# Analyzing the Satisfaction Level of Students with Reference to Digital Education in India

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*Abstract:*

*The research focuses on satisfaction and dissatisfaction of the students towards digital learning and the reasons towards it. The findings of this survey indicated that the students are still grappling with the digital mode of learning though some of them were very positive towards it and were able to cope with it very easily. The constraints of digital learning have been highlighted based on the responses of the students. Other factors like the availability of tools, problems of concentration, internet speed and access, teacher's knowledge of using the tools which should be kept in mind while framing the curriculum or before going ahead with the digital mode of learning have been discussed in the research.*

*Keywords: digital, offline, teaching-learning, transformation, outcomes*

## 1.0 Introduction:

Education in any field is synonymous with learning: learning of concepts, behaviour, skills and to bring about these in a learner the education system keeps inventing and reinventing which has led to many changes in the field of education globally. As learning depends on not only the learner but also the facilitators, the environment around the learner, parents and society it has become challenging to bring about the desired learning outcomes and the desired transformation in a learner.

Though the learner and the facilitator remain constant the desired outcomes can be brought forward by the change in the environment. Schools, colleges, parents and even the governments strive to bring a change or provide an environment which is conducive to learning and also by

manipulating the environment try to foster the desired outcomes.

Säljö (1979) asked adult students their perspective on learning and the analysis of their answers where learning is memorizing and storing information, increase in knowledge, acquiring facts,skills which can be retained and used further as and when necessary, interpreting and understanding reality in a different way and making sense or abstracting meaning which can be helpful to relate our learning in the real world.

Learning becomes meaningful if whatever is retained and gathered can be used in the real world. According to Nussbaum (2002) Education should be more than simply preparation for a career and that higher education is about enriching life and about being an engaged citizen in a rapidly changing and highly interconnected world.

To facilitate the above many innovative tools, activities and content are incorporated in the system. Right from activity-based learning, corporate and peer learning, learning by doing, active learning is experimented with various results.

Active Learning is one of the many ways in which a learner can be involved in learning and by his / her active participation learns the content which can be retrieved and used where and when needed. There could be many strategies to bring forth active learning but some of them can be role plays, muddiest point, think pair share, one-minute discussions can be incorporated in the classroom to get the maximum from the learners.

## 1.2 Break due to Covid:

The Indian education system at all levels was trying to grapple with the latest strategies being adopted globally to make a robust teaching and learning environment and was also successful at many levels when it got a huge jolt in the form of the unprecedented pandemic Covid 19. It changed the whole scenario worldwide not only on the education front but also in the economic, medical, industrial front. The governments had to cope up with the loss of life and the lockdowns that led to the closure of every possible human activity. Education like all other sectors bore the brunt of the pandemic and had to look into methods and strategies which could revive and also continue the learning process without any break.

UNESCO Director-General Audrey Azoulay said in a statement that "While temporary school closures as a result of health and other crises are not new, unfortunately, the global scale and speed of the current educational disruption is unparalleled and, if prolonged, could threaten the right to education." Undoubtedly, Covid – 19 has caused a grave impact with respect to education on students, teachers and all academic organizations all across the world. (Mailizar et al. 2020). The pandemic caused schools, colleges and universities across the globe to shut down their campuses so that students could follow social distancing measures (Toquero, 2020).In this scenario, online learning came to the rescue as nothing else was possible.

**1.3 Digital dependence:**

According to Ally (2008) online learning or e-learning happens when students, teachers and the course curriculum involves the usage of technological tools to open the doors of online learning. This is nothing new for institutions, but it is becoming a compulsion as teachers are compelled to accommodate with it as the old educational methodologies are obsolete now. (Van Nuland et al., 2020). According to Platt, Online education has the potential to transform the education system by expanding educational opportunities, transforming student populations and encouraging the development of new pedagogical methods, making the learning process more reliable,more efficient, and less stressful for both instructors and students. (2014) Although there are studies suggesting that online and traditional education are comparable in terms of learning outcomes, it is also admitted that online learning is perceived as lacking in interactivity compared with classroom learning. It also requires a certain attitude and knowledge on the part of the teacher and the student. The teacher as a transforming agent can decide if the transfer of knowledge is teacher or student centric in an online mode too. In a learner centered approach the knowledge transfer is a process through which conceptual change is achieved (e.g. change of attitudes, knowledge, way of thinking) and it perceives learning as a process that facilitates conceptual change.

The student-centered approach, where independence in learning is driven through discussions, debates, and questions among students, and by the forms of assessment through which conceptual change is assessed is preferred whether it is online or offline learning process .Prosser &Trigwell opined that If the teacher follows the teacher centered approach than - it is taken as a process of information transfer, or use the teacher-centered approach, within which the teacher communicates information to students and uses various assessment techniques to assess the memorization of data.(1999). But whatever is the mode of learning, the change and transformation of knowledge which can be further used for life can only take place if the student-centered approach is followed by the teacher. Huang et al believe that according to this concept, regardless of whether they are online, the applied teaching methodologies should aim to stimulate learning and independence among the students, and the courses should be designed with the aim of supporting their individual needs (2020).

**1.4 Digital Learning and India:**

Online learning is something that India did not have much experience before owing to its many challenges, though there were a few institutes that used a hybrid system. One of the biggest challenges of online teaching was a big population without any access to the internet, mobiles, laptops or tablets. Another challenge was the facilitators were themselves not equipped with the necessary skills to undertake the herculean task of going online totally. The biggest hurdle was to accept the change by all the stakeholders to use the online mode for teaching and learning.Ibrahim et

al. are of the view that research in education has suggested that the highest level of resistance to change occurs within groups that lack interest in change, abstain from cooperation, and wish to maintain their status quo. These studies analyzed the group of factors that can affect the implementation of educational changes and, in particular, when it was required to develop the skills and knowledge of educational leaders, teachers, and students (2013).Meanwhile, researchers such as Palmer et al. (2009) have pointed out several otherfactors that can encourage or discourage people to adapt to changes, such as: security,economic conditions, authority, status, responsibility, working conditions, level ofself-satisfaction, or the time and dedication needed to implement the change.The online programme needs quality in its design of the entire course and should be conducive to teach and engage the learners. Benigno and Trentin (2000) is of the opinion that e-learning is potentially affected by factors such as student characteristics, student-student interaction, learning materials, learning environment, and information technology (IT).

Merisotis and Phipps feel that course quality is critical and minimal standards should be integrated into the design and development of online programs, as well as a continuous assessment to assure quality. (2000). Many school and college managements got ready to face this challenge and trained their faculty and equipped them to get ready to take the bull by the horns. Different platforms, mostly G Meet and Zoom were used by the institutes to continue the teaching learning process. According to Lowenthal, et al the main purpose of using these applications was to maintain traditional classes in an online mode due to social distancing and meeting the need of students and teachers to see and support one another in learning (2020).The other challenge was to ready the parents and learners to come to terms with the idea of sitting at home and learning. Slowly, through the pandemic the learners began to cope with the idea seeing no other way of learning.While the educational environments are still struggling with the digitalization and digital transformation challenges and finding optimal ways to adapt, the Coronavirus pandemic has fundamentally affected their core: staff and students (Adedoyin and Soykan, 2020; Aristovnik et al., 2020; Straub and Rummel, 2020). But, the road to learning had many thorns which kept obstructing the teaching and learning process.

The problem was not only procuring tools like smart phones or laptops but also the environment in which the learning was taking place. The biggest challenge was how to draw a line between formal and informal learning. During Pre Covid times the learning that took place at home amid the family was strictly informal learning and many learners and their parents did not give enough credence to this. Finding time and place to sit where one could concentrate was a challenge. But, with all the challenges the learning started unabated, though the ride was wrought with many difficulties. It was a learning process not only for the learners, their families, teachers, management and the government. During this obstacle race the obstacles were weeded along the way to reach the

finale. The obstacles were physical, emotional and also psychological. Right from the problems of procurement of tools, creating an environment, doffing off the distractions, concentration, lack of peers to the problems of missing human contact and all the things that come as a package in a classroom environment made the journey tedious, difficult and challenging. According to Zhang et al.On a positive side, e-learning allows for a learner-centered, self-paced, cost-effective way of learning and on a negative side, there is a lack of social interactions, higher degrees of frustration and confusion, with higher preparation time for instructors (2012).'One size fits all approach' becomes true for digital learning as the facilitators are not able to change the style of teaching according to the learners' needs and to suit their style of learning. This becomes the biggest hurdle in the process of teaching and learning. There can be a number of activities and approaches to use in the offline mode by the teacher. But, looking at the constraints of time, environment and the knowledge of digital tools it becomes if not impossible very difficult to pay attention to the individual student and their needs.

## 2.0 Study:

Looking at the above conditions we aim to address the issue by assessing students' experience and the effect on them on the transformation from shifting to digital classes.

So, we are guided by the research question "What is the satisfaction level of students in Digital mode of teaching as compared to the traditional or the offline mode?" To answer this question, we conducted empirical research and collected data through an online survey questionnaire on 'Google form'. The sample size consisted of 500 students of various courses like B.Tech (BCH, BCL, BCE, BEC, BIC, BEE), MBA, MCA and M.Tech. There were 20 questions in the Google form. The students were of different age groups, genders and branches.

## 2. 1 Methodology:

The data collection was done by keeping in mind the period between June 2020 to July 2023 through a questionnaire once lockdown was announced. The questions were framed to identify the efficacy of the content, student engagement and the transformation that the student underwent during this phase of learning via digital mode.

## Questionnaire:

The questionnaire was circulated among 150 students out of which 135 answered it. The questions framed were designed to understand the difficulties that the students faced while learning digitally. The response options in the questionnaire were based on 2 scales - Yes / No & Satisfied / Dissatisfied. There were 10 questions which were based on multiple options from which the students had to choose.

**Table 1. Number of Students participated in the survey**

| Programme | Total number | Percentage |
|---|---|---|
| M. Tech | 11 | 8.14 % |
| MCA | 15 | 11.11 % |
| B. Tech | 109 | 80. 7 5% |

**Table 2: Gender of the students**

| Programme | Male | Female |
|---|---|---|
| M.Tech | 7 | 4 |
| MCA | 8 | 7 |
| B.Tech | 84 | 25 |

| | Variable Mean | Standard Deviation | Kurtosis | Skewness |
|---|---|---|---|---|
| Online Interaction with teacher Satisfaction level(88) | 0.6614173 | 0.4751018 | -1.870884 | -0.59507 |
| Online Interaction with teacher Dissatisfaction (41) | 0.307086 | 0.463112 | -1.3 04321 | 0.846447 |
| Online interaction with classmates 48 | 0.34645 | 0.47772 | -1.5989 | 0.306509 |

| Online interaction with classmates Dissatisfied 82 | 0.62992 | 0.4847376 | -1.754616 | -0.522541 |
|---|---|---|---|---|

**2.2 Result Analysis:**

To understand the satisfaction and dissatisfaction level of digital and offline teaching we calculated Mean which is the average value of data and Standard Deviation which is a measure of the amount of variation or dispersion of a set of values and Skewness which is the measure of how much the probability distribution of a random variable deviates from thenormal distribution, and Kurtosis which is a statistical measure that is used to describe distribution.

The interpretation of the above validates that the students are dissatisfied with Digital Teaching than the Offline mode of teaching. The second interpretation is that students are more satisfied to interact with teachers in Digital mode owing to the fact that they can easily solve their doubts related to various subjects.The students are dissatisfied in terms of interaction with peers as they do not get any / enough time in the online mode.

The reasons for dissatisfaction in the Digital mode can be because of the number of points like they do not have enough tools to access the classes. India being one of the developing nations there are many students who cannot afford to have laptops, smartphones and even internet connectivity. Though according to the data, the penetration rate of the internet increased from 7% to 50%. from 2017 to 2020 which means that there are many who do not have internet accessibility. According to The Times of India dated 13 April 2021 over 75% of children reported a host of challenges to access education digitally including not having an internet connection being unable to afford data, Internet speed/signal is not is not conducive. While these challenges were common across states, in Jharkhand specifically, over 40% of students reported that they did not have the right device to access digital education.

Another reason for dissatisfaction can be the students do not have the previous experience of online classes (106 students) which clearly shows this can also be a hindrance in coping with the classes. The survey also validates the same where 70 students pointed out that they could not adapt easily to the change in offline to digital mode of teaching.

The assessment is totally based on online tools like Learning Moodle System, Google Forms and Google classroom and others which also depends on the availability of internet speed, access and learning how to use these tools. The concentration level was also less because of distractions available on the internet. In the survey 32 students accepted that they had concentration problems

and could concentrate only for 30 minutes and 15 students felt that they could concentrate only for 10 minutes or less. Many students had economic problems and problems of less space at home which directly led to their dissatisfaction towards Digital mode.The teachers were also at some levels responsible for their dissatisfaction as 80 students felt that the teachers were grappling with technology. According to a survey done in India by India Today magazine of March 18,2021 about 84% of teachers had issues with the use of technology as they were not trained in it before. This also could be one of the reasons why the students did not like the digital mode as they felt the teachers were not in full command as in the offline mode.

| Constraints of online teaching mode | Total no. of participants | No. of positive responses In percent |
|---|---|---|
| No previous experience | 135 | 106 (80.9%) |
| Difficulty in adapting to the change | 135 | 90 (66.4%) |
| Availability of tools /equipment | 135 | 117(86.7%) |
| Required to Upgrade the Internet plan | 135 | 102 (75.2%) |
| Teachers not equipped with online technology | 135 | 80 (59.2%) |
| Concentration problems | 135 | 90 (66.4%) |

**2.3 Future Scope:**

The current research was qualitative research based only on yes and no questions which tried to understand the satisfaction and dissatisfaction levels of students in online and offline modes using basic statistics. The same can be done rating the answers using quantitative data. The present research was to understand the Undergrad and Postgrad students in a professional college which can be implemented for any other group of students.

**3.0 Conclusion:**

The pandemic has brought an unprecedented change in all the spheres of life and especially to the education system. The contours of the education system have changed owing to the change of

the mode of teaching from the traditional offline to the online or the digital mode.The governments and the managements of various educational institutes are making changes in their thinking, as well as the system to cope with the many challenges of the digital mode of teaching and learning.The findings of this survey indicated that the students are still grappling with the digital mode of learning though some of them were very positive towards it and were able to cope with it very easily. The factors discussed above like the availability of tools, problems of concentration, internet speed and access, teacher's knowledge of using the tools should be kept in mind while framing the curriculum or before going ahead with the digital mode of learning. Teachers should be well trained and the students should also be trained in accessing the various online tools. According to the researchers a hybrid mode of teaching learning is more effective in transforming the learning. A hybrid mode with some online and some offline tools will not only keep the novelty factor and excitement alive but also will serve the purpose of imparting the content in the best possible way.

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