

Transition from In-person Classes to Online Classes

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COVID-19 has forced the teaching community to switch to online classes in a short span of time. There are several challenges that a teacher faces when switching from traditional in-person classes to online classes. This paper presents the results of a survey on online classes that was conducted amongst the students, faculty and parents of Ahalia School of Engineering and Technology, Palakkad, Kerala, India. While the benefits of online classes are seen, majority of the participants of the survey prefer traditional offline classes. The paper also provides some specific pointers and suggestions for teachers to consider when transitioning from offline (or in-person) classes to online classes.

Keywords: online teaching, teaching techniques, pedagogy

1. Introduction

The only thing constant in life is change. In 2020, change was not something the world was prepared for. With the advent of the COVID-19, government bodies, international organizations, large and small business, families and individuals were forced to rethink their priorities and how they led their daily lives. In addition to the various sectors of the economy such as the healthcare, banking, transportation and tourism, the academic environment too was hit hard with the onset of the COVID-19 and the subsequent lockdowns [1] [2]. This is true in India as well as abroad. Some of the prominent matters that affected (and continue to affect) Universities, colleges, schools and other educational institutions include: loss of instructional time, mobility of students (particularly international students), digital learning and IT infrastructure, health and well-being of the students and staff members, examinations and re-opening of institutions.

The primary stakeholders – students, faculty members and parents – have been severely affected during this ongoing crisis. For students, the transition has meant listening to their teachers via an online medium in the comfort of their homes. The travel time back and forth from the institution is

eliminated, but so have their chances of meeting their classmates on a regular basis. The students also have to adapt to a new style of learning, where classes, discussions, tutorials, clearing doubts all happen online. As students, regardless of their background, community, economic and social status, spend more time at home their physical and mental health also needs to be given a priority. Parents too had to make significant changes in their daily routine to accommodate the fact that all their child's learning is now happening at home. The adverse consequences of school closures have also been identified by UNESCO [3].

The extended lockdown periods have forced many governments, small and large businesses to make changes in their daily operations; so did the teaching community. This fact is sometimes forgotten and under-appreciated. In India and Kerala in particular, when the lockdown was announced on March 2020 unexpectedly, all teachers had to immediately shift their classes to an online manner. For teachers in the higher education sector, this was quite a challenge as the lockdown was announced in the middle of the semester. While shifting classes online might sound easy, practically there are several challenges that need to be overcome by the teachers if online classes need to be effective. Some of these include: ensuring a reliable IT infrastructure at home, adequate knowledge and skills to use the relevant computer hardware and software and most importantly, modifying teaching styles to match the new learning styles of the students. At the heart of the problem, teachers must understand that by moving away from in-person classes and discussions, if not managed properly, the interactions between a student and a teacher will greatly reduce. To be effective, a teacher must carefully plan and implement an appropriate teaching-learning pedagogy [1] [4] [5] [6].

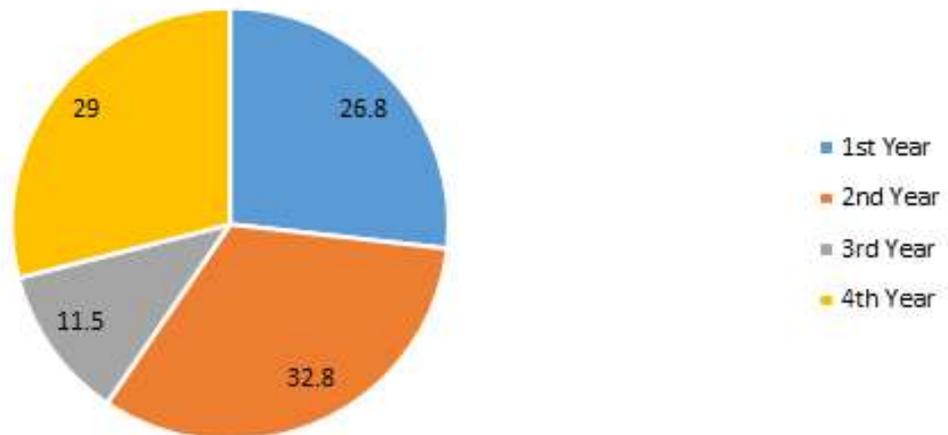
The goal of this article is to outline some important points and suggestions for teachers to consider when transitioning from in-person classes to online classes. In Section 2 of this paper, the results of a survey conducted amongst the stakeholders of Ahalia School of Engineering and Technology, Palakkad, Kerala, India is presented and discussed. In Section 3, a few suggestions to the faculty members to improve their online teaching approaches are mentioned. The conclusion of this work is summarized in Section 4.

2. Survey and Discussion on Online Classes

Ahalia School of Engineering and Technology (ASET) is located in Palakkad, Kerala, India. It is affiliated to the A. P. J. Abdul Kalam Technological University, Kerala and is approved by the All India Council for Technical Education (AICTE). Recently an anonymous survey was conducted amongst the students and their parents and the faculty members of the institution to review the conduct of online classes and its effectiveness. The results of this survey are presented in this section.

2.1 Response from Students

183 students, from all the five branches of engineering (Civil, Computer Science, Electronics and Communication, Electrical and Electronics and Mechanical) participated in the survey. The percentage of students from the various years of study is shown in Figure 1. Almost all the students reside in the Palakkad district of Kerala, in the same district where the Institution is located. The results of the survey are presented below.



- i. When asked whether the students have a reliable internet connection to attend to online classes, 70.5% of the students indicated that they have this facility.
- ii. Regarding the effectiveness of the online classes, only 16.4% of the students felt that the learning experience was better than offline (or in-person) classes.
- iii. The biggest advantage of online classes, when compared to offline (or in-person) classes, indicated by students (44.8%) is the ease of studying at home. The next major advantage, indicated by 37.7% of the students, is time savings. The other advantages mentioned by students include better explanation and understanding of subject material, avoiding travelling and the ability to revisit lectures via class recordings.
- iv. The biggest disadvantage of online classes, when compared to offline (or in-person) classes, indicated by students (59.6%) is not able to understand the subject properly. The next two disadvantages were missing the classroom environment and not meeting friends in the Institution, indicated by 19.7% and 12.6% of the students respectively. Other points mentioned were internet and related technical issues, increased strain due to continuously using a mobile phone or laptop, inability to concentrate or focus for the duration of the online classes, health concerns, lack of interpersonal relationships and interactions during classes.
- v. When asked about the type of subjects that they preferred to be taught online, 90.2% of the students preferred theoretical subjects to be taught online. For analytical and problem-based or numerical-based subjects, students preferred traditional offline (or in-person) classes.
- vi. When asked about the degree of interaction during online classes, when compared to offline (or in-person) classes, only 15.3% of the students found the classes to be very interactive. 45.4% of the students felt it ok/average while 39.3% of the students found the online classes not interactive.
- vii. Our Institution is using the Google for Education package and hence majority of the teaching-learning happens on the Google platform. Particularly, Google Meet and Google Classroom are used extensively. When asked about whether using Google Classroom was effective, 32.2% of the students indicated that it was very effective and 52.5% of the students found its use ok/average. The rest of the students (15.3%) indicated that it was not effective.
- viii. For circulating notes and study material, 74.3% of the students preferred Google Classroom and 20.2% of the students preferred WhatsApp. The other preferences indicated by the students include Telegram, both Google Classroom and WhatsApp and hardcopy of the notes.

- ix. Since the University to which our Institution is affiliated is conducting offline (or in-person) examinations, students were asked if they felt confident of passing the University examinations after the conduct of online classes. 66.7% of the students indicated that they are not confident of passing. This reinforces the need for offline (or in-person) classes before the University examinations and justifies the insistence of the University for Contact Classes (following COVID-19 norms) for all the batches prior to the examinations.

To summarize, though students in the Institution prefer online classes because of the convenience it provides and their benefits for certain types of subjects, in general offline (or in-person) classes are greatly preferred. This is particularly true from the point-of-view of University examinations and the fact that reliable network connection is not available to all students. Moreover, even though resources like the Google platform is used and is beneficial, the quality of the online classes need to be improved particularly when considering the level of interaction between faculty and students.

2.2 Response from Faculty

Twenty nine faculty members from various departments participated in the survey. The major results of the survey are presented below:

- i. When asked about their familiarity with conducting online classes, delivering talks or work shops or webinars via the online medium prior to the lockdowns, majority of the faculty members (55.2%) indicated that they were not involved in such activities.
- ii. The faculty members were also asked about how easy it was to transition from offline (or in-person) classes to online classes. Majority of them (86.2%) indicated the transition was ok/average and 10.3% of the faculty found it very difficult.
- iii. Regarding the difficulties that faculty members faced while handling online classes, majority of them (62.1%) indicated the lack of interaction with students and the lower satisfaction after covering a particular topic when compared to offline classes as the major factors. 27.6% indicated the need to modify their teaching style as another challenge they faced. 17.2% indicated the lack of reliable IT infrastructure at home as a difficulty. Only 3.4% indicated the lack of adequate knowledge and skills to use computer hardware and software as an area of concern.
- iv. In our Institution faculty members were involved in handling online classes for more than one semester. Based on this experience, they were asked whether they preferred online or offline classes for the upcoming semester. Majority of the faculty members (89.7%) indicated that they preferred offline classes.
- v. When asked whether the faculty made any changes to their notes, lecture material or related material for the purpose of online classes (when compared to the offline classes), 86.2% of the faculty indicated in the positive. 10.3% of them indicated that they had not made and changes and 3.4% indicated that they were teaching the subject for the first time.
- vi. Lastly, the faculty members were also asked if they had employed any new strategy (e.g. flipped classroom, pop-quizzes, etc.) when handling online classes. 65.5% indicated that they had while 34.5% indicated that they had not.
- vii. The faculty members were also asked to give their suggestions for improving the quality of online classes. The relevant suggestions are: improving connectivity and the need for a reliable network, the use of digital or interactive boards, ensuring participating and better communication with students during online classes.

To summarize, even though most of the faculty members are adept at using technologies and were

adaptive to the change from offline to online classes, majority of them prefer traditional offline (or in-person) classes. However, with the changing face of education and the well-documented reasons for digital or online education, it is very important that faculty members are equipped with the necessary techniques, skills and trainings to meet the changing needs and demands of the education system. In Section 3 of this paper, a few specific suggestions for faculty members are outlined.

2.3 Response from Parents

Nineteen parents participated in the survey. While this is not a large number to draw a reasonable conclusion, the results of the survey are listed below.

- i. When asked if they preferred their child to learn via online classes or offline (in-person) classes, majority (73.7%) indicated offline classes.
- ii. When asked whether the online classes conducted were effective for their ward, 52.6% indicated in the positive.
- iii. The parents were also asked if they faced any difficulty at home due to their ward's online classes. 68.4% indicated that they did not face any difficulty.

3. Discussion and Suggestions for Faculty

Based on the experiences from 2020 and looking ahead, digital teaching-learning and online education will play an important role in the academic environment. Many Universities have already permitted students to transfer credits earned from online courses such as SWAYAM [7] towards their degree. Faculty development programmes and teacher training and evaluation programs via the online medium has also seen a rise through platforms such as ATAL [8] and ARPIT [9].

While there is a great deal of focus on connectivity and related IT infrastructure, it is equally important to remember that learning outcomes are met only when a teacher uses appropriate strategies and pedagogies that is adaptive and matches the capacity of the students. As indicated earlier, there are many resources available to faculty members that cover the topic of teaching pedagogies and strategies, and this section presents a few specific suggestions for faculty members, particularly when dealing with online classes.

- With the advent of COVID-19, there is an increased use of software platforms such as MOODLE, Google Classroom, Microsoft Teams, WhatsApp etc., by the teachers to communicate with the students. This communication takes the form of providing study materials, conducting group discussions, conveying important announcements, etc. While the above mentioned tools serve as a good repository for study materials, it is especially important in the present situation, that the materials are published in an organized manner. This will help the students retrieve and easily access the materials posted. Some tips include using tags or topics to organize material into various categories, naming the files being uploaded appropriately and using proper titles for various posts.
- One of the main advantages of switching over to an online teaching-learning methodology is that teachers can easily share references and links of online materials such as articles and videos. In situations where difficult concepts are being taught, extremely good videos, already available on the internet, can supplement the teacher's classes. This is very useful from a student's perspective. Thus it is extremely important that a teacher knows how to include links of various online resources to software platforms such as Google Classroom.

- When shifting to online classes, an important resource is often the notes that a teacher provides. This is the primary resource for students, especially when access to textbooks and reference books from their homes is difficult. It is also hard and time consuming to verify whether the students are making class notes during online lectures. In addition to providing such study material, a faculty must also think about how to present the concepts in these study materials for a greater learning experience by the students. One example is including the learning objectives of the particular topic being covered in the notes at its beginning. Another example is including a summary or “do you know?” questions at the end of the notes. Another example is ensuring the ability to simultaneously draw diagrams and add annotations when explaining concepts given in the notes. These annotated notes can be shared with the students as well. The major benefits reported by students include: (i) it helps to quickly recollect the material during the time of revision, (ii) it gives a clear picture of what is going to be covered and (iii) it reduces the chances of skipping important points while learning.
- It is often stated that after approximately fifteen minutes, the attention span of an audience dwindles during a lecture or talk. Thus it is often encouraged to take a short break in some form (e.g. cracking a joke, an activity, etc.) during classes as it will recharge the audience. This concept is even more important when handling online classes on platforms such as Google Meet, Zoom, Cisco Webex or Microsoft Teams. It is also crucial to keep in mind that most students especially in the higher education, attend these classes on their mobile devices via their data connection. The situation is made more challenging as students often turn off their video to ensure adequate speeds and audio quality during the class. This often poses a difficult situation for the teachers as there is no visual feedback from the students, thereby making it hard to understand the involvement and attention of the students. One tip is for the teacher to engage in oral pop quizzes where the students are called out by name to answer questions in a random manner. This is one way of checking whether the students are alert and engaged in the online class. Another possible technique is to conduct written pop quizzes. For example, after fifteen or twenty minutes of class a multiple choice quiz (MCQ) on the material covered in the lecture can be conducted for another five or ten minutes. The MCQ can be conducted on a platform like Google Forms, where the students can immediately know the points scored, which questions they made a mistake, the correct answer to the questions and some feedback on the answers. The auto-grading facility is a great tool here, as the teachers can immediately know which questions posed a difficulty to the students. Thus the discussion thereafter can be focused on these questions. Some of the benefits reported by students include: (i) it serves as a reminder to listen to the class properly, (ii) it improves the confidence of the student in that topic, (iii) it helps to recollect material and (iv) it serves as a good revision on the topic discussed. Such quizzes have the added benefit of breaking the monotony of the online class, improve interaction with the students and they also provide an indirect way to measure their attendance in the class.

4. Conclusion

With the trend in education moving towards a greater appreciation for MOOCs, online certifications and online degrees, even with the release of the COVID-19 vaccine, the concept of online teaching and learning is here to stay for the foreseeable future. Thus it is up to the teacher to find creative ways of engaging the students. In future the effectiveness of a teacher will be partly measured by the expertise and experience in conducting online classes. This paper presents a survey on online classes that was conducted amongst the students, faculty and parents of Ahalia School of Engineering and Technology, Palakkad. The paper also provides some specific suggestions for faculty members to improve their on-

line classes. The points mentioned in this paper are not in any way exhaustive and are only ideas for teachers to consider while engaging online classes. In this context it is imperative to say that online teaching requires more effort from the teachers, if the classes are to be enjoyable and effective.

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Role of Ahara according to Manasa Prakruti- A Conceptual Study



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Abstract

Ayurvedic principles state a strong connection between food and the human mind. The mind is directly influenced by the quality, method of preparation, appearance, freshness and aroma of the food. Ayurveda advocates that the quality of food influences mental agility and vigour and even emotion. Ahara improve nutrition, immunity and health when used in proper time and in a suitable individual. The purpose of life is to achieve fourfold objectives, viz. virtuous acts (Dharma), acquisition of wealth (Artha), gratification of desire (Kama) and salvation (Moksha). These pursuits can be achieved through austerity (Tapa), studies (Adhyayana), celibacy (Brahmacarya), fasting (Upavasa) and religious vows (Vrata). Diseases are major impediments to these sacred duties and lone remedy is that of preventing the body from falling ill by achieving a state of positive health. Thus health (Arogya) stands at the very root of achieving the four pursuits of life. The very objective of Ayurveda is achieving healthy status of the body. Both Caraka and Susruta outline similar objectives. They are to maintain the health of the healthy and to cure the disease of the diseased. Caraka in different context states that the object of the science is the maintenance of the equilibrium of the tissue elements (Dhatu). Disequilibrium among tissue elements is postulated as disease and equilibrium as health.

Keywords: Ahara, Ayurveda, Satvika, Rajasa, Thamasa

1. Introduction

Health is a state of wellbeing at all the four planes of life, viz. Soma, senses, psyche and the spirit. Balanced state of the constituents of body (Dosha, Dhatu, Mala and Agni) and satisfaction or pleasure of senses, mind and the soul constitute health.

Upastambha

According to Ayurveda the Upastambha (supporting pillar triads) required for the maintenance of human body are Ahara, Brahmacharya and Nidra. The individual is no longer healthy unless he receives a healthy food. Hence a proper selection of food is also inevitable to drive out the susceptibility of disease. In modern science they only consider the quantitative values in the body like electrolyte, fat, proteins, iron etc. in percentage concerned with the maintenance of health. As a feedback, only they advise various restriction in food intake. Relevant theory regarding this is a famous one that 'A healthy mind dwells in a healthy body'. [1] Meanwhile Ayurvedic treatises provide a vast collection of information regarding the action of food influencing mind. They have explored deeply along the various action by studying Rasa, Guna, Veerya, Vipaka, Prabhava etc. The relationship between

food and mood is bidirectional. Food affects the person's mood through physiological mechanisms and the person's mood plays a strong role in determining the choice of food. The food we eat has a significant influence on our mind. The nature of our mind and feelings depends on the food we have eaten. And conversely, the state of our mind, emotion, intellect and senses and our overall state of contentment-all these, in turn, affect the digestion, absorption and elimination of the food we have eaten.

In the present era the whole behavior and food habits have been changed. Most people now a day used to take certain trend of food habits like fast food, preserved foods etc. They are not ready to discriminate what is good and what is bad for health. The foods, which is easy to cook, and good in external appearance, good in flavor and attractive, preference goes in this way. The prior prepared and preserved foods, food that is readily ingestible, chilled beverages, etc. are only taken in to account. Even water itself is used in packed form as a status symbol.

According to naturopathy man is considered basically as a fruitarian. The scientific analysis of the anatomy and of physiology of human digestive system by the modern science also approves the same. The holy bible says the great grandparents of the mankind were provided an Eden garden, which was full of fruits. Even though our Acharyas have given enough references regarding vegetarian and non-vegetarian foods, in very few instances they advise non-vegetarian foods for ingestion. But here in this context the food those exerts any influence on mind only comes under the purview. In fact, Ayurveda Considers the body including the faculties as well as mind sets substratum for every disease. There is close relation between psyche and soma and so the psychosomatic concept is much appreciated. The body humors in their normalcy perform much psychological function as well. In general practice people indulged in non-vegetarian food seems to be more aggressive emotional and sentimental in nature. This is not mere an assumption because medical experts can easily compare the relationship between food and behavior.

Chandogya Upanisad links the origin of mind with food and states that the tenuous (subtlest) portion of food becomes the mind, the basis of the so-called physical nature of mind.

Annamasitam tredha Vidheeyate tasya ya stavishto dhatu tat pureesham bhavati, somadhyamastanmamsam, Yo anishtastanmana

Annamayath hi Soumya manah. The testimony is further given by the incident of Svetaketu who did not eat food for fifteen days and lost all his memory. On eating food on 16th day, he could recall his knowledge. Implications of this concept are dealt elsewhere. Chandogyopanishad again emphasizes the relation between the food and mind. The mind is what we eat and a food that is pure results in a clean state of mind.

Ahara shudhou Satva Shuddhi, Satva Shudhou Dhruva Smriti

A clean mind has memory which transcends many births. This very verse probably is the basis for Gita's classification of food into Satvika (pure), Rajasika (pungent) and Tamasika (impure) varieties. In Bhagavad Geetha some references can be seen accessible to the same theory. From Satva results knowledge, from Rajas only greed and from Thamas delusion and ignorance itself.

Satvika food

Normally they like the foods that augment life energy, strength, health, happiness, joy and which are savory, nourishing and agreeable. In Ayurveda the fourfold type of food mentioned should possess the above qualities. For demonstration foods like milk ghee, fresh and sweet fruits can be included in this Class.

Rajasa food

Rajas itself is to be of the nature of passion the source of desire and attachment. It prompts the self by attachment of action.

The foods that are very pungent, sour, hot, saltiest, dry and burning are liked by Rajasa and it will be conducive to pain grief and disease. Generally, the food habits of population are going in such a way. Consequently, from the society itself a lot of live examples like evil acts, quarrels, and impatience suicidal and homicidal tendency etc. are vividly common.

Thamasa food

Thamas to be born of ignorance and deluding all embodied being it binds through inadvertence, laziness and inactivity. The food cooked three or more hours before i.e., which has become cold, worthless, from which the essence has gone, putrid, foul smelling, the balance after somebody's use, not good for intellect is liked by Thamasic people

As a part of time saving, the preservation and further use of cooked food is common now. Ayurveda also consider it as toxin and harmful for body and mind. Food preserved in fridges, cooked tin foods, Alcoholic and non-alcoholic beverages belong to this category. Uchchishta food clearly indicates the possibility of contamination of various Microbes.

Eight factors determining the utility of food

The eight factors which determine the utility of various types of food are: (i) *Prakrti* (nature of the food articles), (ii) *Karana* (method of their processing), (iii) *Samyoga* (combination), (iv) *Rasi* (quantity), (v) *Desa* (habitat), (vi) *Kala* (time) i.e., stage of the disease or the state of the individual), (vii) *Upayogasamstha* (rules governing the intake of food) and (viii) *Upayoktra* (wholesomeness to the individual who takes it).

Prakrti indicates the nature of the substance, i.e., inherent attributes (heaviness etc) of diets and drugs. Eg. Masha is heavy and Mudga is light and meat of Sukara (Boar) is heavy and that of Ena (Deer) is light

Karana means the processing of the inherent attributes of substances. Processing results in the transformation of the inherent attributes of substances. Transformation of the attributes is affected by dilution, application of heat, cleansing, churning, storing, flavoring, impregnation, preservation, container etc.

Samyoga is the combination of two or more substances. This results in the manifestation of specific attributes which cannot be manifested by individual substances e.g., combination of honey and ghee or honey, fish and milk

Rasi is the quantum of total (Sarvagraha) or individual (Parigraha) substances which determines the results of their administration in proper and improper dosage. The quantity of food taken in its entirety is 'Sarvagraha' and the quantity of each of its ingredients is 'Parigraha'. Quantity of all things involved is Sarvagraha and that of each and everything individually is Parigraha.

Desa relates to the habitat. It determines attributes due to procreation (growth) or movement of substances in a particular locality or their acclimatization to that region.

Kala stands for both the time in the form of day and night and the states of the individual, (viz. condition of Health and age). The latter is relevant to see disease whereas the former for the determination of the wholesomeness to different types of seasons.

Upayogasamstha stands for the dietetic rules. They are for the most part dependent on the symptoms of digestion.

Upayokta is he who takes food. He is, in the main, responsible for the wholesomeness by the habitual intake of things (Okasatmya).

Rules for taking food

Healthy individuals as well as the patients should observe the following, even while using such of the food articles as are most wholesome by nature. One should eat only that food in proper quantity which is hot, unctuous and not contradictory in potency and that too, after the digestion of the previous meal. Food should be taken in proper place equipped with all the accessories, without talking and laughing, with concentration of mind and paying due regard to oneself.

Right time for food intake

When faeces and urine are excreted, Hridaya becomes clear, Doshas traverse in their right pathways, belching becomes clear, hunger begins and Vata functions properly, digestive power increases, the body becomes light and capable of perceiving the senses; food is to be taken, as it is the right time scientifically recommended for food intake.

Manasa Prakruti

Prakruti in Ayurveda refers to an individual's inherent nature, the inborn tendencies which influence the consciousness and activity. Different meanings of Prakruti are nature, temperament, constitution, form, origin etc. Prakruti lakshana by Susrutacarya "Prakopo Va Anyadha Bhava Kshayo Va Nopajayate Prakrutinam Svabhavena Jayate Tu Gatayusha". The temperament of a man is never aggravated nor does it suffer any deterioration. A change or deterioration in any particular case should be regarded as the harbinger of death. Before undertaking the examination of the patient, it is necessary for the physician to have a thorough knowledge of the normalcy of the human being in all aspects. Nothing can be judged abnormal without knowing the normal. So it is essential that Prakruti Pariksha is to be done first and Vikruti Pariksha later. Acarya Charaka considers Prakruti as one of the Bhavas, while describing Dasa vidha Pareekshya Bhavas. According to Sankhya, there are three major attributes - Satva, Rajas and Tamas. All human beings have been basically grouped under these triads. Ayurveda considers Rajas and Tamas as Manodoshas capable of producing diseases and Satva as Manoguna. According to Ayurveda, the digestive enzymes and metabolic processes are likened to a

fire, called Kayagni in Sanskrit. How well we digest the food depends upon the strength of our Agni. We can say that the entire health and happiness of each individual depends on the strength and functioning of our Kayagni. In fact, one of the major limbs of Ayurveda is called Kayachikitsa, which is concerned with balancing Kayagni to bring health and happiness to the entire body-mind system. So both food and our moods have an effect on our digestion, and conversely the strength of our digestion has an effect on our moods.

Ayurveda is the science of life and life according to Ayurveda is the state of union of four components namely, the body (Sareera), the sensory and motor faculties (Indriyas), mind (Manas) and soul (Atma). Mind is considered as Ubhayendriya. It is located in the body itself and can be considered as the super faculty. According to Caraka, mental faculty is of three types-Satvika, Rajasa and Tamasa. The Satvika one is free from defects as it is endowed with auspiciousness. Rajasa type is defective because it promotes wrathful disposition. The Tamasa one is similarly defective because it suffers from ignorance. More over the word Satva is also used as a synonym of mind. Rajas is a factor of aggression (Rosh) and Tamas is a factor of confusion (Moha). Mind influenced fairly and constantly by the predominance of Rajas is called Rajasa satva and similarly influenced by Tamas is called Tamasa satva. Mind that is not affected by Rajas and Tamas is in its pure form and hence is called Suddha Satva.

Distinctive features of the different classes of mental temperaments:

Satvika features according to Ashtanga hridaya[2]

Saucam	Cleanliness
Astikyam	Belief in gods
Sukla dharma ruci	Inclination to follow the path of pure virtue

Satvika features according to Susruta Samhita[3]

Anrsamsyam	An absence of hostile propensities
Samvibhaga rucita	Judicious distribution
Titiksha	Forbearance
Satyam	Truthfulness
Dharmam	Religious acts
Astikyam	Belief in gods
Jnanam	Spiritual knowledge
Budhi	Intellect
Medha	Retentive faculty
Smrti	Memory
Dhrti	Comprehension
Anabhishangam	Doing good deeds irrespective of consequences

Rajasa features according to Ashtanga hridaya

Bahu bhashitvam	Talkativeness
Manam	Pride
Krudha	Anger
Dhambha	Vanity
Matsara	Jealousy

Rajasa features according to Susruta Samhita

Dukha bahulata	Feeling of much pain and misery
Atana seelata	Wandering tendency
Adrti	Non comprehension
Ahamkara	Ego
Anrtikatvam	Untruthfulness
Akarunyam	Unkindness
Dhambha	Vanity
Manam	Pride
Harsha	Joy
Kama	Lust
Krodha	Anger

Thamasa features according to Ashtanga hridaya

Bhayam	Fear
Ajnanam	Ignorance
Nidra	Excess sleep
Alasyam	Laziness
Vishadita	Grief

Rajasa features according to Susruta Samhita

Vishaditvam	Despair
Nastikyam	Not believing in existence of god
Adharma seelata	Irreligious stupefaction
Budhi nirodham	Perversion of intellect
Ajnanam	Ignorance
Durmedastvam	Silly thoughts
Akarma seelata	Lethargy in action
Nidralutvam	Sleepiness

The Satvika type of mental faculty is of seven types depending upon the disposition of Brahma, Rishi, Indra, Yama, Varuna, Kubera and Gandharva. Rajasa type having six types, namely Asura, Rakshasa, Pisacha, Sarpa, Preta and Sakuni. Tamasa type is of three types; Pasava, Matsya and Vanaspatya

Different types of Satvika individuals

1. Brahma (sharing the traits of Brahma)

Clean, love for truth, self restrained, power of discrimination, material and spiritual knowledge, freedom from passion, anger, greed, ego, ignorance, jealousy, dejection and intolerance and favourable disposition equally for all creatures.

2. Arsha (sharing the traits of Rsis)

Devotion to sacred rituals, study, sacred vows, oblations and celibacy, hospitable disposition, freedom from pride, ego, attachment, hatred, ignorance, greed and anger, intellectual excellence, power of understanding and retention.

3. Aindra

Lordship, authoritative speech, performance of sacred rituals, bravery, strength and splendour, far sightedness, devotion to virtuous acts, earning of wealth and proper satisfaction of desires

4. Yamyā

Observance of the propriety of actions, initiation of actions in time, non violability, memory and lordship, freedom from attachment, envy, hatred and ignorance.

5 Varuna

Bravery, patience, purity, dislike for impurity, observance of religious rites, fondness for aquatic sports, exhibition of anger and pleasure in proper place.

6 Kaubera

Possession of honour, luxuries and attendants, constant liking for virtuous acts, wealth and satisfaction of desires, purity, liking for pleasures of recreation.

7 Gandharva

Fondness for dancing, singing, music and praise, expertness in poetry, stories, historical narrations and epics, constant fondness for scents, garlands, association of women and passion.

Of the seven types of Satvika mental faculties described above, Brahma is the purest.

Different types of Rajasa individuals

1. Asura

Bravery, cruelty, envy, lordship, movement in disguise, terrifying appearance, ruthlessness, indulgence in self prais

2 Rakshasa

Intolerance, constant anger, violence at weak points, gluttonous habit, fondness for non-vegetarian food, excessive sleep, cruelty.

3 Paisaca

Gluttonous habit, fondness for women, unclean habits, cowardice and terrifying disposition, resorting to abnormal diet and regimens.

4 Sarpa

Bravery when in wrathful disposition and cowardice when not in wrathful disposition, sharp reaction, taking food and resorting to other regimens with a fearful disposition.

5 Praita

Excessive desire for food, excessively painful disposition in character and past times, enviousness, actions without discrimination, excessive greediness.

6 Sakuna

Attachment with passion, excessive food and regimen, unsteadiness, ruthlessness and unacquisitiveness.

Different types of Thamasa individuals

The Thamasa type of mental faculty represents ignorant disposition and is of three types.

1. Pasava

Forbidding disposition, lack of intelligence, hateful conduct and food habit, excessive sexual indulgence and sleep.

2 Matsya

Cowardice, lack of intelligence, greediness for food, unsteadiness, fondness for constant movement and desire for water.

3 Vanaspatya

Indulgence in food and deficiency of intellectual faculties.[4]

Conclusion

Ayurveda advocates health not only as the fitness of physique but also as the wellbeing of soul, mind and faculties. So, the persons who prefer the attainment of the goal should follow the advice of this health science not only to cure the disease but also for the prevention of psychological and somatic

miseries. Shortly the way to pure knowledge is through a clear mind and the same clear food itself.

Ahara Suddhai Satva Suddhi Satva Suddhai Dhruvo Smruthim

The concept of Manasa Prakruti in Ayurveda should be elaborated with the help of modern psychology. Each individual has a different temperament. The descriptions of personalities available in Ayurveda are the simplest account of the genetically determined temperament of man. Manasika prakruti has significant implications as regard to the problems of mental health and psychiatric medicine [5]. Thus Susrutacarya says, kayanam prakrutim jnatva anurupam kriyam caret, that is the physician should first of all ascertain the prakriti of the individual and thereafter initiate the treatments suitable to him. Everybody should take Satvika ahara to attain longevity, health and prosperity.

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A Study on Paradigm Shift in Education Due to Pandemic with Special Reference to Idukki District

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Education and Learning is a strong instrument that can change the future of our world. Upgraded technology and total information system are playing a crucial role in developing new inventions in our education sector. The year 2020 has undoubtedly been one of the eventful years till now. Outbreak of the Corona Virus has changed the total predictions of the world. Impact of the Covid-19 is evident in all industries and sectors. Education Industry also faced huge challenges during this period. The conventional way of learning process has replaced and shifted to a new path. As this pandemic was an unprecedented scenario, many educators and students were unprepared to cope up with the new method of learning: the virtual classroom. This research is an attempt to analyse the changes due to Covid-19 and different aspects related to it. This is a study conducted with special reference Idukki District. Usually the people moving from Idukki to other places for the higher studies for overcoming the limitations but this pandemic force everyone to stay in their own places. E- learning is not very much possible in Idukki due to lack of reliability towards internet, technological issues, geographical and climatic conditions etc., Emerging importance of e-learning platforms and the major issues faced by places like Idukki is considered in this paper.

Keywords: Challenges, Covid-19 pandemic, Education, E-learning Platforms, Idukki District.

1. Introduction

Learning and education are the two key factors that can mould our career. Learning is a process of gaining knowledge through experience, practice and in education we are acquiring knowledge through teaching and interactions. Both processes can be developed through outside source and inner self. The medium can vary according to individuals, location etc. Education and learning began in prehistory, as adults trained the young in the knowledge and skills deemed necessary in their society. In pre-literate societies, this was gained orally and through imitation. The basic fundamentals of a structured society is forming on the basis of skills, culture, values, beliefs and knowledge which is

provided through education and learning. Education is passed through different stages like Gurukula, Informal Teaching, Formal Classes and virtual classrooms as of now.

The 21st century is a remarkable period for the education sector. As a result of the unexpected outbreak of Corona virus (covid-19) the entire world witnessed the changes in the total learning system and how the e-learning platform becomes the powerful medium of education. All the universities, schools and even kindergarten also forced to learn through the e-learning platforms. It was a drastic change that has happened in the entire world despite of geographic conditions, economic standards, social structure etc. But the main thing is the influence the practical implications of the e-learning is different from one another.

E-learning is a highly beneficial platform which is considered as a result of integration of technology and education. The unquestionable significance of e-learning in education has led to a massive growth in the number of e-learning courses and systems offering different types of services. Major prestigious universities like Oxford, Harvard, Yale and all other universities are trying to finish the semester exams. But the major question is 'Can online classes compensate the Campus or School experience?'. Digital literacy of teachers, faculties, students and parents, the mental state of participants in this platform, availability of reliable internet services in the particular place are some major considerations which is coming under this topic.

The first higher education institute to offer an online curriculum was CAL Campus, created in 1994. Shortly after, the University of Virginia Beach issued its first PhD through courses delivered entirely via email. Webcam, another technical innovation of the decade, profoundly replaced the nature of the relationship between teachers and students. Open source learning solutions become more democratic in 2000 and collaborative learning become a commonplace in educational institutions and universities. More than 40% of the 500 largest companies now use e-learning for employee training. Different types of e-learning are;

- Computer Managed Learning (CML)
- Computer Assisted Instruction (CAI)
- Synchronous Online Learning
- Asynchronous Online Learning
- Fixed E-Learning
- Adaptive E-Learning
- Linear E-Learning
- Interactive Online Learning
- Individual Online Learning
- Collaborative Online Learning.

All these online learning is happening in 21st centuries through the platforms like Coursera, Alison, Skillshare, Future Learn, Udemy etc. E-Learning platforms are mainly targeted on students and they are trying to provide content based education. Government initiatives towards digitalization are a major trend in the market. As we all know the current situation changed the traditional approaches towards education and it paved a credible growth in the market of e-learning industry.

2. Literature Review

Vishal Dineshkumar Soni in his paper titled as "Global Impact of E-learning during COVID 19" is discussing transformations in the education system due to this pandemic. This is focus attention on

the topics like Role of e-learning in covid-19, Global transition to online education, Changes in e learning and beneficiaries of e-learning, learning platforms etc. Significant growth is witnessed by the world in online education system by the potential users, providers and through several platforms. Recorded report states that Microsoft team users were 750 as of 10th March but by 24th March it has risen up to 138698 which is indeed a significant growth. The pandemic replace the conventional approaches of education existed in academia by introducing some beneficiaries and advantages for the students, teachers, research scholars etc. The e-learning resulted disruptive shift and it generated some challenges in the education but due to the regular use, necessity and implementation of new programmes are helping a lot to cover the barriers. Drastic changes in the total system need implementation of strategies to grow. Otherwise unequal gap and many other problems many emerge in our educational industry.

Fouzia Shersad in his research paper titled as “Managing Risk of E-learning During Covid-19” aims at structuring multiple facets of e-learning risks in a way that will be practicable for educators and education administrators to assess and plan appropriate measures. Major concerns of this paper are risk management, cyber security in education, security system and higher studies. As a result of the analysis they found out some general risk related to e-learning such as internet traffic, lack of readiness, poor practical skills, lack of student engagement and increasing cyber security. Systematic planning is a key tool that helps to deal with unprecedented events in future also.

Paul Agu Igwe in his paper “Higher education and Students Experience Under Covid-19” giving more emphasize on the Higher Education and experience of students. “Education stakeholders and policy-makers need to re-examine the relevance of education in the current global economic, social, health and technological changes. Adequate funding is required to train teachers, provide an enabling learning environment and professional development of teachers. Governments in developing countries need to go into a collaborative funding arrangement with digital and mobile technological operators to provide students and staff with free access to internet and e-learning platforms in the form of vouchers and codes. Special funding must be provided to higher education institutions to provide online teaching and learning platforms that improve student engagement, create opportunities for one-on-one interactions and offer accessibility anytime and anywhere, thereby enhancing students’ experience. Technologies like Blackboard Collaborate, Moodle, and Google meet, Zoom and MS Team and other virtual classrooms offer virtual solutions that deliver a level of engagement that makes learners forget they’re not in a physical classroom”.

Ravi Rai Dangi & Mathew George made a study titled as “Psychological Perception of students during Covid-19” is dealing with outbreak in India on the mental well-being of the students during the time of pandemic. Most students were anxious during this time and stressed. Increased anxiety can affect negatively to psychological, emotional and behavioural state of the students. If psychological state is not in equilibrium, then students could not be able to concentrate on their studies. Investigators recommends that government authorities and educational institutes can take collaborative steps to solve these various problems in upcoming near future.

Syama U S in his paper titled as “The Evaluation of Efficiency of Online Classes during the Period of Covid-19” is more focused on efficiency and effectiveness of online classes and its outcome. The responses help to understand the value of education through virtual classroom. It is different from one person to another and it’s depends on the student’s engagement.

3. Research Methodology

This research is based on 159 responses and aims to systematically and accurately describe population, situation or phenomenon with the help of descriptive sampling. The total population is divided into smaller groups or strata and completed the sampling process with the help of stratified sampling.

Research design specifies the methods and procedures for conducting a particular study.

Types of Research Design

Research design has been classified in different ways, such as

- * Exploratory Research Design
- * Descriptive Research Design
- * Casual research Design

Descriptive Research Design:

I have chosen a descriptive research design that is well structured. The objectives of such are to answer the “who, what, when, and how” of the subject under investigation.

- * Field Studies
- * Survey

I have taken survey research because a major strength of survey research is its wide scope. Detailed information can be obtained from a sample of a large population. Besides, a sample survey needs less time than a census inquiry.

4. Source of Data

The study was conducted based on the collection of primary and secondary data;

Primary data

Primary data is the data collected for the first time by the researcher. Primary data has not been published yet and is more reliable, authentic and objective. Primary data has not been changed or altered by the researcher. Therefore, its validity is greater than secondary data. The sources for primary data are limited and at times it becomes difficult to obtain data from primary sources because of either scarcity of population or lack of cooperation.

The sources are;

- *Questionnaire
- * Survey
- * Telephonic Interview
- * Observation
- * Experiments

Secondary data

Secondary data is the data which are collected already by some other person. It is the second hand information. Data collected from a source that has already been published in any form is called secondary data.

The sources are;

- * Textbooks
- * Journals
- * Newspapers and Magazines
- * Published sources
- * Internet

5. Sample Design

To carry out the study

Area of Research –Idukki

Sample Size – 159 Respondents are chosen so that it could give a fair response to achieve our objectives and also could be finished within the stipulated time limit.

Type of Sample Design

The type of sampling that was carried out was probability (convenience) sampling due to limited resources available.

In non-probability sampling, I have chosen simple random sampling because this was the best sampling method to do a market survey. On another aspect, to cover all consumers in Kottayam.

6. Method of Data Collecton

Primary source of data:

Questionnaire:

Keeping in view of the objectives of study, a questionnaire (as given Annexure) was prepared. All questions are small in size and arranged logically. The language is simple to understand.

Interview:

Information was also obtained by conversation with some customers. Some of the customers were interviewed personally.

Secondary source of data:

The second information is taken from company document available on websites. The information from other related journals and industry association's sites have also been viewed.

7. Drafting Questionnaire

I have collected details from the students and teachers in India through a questionnaire by using google sheet. The questionnaire consists of open-ended questions and 5-point scale questions and applied Likert scale also.

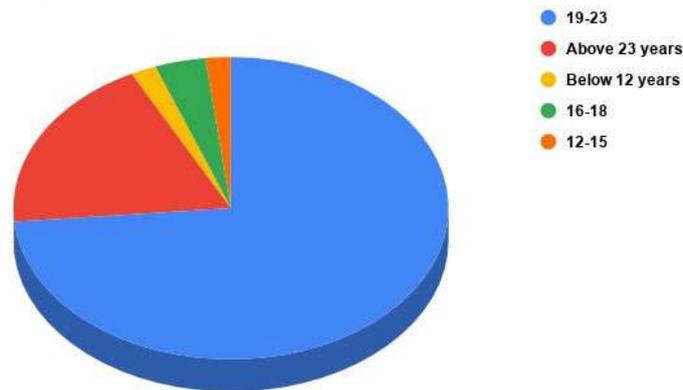
8. Objectives

- To analyse the impact of Covid-19 in education sector.
- To acknowledge trends in virtual learning platforms.
- To understand the influence of e-learning platforms in student’s career.
- To examine the importance of new phase of education system.

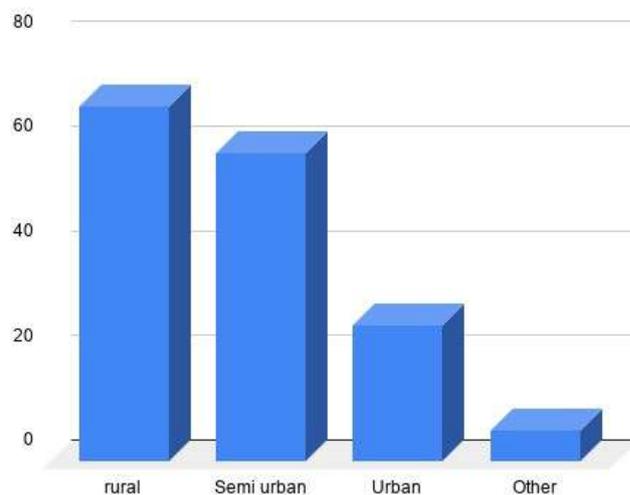
9. Data Analysis and Interpretation

The Collected data from a survey are represented with the help of charts. All the questions are regarding to the changes in the time of pandemic and others attitude towards the changes. This survey has focused both students and faculties belongs to different age category.

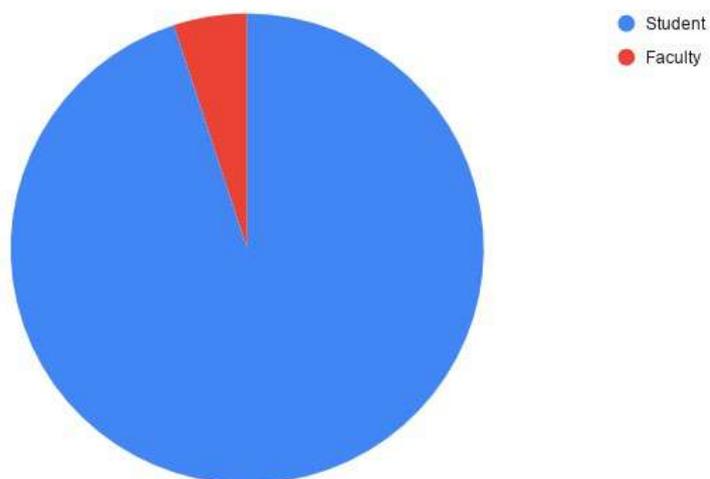
9.1 Age of the participants



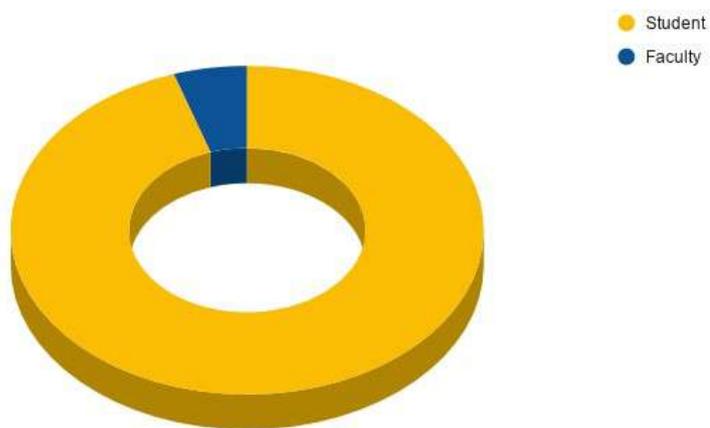
9.2 Area of living



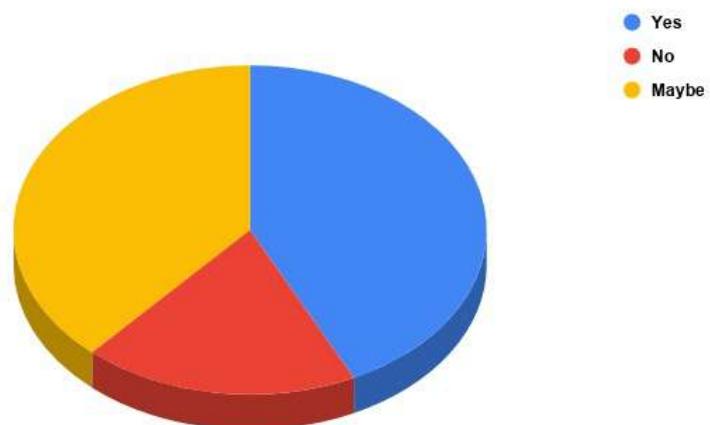
9.3 Educational Status



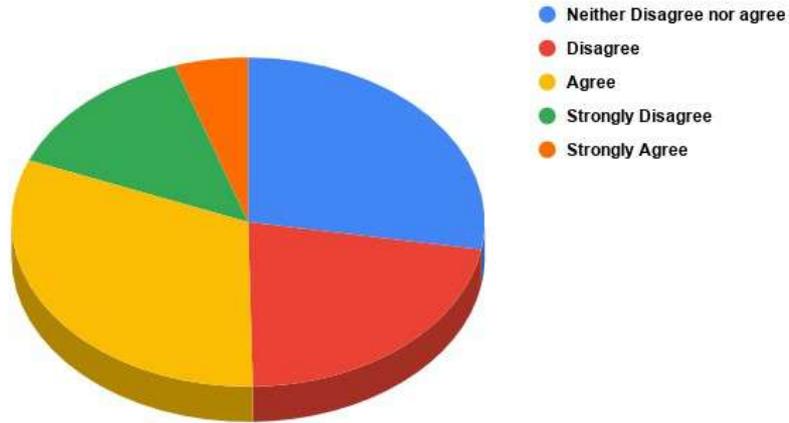
9.4 Gender



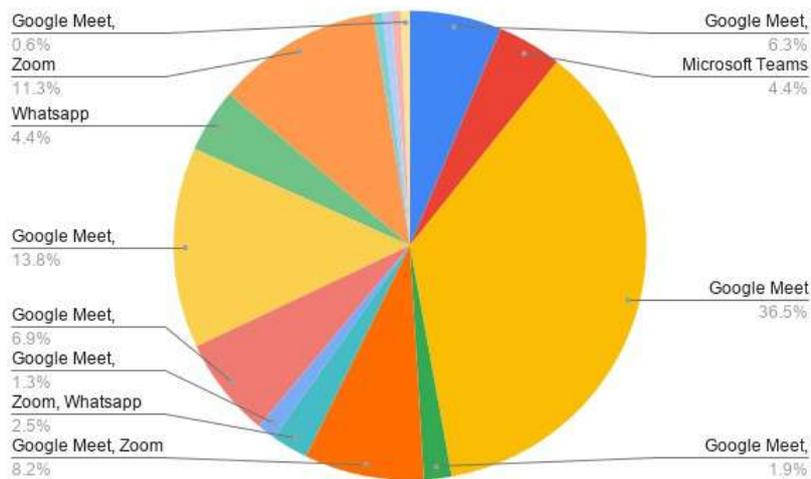
9.5 Do you think that there is a relationship between e-learning and student motive?



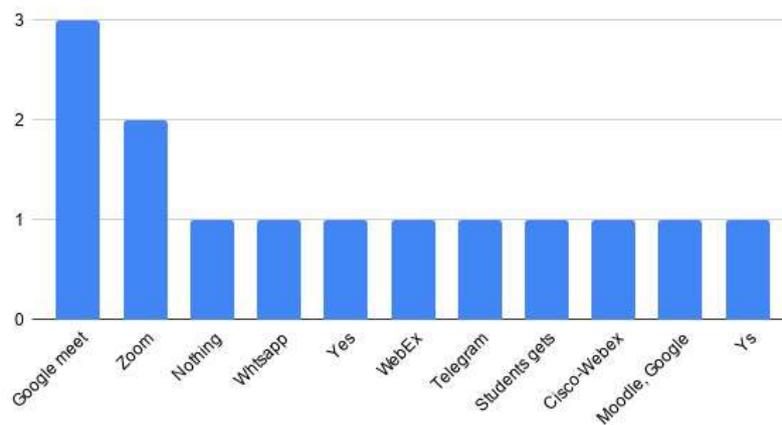
9.6 How much you are agreeing with the virtual classroom?



9.7 Most common e-learning platforms using for online classes

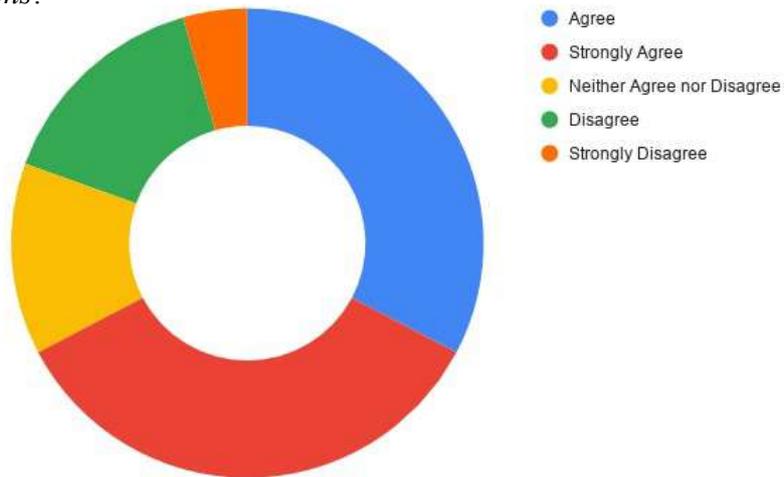


9.8 Other e-learning platforms

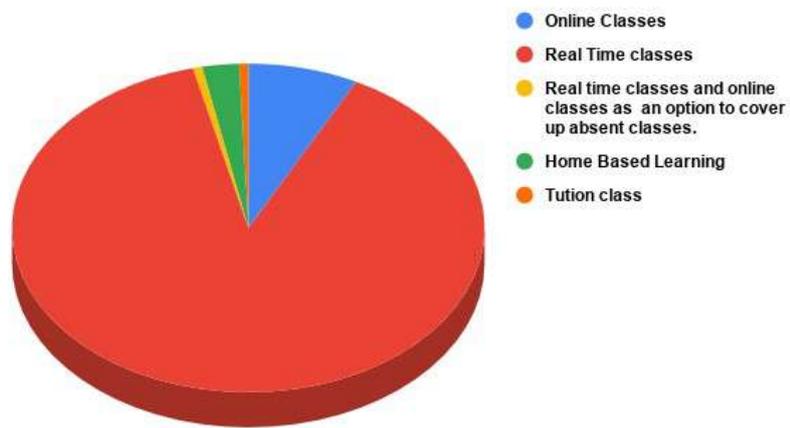


Count of Specify the e-learning platforms if you have put tick on 'Others'.

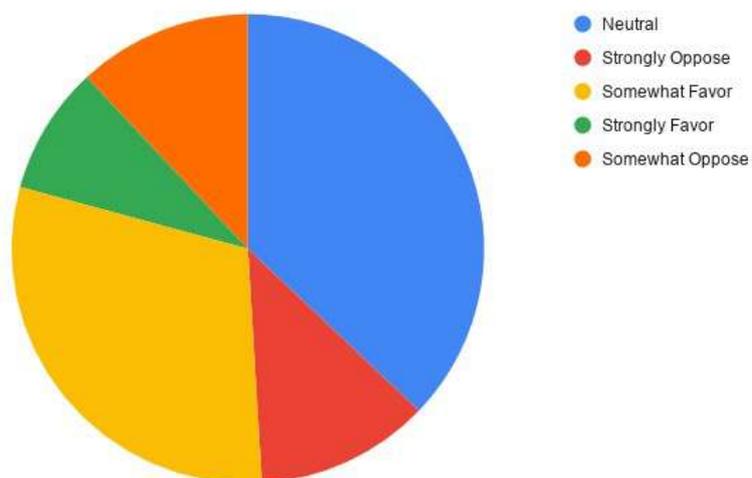
9.9 Do you agree with the relationship between character development and classroom sections?



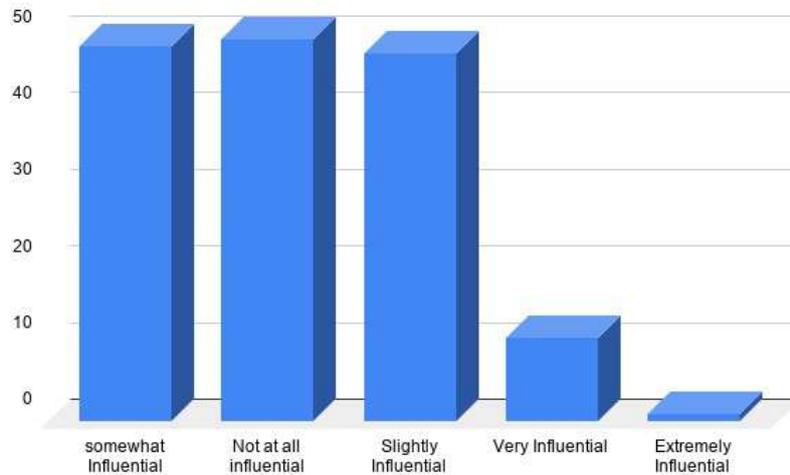
9.10 Which one is your favourite mode of class?



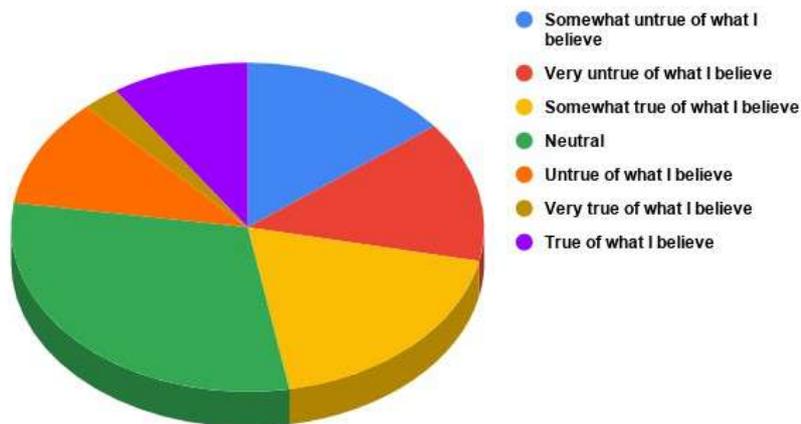
9.11 Are you supporting collaborative study (offline & online) in future?



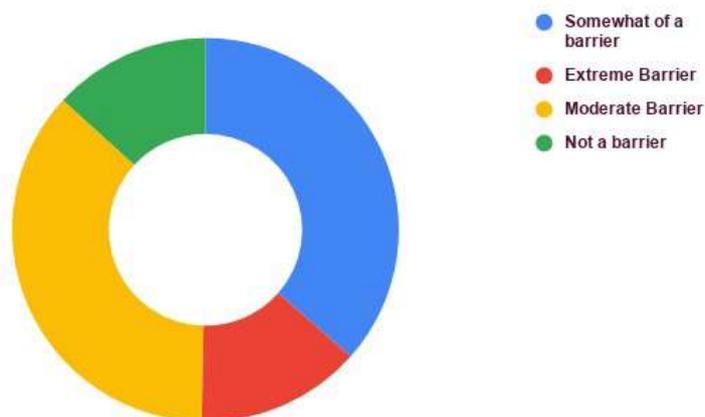
9.12 How much you are influenced by advertisements related with the educational fields in the time of covid-19 spread?



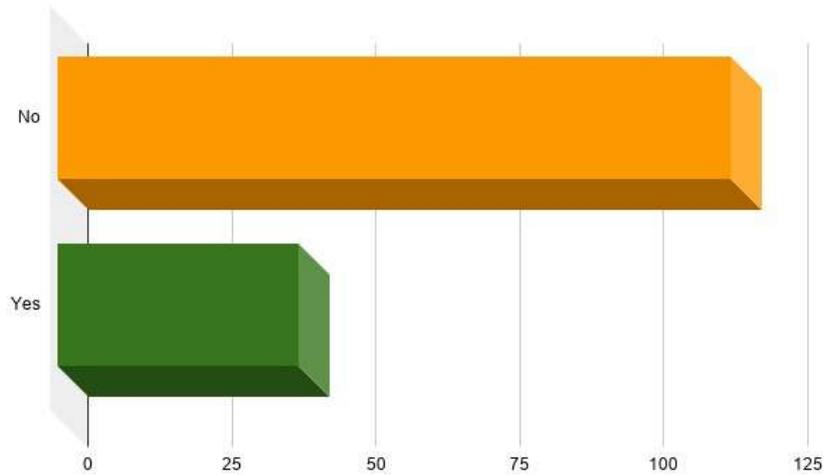
9.13 Do you believe that outbreak of covid-19 helps to develop a trust in the mind of students and teachers towards the virtual learning platform?



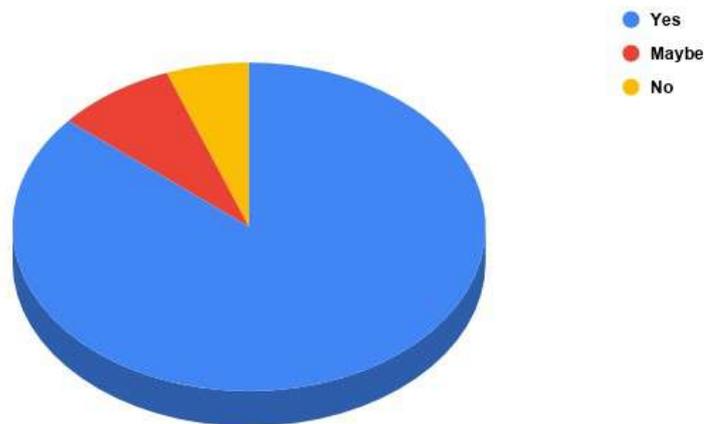
9.14 New phase of education is standing as barrier against total development of student?



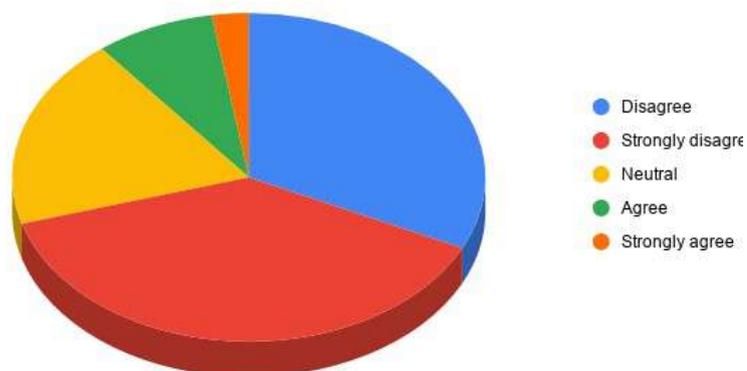
9.15 Have you ever accessed a paid online service for the betterment of your education?



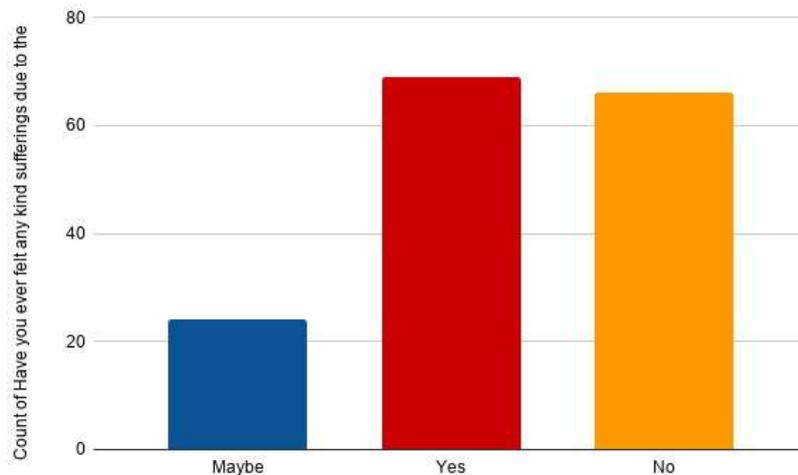
9.16 Did you ever felt any kind of disturbances while you are attending online classes due to network issues?



9.17 Virtual classes are comfortable when compare to the real time classes.



9.18 Have you ever felt any kind of sufferings due to the lack of electronic gadgets?



8. Results

- Out of 159 responses, 64.8% of the respondents were female and 35.2% were male.
- Age group of the respondents are;
 - *73.6% - 19-23 years
 - *18.9% - Above 23
 - *5.7% - Between below 12-18 years
 - *1.9% - Below 12 years
- Out of the 159 responses 42.8% lives in rural areas, 37.1% in semi-urban areas and 16.4% lives in urban areas.
- 95% of the respondents were students and 5% of the respondents were faculties.
- 43% believes that there is a relationship e-learning and student Motive.
- 31.6% people agree with the virtual classroom, 21.5% people are disagreeing Virtual class room and 27.8% neither agree nor disagree with this.
- There is a hike in the use of e-learning platforms.
 - *77.2% - Google Meet
 - *44.9% - Zoom
 - *13.3% - Microsoft Teams
 - *30.4% - WhatsApp
 - *Other mode of study includes Telegram, Cisco WebEx, Moodle, Google Classroom etc.
- 61.9% believes that there exists relationship between classroom section and character development.
- 88.6% support real Time Classes and 7.6% supporting online classes.
- 29.7% favour collaborative (offline & online) in future.
- 38% slightly and strongly influenced by the advertisements in the field of education in the time of Covid -19
- 44.2% believes that outbreak of Covid- 19 helps to develop a trust in the mind teachers and students towards virtual learning platform.
- 86.7% believes that new phase of education is standing as a barrier against total development of a student.

- 74.1% didn't access any paid online service for the betterment of education and 25.9 % accessed the paid service.
- 86.1% felt disturbances while attending online classes due to network issues.
- 70.2% think that real time classes are comfortable than virtual classes.
- 43.7% have felt sufferings in study due to the lack of electronic gadgets.

9. Suggestions

- Covid -19 made a strong impact in education sector in all aspects and its effects are different from one person to another and it depends on different parameters.
- Use of virtual learning platforms helps to increase the trust towards them
- The pandemic period results a competition among the e- learning platforms.
- Most of the people are still comfortable with the Real time classes and its benefits,
- Access to network and lack of gadgets and materials are some major existing problems in the new phase of education.
- Most of the people are believes that new phase of education has resulted a change in the student motive and character development due to the unexpected shift from the convenient way

10. Conclusion

The COVID-19 pandemic has affected educational systems worldwide, leading to the near-total closures of schools, universities and colleges. Most governments around the world have temporarily closed educational institutions in an attempt to contain the spread of COVID-19. Technology may play an important role in the lockdown period like study from home and work from home. In India, some private schools could adopt online teaching methods. Low-income private and government school may not be able to adopt online teaching methods. And as a result, there will be completely shut down due to no access to e-learning solutions. This study helps to find out the impact of Covid -19 on education.

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Implication and Prominence of Digital and Electronic Libraries

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The possibility of libraries has been changed by the Information and Communication Technology. In cutting edge period each and every library is steadily getting digitalization. The automated combinations, organizations and structure to help profound established learning, investigate, scholarly correspondence similarly as shielding and conservation of our recorded data are remembered for the high level library. The procedure of democratization of data is likewise engaged with it. In this paper, the concept has been given about the variables that will require the conventional libraries to get digitalization, just as the definition, need, assets of the digital library, necessities for advanced library and qualities, preferences and inconveniences of computerized libraries. To depict the job of a custodian in the new condition the accentuation is additionally set up in this paper.

Keywords: - Electronic libraries, Uses of Electronic Libraries, Digital libraries, kind of Digital libraries, functions of digital libraries

1. Introduction

Our overall population has become a coordinated society wherein all circles of human development has been used comprehensively to record, store, and dissipate the information in the automated design by using advancements. The world has almost changed over into an overall town in view of its impact. There is an effect in the information business in view of the requirements in the job of Libraries is likewise changing to fulfil the need put on them. The conventional libraries ought to be created as a well prepared and interconnected digital libraries to satisfy the need of new-age whose interest for data is never. The idea is acknowledged everywhere throughout the world in the 21st century that the data is for use and all then the library ought to be for all. For each one of the individuals who look for data, the libraries must get all-inclusive open.

2. Definition

There are various implications of a "digital library," as a conversely "electronic library" and "virtual

library" terms are routinely used. The term Digital Library has a combination of expected ramifications, going from a digitalized variety of material that one may find in a standard library through to the arrangement of all high level information close by the organizations that make that information accommodating to each and every conceivable customer. A digital library is an enormous database for the individuals who are taking a shot at hypertext condition which bolsters the full life pattern of creation, stockpiling, safeguarding, scattering and utilization of information, data and information.

3. Role of Digital Library:

The approach of digital libraries has changed the job of the library and data Professionals, just as the necessary client abilities. It is along these lines imperative to get what, in truth a digital library is: Digital Library, a huge worldwide and conveyed information archive, which is upheld by various databases and dependent on scholarly innovation, is a library software that gives the clients gigantic and composed data and information base that effectively search and use. It is mostly a computerized arrangement of data source received by the current cutting edge, which is a huge scope of information focus and advantageous for use past the real limits. The digital library has been characterized by numerous points of view. An advanced library, similar to any library, is help that depends on standards of choice, procurement, access, the executives and protection of data assets, implied for a particular customer network".

4. Commencement of Digital Libraries:-

The idea of advanced libraries is established in the deep-rooted fantasy about making a virtual library. Among early endeavours, one can cite the endeavours made by Paul Otlet and his associates in 1930s to configuration works comparatively to the present hypertext and hypermedia system. In 1945 Vannevar Bush¹³ put forth a few attempts to give a thought of interfacing the whole human information. He gave an idea of Memex machine, which utilized microfilm perusing procedure to recover put away data. Be that as it may, the enthusiasm for computerized libraries, both academic and expert, became quickly just in the 1990s. As expressed before, advanced library improvements in the USA occurred for the most part throughout look into drove fundamentally by the software engineering network that focused on planning and creating innovations for different digital library assortment and administrations.

5. Categories of Digital Libraries

- * Computerized libraries can be gathered in the accompanying ways'
- * Digital libraries created in USA as a major aspect of (Digital library activities)
- * Digital libraries created for eLib (electronic libraries)Program in UK
- * Digital libraries worked by singular foundations
- * Digital libraries that are a piece of National Libraries
- * Computerized libraries that are a piece of colleges, or by period, or by a nation of their beginning.

6. Objectives besides utilities of Digital Libraries:-

- * To gather, store, compose and get to data in advanced structure using correspondence chanel.
- * To meet the prerequisites of benefactors by offering better types of assistance.
- * To offer customized and proficiently review types of assistance.
- * To have enormous digitized databases.

- * To spare time of library staff by maintaining a strategic distance from routine occupations.
- * To give an intelligent perspective on all data inside a library in any design.
- * To serve generally scattered networks all through the system.
- * To limit monstrous capacity and space issue of enormous libraries.
- * To decrease cost engaged with different library exercises.

7. Electronic Library:-

7.1 Definitions:-

* Z of Library Jargon of oxford Brookes University characterize the term E-library as, Section of the Library Web pages which gives admittance to information bases, electronic diaries, electronic books and electronic papers.

* Public Diet library, Japan is characterized the "electronic library idea" as "a library which gives essential and auxiliary data electronically through correspondences organizations and the reason for this reason." Putting accentuation on the library as a method of administration, electronic library administration, remembering for library administrations, is comprehensively characterized as "administration which empowers library clients to straightforwardly get to electronic information by means of media communications organizations."

7.2 Advantages of Electronic Library:-

- * Presently the scholarly libraries are moving to the conventional print assets into e-asset and keep up as Institutional storehouse. Those assets are postulations and expositions and other inventive academic library
- * Work done by staff or understudies. There wellsprings of institutional store are circulating through web or intranet to
- * Its client local area. The advantages of e-library for the accompanying:
- * When utilizing electronic data sources part of advantages are get by the clients that they are:
- * E-libraries are the best instrument for giving on the web assets to explore which will make simple to its clients.
- * Review search is simple and generally helpful than print asset.
- * Proficiency is increments when looking through made by the instructors.
- * Looking of file is likewise simple.
- * It upholds for looking with the blend of keywords.
- * While scanning made by supporters for their venture to recover a reasonable measure of substance, rapidly and without any problem.
- * Arrangement for synchronous access of numerous document.
- * E-libraries encourage to its benefactors for research arrangement.
- * Arrangement for print out and saved the down burden things for future references.
- * The distance students are additionally looking through their necessity from e-library.
- * E-Library gives the advantage to coordinated hunt to word reference, reference book, chronological registries, and so forth through the reference work area.
- * The least complex usefulness like Point-and-snap advances the clients interest.

8. Cutting-edge Resources:-

Advanced assets might be characterized extensively as any electronic diaries, magazine, e-zine, web-zine, bulletin or kind of e-serials productions, which is accessible over the Internet and can be gotten to utilizing various innovations, for example, www, gopher, FTP, telnet, email or rundown server and so on. E-Journals are the periodicals, a standard or unpredictable moderate unit made accessible in an e-position either on a static medium or using PC systems. Applying Ranganathan's Five Laws to the computerized assets to this examination.

- * Digital assets are for use.
- * Each utilizes their computerized assets.
- * Every advanced asset of its client.
- * Save the hour of the client.
- * The advanced asset is a developing living being.

9. Categories of E-Resources:-

The e-assets are fundamentally segregated in two noteworthy sorts are:-

- * Online e-resources, which may join, for instance, e-journal (Full substance and bibliographic), advanced books, on-line Databases and Web goals
- * Other electronic resources may join, for instance, CD ROM, Diskettes
- * Other reduced PC databases.

10. Classes of E-Journals:-

Online Journals

Electronic diaries come in numerous sorts. Some of them are conventional paper diaries made accessible electronically, others are straightforward determination or simply the chapter by chapter guide of the paper diaries and still others have no proportional paper duplicates.

CD ROM Journals

These are full content diaries distributed and dispersed as CD ROM with ordinary updates, alongside search software to access and print. Connection online diaries, by far most of CD ROM based diaries are the electronic renditions of printed diaries for example

- * Meeting procedures and diaries of IEEE
- * Conference procedures and diaries of ASME Kling and Mcklim (1997)17 recognized e-diaries into four sorts in particular,
- * Pure electronic diaries - Journals whose content initially dispersed just in computerized structure.
- * Electronic Print Journal Journals essentially disseminated electronically, however, may have constrained dispersed in paper structure.
- * Print Electronic Journals
- * Journals essentially disseminated in paper structure but on the other hand, are disseminated in electronic structure.

* Print, Electronic Journals, Journals that are started with equal paper and electronic releases that might be generally dispersed.

11. The dissimilarity between conventional and digital libraries

Sr. No	Conventional libraries	Digital libraries
1.	Print collection	All assets in computerized (sight and sound) structure.
2.	Stable, with moderate evolution	Dynamic and vaporous
3.	Singular articles not legitimately connected With each other.	Individual objects are legitimately connected.
4.		
5.	Less/Minimum assortment of data	Large assortment of information
6.	Scholarly content with the validation process, More than an academic substance with different approval forms & Constrained passages and unified management.	Unlimited passages, disseminated assortments and The physical and legitimate association might be for all intents and purposes
7.	One way interactions	Dynamic constant discourse
8.	Free and widespread access.	Free just as a charge based.

With the presence of PCs, the thought focused on colossal bibliographic databases, the now notable online recuperation and network programming that are a bit of any contemporary library. Addition in the amount of customer and their different needs have made modem libraries to apply new information and correspondence advancement. On account of this, there is a general need and example to accumulate sort out regulate, secure and fitting information in the mechanized structure. Exactly when PCs were related to gigantic frameworks molding the Internet, the thought progressed again, and explore went to making libraries of mechanized information that could be gotten to by anyone from wherever on the planet. Articulations like "electronic library," "library without dividers" and, most as of late, "advanced library," all have been used on the other hand to delineate this wide thought.

12. Few imperative features of the digital libraries are

- * Digital Libraries join both propelled groupings and customary, fixed media collections. So they encompass both electronic and paper materials. So electronic libraries support blended media content.
- * Digital Libraries will similarly fuse propelled materials that exist outside the physical and administrative constraints of anyone advanced library. Henceforth electronic libraries give access from huge information varieties.
- * Digital Libraries will require both the capacities of clerks and well as those of PC scientists to be sensible.
- * Focus on offering access to fundamental (or complete) information not simply proxies or records.
- * Digital libraries are System open Give simple to utilize interface.
- * Use decisive portrayal of record (for example labelled little content) what's more or as against picture, postscript, and so forth shapes.
- * Digital libraries are giving one of a kind referencing of computerized objects.

* Digital libraries Bolster conventional library strategic assortment, improvement, association, Access and conservation. Digital libraries are offering Help propelled search and recovery.

13. Inspirations behind Digital library

- * For improvement of assortment, store, and arrange, data in the advanced structure.
- * To give require data financially to all clients.
- * To increment co-usable endeavors in an asset, PC, and correspondence systems.
- * To increment correspondence and participation between instructive foundations.
- * To take a position of authority in the age and scattering of information.
- * To fulfilled distinctive data needs and prerequisite of various clients.

14. A serving of the chief State-of-the-art features, complications and concerns attracting the deliberation of in this region include:-

- * High bandwidth PC arrange to support productive sight and sound archive move.
- * Open correspondence conventions (customer server, for example, z39.50for IR).
- * Information gets to instruments (peruse, show and search devices).
- * Meta database (information-based that depict and give connects to different databases/Data sources.
- * Electronic distributing instruments (individual, institutional, distributor).
- * Data pressure.
- * Digital stockpiling. Scanning and transformation advance.
- * Media coordination advances (multi-media).
- * Advanced recovery, ordering, and regular language preparing, directing and sifting.
- * Document portrayal and portrayal norms (for example SGML).
- * Inter-operability (how do various computerized libraries connect).
- * Privacy, validation and security

15. Themes of attentiveness of the Digital Library

The positive aspect of computerized libraries are:-

- * Round the clock accessibility: Digital libraries can be gotten to whenever, 24 hours per day and 365 days of the year.
- * Multiple gets to similar assets can be utilized simultaneously by various clients.
- * Enhanced Information recovery: The client can utilize any inquiry term roaring to the word or expression of the whole assortment. The computerized library will give very easy to use interfaces, giving snap capable access to its resources.
- * Preservation and preservation: A precise of the first can be made any number of times with no corruption in quality.
- * Unlimited extra room at lower cost: Whereas customary libraries are constrained by extra room, computerized libraries can store significantly more data, just because advanced data requires almost no physical space to contain them. At the point when the library has no space for expansion, digitization is the only solution.
- * Networking: A specific computerized library can give the connection to some other assets of other advanced libraries effectively along these lines a consistently incorporated asset sharing can be accomplished.

* Cost: The expense of keeping up an advanced library is a lot of lower than that of a conventional library. A conventional library must go through huge entreties of cash paying for staff, the book looks after, lease, and extra books. Computerized libraries get rid of these fees.

16. Problems of the Digital Library are:-

Preservation:- Due to innovative turns of events, a computerized library can quickly get outdated and its information may become inaccessible.

Skill individual:- If we need to work in an advanced framework we need to ability people in working and looking after digital libraries.

Effect of Technology:- The advanced library entirely reliant on media transmission and PC. As innovation comes in the market the computerized framework should change or receive that technology.

Security issue:- When our computerized framework is associated with the Internet the serious issue is the security to forestall the unapproved get to and to keep the data from infection is the significant undertaking in digital system.

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Role of Breathing Exercises in Post Covid Setting



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The COVID-19 is an ongoing pandemic of coronavirus disease 2019 caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). WHO reported over 128 million individuals confirmed COVID-19 globally till March 2021, resulting over 2.8 million deaths. Approximately 20% of asymptomatic people who test positive for COVID-19 will remain symptom-free over time. An electronic literature review of COVID-19 studies propose that most of asymptomatic patients should be considered pre-symptomatic resulting significant damage in respiratory system, often leads to pneumonia and even acute respiratory distress syndrome (ARDS) a severe lung injury. Recovering lung function is possible but can require therapy and exercises for a month after the infection is treated. Breathing exercises is beneficial for patients with mild symptoms of COVID-19. Exercises like breathing control, pursed lip breathing, belly sleeping, walking, and thoracic expansion are good to keep the lungs healthy. These exercises should be followed in order to maintain the oxygen levels in the body and also to restore the lung functions.

How breathing exercises can help

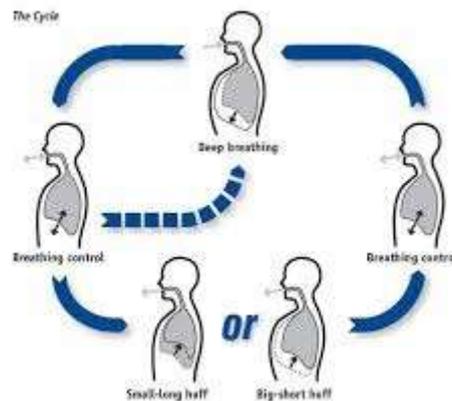
Healthy lungs, breathing is natural and easy and allows breath in and out with your diaphragm doing about 80 percent of the work to fill your lungs with a mixture of oxygen and other gases and exhale out. When the diaphragm muscle is weak, body starts to use other muscles in the neck, back and chest for breathing. This translates into lower oxygen levels, and less reserve for exercise and activity. Regularly practice breathing exercises can help the lungs to get rid of accumulated stale air increase oxygen levels and get the diaphragm to return to its job of helping you breathe. COVID-19 along with co morbidities such as diabetes, chronic respiratory disease and cardiovascular diseases are at a higher risk of developing infection. COVID-19 patients' experiences short of breath and oxygen saturation begins to fall. Regular breathing exercise and physical activities will improve lung problems and general conditioning. The scientific evidences still unclear but pulmonologist and rehabilitation specialists suggests breathing techniques will helpful to restore respiratory muscle strength and lung functions.

1. Breathing control

Breathing control is breathing gently, using as little effort as possible.

- a. Breathe in and out gently through nose or through mouth
- b. Breathe out through mouth, purse lips like are blowing out a candle
- c. Gradually try to make the breaths slower

d. Closing eyes to focus on breathing and to relax .It is very important to do breathing control in between the more active exercises of ACBT as it allows airway to relax.



2. Diaphragmatic Breathing (Belly Breathing)

Deep breathing restores lung function by using the diaphragm. Breathing through the nose strengthens the diaphragm and encourages the nervous system to relax and restore itself.

Recovering patients from COVID-19, the deep breathing exercise are given into phases of individual ability.

Start with Phase 1 increase repetitions or move to the next phase when you can complete the exercise without feeling breathlessness.

Phase 1: Deep Breathing

Lie on your back and bend your knees so that the bottoms of your feet are resting on the bed.

Place your hands on top of your stomach or wrap them around the sides of your stomach.

Close your lips and place your tongue on the roof of your mouth.

Breathe in through the nose and pull air down into your stomach where your hands are. Try to spread your fingers apart with your breath.

Slowly exhale your breath through the nose.

Repeat deep breaths for one minute.



Phase 2: Deep Breathing While on Stomach

Lie on your stomach and rest your head on your hands to allow room to breathe.
Close your lips and place your tongue on the roof of your mouth.
Breathe in through your nose and pull air down into your stomach. Try to focus on your stomach pushing into the mattress as you breathe.
Slowly exhale your breath through your nose.
Repeat deep breaths for one minute.



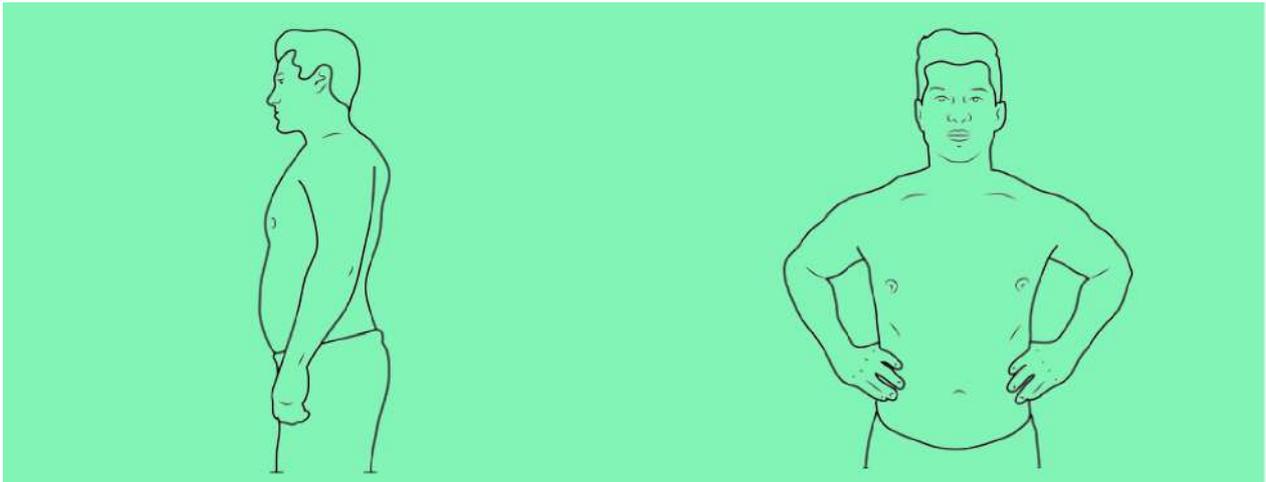
Phase 3: Deep Breathing While Sitting

Sit upright on the edge of a bed or in a sturdy chair.
Place your hands around the sides of your stomach.
Close lips and place your tongue on the roof of your mouth.
Breathe in through your nose and pull air down into your stomach where your hands are. Try to spread your fingers apart with your breath.
Slowly exhale your breath through your nose.
Repeat deep breaths for one minute.



Phase 4: Deep Breathing While Standing

Stand upright and place your hands around the sides of your stomach.
Close your lips and place your tongue on the roof of your mouth.
Breathe in through your nose and pull air down into your stomach where your hands are. Try to spread your fingers apart with your breath.
Slowly exhale your breath through nose.
Repeat deep breaths for one minute.

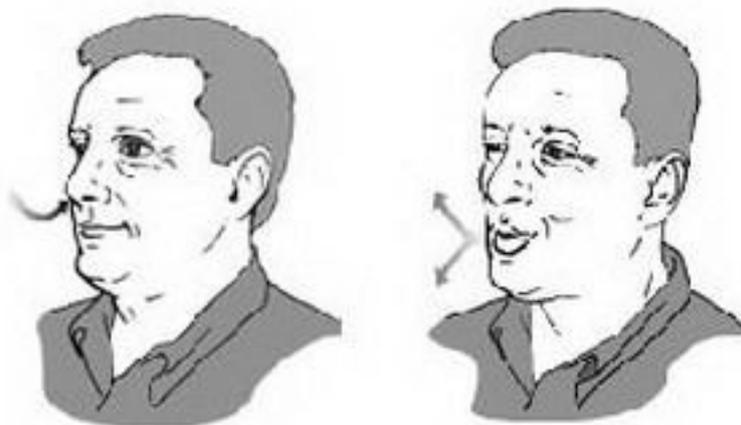


3. Gentle breathing

Relax your shoulders and body.
Gently breathe in and out in a relaxed manner

4. Pursed Lip Breathing

Take in a medium-sized breath.
Open your mouth breathes out forcefully and quickly engages your chest and stomach muscles.
Repeat once or twice and end the exercise with the exhaling huff, with pursed lips.



5. Huffing

A huff is exhaling through an open mouth and throat instead of coughing. It helps move sputum up airways so that you can clear it in a controlled way. To “huff” you squeeze air quickly from your lungs, out through your open mouth and throat, as if you were trying to mist up a mirror or your glasses. Use your tummy muscles to help you squeeze the air out, but do not force it so much that you cause wheezing or tightness in your chest. Huffing should always be followed by breathing control. There are two types of huff, which help to move sputum from different parts of the lungs.



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