

**E-LEARNING AFFORDABILITY AND ACCESSIBILITY DURING COVID 19
PANDEMIC AMONG THE STUDENTS OF ST.TERESA'S COLLEGE
ERNAKULAM**

Dissertation submitted to St. Teresa's College (Autonomous)

**(Affiliated to Mahatma Gandhi University, Kottayam)
in partial fulfillment of the requirement for the Degree of**

MASTER OF ARTS IN ECONOMICS

BY

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MARCH 2022

CERTIFICATE

This is to certify that this dissertation entitled “**E-LEARNING AFFORDABILITY AND ACCESSIBILITY DURING COVID 19 PANDEMIC AMONG THE STUDENTS OF ST. TERESA’S COLLEGE ERNAKULAM**” is a record of the original research work conducted by **SANGEETHA S** (Register No: AM20ECO014) under my guidance & supervision in partial fulfillment of the requirements for the award of the degree in Master of Arts in Economics to the (**Affiliated to Mahatma Gandhi University, Kottayam**). The research work has not previously formed the basis for the award of any Degree, Diploma, Associateship, Fellowship, or any other similar title and it represents a contributory work on the part of the candidate.

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DECLARATION

I hereby declare that this dissertation titled “**E-LEARNING AFFORDABILITY AND ACCESSIBILITY DURING COVID 19 PANDEMIC AMONG THE STUDENTS OF ST.TERESA’S COLLEGE ERNAKULAM**” is a bonafide work done by me and this work has not been previously formed the basis for the award of other Academic qualification, the fellowship of other similar titles of any other university or board.

Signature of the supervisor

Dr. Pearly Antony

Signature of the candidate

Sangeetha S

ACKNOWLEDGEMENT

First and foremost, I thank God Almighty for bestowing me with energy and enthusiasm to take up the project and complete it in the due course of time.

I express my immense gratitude to my guide and constant pillar of support Dr. Pearly Antony O , for being the beacon of light that dispelled the darkness of my ignorance.

I thank Dr. Mary Liya C.A, Head of the Department of Economics, St. Teresa's College, Ernakulam for her constant words of encouragement and support. I also thank each and every member of the faculty of the Economics department, St. Teresa's College, Ernakulam for their advice and valuable suggestions that aided in the fruition of this study.

I duly thank all the respondents of for answering my questions patiently and also am grateful to my friends , my beloved parents for their strength, support and help.

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CHAPTER -1
INTRODUCTION

1.1INTRODUCTION

Education is the most powerful tool to bring changes in society by removing the traditional barriers and superstitious beliefs. Education enables humans to make wise and rational decisions. The outbreak of covid -19 had a profound impact on every aspect of society. The education sector has also been severely affected by the pandemic. Since technological and internet accessibility in the education sector is prevalent in the e-education economy. As a result of the COVID-19 pandemic, the education system completely shifted to virtual mode. Even though e-learning was present in the economy, this popularity and preference gained only after COVID-19 and the subsequent closure of all kinds of institutions. E-education means the delivery of education by electronic teaching methods. This is prevalent in India and in the whole world in terms of the precautionary measure against spreading coronavirus. The government has put forward essential measures to control the spreading of the pandemic COVID- 19, such as lockdown to stay safe at home without any other activities and public services, regulations to prohibit all movements by individuals except the health-related and urgent necessities, schools, and colleges being closed, and keeping a social distance of at least one meter between individuals. That ultimately proceeds to the revolutionary digital teaching mode in the higher education system through online lectures, teleconferencing, digital open books, online examination, and interaction in virtual environments. The e-education is going well through the accessibility of digital devices by providing the e-platforms and disseminating to everyone; some are Zoom, Google meets, Skype, Google classroom, etc. But this much popularity comes in developing nations like India only after the covid-19 emergency. The present crisis of COVID-19 has global impacts on the education sector by the unknown end of the problem. So the only platform left is electronic-based teaching.

Kerala's education system is widely recognized and accepted as an efficient system. Kerala's human development index is comparable to many world-developed countries. Kerala has adopted several measures to address the problems faced by the vulnerable and marginalized sections of society. The pandemic created closure of the educational institutions and travel

restrictions around the state. The state began to search for alternative means of providing education to students. The situation forced educational institutions to opt for different techniques of learning. Many factors affect online education, like the accessibility of the internet connection, affordability of the same, and other gadgets needed for online classes; the challenges were several for students and teachers. Even though many institutions have followed the blended learning culture, the traditional sector was always the preferred one. Initially, the shift from conventional to online mode had created many challenges for students. There was a shift from the traditional learning system to the online way of learning. This change made a twofold change in society. Firstly it gave an opportunity for the educational institution to strengthen their technical knowledge and infrastructure. Secondly, it created many challenges. The online mode of learning has shown up the reality in our society. In terms of inequalities and inaccessibility of essential resources. The digital divide that exists in society has become more evident. This paper analyzed and studied the impact of the covid-19 pandemic on women students and the changes in the conventional learning system.

1.2 REVIEW OF LITERATURE

Agus Purwanto (2020), in his article “covid-19 pandemic and home online learning system: does it affect the quality of pharmacy school learning” stated that there are several obstacles experienced by students, teachers, and parents in online teaching and learning activities, namely mastery of technology is still lacking, additional internet quota costs, additional work for parents in assisting children in learning, communication and socialization between students. working hours are unlimited for teachers because they have to communicate and coordinate with parents, other teachers, and school principals. The COVID-19 pandemic affects academic life, parents of students, students, and the learning process, as a teacher who has the responsibility to educate students cannot stop. Teachers must find appropriate ways to promote the learning process academically and emotionally. Teachers need to be able to manage classroom discipline in classrooms and online classes. Based on the review and discussion results, it can be concluded that online learning systems using digital platforms at the primary and secondary school levels tend to change the face of education to be better, more effective, and more enjoyable. Teachers are becoming increasingly innovative in packaging teaching materials and are increasingly creative in developing learning methods to attract student enthusiasm.

Aparicio, Bacao, and Oliveira (2016) show that the e-learning idea was not the Initial concept in conceptualizing the utilization of computerized frameworks to empower or encourage the Learning cycle. They distinguished 23 ideas that have a place with the utilization of computers for learning purposes.

Di Pietro, Biagi, Costa, Karpiński, and Mazza's JCR (2020) study titled "likely impact of covid-19 on education: reflections based on the existing literature and recent international" shows how the COVID-19 crisis has affected students learning. It looks at both direct and indirect ways the virus and the measures adopted may impact children's achievement. 'Conservative' estimates of a few selected EU countries indicated that the students will suffer a learning loss. It is also suggested that COVID-19 will not affect students equally, negatively influence cognitive and non-cognitive skills acquisition, and may have significant long-term consequences and short-term ones.

Drew et al (2010) conducted research on the students from two different universities in Saudi Arabia. The students were surveyed to find out their perceptions regarding their current eLearning systems. It was reported that the use of an e-Learning system enhances the understanding and decision-making ability of the students, increasing the overall productivity of the process of teaching and learning.

Galbraith and Haines (1998) researched students learning science through e-Learning. They reported that all students were not confident in the use of using and, all were not sure of the benefits of online learning. In their study, though students acknowledged the benefits of using technology, none of them reported that they preferred to learn science entirely through computers. In other words, students perceived e-Learning as an enrichment to the traditional learning process rather than a substitute for it.

Joanna Poon (2012) conducted research entitled "Use of blended learning to enhance the student learning experience and engagement in property education" The showed that mixed learning allows students more options in terms of learning style and study patterns. In this method the researcher adopted a wide range of delivery methods; blended learning can successfully improve students' experience and enhance their engagement. The result of the

study also reveals that education is really “blended” and includes a good mix of delivery methods.

Mahyoob, M. (2020) the study analyzed the learner’s new experience in online education and also assessed the feasibility of new methods of learning. It is found that the main problems that influence and impact online EFL learning during COVID-19 are related to technical, academic, and communication challenges. The study results show that most EFL learners are not satisfied with online learning, as they couldn’t fulfill the expected progress in language learning performance.

Mishra Shobhna and Mishra Sunita (2020) provide an overview of the Impact of E-Education on School Going Children. The main objective of the study was to assess the impact of e-learning on school-going children aged between 6-13. The study shows that the effects of online learning do not vary with age however it has demonstrated that the impact of online education varies according to gender, and boys have a positive effect on e-learning rather than girls.

Dr. Nazma Bibi, Dr. Gulshan Fatima Alvi, Dr. Crystal J. Davis, and Muhammad Mohsan Ishque, (2020) conducted research entitled “Problems faced by students during online classes due to COVID-19”. The study examined the problems faced by college students as a result of online learning. The study took a comparative approach to public and private sector college online portal usage. Four factors were used in the study to quantify online learning's adequacy: availability of infrastructure, home environment, students’ knowledge, and skills about the internet. The research suggested that colleges should organize orientation workshops for students and parents to overcome the challenges faced during online learning. It is also recommended that the government provide free internet service in the country for online learning.

Pinaki Chakraborty (2020) conducted a study on the “Opinion of students on online education during the COVID-19 pandemic” and stated that the COVID-19 pandemic forced universities worldwide to shut down their campuses indefinitely and move on their educational activities

onto online platforms. The universities were not prepared for such a transition and their online teaching-learning process evolved gradually. A survey was conducted among undergraduate students in an Indian university about their opinion on different aspects of online education during the ongoing pandemic. The study received responses from 358 students. The students felt that they learn better in physical classrooms (65.9%) and by attending MOOCs (39.9%) than through online education. The students, however, felt that the professors have improved their online teaching skills since the beginning of the pandemic (68.1%), and online education is useful right now (77.9%). The students appreciated the software and online study materials being used to support online education. However, the students felt that online education is stressful and affects their health and social life. This pandemic has led to the widespread adoption of online education, and the lessons we learn now will be helpful in the future.

Ritzel (2002) explained that many online courses were largely ineffective from the beginning because course designers themselves mainly were information technology and internet specialists; for them, training programs were just like any other content. They merely took whatever they found (or were given) and enabled it on the net without considering the use of creative and innovative opportunities for new interactive learning experiences. E-Learning should capitalize on innovative delivery means so that it offers an entirely new method of learning unlike that of any classroom. This should be the focus of e-Learning that can lead business executives and educators to acquire a new perspective on e-Learning.

Shivangi Dhawan(2020) shows the importance of online learning and the Strengths, Weaknesses, Opportunities, & Challenges (SWOC) analysis of the e-learning mode. This article also puts some light on the growth of EdTech startups during the time of pandemics and natural disasters and includes suggestions for academic institutions on how to deal with challenges associated with online learning.

World Economic Forum (2020) highlighted that even before the pandemic, online education existed, but it was primarily used as a tool for distance learning. But with the pandemic hitting around the world, many online learning platforms offer free access to their services, including platforms like BYJU'S. The number of learners impacted by the national school closures has increased from less than 0.3 billion to 1.38 billion. Along with the increase in the usage of the e-learning platform, it has been noticed that the unexpected and rapid move to online learning – with no training, insufficient bandwidth, and little preparation – will result in a poor user

experience that is un conducive to sustained growth, others believe that a new hybrid model of education will emerge, with significant benefit. The impact or challenges are also being discussed as there is a wide gap between the privileged and the underprivileged. Major world events are often an inflection point for rapid innovation – a clear example is the rise of e-commerce post-SARS. While we have yet to see whether this will apply to e-learning post-COVID-19, it is one of the few sectors where investment has not dried up.

Vishal Dineshkumar Soni (2020) conducted a study on “Global impact of the e-learning during COVID 19” which shows us that lockdown and social distancing have been enforced as preventive measures to spread the coronavirus infection, resulting in the complete paralysis of all activities around the globe. Especially the education system, which is completely closed, and to proceed with the academic curriculum, there is a shift from the normal learning process to online learning. This can be cited to an increased number of online classes, conferences, meetings, etc. It can be noted that the world is entirely dependent on information technologies during this crisis.

Zhang et al. (2004) found out that the economy has become completely knowledge-based, resulting in an increased demand for novel means of delivering education. A shift to new forms occurred because traditional educational institutions failed to meet the learners' critical and evolving learning needs. As a result, the technique shifted from a teacher-centered to a learner-centered approach. It was time for an e-Learning system.

1.3 STATEMENT OF THE PROBLEM

Education plays a vital role in the development of any country. The outbreak of Covid-19 had created the closure of educational institutions around the State. The closure of educational institutions had made a severe impact on the students. The pattern of the education system was changed from traditional and new methods were adopted. It is necessary to study the accessibility and affordability of online education on the students during the covid 19. The study also analyzed the different online platforms available to students during the pandemic. The study considers the health and mental states of the students, thus exploring the problems and prospects of online education.

1.4 SCOPE OF THE STUDY

The covid-19 pandemic made a significant impact on the education sector. It made a complete structural transformation in the education sector. The changes made the physical platform of education into the virtual mode of education. The influence of covid-19 on the education sector made sudden changes. So it is essential to study the effect of e-learning and how it will influence the students.

E-education or e-learning is increasingly used in developed nations. While in the case of developing nations, it is still in its infancy. This lockdown amidst the COVID-19 put forward a higher preference for virtual platforms. In respect of the education system, there is a need for a better education program for continuing classes without any hindrance like a classroom-based education platform. Especially during emergency periods, it is very important to implement an uninterrupted e-education program. The present study will indeed support further research and implementation in related areas. In addition, this study will help understand the learning status and changes in the pattern of learning among college students and the challenges they face under e-education.

1.5 OBJECTIVES OF THE STUDY

- To study the economic impact of E-learning on students during covid-19
- To identify the significant E-learning platforms used by students during the pandemic.
- To study the problem faced by students in E-learning.

1.6 METHODOLOGY

The present study is confined to St.Teresa's College Ernakulam, which belongs to the Ernakulam district in Kerala. Primary as well as secondary data have been used in the study. Primary data is extensively used, and secondary information supports the preliminary data. The study is based on the data collected from 60 samples. A simple random sampling method was used for selecting the sample. Simple statistical tools like ratios, averages, percentages, charts, tables, and graphs explain the data. Primary data were collected through google form from the selected sample with the help of a structured questionnaire. All the data were collected during the period from 2021-2022 . The present study is descriptive as well as analytical in nature.

1.7 SCHEME OF THE STUDY

The scheme of the study is organized in the following way;

Chapter-1-Introduction-First chapter deals with the introduction, Review of literature, Objectives, Need of study, Methodology, and Limitations

Chapter-2 Analysis on the various e-learning platforms through which online education is conducted.

Chapter-3-Analysis on the impact of online education on students of St.Terasas college Ernakulam.

Chapter-4-Findings, Recommendation, and Conclusions

1.8 LIMITATIONS

The present study is confined to St.Teresa's College only.

The period of study is short.

1.9 CONCEPTS AND DEFINITIONS

1. E-Learning learning system based on formalized teaching but with the help of electronic resources is known as E-learning. While teaching can be found in or out of the classrooms, computers and the Internet form the major component of E-learning. E-learning can also be termed as a network-enabled the transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times

2. Affordability: affordability is the ability to pay, which is, in itself, made up of two components: (1) buying power and (2) economic cost.

3. Accessibility: Accessibility describes the degree to which a product, service, device, or environment is accessible by as many people as possible or from the point of view of community residents their ability to reach desired goods, services, activities, and destination.

4. Pandemic: is an epidemic of an infectious disease that has spread across a large region, for instance, multiple continents or worldwide, affecting many individuals.

1.10 THEORETICAL FRAMEWORK

EXTERNALITIES

An externality is said to be present when the utility of an individual depends not only on the goods and services the individual purchase and consume but also on the activity of some other individual. Cost or benefits may spill over to a third party not directly involved in the transaction .These spillover costs and benefits are called as externalities.A positive externality occur when a benefit spills over . A negative externality occur when a cost spills over.

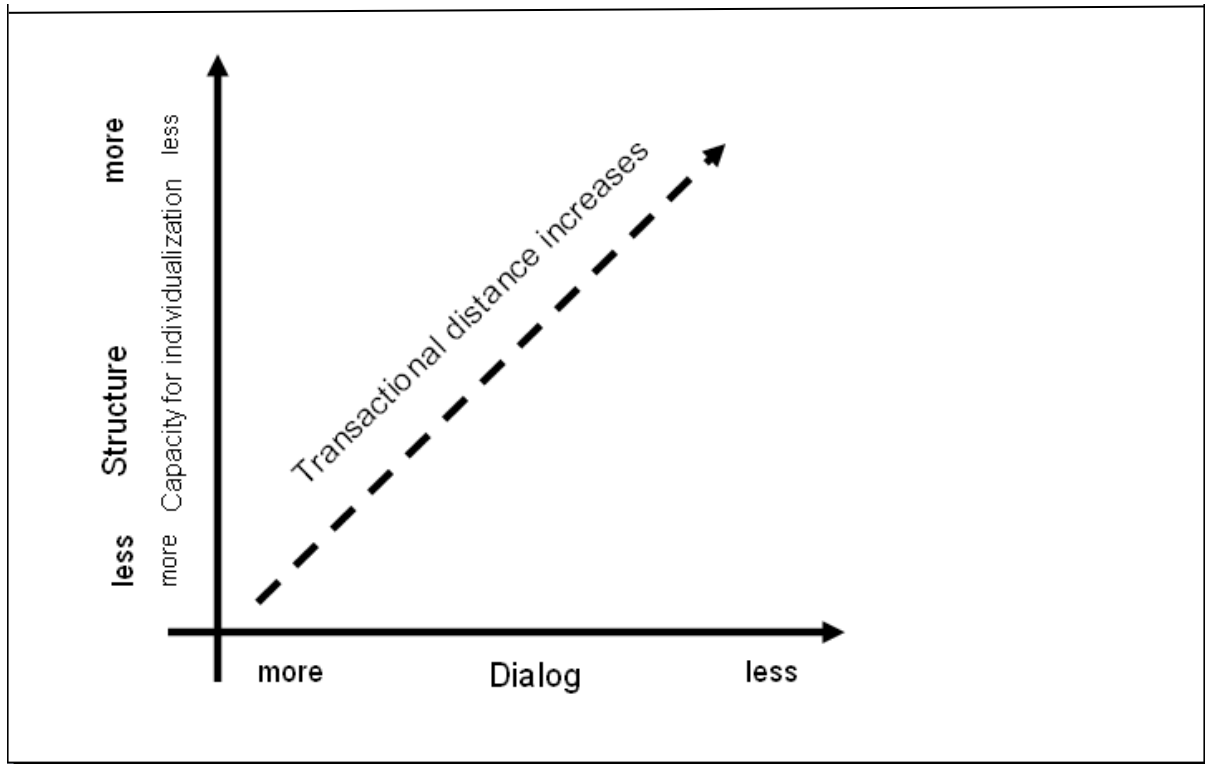
POSITIVE EXTERNALITY

Education is a key investment in human development, in a knowledge-based economy, there are strong and positive complementarities between economic activity and education. E-learning can increase the accessibility of education to society as a whole, avoiding the traditional constraints arising out of space, time, and pace of the teaching and learning system, and allowing education access to many who otherwise do not enroll in courses. Education leads to benefits for both individuals and for society as a whole. In economic terms, human capital accumulated as a result of the educational process should be treated as a mixed good that is a private good with public externalities. The nature of education goods leads to the distinction between private and social educational benefits.

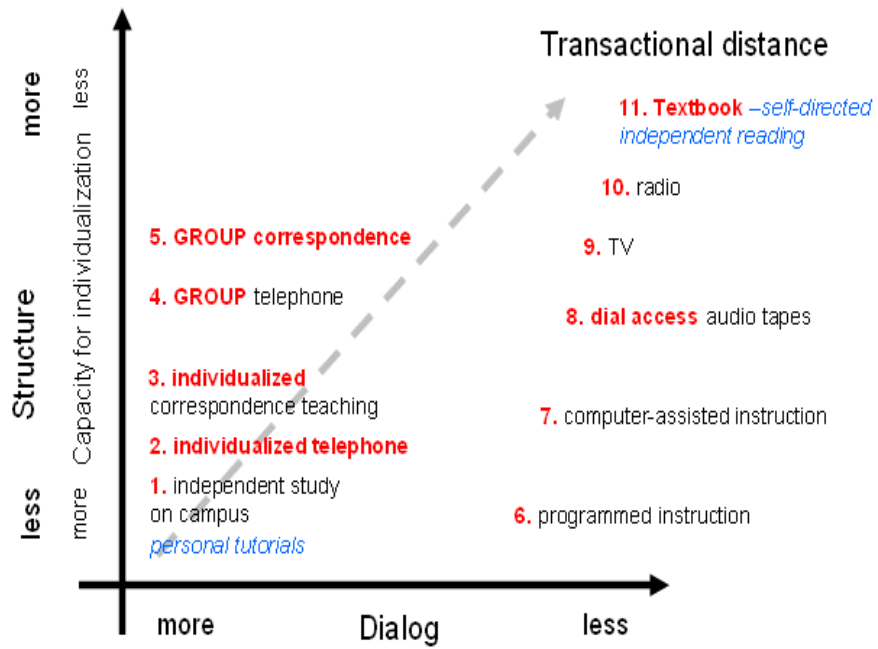
MOORE’S THEORY OF TRANSACTIONAL DISTANCE

The concept of Transactional Distance is introduced by Michael Moore in his paper “Theory of Transactional Distance” Moore’s theory of transactional distance theory has a direct effect on e-learning. It quantifies and explains the learning relationship between instructor and students engaged in e-learning situations, where there is significant distance between the two parties. refers to the psychological or communicative space that separates the instructor from the learner in the transaction between them, occurring in the structured or planned learning situation (Moore, 1997, p. 1). The theory of Transactional Distance states that as the level of

interaction between teacher and learner decreases, learner autonomy must increase. In Moore's theory, three clusters of variables control the extent of transactional distance: Dialogue, Structure, and Learner Autonomy.



Typical programs by technology used (Moore, 1972, 1973)



CHAPTER –2
AN OVERVIEW ON E-LEARNING

2.1 E-learning

A learning system based on formalized teaching but with the help of electronic resources is known as e-learning; the use of computers and the internet form the significant component of e-learning. E-learning can also be termed as a network-enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times. E-learning has revolutionized the conventional method of chalk and board style of learning imparted to students.

2.2 ADVANTAGES OF E-LEARNING

1. E-learning Fully Adjusts to Your Needs

Online studying is designed to accommodate everyone's needs. The expansion of modern technologies has led to a complete transformation of how we access content: Be it newspapers, books, etc it all went into the digital sphere.

2. Reduced Cost

One of the most significant benefits of e-learning is its cost-effectiveness. The price reduction is the result of educational institutions saving a lot of money on transportation and accommodation of both students and teachers. Regular text material printing is not required as the whole process is in online mode.

3. Remote Approach To Various Classes

This means that the knowledge is brought to the student, rather than the student having to obey a bunch of norms. No campuses, no fixed schedule. Whatever their field of interest is, they can find the courses or programs they need online.

4. Transfer Credits & Commuting

By pursuing online education you gain the freedom to manage your time how it suits you, without interrupting your progress.

5. Instant Career Advancement

A prime benefit of online education is that it keeps you in sync with updated content deriving from aspiring lecturers from all around the globe.

6. Quick Delivery

Compared to traditional classroom teaching methods, e-learning provides students with faster lesson delivery. To put it more accurately, learning time is reduced to somewhere between 30%-60% of what is usually required.

7. E-learning Offers Personalization

Learning online makes it possible to cater to each student's unique preferences and goals. It allows them to navigate their pace while choosing a path for themselves.

8. E-learning Fully Utilizes Analytics

Student data is of great importance for improving training materials and boosting learning outcomes. E-learning platforms were shown to be more effective in obtaining data and running analytics than any other earlier known method. The value of education data is immense, and its full potential is yet to be utilized in the future.

2.3 DISADVANTAGES OF E-LEARNING

1. Credibility

The major problem concerned with E-learning is that it lacks credibility. Everyone deserves to get value for the time and resources invested but this does not work all the time for e-learning since the struggle is not visible like attending physical classes further there is discrimination

regarding the degree obtained through online classes and the one obtained physically from colleges.

2. Technical issue

Technical issues can be referred to as problems that arise from the hardware/software resources of the platform. Most users of E-learning platforms lack the basic technology requirements for the course they are enrolling. Weak internet bandwidth, unstable power supply, and hardware challenges such as weak monitor display can be a threat to the users in deriving the full benefits of the platform.

3. Computer Literacy

Most users lack knowledge of computer usage, such as basic skills to troubleshoot hardware failure, file handling, and word processing. Users with a lack of the above skills are likely to create the problem for themselves even though the entire platform is working well. Furthermore, this may make it hard for them to follow the designed Learning Management System, and their learning experience becomes problematic, which may eventually prevent them from being on the same level as their virtual classmates.

4. Time Management

E-learning gives freedom to students to learn at their desired time. Extra care must be taken to schedule the learning because of the regular day-to-day engagements of the students. The vague and digital nature of E-learning indicates that bad-time management could lead to failure.

5. Self-Motivation

E-learning requires self-discipline which many students lack. The distraction of being on the internet is already there. YouTube, Facebook, Twitter, news websites, Ads are enough to distract students. Users should manage their internet usage closely to avoid wasting precious study time. E-learning (online learning), unlike classroom learning, lacks check and balance. If a student lacks proper discipline, he can lag with his virtual classmates which may eventually arise the desire to quit the course

2.4 TYPES OF E-LEARNING

E-learning can be classified into different types based on learning tools, metrics, synchronicity, and learning content.

- Adaptive E-learning: This method is based on adapting and redesigning course material for each student.
- Collaborative Online Learning: This method is based on teamwork students achieve their goals together and this type of e-learning creates a sense of unity among students.
- Synchronous Online Learning: This method enables a group of students worldwide to achieve their goals together.
- Asynchronous E-learning: This method is just the opposite of the synchronous online learning method under this method students with a non-flexible schedule will study apart from the group at their own pace.
- Computer Managed Learning: Under this method, computers act as the teachers, and they access and manage the individual learning process.
- Computer-Assisted Instruction: This method combines traditional teaching with a combination of multimedia such as graphics, sound, and video to enhance the learning process.
- Linear E-Learning: The learning material is passed from sender to receiver without two-way communication between teachers and students.
- Fixed E-Learning: Under this method, all students have equal opportunity as all students receive the same study materials that are predetermined by the teachers.
- Interactive Online Learning: This method stimulates two-way communication between students and their teachers.
- Individual Online Learning: Students are learning by themselves without relying on their peers.

2.5 CENTRAL GOVERNMENT E-LEARNING PLATFORMS DURING COVID-19

Covid-19 had affected all sectors of the economy, the education sector was affected enormously. The Government had adopted various methods to tackle this problem and restore

the education Many challenges are created by Covid-19. The higher education sector. The higher education department of India has responded positively and adopted various strategies to face the crisis during the pandemic. The MHRD and University Grants Commission (UGC) have launched many online platforms like online depositories, e-books, and other online learning materials, educational channels through Direct to Home TV, and Radios for students to continue their learning amidst covid-19. Students are also using social media tools like WhatsApp, Zoom, Google meet, Telegram, Youtube live, Facebook live, etc. ICT initiative of MHRD is also a unique platform that combines all International Journal of Advanced Education and Research. UGC has released Guidelines on Examinations and Academic calendar in view of the COVID-19 pandemic. To support the students of higher education UGC and MHRD have launched many digital initiatives some of which are listed below.

1. e-GyanKosh : Is a Digital Repository to store and share the digital learning resources which are developed by the Open and Distance Learning Institutions of India. Items in eGyanKosh are protected by copyright, with all rights reserved by Indira Gandhi National Open University (IGNOU)
2. Gyandarshan : Is a web-based TV channel devoted to the educational and developmental needs of students pursuing their studies through Open and Distance modes of education.
3. Gyandhara (is an internet audio counseling service initiated by IGNOU):It is a web radio where students can listen to live discussions by experts on the topic of the day and interact with them through telephone, e-mail, and chat mode.
4. Swayam: The objective of SWAYAM is to provide a learning platform to all, including the most disadvantaged. It hosts almost all the courses taught in classrooms from Class 9 till post-graduation. More information on SWAYAM can be obtained on the official website, swayam.gov.in.
5. e-Adhyayan: is a platform that provides 700+ e-Books for the Post-Graduate courses. All the e-Books are derived from e-PG Pathshala courses. It also facilitates a play-list of video content.
6. e-Pathya (Offline Access) :Is one of the verticals of e-PG Pathshala which is a software-driven course/content package that facilitates students pursuing higher education (PG

level) in distance learning as well as campus learning mode. It also facilitates offline access.

7. e-ShodhSindhu: It will continue to provide current as well as archival access to more than 10,000 peer-reviewed journals and a number of bibliographic, citation and factual databases to its member institutions. e-ShodhSindhu can be accessed at ess.inflibnet.ac.in.

8. e-PG Pathshala: It is an initiative taken by the MHRD under its National Mission on Education through ICT, which is being executed by the UGC. The platform, epgp.inflibnet.ac.in provides interactive e-content in 70 subjects across all disciplines of social sciences, arts, fine arts and humanities, and natural & mathematical sciences.

9. National Digital Library of India (NDLI) is a repository of e-content on multiple disciplines for all kinds of users like students, teachers, researchers, librarians, library users, professionals, differently-abled users, and all other lifelong learners. It is developed by the Indian Institute of Technology Kharagpur. It is designed to help students to prepare for entrance and competitive examinations, It enables people to learn and prepare for best practices from all over the world and facilitates researchers to perform inter-linked exploration from multiple sources. It is a virtual repository of learning resources with a single-window search facility.

10. e-Yantra provides first-hand experience on embedded systems. It has about 380 Labs and made 2300 colleges benefit from this platform.

11. FOSSEE : Stands for Free/Libre and Open Source Software for Education, which is developed to promote open source software for professional and educational use.

12. SAKSHAT :Is an Education Portal for addressing all the education and learning needs of students, scholars, teachers, and lifelong learners. The portal provides the latest news, press releases, achievements, etc related to the Ministry of HRD.

13. National Educational Alliance for Technology (NEAT) :Is an initiative for skilling learners in the latest technologies through a Public-Private partnership model between the Government (through its implementing agency AICTE) and the Education Technology companies of India. It brings the best technological products in education pedagogy on a single platform for the convenience of learners.

14. Swayam Prabha: It consists of 34 DTH channels, which is devoted to telecasting high-quality educational programmes 24X7. The course contents are provided by NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS. The website is swayamprabha.gov.in.

15. NPTEL: The National Programme on Technology Enhanced Learning was initiated by IIT Bombay, IIT Delhi, IIT Kanpur, IIT Kharagpur, IIT Madras, IIT Guwahati, IIT Roorkee along with Indian Institute of Science, Bangalore in 2003. NPTEL platform, npTEL.ac.in provides open online courses around engineering and core science subjects.

16. Shodhganga: It is a platform to deposit their Ph.D thesis and make it available for the benefit of the entire scholarly community in open access. The repository has the ability to capture, index, store, disseminate and preserve Electronic Theses and Dissertations submitted by the researchers.

17. VIDWAN : Is a premier database and national research network which has a list of profiles from scientists, researchers, and faculty members working at leading academic institutions and other Research & development organizations in India.

2.6 PLATFORMS THROUGH WHICH CLASSES ARE CONDUCTED IN ST.TERESA'S COLLEGE

GOOGLE CLASSROOM

Google Classroom is often forgotten when it comes to online learning platforms. Google Classroom is a free web-based platform that integrates your G Suite for Education account with all G Suite services like Google Docs, Gmail, and Google Calendar. Students are able to use Google docs, spreadsheets, forms, slides, and sites and store them in the correct folder. Sharing becomes so easy. Google Classroom makes it easy to create classes, distribute assignments, communicate, and stay organized. Teachers can quickly see who has or hasn't completed the work, and provide direct, real-time feedback and grades right in google classroom. Assignments appear in your Google Calendar. It's a way for students to keep track of their homework. All classes have a unique colour. It keeps the students more organized. Students can even set the calendar to get notifications of homework.

GOOGLE MEET:

Google meet is a video communication developed by Google and it is a replacement for Google hangout and Google chat. The users will get larger tiled views with a 7x7 grid so you can see up to 49 students at once and a collaborative whiteboard so teachers can encourage students to share ideas and try creative approaches to lessons. Users will get options to blur or replace backgrounds so everyone feels more comfortable during distance-learning classes. Admins can disable custom backgrounds as needed. Google is also adding attendance tracking that will help teachers see and track which students attended virtual classes (G Suite Enterprise for Education). Breakout rooms will also be added so that educators can split classes into simultaneous small group discussions (G Suite Enterprise for Education). Google is going to add a hand-raising option that will help students out if they have a question or need a doubt clarified. They are also adding new Q&A features to provide a way for students to ask questions without disrupting the flow of the class discussion or lesson, and polling to engage students to share their voices (G Suite Enterprise for Education). Additionally, Google has launched a new temporary recordings feature which will be available to all Education customers for free (premium recordings will still be part of G Suite Enterprise for Education). With this feature, any meeting host can record the meeting and share the recording within their domain for up to 30 days before the video expires. These recordings cannot be shared outside their domain or be downloaded.

ZOOM

Zoom is a cloud-based video communications app that allows you to set up virtual video and audio conferencing, webinars, live chats, screen-sharing, and other collaborative capabilities. An account is not needed to attend a Zoom meeting, and the platform is compatible with mac, Windows, Linux, iOS, and Android, meaning nearly anyone can access it. In light of the coronavirus crisis, the video conferencing app has become the standard for connecting with others face-to-face virtually in both business and personal settings. Zoom enables the students and teachers to (A) teach anywhere: Deliver online and hybrid learning, better engage students through impactful virtual experiences and expand access to education (B) learn anywhere: Improve learning experiences, and enhance student engagement with a blend of synchronous and asynchronous learning tools (C) connect anywhere: Connect outside the classroom with other students, parents, and your education communities (D) Work Anywhere: Provide flexible work environments to ensure continuity of academic services and communications across your education enterprise. A complete unified communications platform that enables new ways of teaching, learning, and working across educational environments. Zoom connects the ecosystem, by (A) Manage your classes : Waiting Rooms, customizable virtual seating chart, class recording, multi-pinning and multi-spotlight, and other features help you manage your online classes (B) Increase engagement: One-click content sharing, annotation, digital white boarding, Breakout Rooms, polling, reactions, and high-fidelity music mode encourage participation and student engagement (C) Customize the learning experience : Leverage robust API extensions for seamless integration to LMS providers such as Canvas, Blackboard, Desire 2Learn, Moodle, Schoology, Sakai, and others, create custom integrations with Zoom's LTI Pro, and access your favourite education apps with the Zoom App Marketplace (D) Ensure accessibility : Closed captioning, live transcription, keyboard shortcuts, and other accessibility features give students access to the services they need (E) Enable security and compliance: SSO for the classroom, in-meeting security features, and other measures help secure your Zoom classroom, prevent disruptions and enable FERPA and GDPR compliance (D) Support flexible working environments Unify your communications with Zoom Phone, Zoom Chat, Zoom Video Webinars & Zoom Rooms to optimize academic service operations, enable flexible work environment.

MOODLE

Moodle is a learning platform designed to provide educators, administrators, and learners with a single robust, secure and integrated system to create personalized learning environments.

Moodle platform in St. Teresa's college provides a unique experience to students in which each student is given a unique student ID and password through which students can access the notes shared by teachers and express their queries regarding the subjects. Students can submit their assignments through their moodle course page. This page is equally accessible to all students. Thus removing the problem of disparity .

Chapter 3

ANALYSIS ON THE IMPACT OF

ONLINE EDUCATION AMONG

STUDENTS OF ST.TERESAS COLLEGE

ERNAKULAM

3.0 Introduction:

The present study attempted to understand the learning status of postgraduate and undergraduate college students with e-education and their satisfaction with the changed study pattern during the outbreak of Covid-19. It is an online survey-based study conducted from 2021-2022 .To collect the information an online structured questionnaire was developed using Google forms. The questionnaire link was sent to students through emails, WhatsApp, and

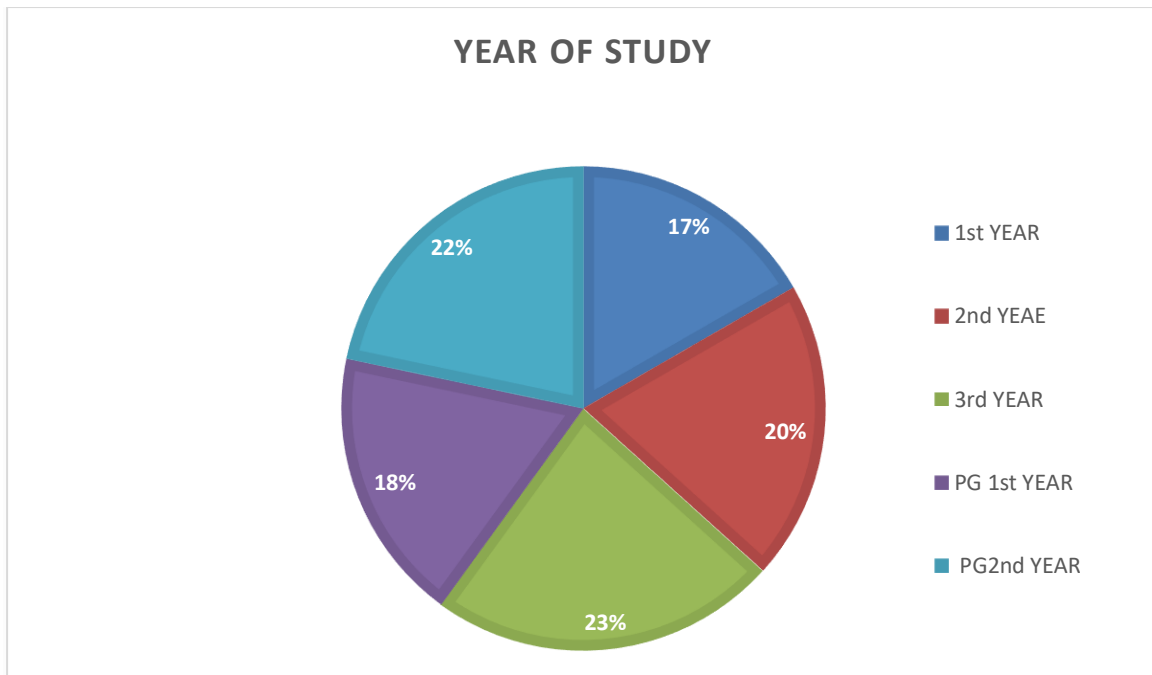
other social media to collect the data. The sample of this study consisted of undergraduate and postgraduate students. The primary data were collected from 60 students, 35 undergraduates, and 25 postgraduates from St.Teresa's College Ernakulam. Thus a simple random sampling technique has been applied to collect data.

3.1 The learning status among college students since COVID-19

In recent years, with the adoption of internet technology, online learning is gradually rising and popularizing. The e-revolution took place in e-commerce, e-government, and now e-education. Many institutions worldwide have opened online courses, and student's traditional learning/teaching mode has changed . The majority of the population with access to the internet and gadgets are favouring online learning. This makes the users tend to move to online education which provides rich materials and diversified learning methods with flexible and convenient features.

Because of the covid-19 crisis, higher education institutions have adopted online classes to deliver the contents of their curriculum through various online platforms. This study examined the learning status of students to access online courses. Several questions were framed to trace college student's learning status during the COVID-19 pandemic. These are analyzed in this section, based on undergraduate (B.A./B.Sc./B.Com/B.VOC) and postgraduate students (M.A./M.Sc./M.Com./PGDM) of St.Terasas College Ernakulam.

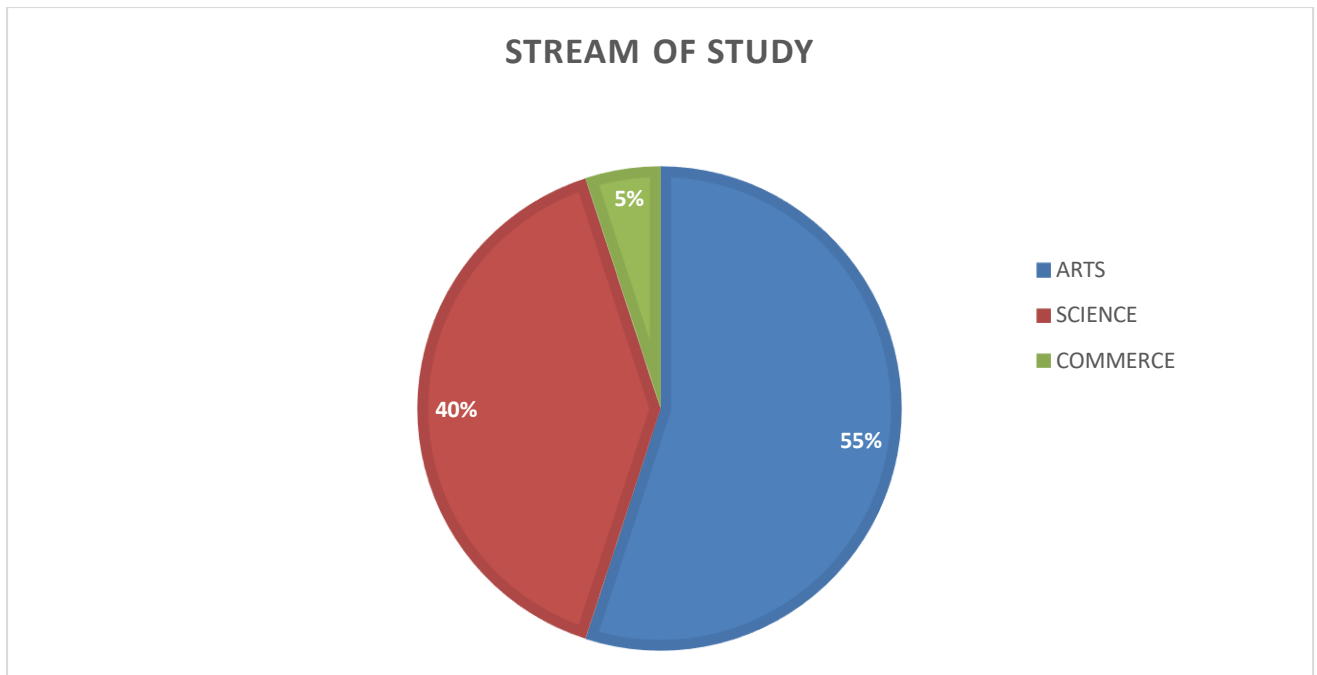
3.1.1 YEAR OF STUDY



Source: Primary data

The Year of study indicates the current year in which the student is studying. Figure 3.1.1 depicts the year of study of the respondents. 17 percent of the respondents was from 1 st year, 20 percent of the respondents were from 2 nd year, 23 percent of the respondents were from the third year, 18 percent of the respondents were from PG first year and 22 percent of the respondents were from PG second year. A total of 35 respondents were selected from the undergraduate course and 25 respondents from post-graduate courses.

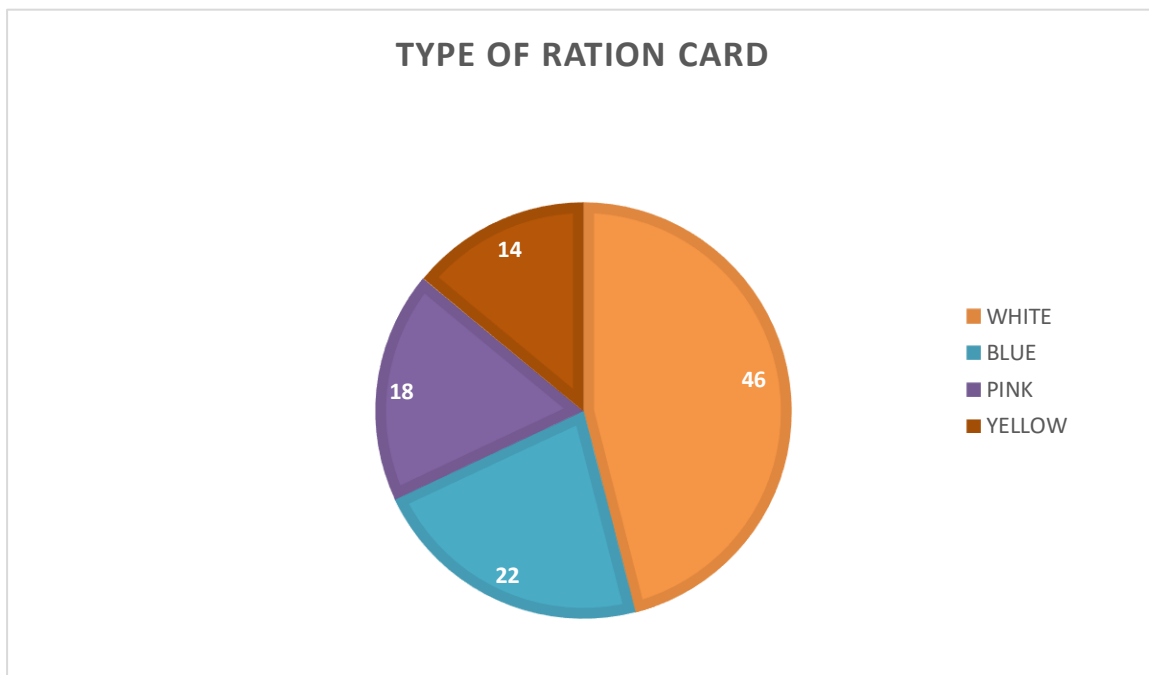
3.1.2 STREAM OF STUDY



Source: Primary data

The stream of the study indicates a series of area-specific courses that you take as part of your degree or postgraduate courses. It allows you to specialize in a particular field of study. Figure 3.2.3 depicts that 40 percent of the respondents were from the science stream and 55 percent of the respondents were from the Arts stream and 5 percent of the respondents were from the commerce stream there are 25 departments in total out of which 12 belong to the science stream and 12 belongs to the arts stream and one belongs to the commerce stream.

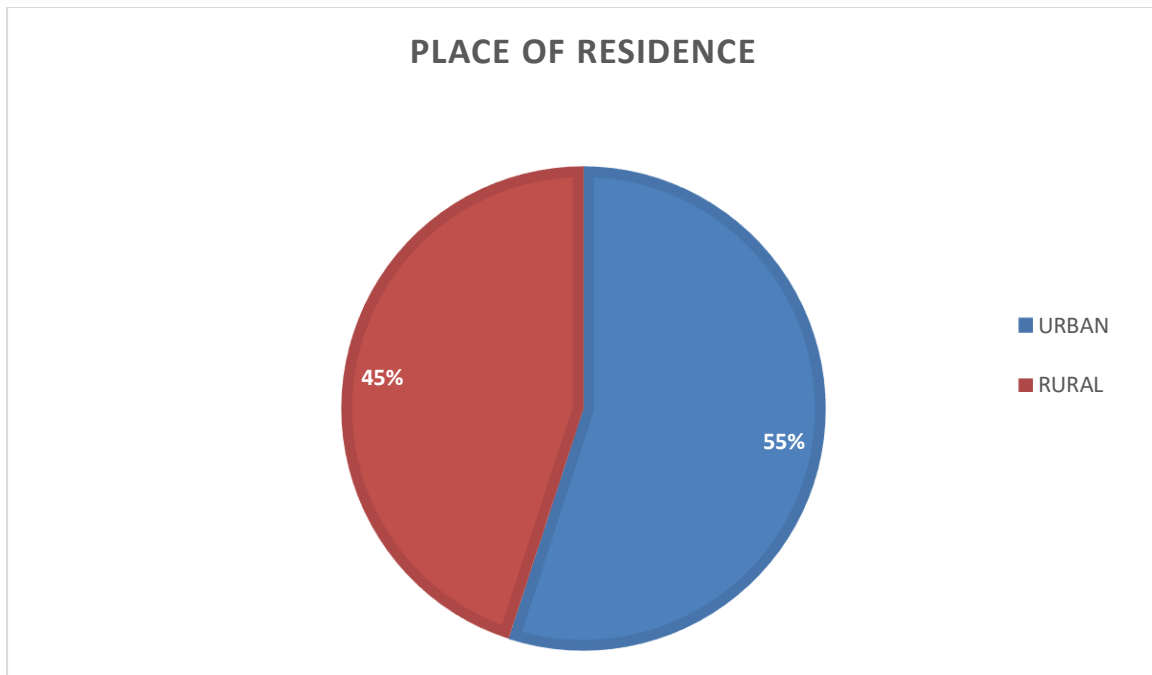
3.1.3 TYPE OF RATION CARD



Source: Primary data

Every household can obtain a ration card for ensuring food security, and its acts as a legal proof document in availing government services. Figure 3.1.4 depicts that 46 percent of the respondents belong to the non-priority category as they hold white ration card. 22 percent of the respondents belong to non-priority as they have a blue card. 18 percent of the respondents are lying below the poverty line and hold the pink card. 14 percent of the respondents are Antyodaya Anna yojana beneficiaries. White and blue card holders are in the APL category, and pink and yellow belong to the BPL category.

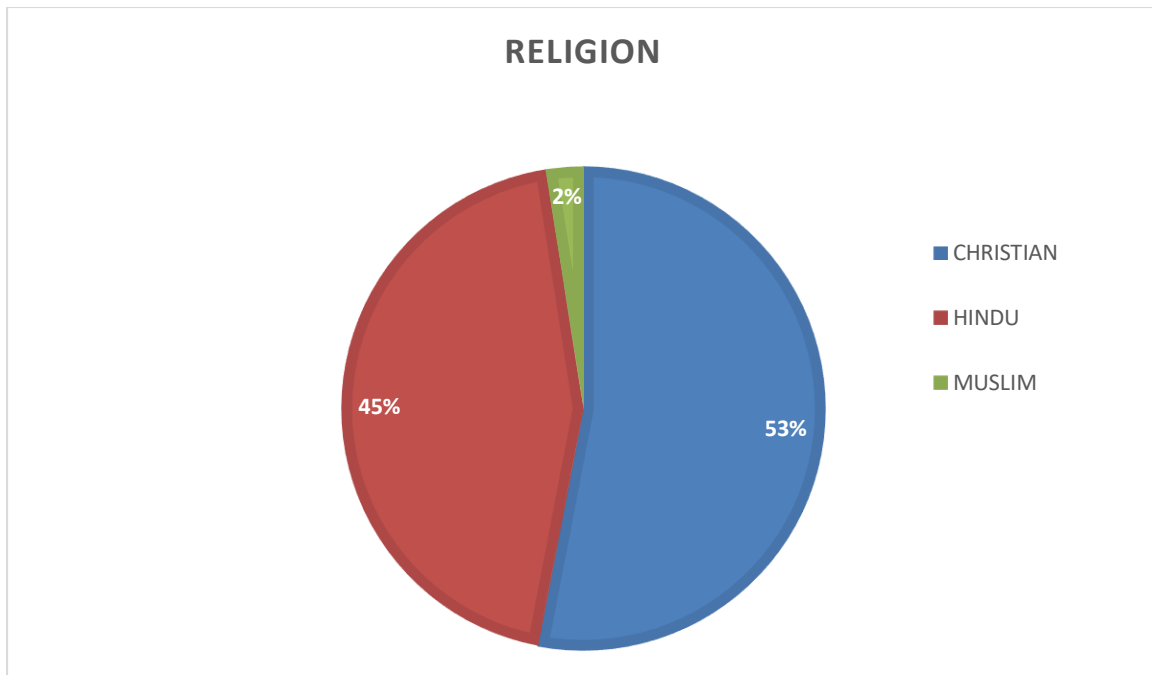
3.1.4 PLACE OF RESIDENCE



Source: Primary data

Place of residence refers to the area where the respondents live. Place of residence can be mainly classified into Rural and Urban. A rural area is a geographical area that is located outside cities and towns. Usually, rural area population density is low as compared to urban area. An urban area is a region surrounding a city. The urban area has a high population density than the rural area . Figure 3.1.5 depicts the place of residence of the respondents 55 percent of the respondents were from the urban area and 45 percent of the respondents were from the rural area.

3.1.5 RELIGION OF THE RESPONDENTS



Source: Primary data

Religion is defined as a social-cultural system of designated behaviours and practice, morals, belief, worldviews, texts, prophecies, ethics, or organisations that generally relates humanity to supernatural, transcendental and spiritual elements. Figure 3.1.6 depicts the religion of the respondents, 53 percent of the respondents are Christian, 45 percent of the respondents are Hindu and 2 percent of the respondents are Muslims.

3.1.6 CASTE OF THE RESPONDENTS

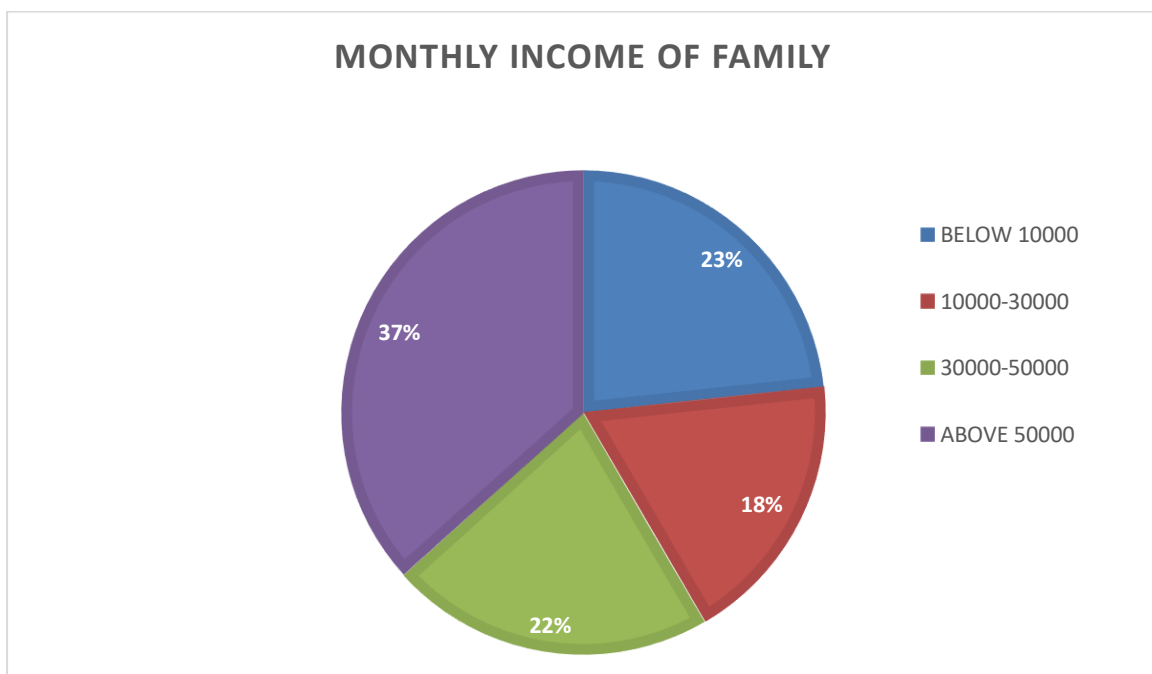
CASTE	NO:OF STUDENTS	PERCENTAGE
GENERAL	14	23.33
EWS	3	5

OBC	31	51.67
SC/ST	12	20
TOTAL	60	100

Source: Primary data

Figure 3.1.7 depicts the caste of the respondents 23.33 percent of the respondents belong to the general category this include Nair, Menon, Roman Catholic, Penthacost, catholic, 5 percent of the respondents belongs to EWS category , 51.67 percent of the respondents are OBC this include Latin catholic , Ezhava, Muslims and anglo-indian , 20 percent of the respondents were SC/ST which include pullaya, dheerava, vaniyan

3.1.7 MONTHLY INCOME OF THE FAMILY

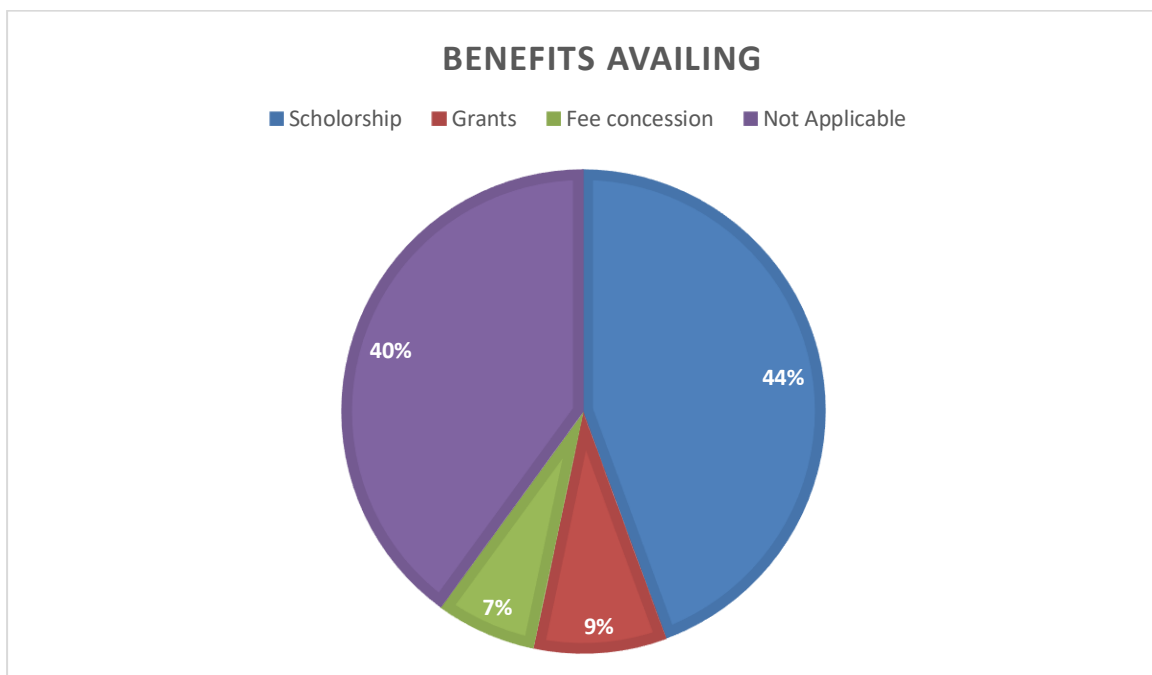


Source: Primary data

Income is a significant determinant of people's abilities, the nature of expenditure, consumption pattern and standard of living . Figure 3.1.8 depicts the monthly income of the respondents 23 percent of the respondents have a monthly income below 10000, 18 percent of the respondents have a monthly income between 10000-30000, 22 percent of the respondents have a monthly income between 30000-50000, 37 percent of the respondents have their monthly income above 50000.

3.2 TO STUDY THE ECONOMIC IMPACT OF COVID -19 ON ONLINE EDUCATION AMONG THE STUDENTS OF ST.TERESAS COLLEGE

3.2.1 BENEFITS AVAILING

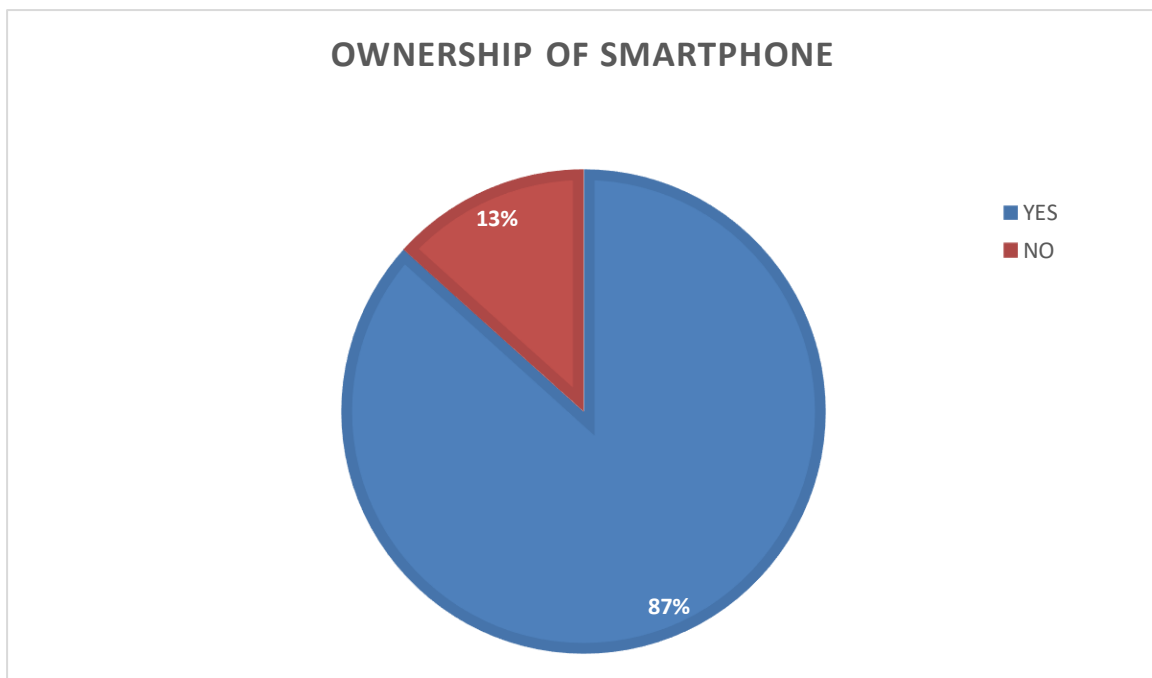


Source: Primary data

There are various measures adopted by the government and other agencies to provide financial support to the needy such as the Fisherman scholarship, post metric scholarship, district merit

scholarship, and single girl child scholarship. Figure 3.2.1 depicts the benefits availed by the students 44 percent of the students receive scholarships, 9 percent of the respondents receive grants, 7 percent of the respondents receive fee concession, and 40 percent of the respondents do not receive any benefits.

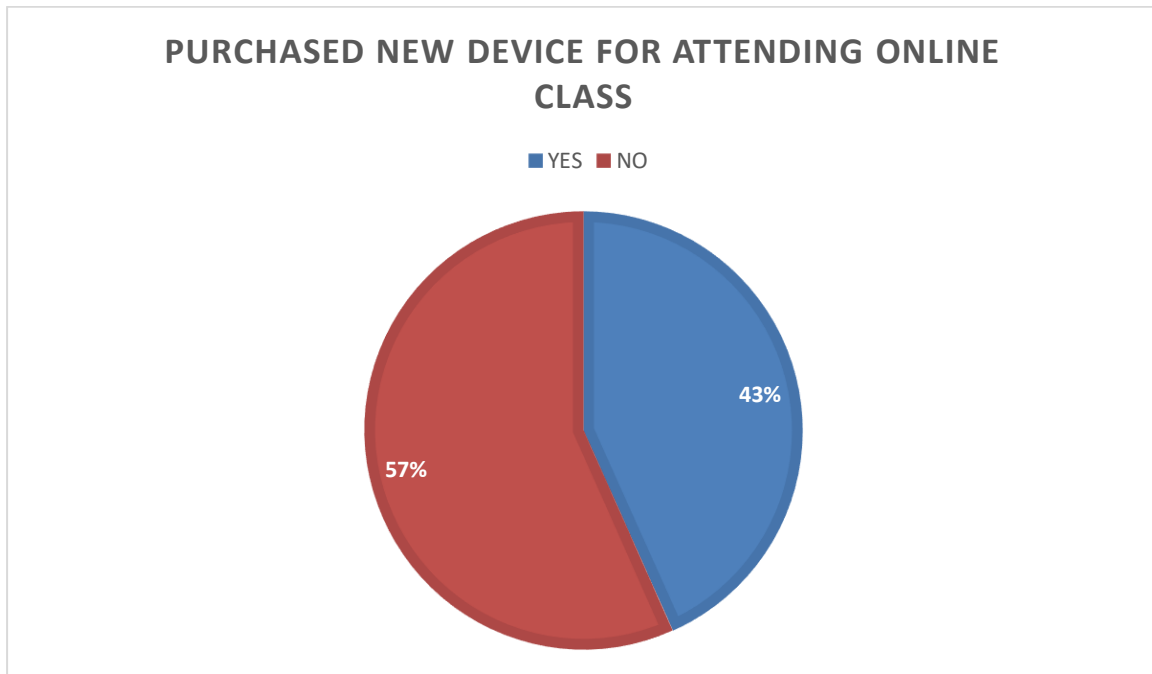
3.2.2 OWNERSHIP OF SMARTPHONE



Source: Primary data

smartphone is a commonly used digital device to attend online classes. E-learning has made the smartphone a necessary item to attend online classes. Figure 3.2.2 shows the mobile phone ownership of students 87 percent of the students own a smartphone and 13 percent of the students do not own a smartphone. Smartphone has become a basic necessity in attending online class during the pandemic

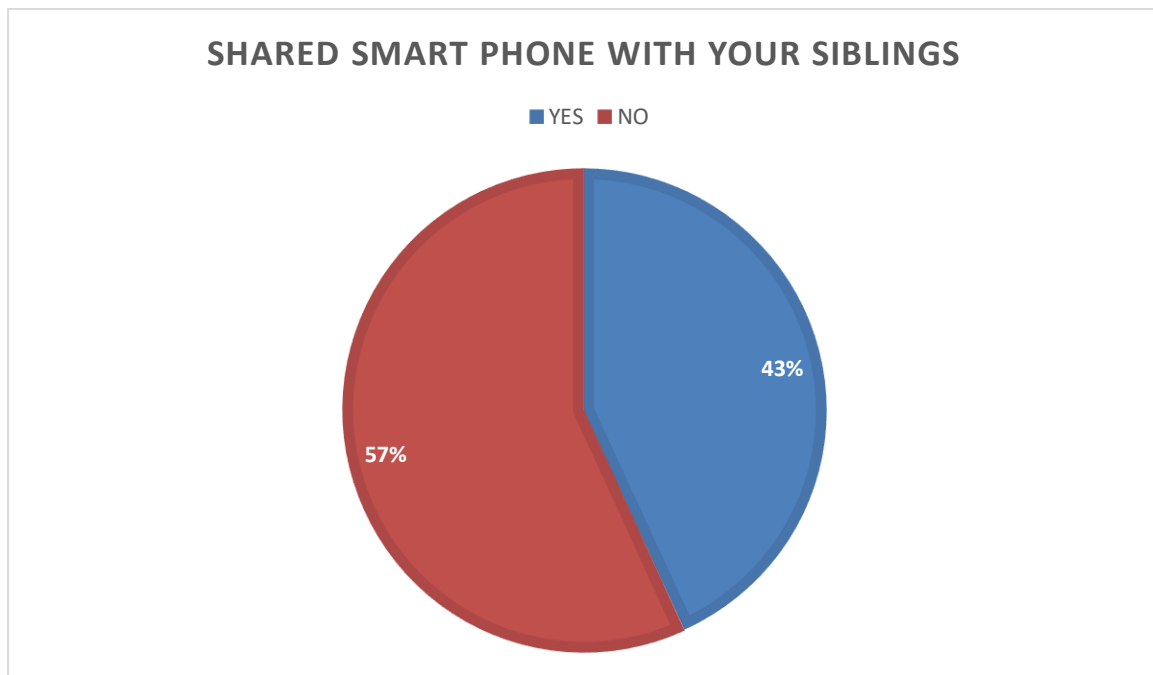
3.2.3 PURCHASED NEW DEVICE FOR ATTENDING ONLINE CLASS



Source: Primary data

E-learning has made electronic gadgets a necessary item to attend online classes. There was a boom in the electronic industry as a result of online classes. Figure 3.2.3 depicts that 57 percent of the respondents purchased a new device for attending an online class and 43 percent of the respondents did not purchase a new device for attending the online class.

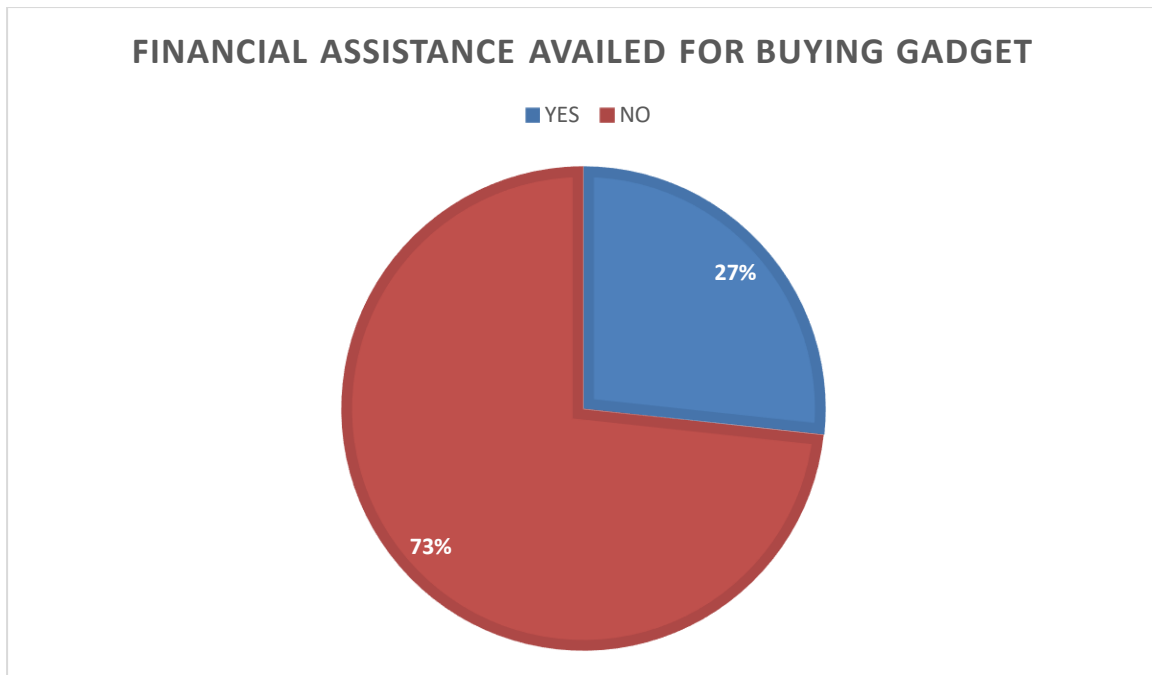
3.2.4 SHARED SMARTPHONE WITH YOUR SIBLINGS



Source: Primary data

Sharing smartphone with your siblings here indicates whether the respondent able to attend online classes in the allotted time without any hindrance from their siblings. Figure 3.2.4 depicts that 57 percent of the respondents do not share their smartphones with their siblings, and 43 percent of the respondents share their smartphones with their siblings.

Fig 3.2.5 FINANCIAL ASSISTANCE AVAILED FOR BUYING GADGET



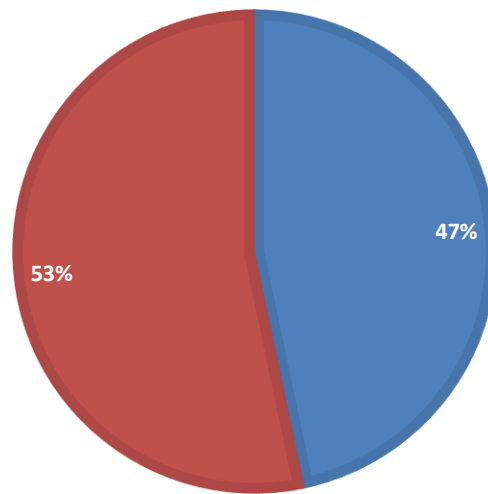
Source: Primary data

Covid-19 imposed lockdown has made restrictions in all sectors of the economy. The education sector was transformed from conventional learning to an online mode of learning, which require electronic devices to attend classes. Financial assistance here refers to whether the respondent has acquired any financial help from outside to purchase electronic devices. Figure 3.2.5 shows the financial assistance availed by respondents for buying gadgets for online education, 73 percent of the respondents do not avail any assistance for buying gadgets whereas 27 percent of the respondents availed financial assistance for purchasing new gadgets.

3.2.6 NETWORK USED FOR ATTENDING ONLINE CLASSES

NETWORK USED FOR ATTENDING ONLINE CLASS

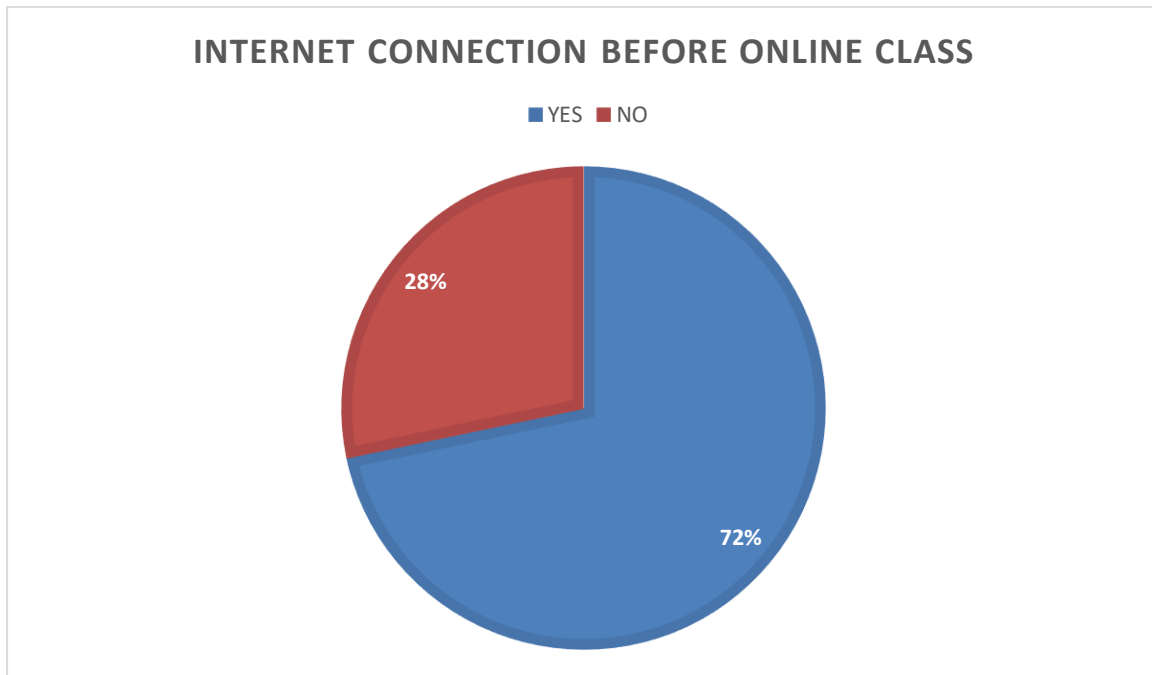
■ WIFI ■ MOBILE DATA



Source: Primary data

Network indicates the medium through which class is attended by the respondents there are mainly two types of network available any they are WIFI and mobile data .Figure 3.2.6 depicts the type of network used by respondents to attend online classes,53 percent of the respondents use mobile data for attending online classes and 47 percent of the respondents use WIFI to attend online classes.

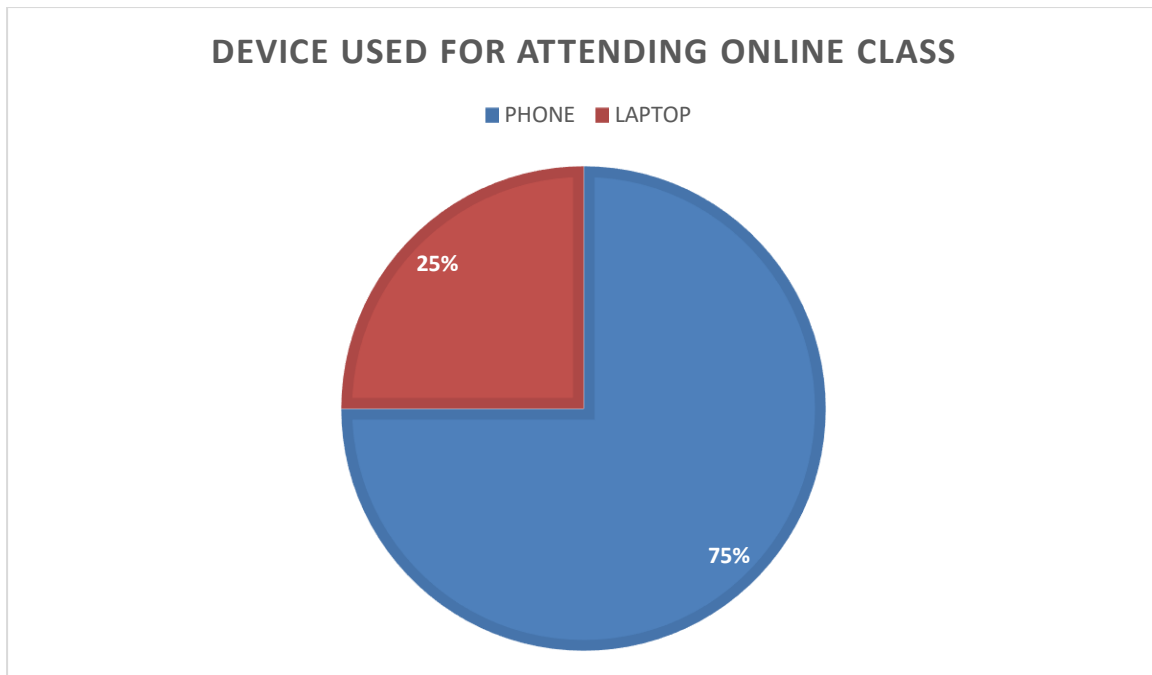
3.2.7 INTERNET CONNECTION BEFORE ONLINE CLASS



Source: Primary data

Internet connection have become an important aspect to attend online class. Figure 3.2.7 shows the internet connection at home before the online mode of education, 72 percent of the respondents had internet before the online mode of education whereas 28 percent of the respondents do not have internet connection before the online mode of education.

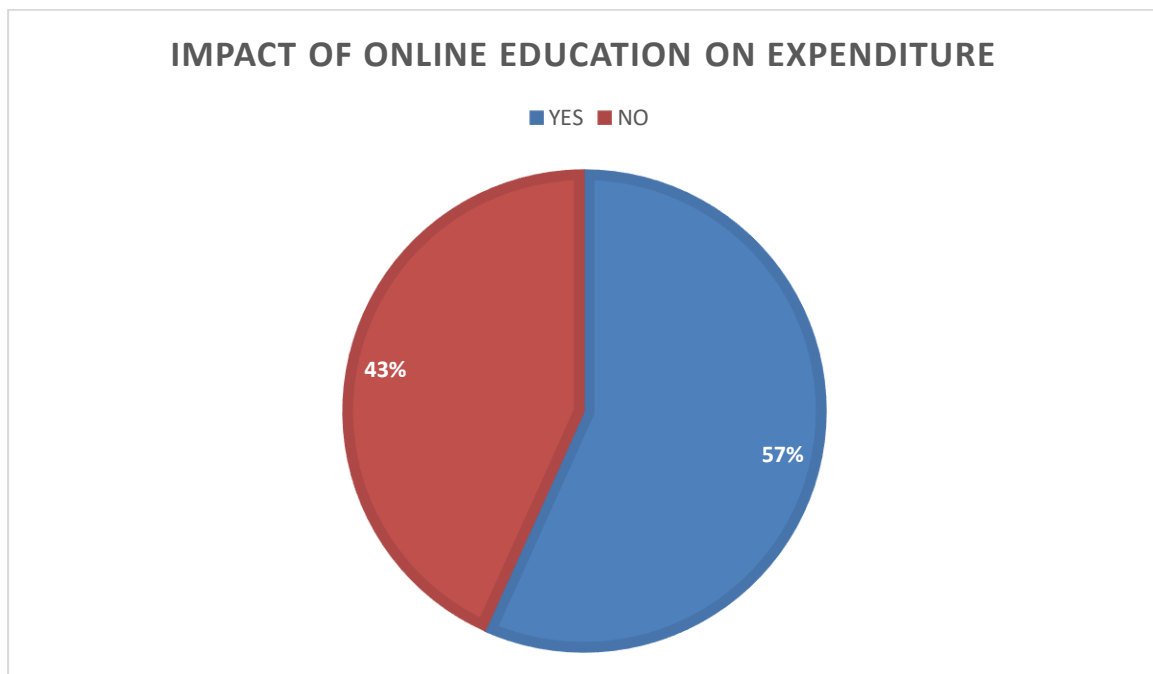
3.2.8 DEVICE USED FOR ATTENDING ONLINE CLASS



Source: Primary data

Online education made the higher education sector to move completely to online mode .There was paradigm shift from the conventional method to the new normal method of learning.It was necessary for the students to own a laptop or mobile phone to attend online classes.Figure 3.2.8 shows the device used by respondents to attend the online classes.75 percent of the respondents use the phone to attend online classes, 25 percent of the respondents use a laptop to attend online classes, the phone is preferred to the laptop while attending online classes.

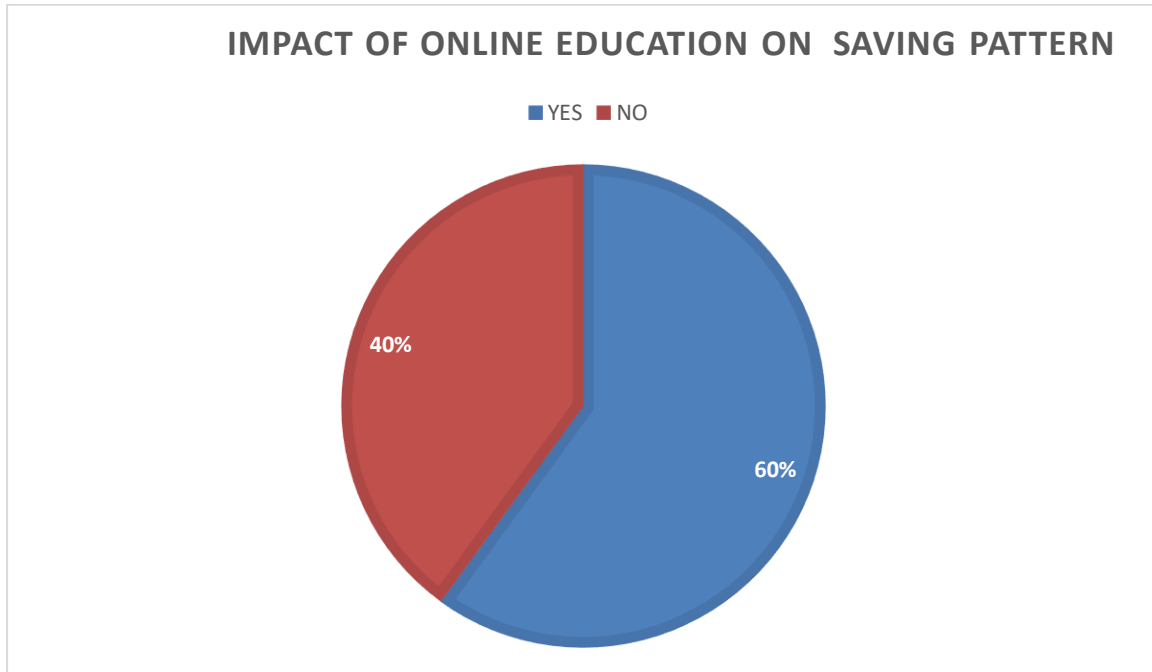
3.2.9 IMPACT OF ONLINE EDUCATION ON EXPENDITURE



Source: Primary data

Figure 3.2.9 depicts the effect of online education on expenditure. An expenditure represents a payment with either cash or credit to purchase goods or services. 57 percent of the respondents believe that online education had affected their spending pattern, and 43 percent of the respondents believe that online mode of education had not affected their spending pattern. Covid had a profound impact on the spending pattern, it added additional expenses to the income.

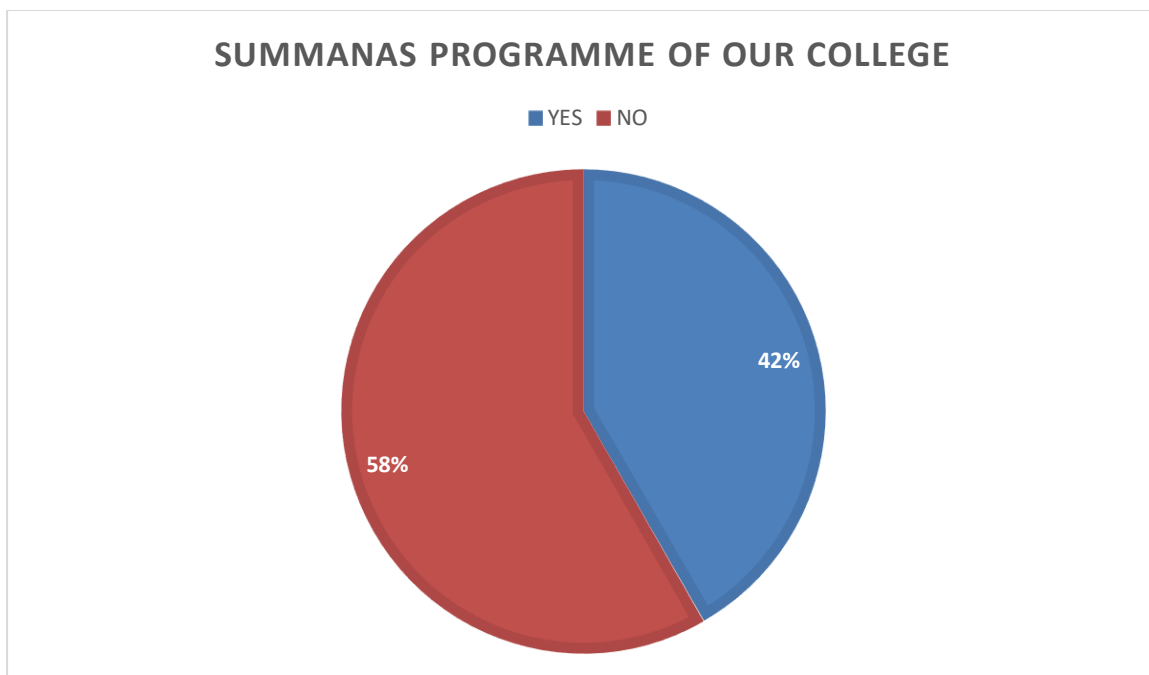
3.2.10 IMPACT OF ONLINE EDUCATION ON SAVING PATTERN



Source: Primary data

Covid and online mode of education has largely affected the income of the respondents, when income reduces the saving pattern will also get affected. Even when income is decreasing the expenses are not declining where as it is rising. Figure 3.2.10 depicts the impact of online education on saving pattern, 60 percent of the respondents believe that online education had affected their saving pattern while 40 percent of the respondents believe that online mode of education do not affect their saving pattern.

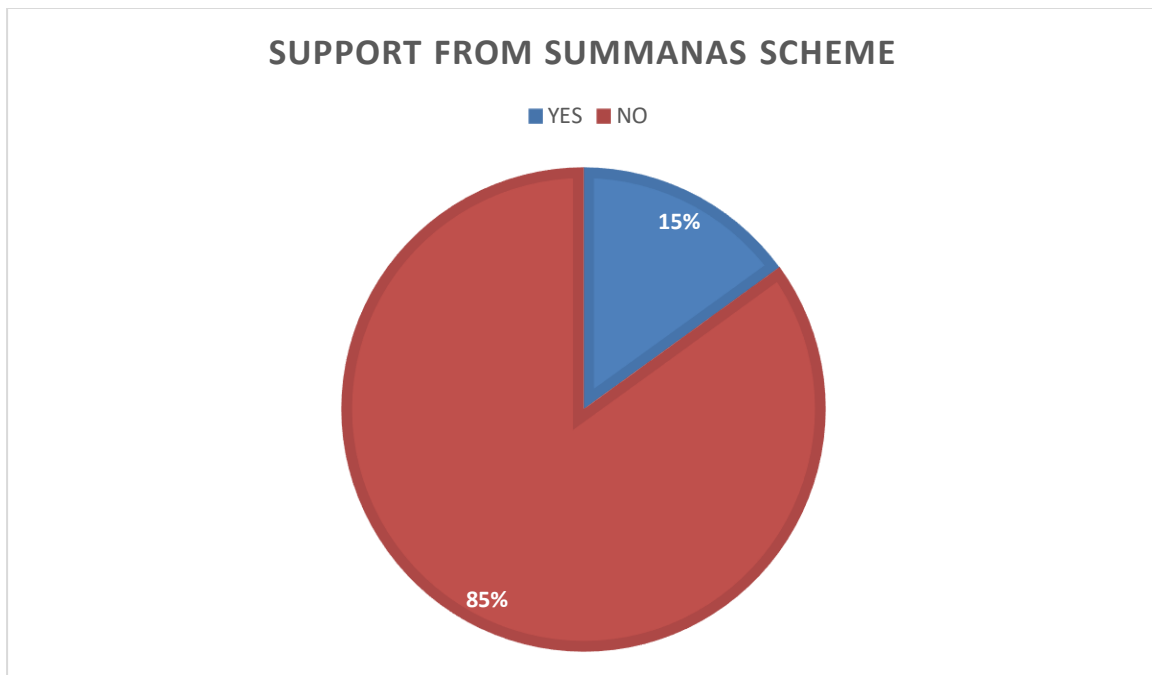
3.2.11 SUMMANAS SCHEME OF OUR COLLEGE



Source: Primary data

“SUMMANAS” is a program launched by St.Terasas College Ernakulam to support those who faced difficulty in attending online classes by providing television and smartphone to attend online classes. Class teachers suggested the name of the needy students to authorities and students were selected from these students. Figure 3.2.11 depicts that 58 percent of the respondents are unaware of the “SUMMANAS” scheme of our college, and 42 percent of the respondents are aware of the scheme of our college. in attending online classes by providing television and smartphone to attend online classes.

3.2.12 SUPPORT FROM SUMMANAS SCHEME

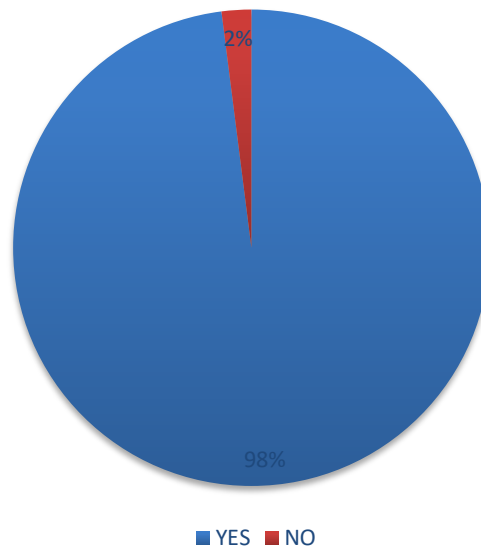


Source: Primary data

SUMMANAS scheme of our college provided support to those who are in need of it. Figure 3.2.12 depicts that 85 percent of the respondents did not receive any support from the summanas scheme whereas the 15 percent of the respondents receive support from the "SUMMANAS" scheme .

3.2.13 ONLINE EDUCATION EFFECT ON INTERNET USING

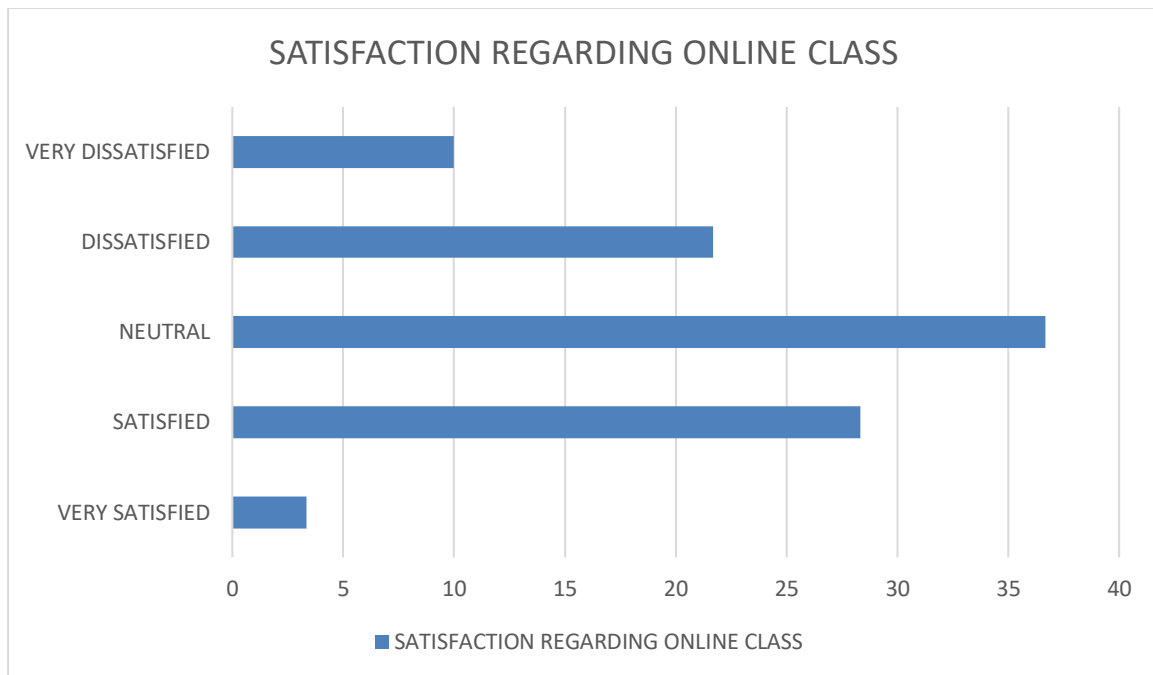
ONLINE EDUCATION EFFECT ON INTERNET USING



Source: Primary data

Internet connection is a prequist to online learning. Since all the classes are done with help of the internet it is important to know whether internet usage among students has increased or not. Figure 3.2.13 depicts the effect of online education on internet usage among the students, 98 percent of the respondents agree that online education has made them spend more hours on the internet whereas 2 percent of the respondents believe that online education does not result in spending more hours on the internet.

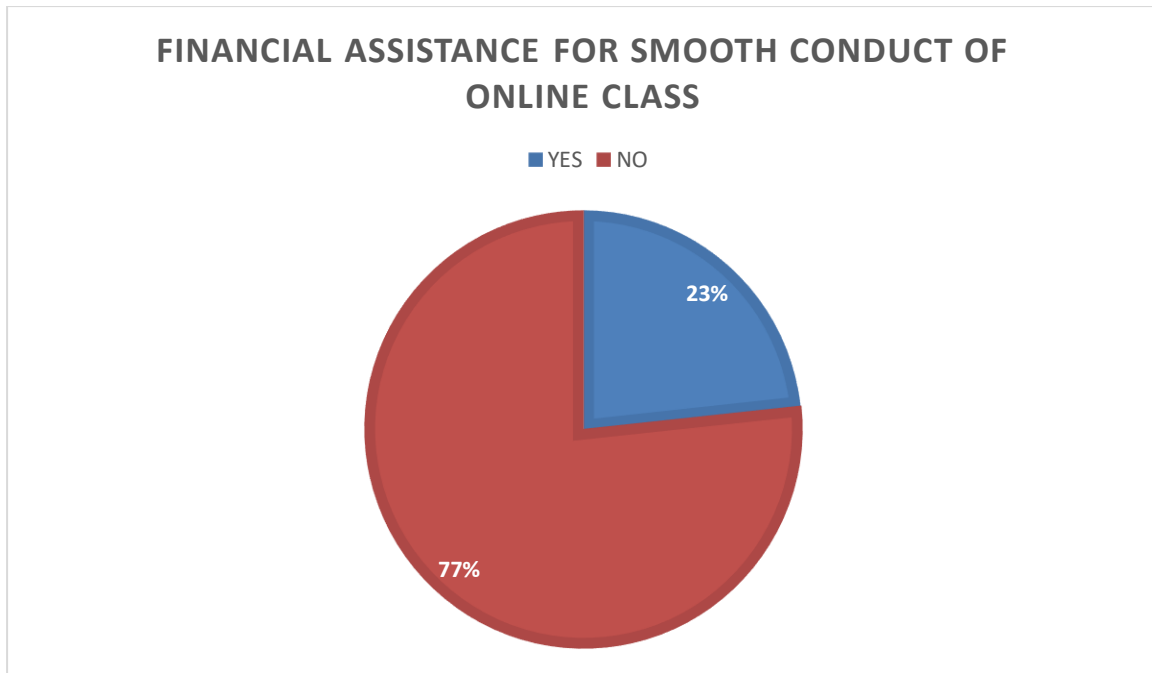
3.2.14 SATISFATION REGARDING ONLINE CLASS



Source: Primary data

Satisfaction regarding online classes is analyzed using a Likert scale of 5 point. Figure 3.2.14 depicts the satisfaction level of students during an online class. 10 percent of students are very dissatisfied with the online class, 21.67 percent of students are dissatisfied with the online class, 36.67 % of students have a neutral opinion, 28.33 percent of students are satisfied and 3.33 percent of students are very satisfied with the online class.

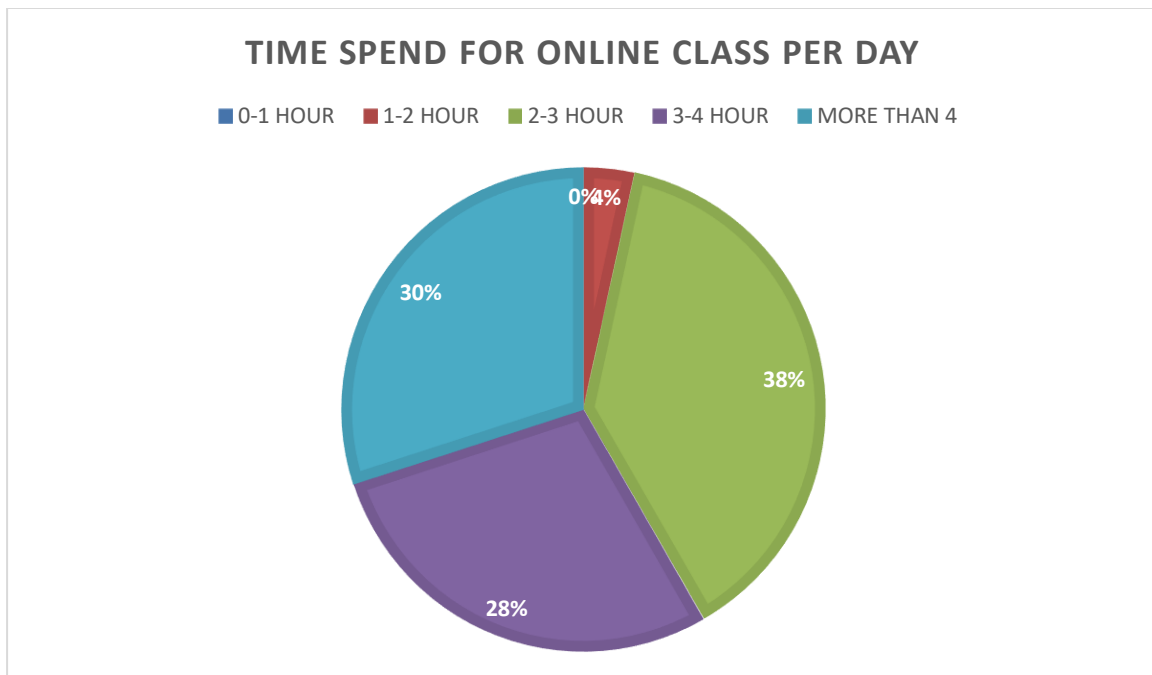
3.2.15 FINANCIAL ASSISTANCE FOR SMOOTH CONDUCT OF ONLINE CLASS



Source: Primary data

Online class was conducted for almost a year and it added further expense to families. Many families borrowed phones from their relatives with a plan to return them once the online mode of education ends, but it does not see an end to this scenario. Figure 3.2.15 depicts that 77 percent of the respondents do not avail of any financial assistance for the smooth conduct of online education, and 23 percent of the respondents availed financial assistance for the smooth conduct of online classes.

3.2.16 TIME SPENT FOR ONLINE CLASS PER DAY

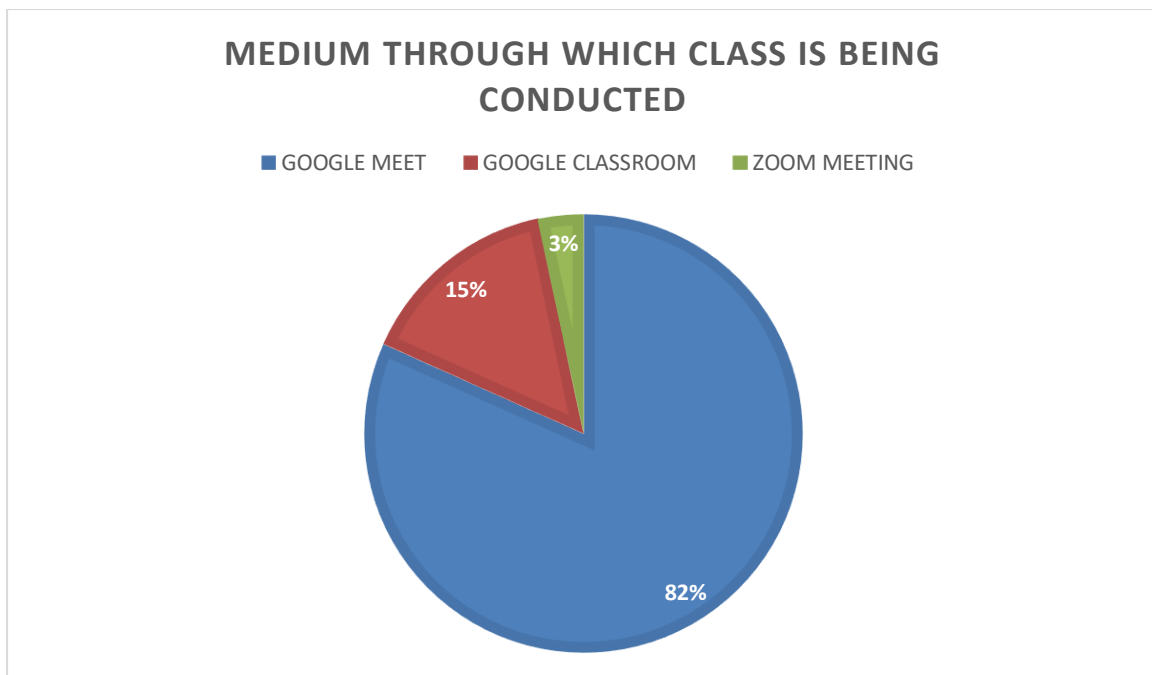


Source: Primary data

Online classes have made students spend more hours on the internet. Unlike the traditional method of learning the classes are less in number in order to reduce the stress faced by students as a result of the new way of learning. Figure 3.2.16 depicts that 38 percent of the respondents have a class for 2-3 hours a day, 30 percent of the respondents have a class for more than 4 hours a day, 28 percent of the respondents have class between 3-4 hours a day and 4 percent of the respondents have a class for 1-2 hour a day.

3.3 To identify the significant E-learning platforms used by students during the pandemic

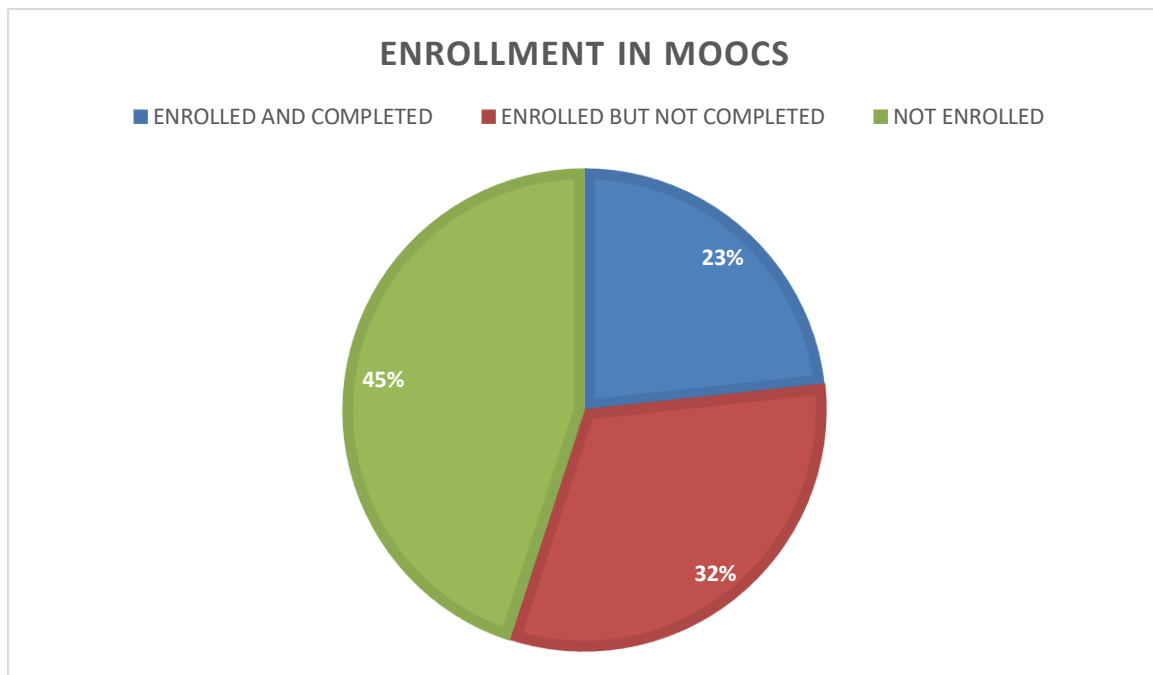
3.3.1 MEDIUM THROUGH WHICH CLASS IS BEING CONDUCTED



Source: Primary data

Covid-19 had created a huge market for a large number of online platforms around the world many companies have launched their new e-learning platforms where as the existing platforms add new features to stay attractive to the users. Figure 3.3.1 shows the medium through which the class is being conducted, 82 percent of the respondents agree that the class is being conducted through google meet, 15 percent of the respondents agree that the class is being conducted through google classroom and 3 percent of the respondents agree that the class is being conducted through zoom meeting. Most of the classes have taken place through google meet.

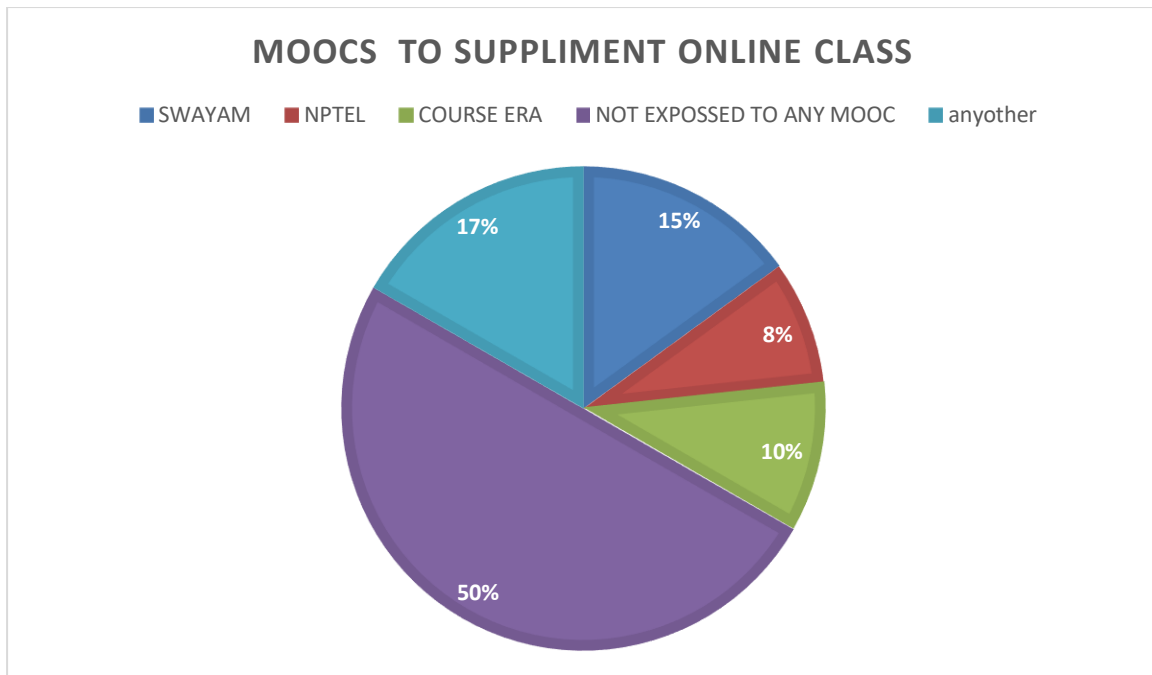
3.3.2 ENROLLMENT IN MOOCs



Source: Primary data

E-learning has started gaining popularity in India . Many platforms provide affordable courses to students via Massive open online courses. Figure 3.3.2 shows the respondent's enrolment in massive online courses 45 percent of the respondents have not enrolled in any massive online courses, 32 percent of the respondents have enrolled but not completed the course, and 23 percent of the respondents have enrolled and completed their massive online courses.

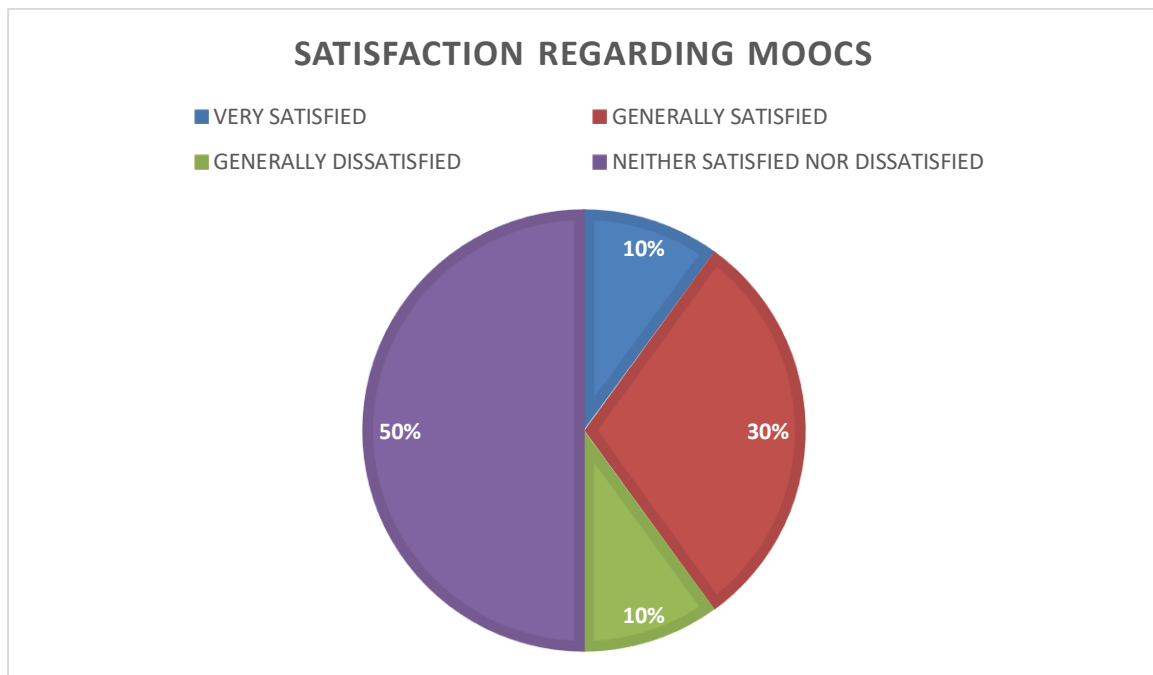
3.3.3 MOOCs TO SUPPLEMENT ONLINE CLASS



Source: Primary data

It has been several years since Massive Open Online Courses (MOOCs) have entered the higher education environment and many forms have emerged from this new way of acquiring knowledge. Teachers have been incorporating MOOCs with more or less success in a traditional classroom setting to support various learning preferences, and introduce this new way of learning to students. The MOOCs platform has made into large success due to the online mode of learning. Figure 3.3.3 depicts the massive online courses in which students are enrolled in 50 percent of the students are not engaged in any other massive online courses, 15 percent of the respondents have engaged in swayam course, 10 percent of the respondents have engaged in course era platform, 8 percent of the respondents have enrolled in NPTEL courses, 17 percent of the respondents have opted for various online massive online courses to supplement online classes.

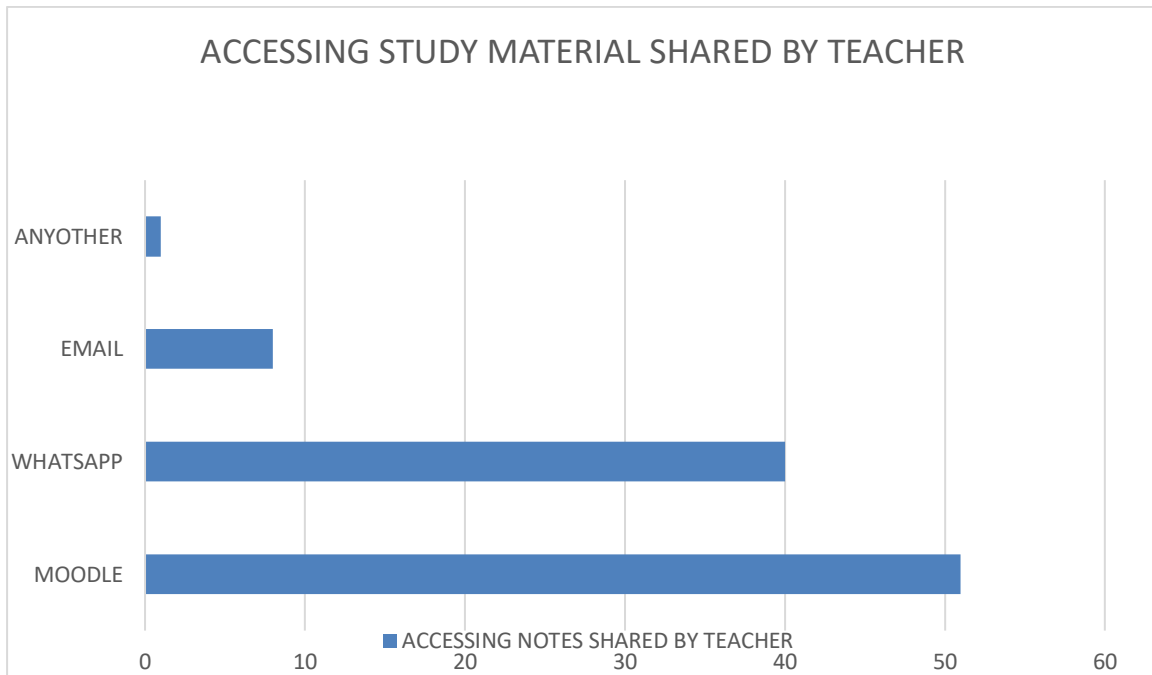
3.3.4 SATISFACTION REGARDING MOOCs



Source: Primary data

The number of students engaged in massive online courses during covid-19 has increased tremendously. It is however important to study the quality of the Massive online courses and whether the students are satisfied with these platforms. Figure 3.3.4 depicts the satisfaction level of students who are enrolled in MOOCs, 50 percent of the respondents are neither satisfied nor dissatisfied, 30 percent of the respondents are generally satisfied, 10 percent of the respondents are generally dissatisfied and 10 percent of the respondents are very satisfied regarding the massive online courses.

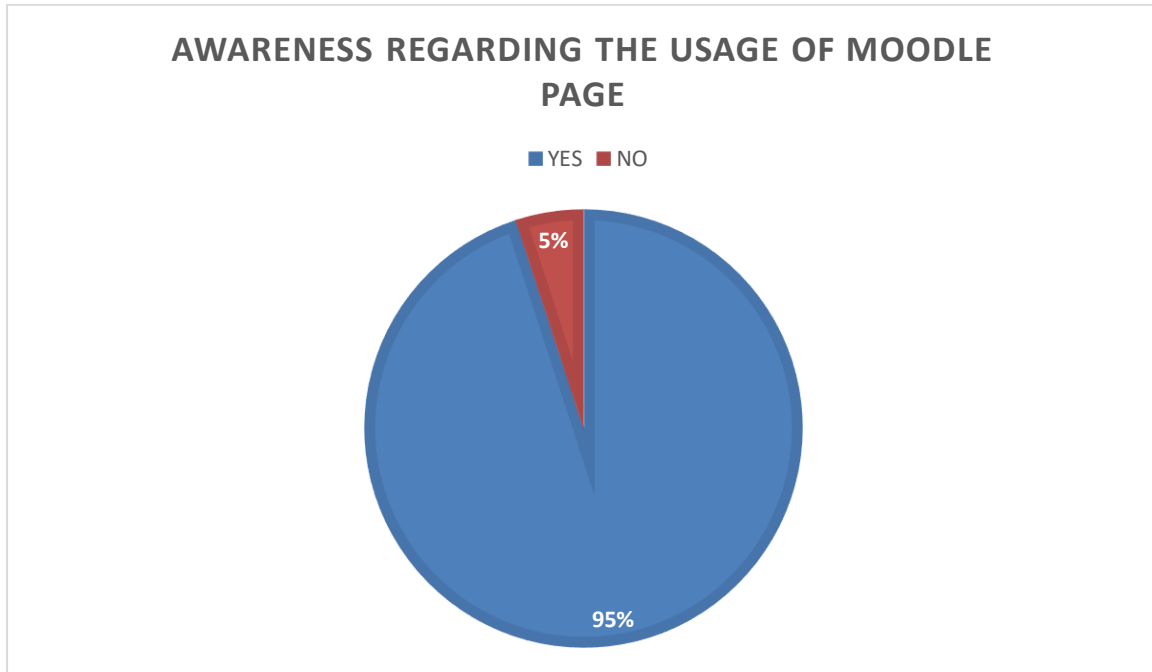
3.3.5 ACCESSING STUDY MATERIAL SHARED BY TEACHER



Source: Primary data

Online mode of education have made it difficult for students to access notes directly from library. New way of accquiring notes through internet was difficult for the students .Teachers used to share notes taught by them or directly mentioning the text in which class is being taken. Figure 3.3.5 depicts the way in which students access the notes shared by their teacher 51 % of the students access their notes through moodle course page, 40 % of the respondents access their notes through Whatsapp, 7 % of the respondents through e-mail, and the rest 1 % by any other sources they access the notes shared by their teacher.

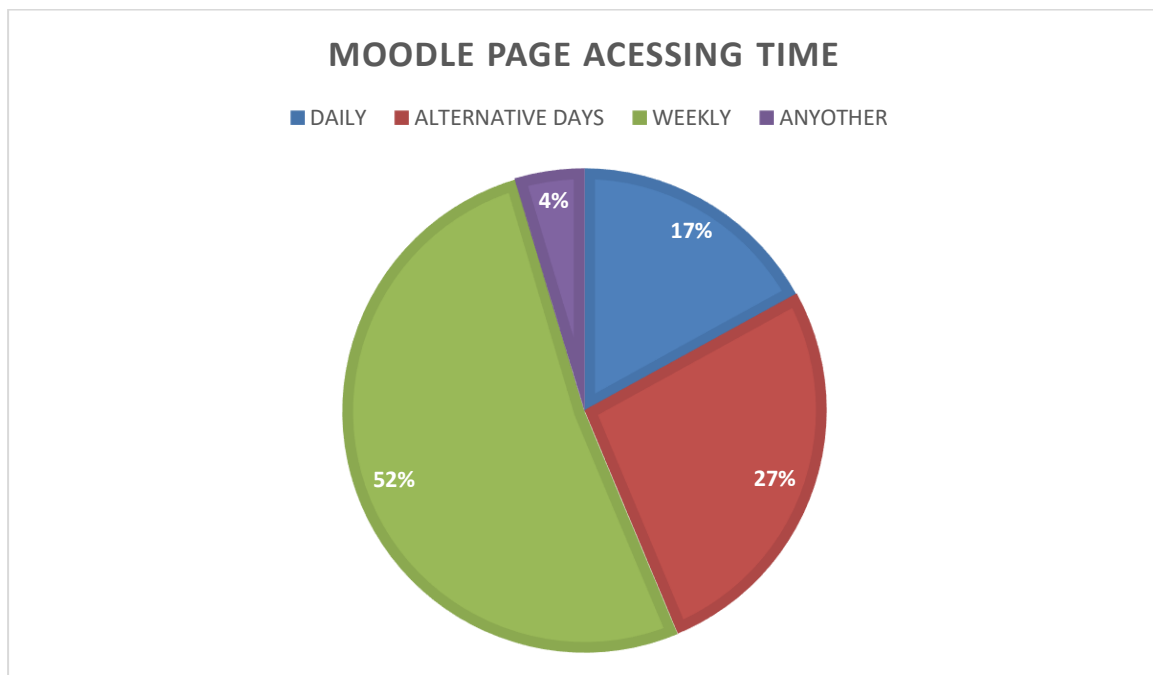
3.3.6 AWARENESS REGARDING MOODLE PAGE



Source: Primary data

Moodle is a platform or course management system in which each student in our college is given a unique user name and password in which students can view the notes shared by their teacher under respective subjects they also get to see their attendance list and they also have a provision to evaluate the course, institution and syllabus in a year. Figure 3.3.6 depicts that 95 percent of the respondents are aware of the usage of their Moodle course page and only 5 percent of the respondents lack knowledge regarding the use of Moodle course page.

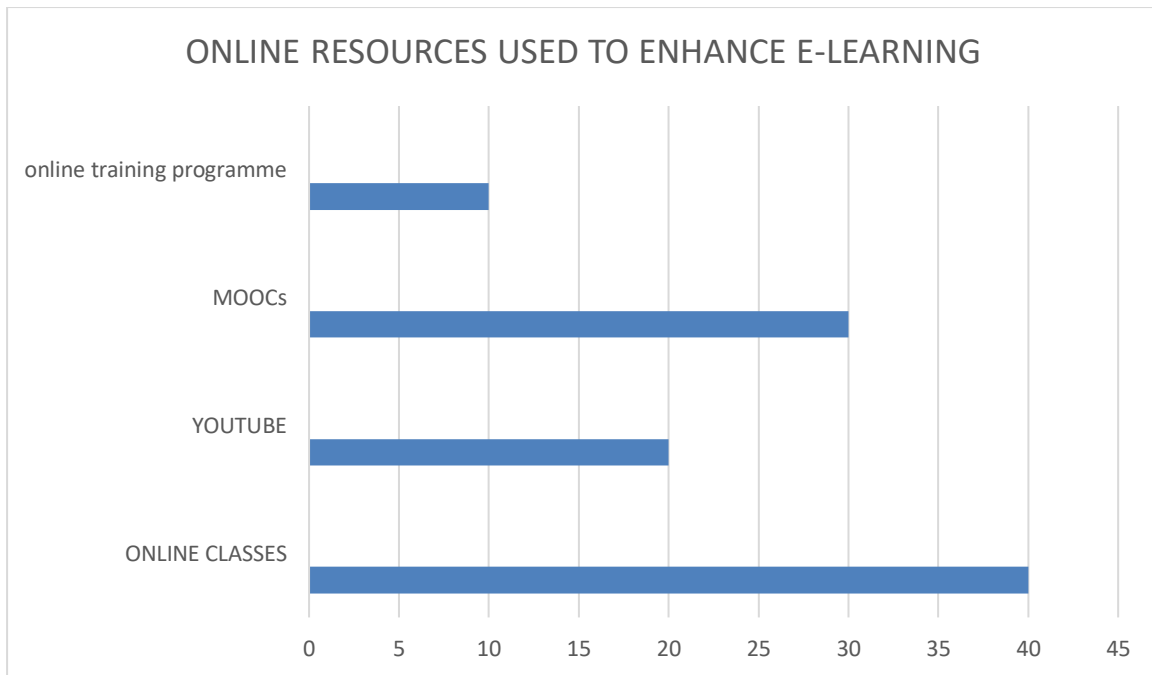
3.3.7 MOODLE PAGE ACCESSING TIME



Source: Primary data

Online mode of education made students to spend more time on moodle course page than before. It provides an option to submit the assignments and access the notes shared by the teacher. Figure 3.3.7 depicts that 52 percent of the respondents use moodle course page weekly once, 27 percent of the respondents use moodle course page on alternative days, 17 percent of the respondents use moodle course page daily and 4 percent of the respondents view it on any other time.

3.3.8 ONLINE RESOURCES USED TO ENHANCE LEARNING



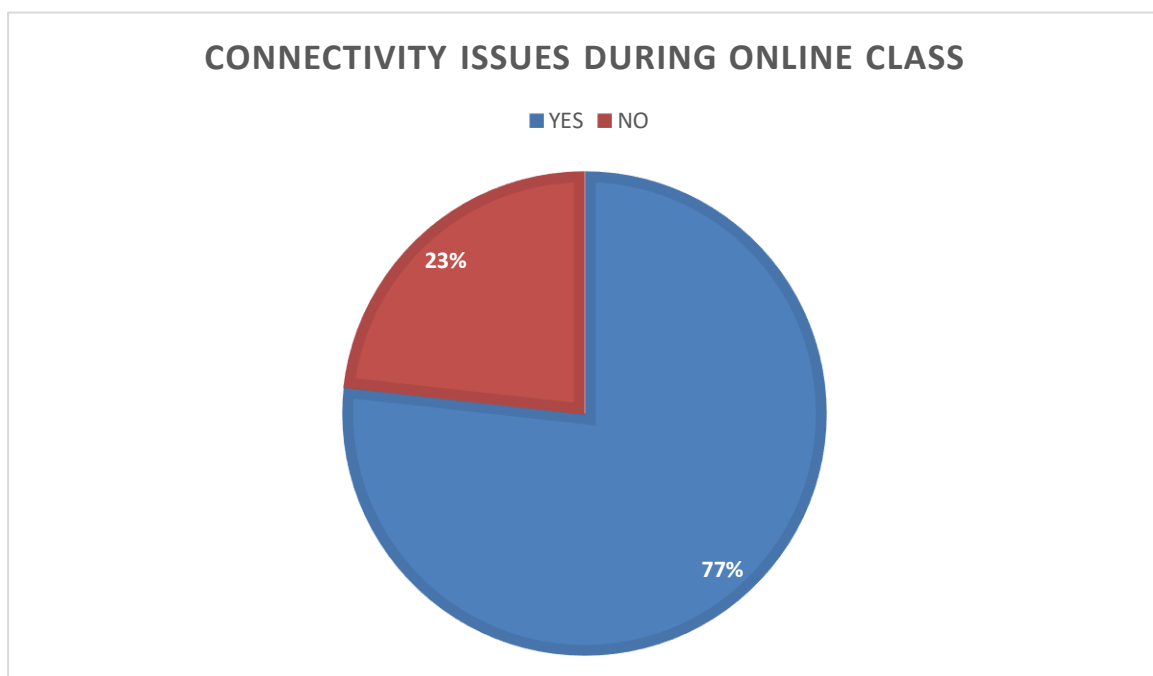
Source: primary data

Online learning provides sufficient time and vast opportunities to students. Figure 3.3.8 shows the various online resources available that can be used to enhance learning . 40 percent of the respondents are using online classes to enhance e-learning. 20 percent of the respondents use you tube class to enhance e -learning . 30 percent of the respondents use MOOCs platform to enhance e-learning and 10 percent respondents use online training programme to enhance e-learning.

3.4 To study the problem faced by students in online education.

There are various problems faced by students during online classes and the problems faced by students are analyzed in the following graphs.

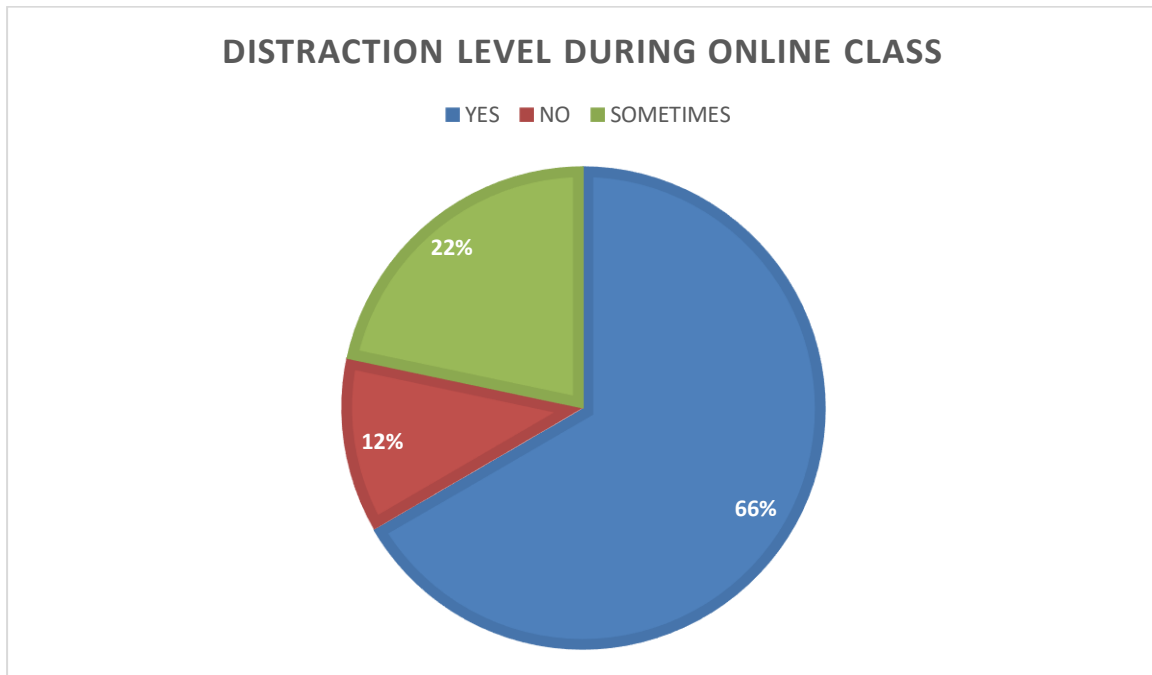
3.4.1 CONNECTIVITY ISSUE DURING ONLINE CLASS



Source: Primary data

Major problem faced by students during online class was connectivity issue. Figure 3.4.1 shows that 77 percent of the students face connectivity issue during online class and 23 percent of the respondents do not face any connectivity issue during online classes.

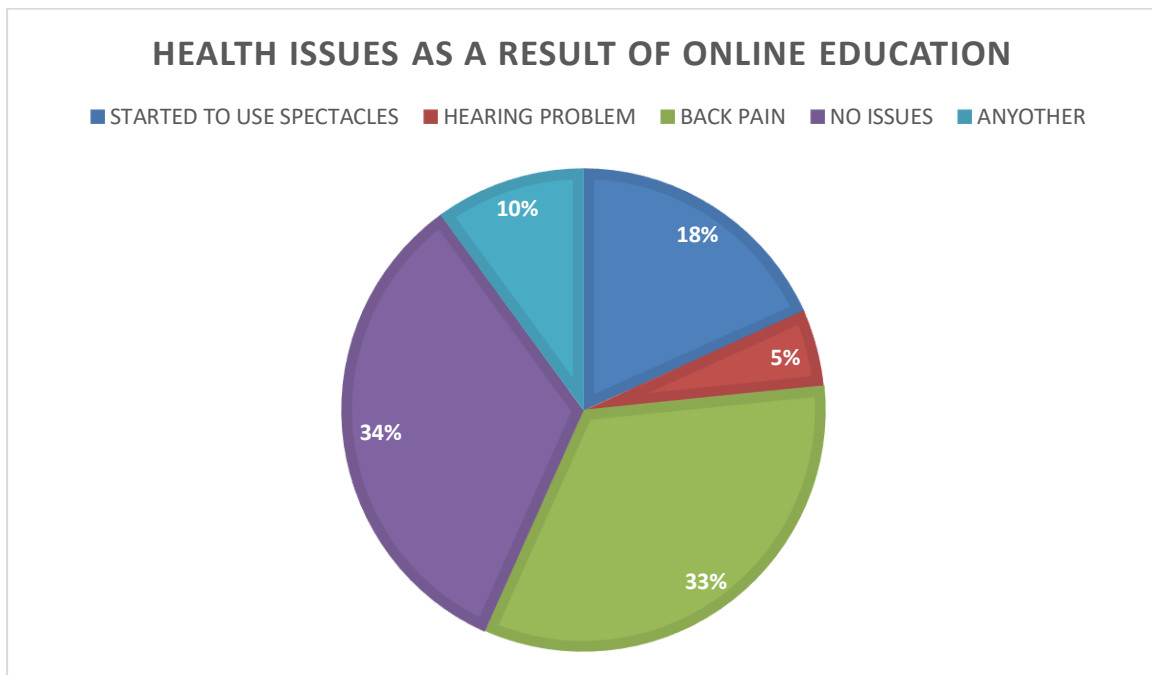
3.4.2 DISTRACTION LEVEL DURING ONLINE CLASS



Source: Primary data

Large number of respondents attend their online class via their mobile phone which is one of the reasons for distraction, secondly there is no face-to-face interaction during online class, there is no one to monitor your actions while attending online class, lastly the distractions arising while you are attending class from your house. Figure 3.4.2 depicts the distraction level of students during online classes, 66 percent of the respondents get distracted while attending online classes, 22 percent of the respondents get distracted sometimes while attending online classes, and 12 percent of the respondents do not get distracted while attending online classes.

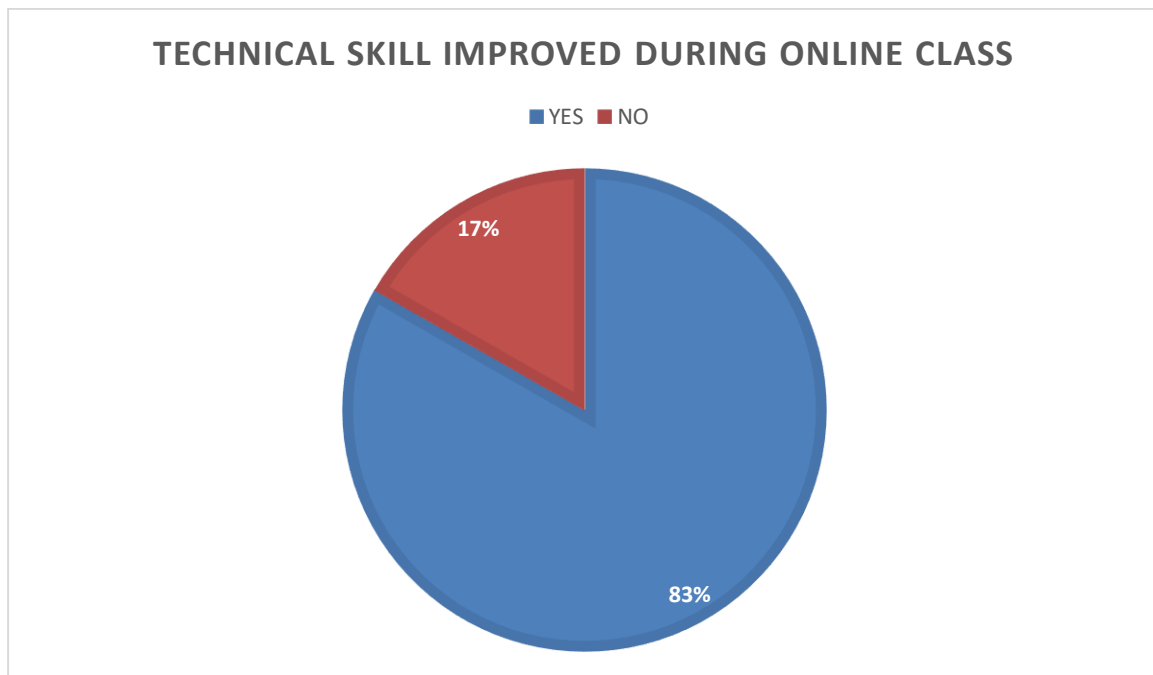
3.4.3 HEALTH ISSUES AS A RESULT OF ONLINE EDUCATION



Source: Primary data

Online education has drastically changed the way we study but the year and half of attending online classes from home have led to a string of mental and physical health issues for both students. Figure 3.4.3 shows the health issues faced by the student as a result of online education, 33 % of the respondents faced back pain as a result of online education, 18 % of the respondents have started to use spectacles as a result of online education, 5 % of the respondents have a hearing problem as a result of online education, 34 % of the respondents do not face any health issues as a result of online education and 10 % of the respondents have other health issues as a result of online education.

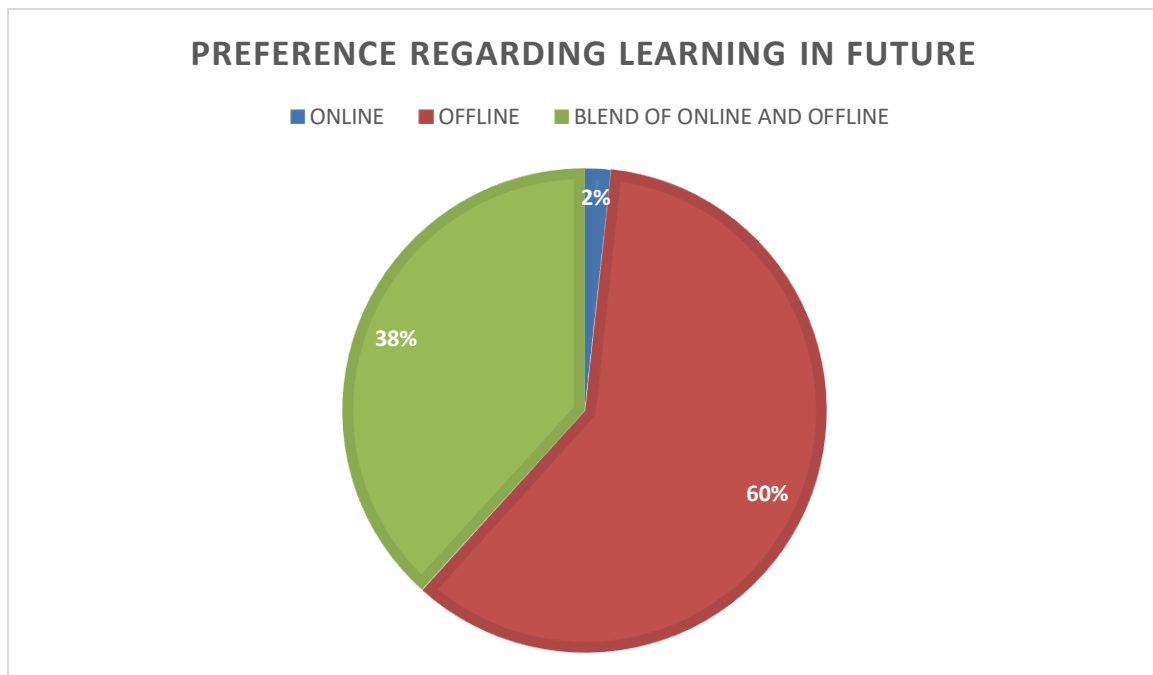
3.3.4 TECHNICAL SKILL IMPROVED DURING ONLINE CLASS



Source: Primary data

The online class has made students practice a new method of learning. Students now started to use PowerPoint presentations, MS excel, Zoom meetings and google meet to attend classes earlier these platforms are unknown to students. Figure 3.3.4 depicts that the online mode of education has improved the technical skill of 83 percent of the respondents and 17 percent of the respondents believe that the online mode of education does not improve their technical skills.

3.4.5 PREFERENCE REGARDING LEARNING IN FUTURE

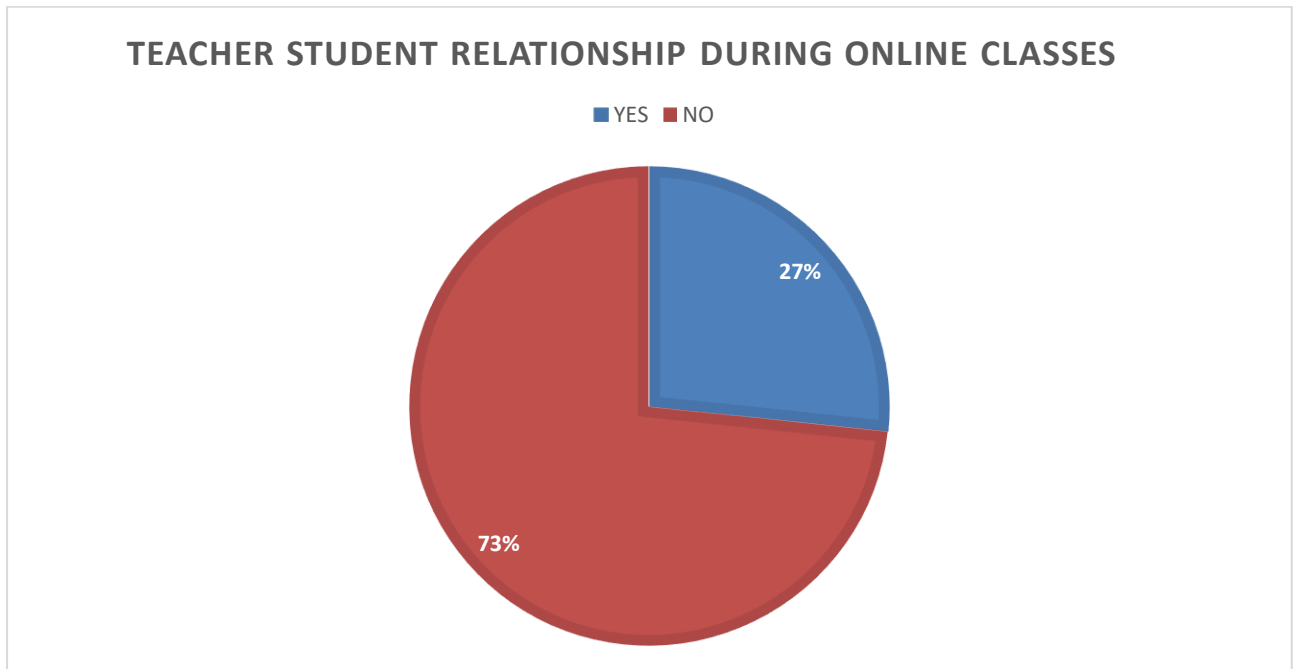


Source: Primary data

New normal mode of learning has made severe impact on the students. Students face it difficult to cope with the new method of learning

Figure 3.4.5 depicts that 60 percent of the respondents prefer an offline mode of education in the future, 38 percent of the respondents prefer a blend of the online and offline mode of learning and 2 percent of the respondents prefer an online mode of learning.

3.4.6 TEACHER STUDENT RELATIONSHIP DURING ONLINE CLASSES



Source: Primary data

Virtual mode of learning act as a hindrance for traditional face to face mode of learning. Figure 3.4.6 depicts that 73 percent of the respondents believe that the student-teacher relationship has not improved during online education and 27 percent of the respondents believe that student-teacher relationship has improved during online mode of education.

CHAPTER 4

FINDINGS,RECOMMENDATION AND

CONCLUSION

FINDINGS

The covid-19 crisis had affected our higher education institutions and as an alternative to tackling this problem, institutions have adopted online classes to deliver the contents of their curriculum through various online platforms. This study examined the learning status of students to access online courses. Several questions were framed to trace St.teresas college students' learning status during the COVID-19 pandemic. The major findings of the study are as follows.

- The study found out that out of the total respondents 17% of the respondents were from 1st year, 20 % of the respondents were from 2nd year, 23 % of the respondents were from the third year, 18 % of the respondents were from PG first year and 22 % of the respondents were from PG second year.
- A total of 35 respondents were selected from the undergraduate course and 25 respondents from post-graduate courses through the random sampling method.
- 77 % of the respondents possess an APL ration card and 23 % of the respondents own a BPL ration card.
- 55% of the respondents were from the urban area and 45 % of the respondents were from rural area.
- 23.33 % of the respondents belong to the general category this include Nair, menon, Roman Catholic, Pentecost, catholic, 5 % of the respondents belongs to EWS category , 51.67 % of the respondents are OBC this include Latin catholic , Ezhava, Muslims and anglo-indian , 20 % of the respondents were SC/ST which include pullaya, dheerava, vaniyan
- 23 % of the respondents have a monthly income below 10000, 18 % of the respondents have a monthly income between 10000-30000, 22 % of the respondents have a monthly income between 30000-50000, 37 % of the respondents have their monthly income above 50000.
- 44 % of the students receive scholarships, 9% of the respondents receive grants, 7 % of the respondents receive fee concession, and 40 % of the respondents do not receive any benefits.
- 87 % of the students own a smartphone and 13 % of the students do not own a smartphone.

- 57 % of the respondents purchased a new device for attending an online class and 43 % of the respondents do not purchase a new device for attending the online class.
- 57% of the respondents do not share their smartphones with their siblings, and 43 % of the respondents share their smartphones with their siblings for attending online classes.
- 73 % of the respondents do not avail any assistance for buying gadgets whereas 27 % of the respondents availed financial assistance for purchasing new gadgets.
- 53 % of the respondents use mobile data for attending online classes and 47 % of the respondents use WIFI to attend online classes.
- It was found from the study that 57 % of the respondents believe that online education had affected their disposable income and 43 % of the respondents do not believe that online mode of education had affected their disposable income.
- It was found from the study that 60% of the respondents believe that online education had affected their saving pattern while 40 % of the respondents believe that online mode of education does not affect their saving pattern.
- It was found from the study that 58 % of the respondents are unaware of the “SUMMANAS” scheme of our college, and 42 % of the respondents are aware of the “SUMMANAS” scheme of our college.
- It was found from the study that 85 % of the respondents did not receive any support from the “SUMMANAS” scheme whereas the 15 % of the respondents receive support from the “SUMMANAS” scheme
- It was found from the study that 98 % of the respondents agree that online education has made them spend more hours on the internet whereas 2 % of the respondents believe that online education does not result in spending more hours in the internet.
- It was found from the study that 10 % of students are very dissatisfied with the online class, 21.67 % of students are dissatisfied with the online class, 36.67 % of students have a neutral opinion, 28.33 % of students are satisfied and 3.33 students are very satisfied with online class.
- It was found from the study that 77 % of the respondents do not avail of any financial assistance for the smooth conduct of online education, and 23 % of the respondents availed financial assistance for the smooth conduct of online classes.
- It was found from the study that 38 % of the respondents have a class for 2-3 hours a day, 30 % of the respondents have a class for more than 4 hours a day, 28 % of the

respondents have class between 3-4 hours a day and 4 % of the respondents have a class for 1-2 hour a day.

- It was found from the study that 82 % of the respondents agree that the class is being conducted through google meet, 15 % of the respondents agree that the class is being conducted through google classroom and 3 % of the respondents agree that the class is being conducted through zoom meeting.
- It was found from the study that 45 % of the respondents have not enrolled in any massive online courses, 32 % of the respondents have enrolled but not completed the course, and 23 % of the respondents have enrolled and completed their massive online courses.
- The study found out that 50% of the students are not engaged in any other massive online courses, 15% of the respondents have engaged in swayam course, 10 % of the respondents have engaged in course era platform, 8 % of the respondents have enrolled in NPTEL courses, 17 % of the respondents have opted for various online massive online courses to supplement online classes.
- It was found from the study that, 50% of the respondents are neither satisfied nor dissatisfied, 30 % of the respondents are generally satisfied, 10% of the respondents are generally dissatisfied and 10 % of the respondents are very satisfied regarding the massive online courses.
- It was found from the study that teacher 51 % of the students access their notes through Moodle course page, 40 % of the respondents access their notes through Whatsapp, 7 % of the respondents through e-mail, and the rest 1 % by any other sources they access the notes shared by their teacher.
- It was found from the study that 95 % of the respondents are aware of their Moodle course page and 5 % of the respondents are unaware of their Moodle course page.
- It was found from the study that 52 % of the respondents use moodle course page weekly once, 27 % of the respondents use moodle course page on alternative days, 17 % of the respondents use the moodle course page daily and 4 % of the respondents view it on any other time.
- It was found from the study that 77 % of the students face connectivity issues during online classes and 23 % of the respondents do not face any connectivity issues during online classes.

- It was found from the study that 66 % of the respondents get distracted while attending online classes, 22 % of the respondents get distracted sometimes while attending online classes, and 12 % of the respondents do not get distracted while attending online classes.
- It was found from 33 % of the respondents face back pain as a result of online education, 18 % of the respondents have started to use spectacles as a result of online education, 5 % of the respondents have a hearing problem as a result of online education, 34 % of the respondents do not face any health issues as a result of online education and 10 % of the respondents have other health issues as a result of online education.
- It was found from the study that 83 % of the respondents have improved their technical skills as a result of e-learning and 17 % of the respondents believe that the online mode of education does not improve their technical skills.
- It was found from the study that 60 % of the respondents prefer an offline mode of education in the future, 38% of the respondents prefer a blend of the online and offline mode of learning and 2 % of the respondents prefer an online mode of learning.
- It was found from the study that 73 % of the respondents believe that the student-teacher relationship has not improved during online education and 27 % of the respondents believe that the student-teacher relationship has improved during covid.

RECOMMENDATIONS

- High-speeded internet connectivity should be ensured in order to improve the smooth conduct of online classes including students from vulnerable groups and low income-families.
- Colleges should monitor good online behaviors of students while attending online classes.
- Social networking platforms should enhance online platforms with more safety measures, especially while using virtual learning tools.

- Online learning is not affordable to all especially to the poor and disadvantaged sections of society. So necessary steps should be taken by the concerned authorities to reduce the gap between the rich and the poor.
- IT infrastructure is a prerequisite for online learning. Infrastructure needs to be strong that it can provide unhindered services during and after the crisis.
- Through online education where the teachers are not able to give individual attention To each and every student, there is a need to adopt a new approach to bring the attention of each and every student to be an active participant in the classes.
- At current times, access to technology and the internet is an urgent requirement. So, the digital capabilities and the required infrastructure must reach to the remotest and poorest communities to facilitate the students to continue their education during the pandemics. There is a need to deploy public funds to fix the internet gap and ensure that students continue to learn digitally. The state governments/private organisations should come up with ideas to address this issue of digital education.
- Some significant issues associated with distance learning strategies like the availability and access to digital devices with internet connectivity, the need for safe learning spaces, creating capabilities for teachers, families and students to operate and navigate digital devices, and engaging lesson plans for disabled students and other marginalised groups should be addressed by Govt. and the stakeholders. Conclusion COVID-19 has impacted immensely to education.
- Many online learning platforms offer multiple programs on the same subjects with different levels of certifications, methodology, and assessment parameters. So, the quality of programs may differ across different online learning platforms. Therefore, the establishment of quality assurance mechanisms and quality benchmarks for online learning programs must be developed and offered by Higher Education Institutions (HEIs) in India keeping in view of the rapid growth of the online learning platforms
- Telecommunication companies should provide internet services to students at subsidized rates as part of their CSR activity.
- Students should be encouraged to participate in various certificate courses offered by different universities in and around the country.

CONCLUSION

Education is one of the key elements for the growth of a country. When it comes to youth special needs to be taken because they are the future generation or in other words the demographic dividend. Education cannot stand still or wait until the pandemic is washed away. Hence there is a requirement for strategic planning in order to provide better quality as well as quantity of education to almost all the sections of the society. The current method offline education lacks clarity. A more polished and comprehensive system should be implemented to address all major issues and concerns. Online education is the most common method of learning during the pandemic. COVID-19 has impacted immensely the education sector of India. Though it has created many challenges, various opportunities are also evolved. Technological advancement should be introduced with the aim of removing the digital divide that exists in our society. financial assistance should be given for purchasing new gadgets as well as for the smooth conduct of classes, a program like SUMMANAS to support those who faced difficulty in attending online classes by providing television and smartphone to attend online classes need to be widely promoted and implemented extensively, Government should tie-up with telecom companies and need to provide internet pack to students at subsidized rates and this encourages students to engage in online classes. Health is a major factor that should be taken care of. If this form of online education is not scientifically corrected it could seriously hamper the productivity of the future generation. From the study, it is evident that children of small age are been affected with health issues which were due to the prolonged exposure to the visual media. With appropriate steps and methods being adopted online education could be a success and thus also enables the various other scopes of online education to be explored.

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APPENDIX

SCHEDULE

1.Name

2.Year of study

- 1st year
- 2nd year
- 3rd year
- Pg 1st year
- Pg 2nd year

3.Courses

4.Stream

- Arts
- Science
- Commerce

5 .which ration card you hold

- White
- Blue
- Pink
- Yellow

6.Place of residence

- Urban
- rural

7.Religion

- hindu
- Christian
- Muslim

8.Caste

9.What is your monthly family income

- Below 10000
- 10000-30000
- 30000-50000
- Above 50000

10. Do you receive any of the following

- Scholarship
- Grants
- Stipend
- Fee concession
- Not availing

11. Do you own a smart phone

- Yes
- No

12. Do your share your smart phone with your siblings

- Yes
- No

13. Did you have to buy a new device for attending online classes.

- Yes
- No

14 .Did you avail any financial assistance for buying electronic gadget for online education?

- Yes
- No

15. Which type of network do you use to attend online classes?

- WIFI
- Mobile data

16. Prior to online class do you have internet connection?

- Yes
- No

17.Which device is used for attending online classes?

- Phone
- Laptop

18. Do you think that online education had extra burden on your family expenditure?

- Yes
- No

19. Does covid mode of education had affected your family's saving pattern ?

- Yes
- No

20.Do you know about SUMMANAS scheme of our college?

- Yes
- No

21. Do you receive any aid from SUMMANAS scheme ?

- Yes
- No

22. Does online mode of education made you to spend more hours on internet ?

- Yes
- No

23. How satisfied are you with the online classes?

- very Satisfied
- satisfied
- Neutral
- Dissatisfied
- Very dissatisfied

24. Do you availed any financial assistance for the smooth conduct of online education?

- Yes
- No

25. How many hours do you have online classes a day ?

- 0-1hour
- 1-2 hour
- 2-3 hour
- 3-4 hour
- More than 4

26. Through which platform online class is being conducted?

- Google classroom
- Zoom meeting
- Google meet

27. Have you enrolled for any massive online courses during pandemic?

- Enrolled and completed
- Enrolled and but completed
- Not enrolled

28. Are you exposed to any of the MOOCs platform to supplement your classroom learning?

- Swayam
- NPTEL
- Course era
- Not exposed to any MOOCs courses
- Anyother

29. If, yes how satisfied are you with the MOOCs ?

- Very satisfied
- Generally satisfied
- Dissatisfied
- Generally dissatisfied
- Neither satisfied nor dissatisfied

30. How do you access the notes shared by your teacher?

- Whatsapp
- E-mail
- Moodle
- Anyother

31. Are you aware of the Moodle page

- Yes
- No

32. How often do you access your moodle course page

- Daily
- Alternative daya
- Weekly
- Once in a while

33. The following is a list of online learning resources that you can use to enhance online learning . which one you will choose

- Online classes
- Youtube
- Online training programmes
- MOOCs

34. Do you face any connectivity issues while attending online classes ?

- Yes
- No

35. Do you get distracted while attending online classes ?

- Yes
- No

36. Do you face any health issues as a result of online education

- Yes started to use spectacles
- Hearing problem
- Back pain
- Anyother

37. As a result of online education did you improve your technical skills ?

- Yes
- No

38. What mode of learning you prefer in future ?

- Online
- Offline
- Blend of online and offline

39. Do you think that teacher student relationship have improved during online classes?

- Yes

- No

40. Do you have any recommendations to make ?