Cogency of online and Physical mode of Learning during Pandemic Covid-19

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Abstract: This study helps to determine the cogency of online mode of learning with Physical Education during the covid 19 pandemic. The participants of this study are from different professions from students, professors and software professionals. The instrument used for data collection is an online questionnaire using Google form. In this study we concluded that (45.2%) of the participants prefer physical class, (22.6%) prefer Online class and (32.3%) prefer partial online and partial offline mode of class. We also found the major difficulties faced by them in both online and physical mode of education from which we can understand the mentality of the participants. There is a huge habitude change found in everyone during the pandemic, we stay at home during the entire day with very minimal interaction with the outside world. Most of the learners in online mode of education do not experience significant impact both psychologically and physically. Learners are more interested in a mix of both offline and online modes of learning. In this study we have also tried to understand the mentality of the teachers and the difficulties faced by them.

Keywords— Online class, Pandemic, Physical class, difficulties, psychological, students, teachers, internet, learning

Introduction

Important components in learning system are teachers, students, infrastructure, curriculum, and other supporting resources. These are the input components in the learning system. A learning system is an interacting process where the transformation process is carried out by independent components. The transformation process output is achieved through the process of interaction between the input components. The process involved and the quality of the input determines the success of the transformation process to give a high-quality output. If the process involved and the input is of high-quality manner, then the resulting output will be of high quality. The quality of graduates in a learning process depends on the potential capacity of the students, teachers' quality, learning infrastructure and other inputs quality. The quality of the learning process used also determines the quality of the graduates. Clarity of the formulation of objectives, learning materials, learning strategies, learning methods, learning media, and learning evaluation are some of the elements that determine the learning process. The elements interact with

each other. The strategies, models, well organized material, formulation of goals is clear and understood by all and the methods applied by the teacher are effective and if the learning media supports this, then the students can learn better and achieve their goals perfectly. Training is a form of learning. The research results of Rayed et al (2019) show that the three main components that determine the results of training are the relevance of the material, the quality of the teacher, and the quality of the input [1]. The results of research by Wiyono et al (2015) show that the learning environment influences student achievement [2]. In learning, communication between teachers and students can be done in online and offline methods. Synchronous and asynchronous are the two ways in which online learning is divided. Several research results show the use of online learning media is effective in the learning process (Anaya, Nisyak, 2018; Suryawan, 2020; Hanifah, 2019, Oktarina, 2020) [5]-[8]. Likewise, several researches results are effectively used in the

Online learning strategies or methods. (Abidin et al, 2020; Muis and Bahri, 2018) [3] [4]. The hybrid method which is the mixture of online and offline modes can also be used.

Background

India has a rich and interesting history in education. In the ancient days, the sages and the scholars imparted education orally. Later from one generation to other the information was passed on. When letters were developed, the palm leaves and barks of trees were used to write and learn. This helped in spreading the written literature. Community centers and temples were used as schools. This later bought Gurukul system of education into existence. The Gurukuls were commonly conducted in a monastery or the teacher's house; these were traditional Hindu residential schools. In the Gurukuls, the knowledge was imparted by the teacher on various aspects of the literature, religion, scriptures, warfare philosophy, astrology, medicine, statecraft, and history. This most effective and oldest system of education. Few centuries later, higher education was flourishing at Nalanda, Takshashila University, Ujjain, and Vikramshila Universities. Some of the major subjects taught here were the law, astronomy, mathematics, medicine, literature, art, etc. The British in 20th century found and introduced the present system of education by the recommendations of Macaulay. It has western content and style. Here the students learn either by going to schools or colleges directly or learn by distance education and then write exams and tests to check their understanding of the subjects that they learnt. In schools they meet with people from different cultures and social background, so they learn to socialize better in the community. Due to the pandemic covid-19 caused by the corona virus all schools were shut down and the learning process was conducted in online classroom using Zoom or Google classroom. This resulted in many changes in the mentality and attitudes of the students. There are both advantages and disadvantages in this method of learning.

Advantages and disadvantages

Advantages of online mode

Several studies were conducted to study and analyze online education. Online learning increases the ability to focus on the requirements of individual learners. From the research paper by huang and chu it was concluded that online mode focuses on the needs of individual learners and delivers the knowledge in digital age more effectively as compared to the educational institutions' needs or instructors.[9] In short time and with less efforts the objectives can be achieved through online mode of education. One can access any information regardless of their age, race or location. From the study conducted by Joshua The environment for online education helps the students to rely on themselves so that the instructors are no longer the solitary knowledge source rather they serve as guides and advisors [10]. Several studies have shown the positive effects of e-learning from the insights of learners or students (Gautama and Tiwari, 2016; Martínez-Caro, Cegarra-Navarro and Cepeda-Carrión, 2015; Chang, 2016) for example from the study conducted by Gautham in IRJCS he conclude online learning allows to observe many flexible learning ways to go for classes with much reduced need for travel[11][12]. Learners are allowed to get deeper insights of the information through activities that are carried-out in the classroom through interactive video facility. Online mode of education has become favorable to many contexts.

1. Convenient - available 24 hours

2. Online courses give you the flexibility

3. Online courses bring education to home- less travelling time

4. Online courses offer more individual attention - Because you have a direct pipeline to the instructor via e-mail, you can get your questions answered directly.

5. Gives real world skills

6. Provide life-long learning - You will have developed the skills to find information, digest it, synthesize it and formulate an answer to any question that comes your way.

7. Have financial benefits.

8. Teach you to be self-disciplined - the online student takes responsibility for their course of studies and matures into an individual for whom learning and accomplishment are highly valued.

9. provides a timely reminder to the users which includes - the date of submission, answering questions, test dates etc.

Disadvantages of online mode

Though there are many significant advantages of online learning, the students encounter several challenges and difficulties which ultimately lead towards either negative outcome. Arkorful and Abaidoo in their study concluded that online learning, results in lack of student's interaction when held through remoteness and contemplation. Also it was outlined that since exams are conducted through online mode it limits the possibility of restricting illegitimate activities such as; cheating, plagiarism etc. [13] Interaction between the students is a major drawback of online mode. Student-student engagement results in lack of social skills. In the study conducted by Sarkar it was outlined that Students who lack self-motivation and independence had reduced success rates. [14] There is also a major problem of lack of resources such as internet or technology to support long duration of classes. Here are many disadvantages of online learning is various aspects. It may create a sense of isolation. Students may lack social skills and become anti-social Lack of Availability of technology and resources to everyone.

Lacks face to face interaction with teachers and other students. Students who lack self-discipline suffer the most in online class

Advantages of offline mode

Students learn to maintain discipline- develops more interest in studies and interaction skills. Regular completion of academic work learning of various skills – teamwork, sharing and become confident by doing physical activities-sports. No gadget addiction. Better student teacher interaction. No other disturbances like TV noises etc.Students become more sociable and energetic more practice-based learning

Disadvantage of offline mode.

Once lectures are delivered cannot be repeated

If a student is absent, then it will result in loss in his studies.

There won't be enough technological development

Lack of diverse materials to learn from

Less time for themselves for self-development

Course choices are limited.

Travelling expense and time is more.

Method

In this paper we have used Google forms and conducted a survey with 641 subjects from various fields. In today's world everyone is still considered as students even if you are working or not working. Everyday there is some or the other new development that we need to learn in today's world. Population: there were around 640 people both males and females, who took the survey between the age groups 10-50 from different profession and different cities.
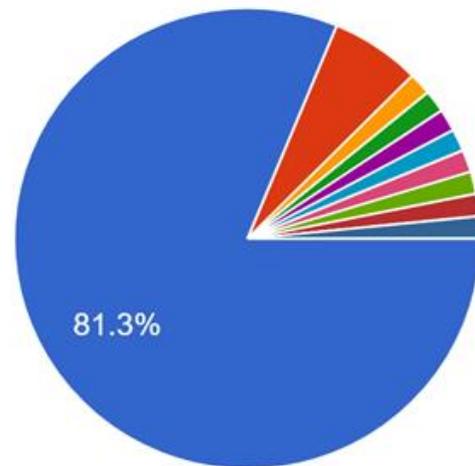

Profession

- 🔵 Student
- 🔴 Teacher or Professor
- 🟠 Research Analyst
- 🟢 Doctor
- 🟣 Digital marketer
- 🔵 Software Engineer
- 🔴 Software profession
- 🟢 Engineer

A. Procedure: a set of questions with different options were prepared and circulated to collect data for analysis. Options given were common to everyone. The personal information given will be kept confidential.

B. **Instrument:** Google form is used through which the questions were circulated.

C. **Result:** Pie chart is used for result analysis. The first question was the mode that was preferred for learning.

which mode of classroom do you prefer

- online mode
- physical classroom
- partial online and partial offline
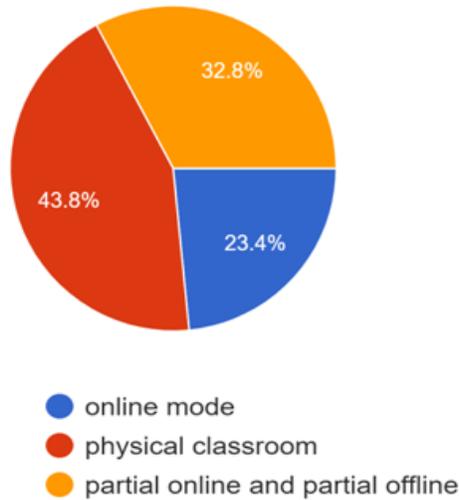
Here 43.8% subjects preferred physical mode, 23.4 % preferred online mode and 32.8% preferred partial online and offline learning that is hybrid mode of learning.

what are the difficulties that you faced in online class.

The next question was the difficulties faced in online mode of learning.

The options given were:

- Internet connection (40.6%)
- PC or no physical device to attend class (7.8%)
- No face to face interaction (60.9%)
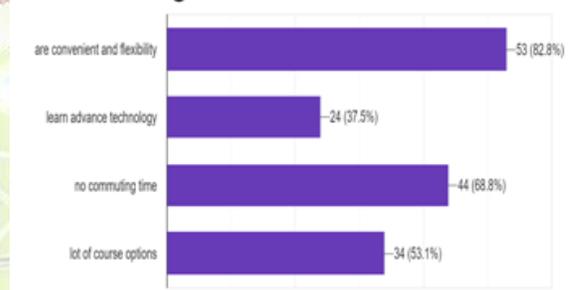- Self discipline to focus continuously (42.2%)

- Other distractions (39.1%)
- No extracurricular activities (54.7%)

Here 60% of subjects felt they lacked face to face interaction. 54.7% selected that there was no to very little physical or extracurricular activities. Around 39-40% of them faced difficulties with internet connection. Which was a major disadvantage and there were other distractions that made them too loose focus during their online class.
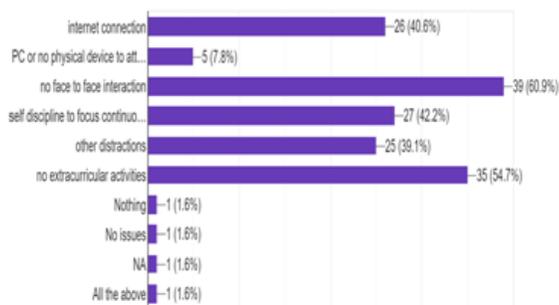
The next question was advantages of online mode of class and the options given are:

Are convenient and flexibility (82.8%)

Learn advance technology (37.5%)

No commuting time (68.8%)

Lot of course options (53.1%)

advantages of online mode of class

Here 82.8% of people felt that the online mode was more flexible and convenient, so that they can focus on learning a lot more than what the teacher teaches. The students will have a huge amount of information available for their reference anytime and anywhere. 68% of them felt that the time and expense spent in travel is not there. 54 % felt that there are wide range of course options and there will be technological growth and development.

The next question was difficulties faced in offline mode of learning. The options were:

Longer schedules of classes (56.3%)

Class schedule for every day is fixed with no flexibility. (45.3%)

Get less time for self-study due to time wastage in traveling for school and coaching (62.5%)

Students would not learn about advanced technology. (20.3%)

what are the difficulties that you faced in offline cla[s]
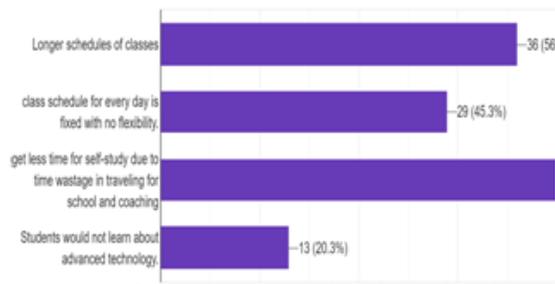
62.5% of them felt get less time for self-study due to time wastage in traveling for school and coaching. Where they can spend that time is doing additional research or learns new things. 45.3% did not like the fixed schedule that they need to follow regularly which was monotonous and tiring. 56% felt that the school schedules were very long.

The last question was the advantages of offline learning. The options were:

- Regular Completion of Academic Work (51.3%)
- No Distractions (43.8%)
- Better Student-Teacher Interaction (81.3%)
- Provide a healthy competitive environment to the students (54.7%)
- Facilitates good classroom communication (50%)
- Enhancing the concentration level of students. (60.9%)

80% of them felt there was better interaction between the student and teacher. In offline class 60% felt their concentration was more compared to online classes. Roughly 50% of them selected the other options.

advantages of offline mode of class
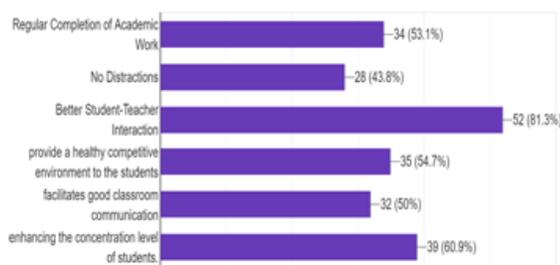
DISCUSSION

from our survey we conclude that there is both advantages and disadvantages in both the modes of learning and not in any way black and white there will always be grey area so that we can avail the best from both the modes. It only depends on the potential student and the teacher to utilize it in an effective and successful manner. Most of the participants from our survey preferred offline learning and hybrid learning was also preferred by many. With improvements the education system can be made into hybrid mode so that more subject choices will be available and the students can improve their knowledge and technology. It is best to adopt an open broad minded view of education technology implementation. And observe the implemented practices in learning environment to improve and enhance the learning process.

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