attending various training programs, workshops and self learning on tools of online teaching. The classes of almost three semesters were done through online mode. Though in the beginning students as well as teachers encountered several problems to adapt themselves to this new culture of teaching and learning, nowadays things are settling down and finding it little more effective than what it was initially. The colleges in Karnataka State adopted its own Learning Management System (LMS) to make e-learning effective by providing videos of online classes and required study materials to students. This has helped the students to study through online mode. The government colleges in Karnataka also adopted its own Karnataka Learning Management System which has login facility to students and faculty members. The students can access videos, study materials and multiple choice questions for each lesson. With an access to internet, online mode of education has provided scope to read beyond what has been taught by the teachers. Students and faculty members had an option to register for MOOCs and SWAYAM courses to enrich their knowhow. All these facilities have made e-learning far better than as it was earlier. Plethora of teaching tools available for teachers escalated their innovation skills to make their classes interesting and engaging through online mode. Teachers could plan their pedagogy of teaching flexible to make it more effective. Nevertheless, students also play an important role in making the online learning impactful and it required a strong self motivation from learner to make it effective Tamm, S.

(2019). The teachers need to play their roles and perform their tasks in order for learning process to happen Chaturvedi, K. (2021). The better learning outcomes in effective online delivery of content are possible only by providing digital literacy training to teachers and students Anwar. & Adnan. (2020) But it required the students to possess gadgets such as mobiles or laptops or tabs or computers with them to facilitate online learning. The access to internet in the rural areas is also a vital issue with regard to the effectiveness or success of online learning. Quality of instructions are evolving and improving day by day making online learning more a norm and less of a novelty.

The present research study portrays on the effectiveness of online learning on the students of undergraduate programs during COVID-19 period in Dakshina Kannada district of Karnataka State.

LITERATURE REVIEW

COVID-19 has made the students to attend online learning compulsory and this necessitated the need make study to understand the effectiveness of online learning on students of undergraduate programs. Some descriptions of various studies done on the subject matter would through more light for further analysis:

Partlow. & Gibbs. (2003) stated that there should be dynamic, interesting and interactive online courses and the teachers should set time limits to make the students attentive. They proposed that humanization of the learning process and personal attention make the online learning effective. The communication is the key factor in online courses to make the students engaged and make them effective. The continuous improvement of the online courses must be made by teachers to make it creative, interactive, relevant, student-centered.

Song. et al (2004) investigated about the problems and difficulties faced during learning. They found that modern technology range from downloading errors, issues with installation, problems with login and audio and video influence of the online learning. Personal attention is also a key aspect in online learning with two-way interaction.

Patricia, C. & S. Keith Lowe (2007) stated that majority of the students were satisfied with distance learning and majority of them recommend it to their friends and batch mates because of their satisfaction. To make online education more effective, the university must collect feedback from the students on a regular basis. The success of the university/college/teachers depends on the information obtained from the students and the remedial measures initiated according to their requirements.

Subramaniam. & Kandasamy. (2011) analyzed the virtual classroom and its contribution for institutional transformation and found that e-learning offers flexible modes of learning without physical presence of individuals in the traditional classroom. It also provides an opportunity for students to become independent learners using innovative, efficient, informative, and effective tools of online learning. The success of effective virtual classroom depends on the content delivery, interactivity, collaboration, assessment, and evaluation.

Luaran, J. et al (2014) stated that most of the respondents were exposed to e-learning because of its flexibility of pattern, self study courses and learn at any place and time. But there is a problem of face to face communication in e- learning which makes it ineffective.

Kuama (2016) stated that even though there are many advantages of e-learning, there are a number of challenges that have been faced by the students in the new learning environment. These obstacles of online learning negatively impact students' educational performance. But the difficulties faced by the students can be reduced by taking into account several actions which can lead to the effectiveness of e-learning.

Singh. & Thurman. (2019) revealed that online learning is a tool that can make the learning process more student-centered, innovative and flexible. The students can learn different courses from anywhere using different devices with an access to the internet.

Hussain, I. et al (2020) advocated that online learning was an effective and modern way of learning during COVID-19 to meet the educational needs of the students. The study revealed that online learning is really helpful in increasing the language skills of English language learners. The study stated that respondents considered the non-availability of the online learning tools as an obstacle for the effectiveness of the online learning system. The author stated that even though online learning can never be the replacement of traditional learning, it could be the best substitute for conventional learning system during any pandemic situation like COVID-19.

Carey (2020) explained that the Corona Virus has made institutions to go from offline mode to online mode of learning. His study stated that with the help of online teaching modes, large number of students could access to learning at any time and in any part of the world. The quality enhancement of online learning is crucial for the success of online education which has increased exponentially after the Covid-19 outbreak.

Mohammed, Khan. & Vivek (2020) analysed the perception of university students towards e-learning during the ongoing COVID-19 pandemic and revealed that the students prefer e-learning as it provides them much freedom to connect with their teachers, fellow students and engage with their study materials at the comfort and flexibility of space and time. The study affirms the usefulness of e-learning such as ease of study from any geographical location which is not possible in case of conventional face to face-learning.

OBJECTIVE AND HYPOTHESIS

The objective of this study is to examine the effectiveness of online learning on the students of undergraduate programs of colleges located in Dakshina Kannada district of Karnataka State from the perspective of students.

HYPOTHESIS

H1: Satisfaction level in online learning is significantly affected by gender of the student.

H2: Satisfaction level in online learning is significantly affected by the place of stay of the student.

METHODOLOGY

The data required for the present study has been collected from primary and secondary sources. Primary data is collected from the students of undergraduate colleges of Dakshina Kannada district who were attending online classes for the past one and a half year. A total of three hundred and eighty one respondents are selected from different colleges operating in five taluks of Dakshina Kannada district for the investigation of the hypotheses . The multi stage disproportionate stratified sampling method was used for the selection of online participants. Students of both private and government colleges are selected for the study. Information is elicited with the help of the questionnaire monitored through online and offline mode.

ANALYSIS AND DISCUSSION

The data collected through the questionnaire was analysed using SPSS software.

Demographic profile of the respondents

Out of the 381 students responded to the online & offline mode of survey conducted through the questionnaire, it was found that female (53%) students were greater than male students (47%) and greater proportion(67%) of students belonged to private colleges, using smart phones for online classes (73%) than any other electronic gadgets. It was also observed that about 54% of the students resided in the urban areas of the district and the remaining were belong to the rural areas of the district.

Experience of Online classes

Majority (88%) of the respondents stated that their favorite mode of learning is offline as it is more beneficial and productive as compared to any other mode of study. The offline mode of study enabled them to have direct interaction with the teachers and created a healthy competitive environment to the students in the college campus. They also felt that scope for extra-curricular activities and participatory method of learning is very less during online classes. In some cases, few respondents stated that online learning has been useful and convenient to them for attending classes during COVID-19 pandemic. Whereas, Hussain I et al (2020) stated that majority of the respondents agreed that online learning was more effective than conventional learning.

Effectiveness of Online classes

As a famous saying goes, “there is no substitute for a good teacher”, majority of the respondents (76%) of the present study opined the same feeling by voting for the statement that online teaching does not provide the same impact as that of the personal attention paid by the teacher during offline teaching and only 15% of them felt that it might have a same impact whereas a small percentage (9%) of the respondents considered that online learning provides the same benefits as that of offline learning because the teaching and the attention paid to the students did not differ in both the mode of teaching. But a research carried out in Iran indicated that online learning design was more effective compared to lecture-based learning (Moazami. Bahrapour. Azar. Jahedi. & Moattari.

2014). It was also found that morning classes were more effective as the concentration and enthusiasm level of students were very high which is very useful to grasp the topics and for better learning experience.

Frequency and duration of online classes

Majority (83%) of the respondents had online classes of 3-4 hours duration daily for five days a week and 2 hours on Saturdays. Most of the classes (71%) were of 40 minutes duration and this is because majority of the faculty members were using Zoom platform to conduct online classes along with Google meet. Watching the small screen of cell phones for long hours consistently resulted in physical and mental health fatigue such as headaches, eye problems and stress related issues. It has also been observed that time spent on screens is not just for studies but for other activities as well. Increasing eyesight problems with frequent headaches are attributed to long hours of screen time. In addition, increasing anxiety and depression due to home confinement are also on the rise. It is also learnt from the respondents that majority of students attending online classes at home are not bound to have classroom professionalism.

Performance effectiveness of online learning

Evaluation of students' performance is a key factor in the online learning model. Performance measurement in terms of assignments, examinations, MCQs and other online ways are part of the evaluation of online learning. It is found that the performance in online mode of 37% of the respondents has reduced compared to offline learning. 35% of the respondents found that the performance was not bad despite of change in the approach of teaching. Whereas, 27% of the respondents stated that online learning has affected their performance in the examination very severely. So, it is vivid that the offline learning helps the students to perform better in their performance than online learning. Some studies state that the technological aids need to be used in online learning system to get maximum benefits of the system (Subramaniam & Kandasamy, 2011).

Difficulties in online classes

Even though it is mandatory to attend the online classes for the undergraduate students in the region, majority faced difficulties during online classes which made it not so effective in learning. Some of the difficulties in online classes are discussed here. Lack of face to face communication is one of the major demerits of online teaching. Face to face communication makes the teacher see the students to truly understand them and connect on a deeper level. Not even the best online course can fully replace the personal contact with a teacher, or the human relationships that develop in a group. So, traditional classes shouldn't be replaced with online learning. Armstrong, S. (2013). One of the biggest challenges of online classes is internet connectivity. In smaller cities and towns, a consistent connection with decent speed is a problem. Another key challenge of online learning is the struggle with focusing on the screen for long periods of time. Therefore, it is imperative for the teachers to keep their online classes crisp, engaging, and interactive to help students stay focused on the lesson. Activities and interactive classes must be encouraged by the teachers to make the classes more effective and interesting.

Activity groups promote coordination among peers and make online learning effective (Haq, Shahzad, Ahmed, Hussain, & Sajid, 2018). Thus the activity groups in online learning must be used by the teachers to remove the difficulties of learning in online. But the possibilities of distractions during online classes affect the effectiveness of online learning. Frequent voice breaks make the online classes ineffective compared to the offline classes. But to compensate for the distraction in online classes respondents collect notes, recorded lectures by asking their friends or teachers. So, it can be concluded that majority of the respondents face network problem and find difficult to attend online classes and lose their interest and motivation towards learning.

Positive attitude to face the challenges

Developing strong attitudes towards learning can help students overcome some of the potential challenges posed by online learning such as constant concentration in online classes or maintaining sufficient motivation. Students' attitudes and dispositions are influenced to a great degree by the support they receive from their families, while they are being very cooperative during the child's online learning. Majority of the respondents (66%) receive a positive response from their families during online learning which makes online classes effective to some extent. E mentoring is a viable tool which can be used by the teacher to make the online learning more fruitful and can develop the positive attitude towards online learning. Norianiani Dahalan Omar et al (2012).

Testing Hypothesis

H1: Satisfaction level in online learning is significantly affected by the gender of the students

Impact of Gender on the satisfaction level in online learning of respondents

Particulars	Male	Female	Total	Chi square value	p value
Highly satisfied	1	4	5	63.478	0.00
Satisfied	74	141	205		
Not satisfied	73	49	132		
Not at all satisfied	31	8	39		
Total	179	202	381		

Source: Field Survey

It is found from the above table that 36 percent of the male respondents satisfied with the online learning whereas 68 percent of the female respondents satisfied with the online learning and dissatisfaction level for online learning is more with male compared to female respondents. Further, Chi square test showed that male and female ratio has a significant impact on the satisfaction level in online learning, as Chi-square test value is 63.478 and $p = 0.000 < 0.01$. This is because of the disagreement with the satisfaction and dissatisfaction level in online learning between male and female respondents.

H2: Satisfaction level in online learning is significantly affected by the place of stay of students

Impact of place on the satisfaction level in online learning of respondents

Particulars	Urban	Semi Urban	Rural	Total	Chi square value	p value
Highly satisfied	4	1	0	5	37.171	0.00
Satisfied	154	31	20	205		
Not satisfied	42	34	56	132		
Not at all satisfied	5	13	21	39		
Total	205	79	97	381		

Source: Field Survey

It is found from the above table that 75 percent of the urban respondents are satisfied with the online learning whereas 15 percent of the semi urban and 10 percent of the rural respondents satisfied with the online learning. The dissatisfaction level for online learning is more with rural and semi urban respondents Further, Chi square test showed that place of the respondents has a significant impact on the satisfaction level in online learning, as Chi-square test value is 37.171 and $p = 0.000 < 0.01$.

CONCLUSION

The students considered online education a viable alternative under the current circumstances. The students felt that the extra-curricular activities, tests, projects and development of communication skills were better in offline learning. To make online learning more effective, sufficient multi-dimensional approaches should be used to ensure that learning process is more student-centred, more innovative and more flexible. Some of the students sensed that poor internet connections slowed down the interest in learning. Offline mode of learning is preferred by majority of the students after the pandemic for better academic development. Offline learning has better scope for face to face interactions between the taught and the teacher and most importantly, a feeling of togetherness in learning and sharing opinions takes place. Some of these aspects are lacking in online learning. The study found that the online learning is effective only during COVID-19 as there is no other alternative available for the teaching learning process in under graduate programs. The learning can be made better by providing training to the teachers to make it effective. The study also revealed that there is impact of gender and place of the students in the satisfaction level of under graduate students in online learning.

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