

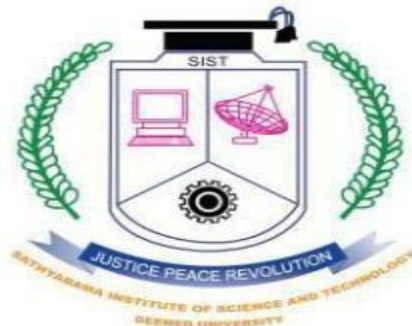
A STUDY ON IMPACT OF E-LEARNING ON STUDENTS WITH SPECIAL LEARNING DISABILITIES

Submitted in partial fulfillment of the requirements for the award of

Masters of Business Administration

BY

NEHA KUMARI
Register No. 39410137



SCHOOL OF BUSINESS ADMINISTRATION

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119**

April - 2021



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited with "A" grade by NAAC | 12B Status by UGC | Approved by AICTE
Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai – 600 119
www.sathyabama.ac.in

SCHOOL OF BUSINESS ADMINISTRATION

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **NEHA KUMARI**,
Register No. 39410137 who carried out the project entitled "**Impact of E-learning on students with special learning disabilities**" under my supervision from January 2021 to March 2021.

Dr. BHUVANESWARI.G

Internal Guide

Dr. BHUVANESWARI.G

Dean- School of Business Administration

Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner

DECLARATION

I NEHA KUMARI 39410137, hereby declare that the Project Report entitled “**Impact of E-learning with students on special learning disabilities**” done by me under the guidance of **Dr. BHUVANESWARI.G**, at SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

DATE:

PLACE:

NEHA KUMARI

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of SATHYABAMA for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey my thanks to **Dr.BHUVANESWARI G.**, Dean, School of Business Administration and **Dr. PALANI A.**, Head, School of Business Administration for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Project Guide **Dr. BHUVANESWARI G.** for his valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the Department of Business Administration who were helpful in many ways for the completion of the project.

NEHA KUMARI

ABSTRACT

The right to education is available to all citizens including the (disabled) special students. This paper describes an approach to create accessible contents for e-learning objectives dedicated to people with Special Learning Disabilities. In the present scenario E-learning had been growing rapidly in recent years, India is now witnessing an e-learning boom since the pandemic emerged. The e-learning experience so far has thrown up some issues and directions for the future of online education and the number of those enrolling for virtual classes has witnessed an exponential rise and the trend is likely to stay.

The study aims at finding impact of E-learning on students with special learning disabilities. The data of 100 students have been collected and SPSS tool have been used to find the results. This study to find what is the gap between special students and E-learning, how to improve technology for providing good education to them.

TABLE OF CONTENTS

CHAPTER NO.	TITLE	PAGE NO.
	ABSTRACT	i
	LIST OF THE TABLES	iii
	LIST OF THE CHARTS	iv
1	INTRODUCTION	1-9
	1.1 Introduction	1
	1.2 Impact of E-learning on students with special learning disabilities	5
	1.3 Needs for the study	8
	1.4 Scope and Significance of study	8
	1.5 Objective of the Study	9
	1.6 Limitation of the Study	9
2	REVIEW OF LITERATURE	10-17
	2.1 Review of literature	10
3	RESEARCH METHODOLOGY	18-19
	3.1 Research design	18
	3.2 Sampling technique	18
	3.3 Sources of data	18
	3.4 Structure of Questionnaire	18
	3.5 Sample Size	18
	3.6 Period of Study	19
	3.7 Hypothesis	19
	3.8 Analytical Tools	19
4	DATA ANALYSIS AND INTERPRETATIONS	20-53
	4.1 Percentage analysis	20
	4.2 Chi-Square Test	52
	4.3 Pearson Correlation	53
	4.4 ANOVA	53
5	FINDINGS, SUGGESTIONS, AND CONCLUSION	55-77
	5.1 Finding	55
	5.2 Suggestion	56
	5.3 Conclusion	57
	REFERENCE	58
	ANNEXURE -I (Questionnaire)	62
	ANNEXURE -II (ARTICLE)	68

LIST OF THE TABLE

TABLE NO.	PARTICULARS	PAGE NO.
4.1.1	Gender of the respondents	20
4.1.2	Age of the respondents	21
4.1.3	Type of disabilities	22
4.1.4	Education wise classification	23
4.1.5	Time spend on E-learning	24
4.1.6	Specifically E-learning wise classification	25
4.1.7	Knowledge of MS-office of the respondents	26
4.1.8	Social media knowledge of the respondents	27
4.1.9	Knowledge of online courses of the respondents	28
4.1.10	E-courses effectiveness of the respondents	29
4.1.11	Easy online courses of the respondents	30
4.1.12	Online courses engaging to the respondents	31
4.1.13	Length of the online courses of the respondents	32
4.1.14	Online courses led to change behavior and practice of the respondents	33
4.1.15	Time management of the respondents	34
4.1.16	Teachers guidance involvements of the respondents	35
4.1.17	Image and text clarity wise classification	36
4.1.18	Sounds of the online courses wise classification	37
4.1.19	Connection problem of the respondents	38
4.1.20	Understanding of the virtual courses by the respondents	39
4.1.21	Family environment wise classification	40
4.1.22	Further guidance wise classification	41
4.1.23	E-learning system user-friendly wise classification	42
4.1.24	Content of E-learning of the respondents	43
4.1.25	Motivation wise classification	44
4.1.26	Self-confidence of the respondents	45
4.1.27	Overall E-learning experience of the respondents	46
4.1.28	Setting goal and deadline of the courses wise classification	47
4.1.29	Good reason for E-learning of the respondents	48
4.1.30	Project and assignments of the respondents	49
4.1.31	Not quite just things get difficult of the respondents	50
4.1.32	Keep myself on track of the respondents	51

LIST OF CHARTS

CHART NO.	PARTICULARS	PAGE NO.
4.1.1	Gender of the respondents	20
4.1.2	Age of the respondents	21
4.1.3	Type of disabilities	22
4.1.4	Education wise classification	23
4.1.5	Time spend on E-learning	24
4.1.6	Specifically E-learning wise classification	25
4.1.7	Knowledge of MS-office of the respondents	26
4.1.8	Social media knowledge of the respondents	27
4.1.9	Knowledge of online courses of the respondents	28
4.1.10	E-courses effectiveness of the respondents	29
4.1.11	Easy online courses of the respondents	30
4.1.12	Online courses engaging to the respondents	31
4.1.13	Length of the online courses of the respondents	32
4.1.14	Online courses led to change behavior and practice of the respondents	33
4.1.15	Time management of the respondents	34
4.1.16	Teachers guidance involvements of the respondents	35
4.1.17	Image and text clarity wise classification	36
4.1.18	Sounds of the online courses wise classification	37
4.1.19	Connection problem of the respondents	38
4.1.20	Understanding of the virtual courses by the respondents	39
4.1.21	Family environment wise classification	40
4.1.22	Further guidance wise classification	41
4.1.23	E-learning system user-friendly wise classification	42
4.1.24	Content of E-learning of the respondents	43
4.1.25	Motivation wise classification	44
4.1.26	Self-confidence of the respondents	45
4.1.27	Overall E-learning experience of the respondents	46
4.1.28	Setting goal and deadline of the courses wise classification	47
4.1.29	Good reason for E-learning of the respondents	48
4.1.30	Project and assignments of the respondents	49
4.1.31	Not quite just things get difficult of the respondents	50
4.1.32	Keep myself on track of the respondents	51

CHAPTER-1

INTRODUCTION

1.1 INTRODUCTION

E-Learning, or electronic learning, is the delivery of learning and training through digital resources. Although E-Learning is based on formalized learning, it is provided through electronic devices such as computers, tablets and even cellular phones that are connected to the internet. This makes it easy for users to learn anytime, anywhere, with few, if any, restrictions. Basically, e learning is training, learning, or education delivered online through a computer or any other digital device.

E-learning had been growing rapidly in recent years, India is now witnessing an e-learning boom since the pandemic emerged. The e-learning experience so far has thrown up some issues and directions for the future of online education and the number of those enrolling for virtual classes has witnessed an exponential rise and the trend is likely to stay.

The Covid-19 induced shutdown affected schooling and learning, including teaching and assessment methodologies. However, this gap was rapidly filled by e-learning as schools, colleges and educational institutions were quick to shift teaching and learning online. Significant advancements are being made in online education in India as a result of its exponentially developing technology. With a population of over 1.3 billion and the availability of high-speed internet and smartphones, India has a massive base of technologically-driven consumers as the educational landscape shifts in response to the COVID-19 pandemic.

The low-cost data revolution and the government's digital push have made access to internet more diverse and inclusive. India now has more rural internet users than urban internet users. For the first time in 2019, rural users outnumbered those in urban areas (227 million and 205 million, respectively). Of those rural internet users, 58 percent fell within the ages of 16-29 in the first quarter of 2019, indicating a prime demographic for access to online education.

Although there are already more internet users in rural areas than in urban areas, even more, significant rural growth is possible. Internet density continues to increase across the board, but over 70 percent of the rural population still lacks access to the internet³. While 66 percent of India's population is rural, internet density only accounts for 25 percent of that segment. This is in stark contrast to the urban portion of the population, where internet density is nearly 98 percent. This will further contribute to an increase in the overall internet population over the next few years as more people gain access. India's explosive internet growth in rural and urban areas is a driving force behind the rise of online education.

The online education market in India was worth \$247 million USD in 2016 and is expected to reach approximately \$1.96 billion USD by 2021.⁴ Concurrently, it is estimated that the number of paid online education users will grow to 9.5 million by 2021. These figures don't account for the COVID-19 pandemic, so it is entirely possible that the projected estimates will fall short of reality as more and more education is pushed online.

1.1.1 Drivers for Online Education in India

Internet Penetration: India has an internet penetration of 50 percent⁶. It is predicted that by 2021, there will be nearly 735 million internet users in India⁷, which will lead to an increase in traffic for online education providers.

Government Initiatives: Recent government initiatives are expected to strengthen the infrastructure needed by students to pursue education online. Information on some of these initiatives, including the YUKTI portal, SWAYAM Prabha, eBasta, and e-VIDYA, can be found in the related section below.

Affordability: Online courses taken at UG or PG level are much more affordable than traditional programme: students save on tuition, accommodation cost, and travel expenses as they have the luxury to complete the course from home and in many cases at their pace. Many credential courses are free of cost and providers like Udemy have their prices as low as \$11.99 USD.

Demographic: Nearly 46 percent of India's population falls within the ages 15-40⁸. This younger demographic is a perfect target market for online education as online formats are generally more acceptable to this age range than older age groups and the lower cost is appealing to a price-sensitive market.

1.1.2 Emerging Trends in the Online Higher Education System in India

The desire for ups-killing and res-killing is leading to a demand for certification courses. Between 2015 and 2018, the number of students pursuing online education increased six-fold. Over 70 percent of these students turned to online education for the purpose of learning a new skill or expanding their employment opportunities. Online models are an attractive option for current employees, as they provide the flexibility to obtain these skills without interrupting work schedules.

Starting in 2018, the University Grants Commission (UGC) began to actively support online education models, allowing some institutions to offer a small percentage of their courses online.

In 2019, the UGC expanded upon this, allowing qualified institutions to offer more courses and certificate programs online and creating a standard framework for them. The UGC regulations mean these online programs can be recognized as equivalent to their brick-and-mortar counterparts. This backing will help ensure the quality of online programs and consequently reduce skepticism regarding their efficacy.

This momentum was reinforced when the COVID-19 pandemic pushed everything online at a dizzying rate. In the effort to provide continued education while social distancing, institutions and governments have created a massive surge of support for online learning. More institutions are offering online courses and a multitude of resources are emerging to improve the online model and make it a viable substitute for a traditional classroom. Further information on these initiatives is included below.

1.1.3 Future of Online Education

Based on current trends, the online higher education market has a positive outlook and can be expected to have considerable growth in the coming years. Not everyone believes online education is an equal substitute for traditional learning, however, so a hybrid model may gain traction in the future. Virtual classrooms may also become more popular, as they offer the convenience of an online method with the engagement of traditional classroom experience. Both hybrid models and virtual classrooms may allow a more practical component to be introduced to online education, as many of the current offerings are theoretical in nature.

The Ed-tech market is already predicted to grow exponentially in the coming years due to various policy initiatives and evolving consumer preferences. COVID-19 may be an additional catalyst for the growth of this industry and further support adoption of online education models moving forward.

These emerging changes in the educational sector may become permanent. The longer the corona-virus pandemic lasts, the bigger its effect will be and there is a strong possibility that online learning may become main stream rather than a temporary measure. Once educators and students gain access to the remote technology they need to adapt to online methods, there may not be a compelling reason to transition back to traditional educational settings.

1.1.4 HISTORY

.By the 1980s there were 34 universities offering correspondence education through departments designed for that purpose. The first single mode Open University was established in Andhra Pradesh in 1982, followed by the Indira Gandhi National Open University (IGNOU), and subsequently in Bihar, Rajasthan, and Maharashtra, Madhya Pradesh, Gujarat, Karnataka, West Bengal, and Uttar Pradesh (established throughout 1980s and 1990s). The establishment of these single mode distance education universities was stimulated by the government's intention to democratize education and make it lifelong. The initiative did not discourage the expansion at the same time of correspondence programmes in dual mode universities. The year 1995 witnessed the enrollment of 200,000 students in open and distance learning, accounting for 3% of total higher education enrollment.

Most open and distance learning universities in India follow the model of the UK Open University. They co-ordinate communication and collaborate through the Distance Education Council (DEC), founded in 1992. DEC is responsible for the promotion, co-ordination and the maintenance of quality and standards. A range of factors including emerging ICTs, liberalization, privatization and globalization have amplified the demand for open and distance learning. While the government is responsible for more than 90% of open and distance learning funding, plans are underway to involve the private sectors more

closely, especially through permitting the increase of fees. The LIS education in India through open and distance learning mode was started in 1985 with the offering of Bachelor's in Library and Information Science courses by Andhra Pradesh Open University (now B R Ambedkar Open University), followed by the Bachelor's degree programme started by the Indira Gandhi National Open University(IGNOU). Out of 232 Universities in India LIS education is offered at 22 Universities through distance mode at certificate, bachelor and master degree level. The provision of LIS courses reveal that 17 Distance education Institutes provide Degree courses, 8 provide Masters Degree Courses, 3 provide Diploma Courses, and 6 provide Certificate Level Courses in Library and Information Science.

The following UGC authorized and reputed Universities in Tamil Nadu offer the M.Phil. Degree course through distance mode:

1. Alagappa University, Karaikudi, Tamil Nadu
2. Annamalai University, Tamil Nadu
3. Vinayaga Mission (Deemed University), Salem Tamil Nadu
4. SASTRA University, Vallen, Tamil Nadu.

1.2 IMPACT OF E-LEARNING ON STUDENTS WITH SPECIAL LEARNING DISABILITIES

Census 2001 has revealed that over 21 million people in India are suffering from one or the other kind of disability. This is equivalent to 2.1% of the population. Among the total disabled in the country, 12.6 million are males and 9.3 million are females. Although the number of disabled is more in rural and urban areas. Such proportion of the disabled by sex in rural and urban areas. Such proportion has been reported between 57-58 percent for males and 42-43 percent females. The disability rate (number of disabled per 100,000 populations) for the country as whole works out to 2130. This is 2,369 in the case of males and 1,874 in the case of females.

Among the five types of disabilities on which data has been collected, disability in seeing at 48.5% emerges as the top category. Others in sequence are: In movement (27.9%),

Mental (10.3%), in speech (7.5%), and in hearing (5.8%). The disabled by sex follow a similar pattern except for that the proportion of disabled females is higher in the category in seeing and in hearing.

Across the country, the highest number of disabled has been reported from the state of Uttar Pradesh (3.6 million). Significant numbers of disabled have also been reported from the state like Bihar (1.9 million), West Bengal (1.8million), Tamil Nadu and Maharashtra (1.6 million each). Tamil Nadu is the only state, which has a higher number of disabled females than males. Among the states, Arunachal Pradesh has the highest proportion of disabled males (66.6%) and lowest proportion of female disabled 2020 REPORT.

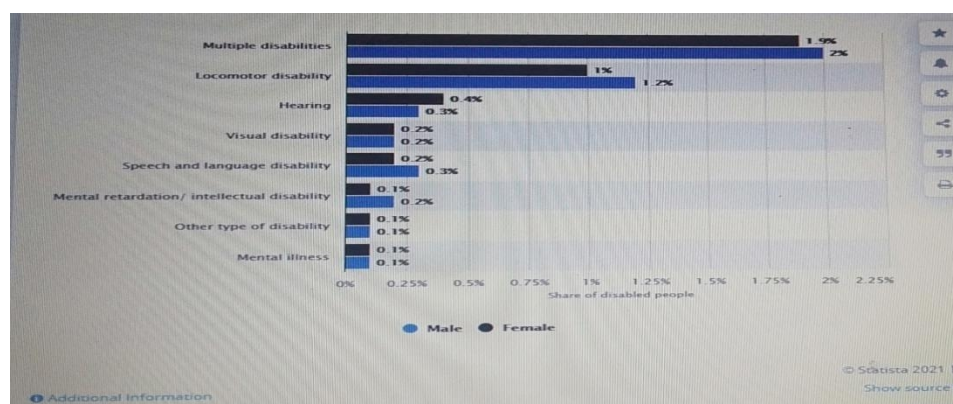
India 2020 population is estimated at **1,380,004,385** people at mid year according to UN data. India population is equivalent to 17.7% of the total world population. India ranks number 2 in the list of countries (and dependencies) by population.

December 3 is marked by the UN as International Day of Persons with Disabilities in a bid to promote a more inclusive and accessible world for the differently-abled and to raise awareness for their rights. In India, the Ministry of Social Justice and Empowerment observed the day with essay and painting competitions among other events.

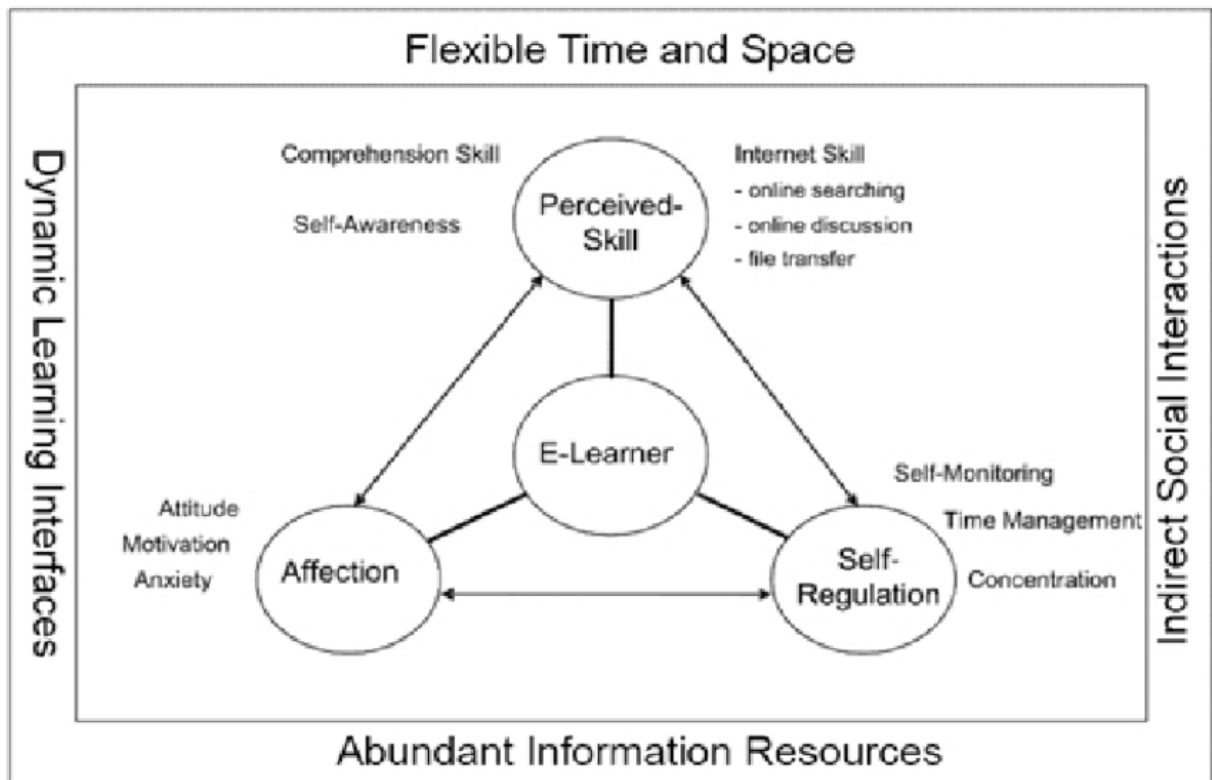
About 2.2% of India's population lives with some kind of physical or mental disability, as per the National Statistics Office report on disability released last year.

- According to the 76th round of the NSO survey conducted between July and December 2018, a higher percentage of men had disabilities compared to women in India. Specifically in Tamil Nadu, two percent of men had multiple disabilities, while this was at 1.9 percent among females.

(Published by Statista Research Department, Oct 16, 2020)



1.2.1 MODEL OF THE PROJECT



-

Dynamic learning interfaces

Dynamic learning is learning characterized by constant change, activity, and progress.

- **Abundant information resources**

Abundant meaning- present in great quantity; more than adequate; over sufficient. An abundant information resource refers to using present technology to provide education.

- **Indirect social interaction**

Indirect social interaction refers to studying by using pdf, ebooks, and website.

In this they can not connect directly (face to face).

- **Flexible time and space**

That means students can learn any time and any place.

- **Perceived skills:** Comprehension skill, self-awareness, internet skill

- **Affection:** Attitude, motivation, anxiety.

- **Self-regulation:** Time management, self-regulation, concentration.

1.3 NEED OF THE STUDY

There are 8 categories in which disabled students are classified according to their disabilities - medical impairment, mental illness, mobility impairment, hearing impairment, learning disability, vision impairment, acquired brain impairment, and intellectual disability. Because certain individuals are physically and mentally challenged, it does not mean that they cannot perform well in the academics or professional life. With the advent of eLearning, education is no longer a laborious work for disabled students.

In fact, disabled students studying online find it more fulfilling and less difficult to get knowledge. While it is difficult for the disabled students to get admission in a conventional education institution, this is not a case when they turn to online learning platforms.

As a matter of fact, many colleges and universities have started conducting online learning platforms. Today, the concept of virtual campuses is evolving rapidly and more disabled students are getting enrolled. Technology is also playing a pivotal role in providing the perfect learning solutions to the disabled students. Nowadays, students choose their own location for schoolwork and study.

Besides, disabled students find it more comforting to study in the online environment as it gives them more time to complete assignments as well as allow them to sit, rest or walk whenever there is a necessity.

1.4 SCOPE OF STUDY

- The study defines and analyses the effectiveness of the technology on special students.
- The study completes the gap between education and special students.
- This study change in the motivational and performance levels of special students.

1.5 OBJECTIVES OF THE STUDY

1.5.1 *PRIMARY OBJECTIVE*

- To study on impact on E-learning on students with special learning disabilities.

1.5.2 *SECONDARY OBJECTIVE*

- To identify there perceived skill improvement while use virtual learning.
- To study self –regulation.
- To measure affection. (Attitude, Motivation, Anxiety towards online education system)

1.6 LIMITATION OF STUDY

- The study confines within the limited period.
- The study may be bias due to primary data.
- The study will be batter if pandemic situation is not there.

CHAPTER-2

REVIEWS OF LITERATURE

2.1 REVIEW OF LITERATURE

1. **Aksamit D, Morris M, & Leuenberger (1987)** This paper will try to uncover how e-learning is giving a new shape to the education industry. Also, it will encompass the students' perspective and experience of e-learning. The findings have been grouped under two sections referred to as “themes,” which include “drivers for e-learning adoption” and “inhibitors which restrict the adoption of e-learning.”

2. **Geneva (2001)**-The International Classification of Functioning Disability and Health for Children and Youth (ICF-CY) is a derived version of the International Classification of Functioning Disability and Health (ICF WHO 2001) designed to record characteristics of the developing child and the influence of environments surrounding the child. Providers, consumers and all those concerned with the health education and well being of children and youth can use this derived version of the ICF.

3. **NORAH JONES & JOHN O'SHEA (2004)**.The paper reflects on the university's strategic planning process and outlines the development process of an e-learning initiative. Examples of the emergent change agenda are identified and finally possibilities for future development are explored. It is clear that the impact of e-learning will require universities to re-think fundamentally their thinking and therefore their strategies in a whole range of areas. There has been much focus on technological advancement but much less on how technology impacts on strategic planning. This paper addresses this gap in the literature by examining one university's strategic responses to this challenge of e-learning.

4. **Beacham N. A., Alty J. L. (2006)**. An investigation into the effects that digital media can have on the learning outcomes of individuals who have dyslexia- The research process was based on Dual Coding Theory and refined by current theories on dyslexia. Findings from the research are intended to help academics and providers of e-learning materials to improve the design and delivery of their learning contents.

5. Catherine S. Fichten, Vittoria Ferraro, Jennison V(2009)-This study explored e-learning problems and solutions reported by 223 students with disabilities, 58 campus disability service providers, 28 professors, and 33 e-learning professionals from Canadian colleges and universities. All four groups indicated, via online questionnaires, problems with: accessibility of websites and course/learning management systems (CMS); accessibility of digital audio and video; inflexible time limits built into online exams; PowerPoint/data projection during lectures; course materials in PDF, and lack of needed adaptive technologies. Students also mentioned technical difficulties using e-learning and connecting to websites and CMS, problems downloading and opening files, web pages that would not load, video clips taking too long to download, poor use of e-learning by professors and their own lack of knowledge working with e-learning.

6. Meng-Jung Tsai (2009)-An in-depth interview, pilot study and main study are employed to construct the model and develop an instrument—the Online Learning Strategies Scale (OLSS). The model framework is constructed and illustrated by four dimensions of characteristics of e-learning environments and three core domains (perceived-skill, affection and self-regulation) of student e-learning strategies. This study also tries to identify and analyze elements corresponding to each domain strategy. Based on this model, the OLSS finally contains 20 items with good construct validity and reliability. This instrument provides a diagnostic instrument for e-learning researchers, system designers, curriculum developers and instructors to evaluate students' e-learning strategies in their experiment, design and development.

7. Eleonora Guglielman (learning Community Srl)(2010) specifics to make e-learning platforms accessible, the pedagogical and didactic perspective of accessibility is not enough studied; disabled students can access to the e-learning platform but not to contents, resources, activities, collaboration and interaction tools. Starting from the basic assumption that an elearning course is really inclusive when accessibility is addressed both technically and pedagogically, this research has the purpose to examine methods, tools and practices to propose a reference model for designing accessible elearning courses in the higher education context.

8.Kodihalli Ramanna Anil Kumar (2011)Teaching for specially cared children, Parkinsonism, Pedagogical issues, learning theories, learning design, barrier-free learning, Learning Management Systems, Learning environment, Technology for specially cared students.

9.Emilia Mikołajewska , Dariusz Mikołajewski(2011)-E-learning has a great deal of potential as a new mode of education [18, 19]. Additionally, integrating e-learning with telemedical systems (including telerehabilitation systems) and healthcare educational programs (e-health) is very important for disabled people as well as for medical personnel. But it seems that the whole current model of education would need to be redefined in order to exploit the full potential of e-learning. It is necessary to think about the needs of disabled people in the area and offer the same product – i.e. the same level of education – through various methods, so that choices can be made according to the given student's needs. Research is being conducted into the possibilities of adapting multiuser virtual environments (like the "Second Life" game) for e-learning. The further development of IT, communications technology, assistive technology and related fields will enhance the advantages of e-learning. Particular attention should be given to reforms in social and governmental policies that attempt to address issues of equality of opportunity for all citizens. It seems that adapting these policies to rapidly developing technologies is a slow and difficult process [20]. There is need for particular attention to making e-learning more accessible in poor countries, where it may be the only chance for disabled people to pursue an education.

10. Prof.Dr. S. Ravi, Prof.Dr. S.K. Srivatsa (2011)-In this paper, we discuss a technique to facilitate human and computer interactions. Using the proposed technique, e-learning contents will be more accessible for people suffering from arm muscle disorders, Parkinsonism also. Parkinsonism is a disease. The people who are suffering from this disease will have neurological problems. This disease is also known as Parkinson's disease.

11. Joel Kipkemboi Kiboss (2012)-The study employed the Solomon-Four Group Design research method. The specific dependent measures were the learners' achievement in geometry and their perception of the classroom learning environment. Measurement of

achievement and perception were conducted using two instruments: (i) the Geometry Achievement Test (GAT), and (ii) the Special Learners Classroom Environment Questionnaire (SLCEQ). GAT's reliability was computed using K-R20 formula yielding a reliability of 0.78. On the other hand, SLCEQ reliability was determined using Cronbach alpha yielding a reliability coefficient of 0.82. The study established that SELP was modestly effective in improving the achievement of hearing-impaired learners on geometry and their perception of the classroom environment. The study concludes that teachers can arrest the special learners' problem of poor performance in geometry through the use of electronic learning programs.

12. **Bjekic, D., Obradovic, S., & Vucetic, M. (2012)**- In this paper categorisation of students with disabilities is presented as first step to developing e-environment for them. The most important components of e-environment for students with disabilities are assistive technology and E-learning/E--teaching procedures. E-learning is the psychological process supported by the e-technology.

13. **JK Seale - 2013** - Most people working within the higher education sector understand the importance of making e-learning accessible to students with disabilities, yet it is not always clear exactly how this should be accomplished. E-Learning and Disability in Higher Education evaluates current accessibility practice and critiques the extent to which 'best' practices can be confidently identified and disseminated.

14. **Hisyamuddin HASHIM, Zaidatun TASIR(2013)** Studied attitudes toward and knowledge about learning disabled students (LDSs) in a mail survey of 51 student services staff and 717 faculty members of a large mid-western US university. Results indicate that 59% of the Ss had had previous contact with LDSs, and 53% had acquired some information about them.

15. **Zainab Pirani (2013)** The purpose of this paper is to provide a an e-learning framework for understanding functional limitations related to learning Disability (LD) and to identify various learning principles and dimensions that can be used to overcome limitations and enhance functional capacities in home, school and college settings. The focus of the

research is limited to the academic disorders associated with LD and will not address the physical and sensory limitations that often accompany LD.

16. **Cristian Vasile, Florence Mihaela Singer (2014)** Implementation of e-learning/e-teaching components in education of students with specific learning disabilities supported perspectives of inclusive e-education and importance of teachers' competence of e-teaching in inclusive education.

17. **C.Straub, E.VasquezIII –JournalofSpecialEducation,2015** - journals.sagepub.com
As online K–12 instruction increases, researchers have expressed concerns about online learning for students with disabilities. This study investigates online writing instruction for students with learning disabilities (LDs) using synchronous online collaborative writing software to investigate effects of self-regulated strategy development for strategy instruction in persuasive writing (POW+ TREE).

18. **Terras K., Leggio J., Phillips A. (2015).** In this study, the authors interviewed 11 graduate students to determine their experiences with disability accommodations in online courses and their perceptions of the relationship between those accommodations and their academic success. Although study participants indicated that disabilities presented concentration and scheduling challenges, the flexibility of online learning as well as participants' skills at self-accommodation and self-advocacy were instrumental in students' academic success.

19. **Matthew J. Erickson, Karen H (2016)**-this investigation suggests that there is an absence of empirical research on this topic in the existing published research. Results presented include findings from the K-12 data examining this impact, and the results from federal investigations on the prevalence of individuals with disabilities attending post-secondary institutions.

20. **Sharabi A., Sade S., Margalit M. (2016).** The goals of the study were first to compare the social and academic well-being (loneliness and academic self-efficacy (ASE) among college students with and without learning disabilities (LD), as well as three personal strengths (hope, optimism and sense of coherence (SOC). The second goal was to identify the predicting factors to their loneliness and ASE. The sample consisted of 178 female

students from the special education programme in a teachers' college, divided into two subgroups: 59 students with LD and 119 students without LD. The following questionnaires were used: the loneliness scale; ASE; Internet and smartphone activities; hope, optimism and SOC. As expected, students with LD reported higher levels of loneliness and lower levels of ASE. Multiple hierarchical regression analyses showed that the use of the Internet for avoidance coping was a significant predictor for the loneliness and ASE. Results of the mediation analysis further demonstrated that LD was positively associated with online avoidance coping. However, hopeful thinking had a significant mediation effect between LD and online avoidance coping. Students with LD who have hopeful thinking were less engaged in avoidance coping than their peers, focusing attention on the importance of hope as a mediation factor.

21. 5. **Matthew J. Erickson, Karen H. Larwin (2016)** this investigation suggest that there is an absence of empirical research on this topic in the existing published research. Results presented include findings from the K-12 data examining this impact, and the results from federal investigations on the prevalence of individuals with disabilities attending post-secondary institutions.

22. **Alamri A, Tyler-Wood T. (2017).** This study investigates which factors associated with learners with disabilities impact student outcomes in an online learning environment. Forty learners with disabilities participating in online higher education coursework were asked to respond to an electronic survey of 20 questions. Results indicated that there were two factors-the teaching and social presences.

23. **Adam T, Tatnall A. (2017).** This study investigates whether, and if so how, ICT could be used to support school communities involving students with learning difficulties, and whether it could help these students with their learning in two special School settings.

24. **Marios A.Pappas(2018)** The development of any e-learning environment should help them in boosting their motivation level and at the same time enhancing their performance in learning any subjects or courses available in schools or learning institutions.

25. **Kanuka, Heather; Kelland, Jennifer(2018)**-Fourteen participants who are experts in e-learning in higher education agreed there are contentions about e-learning technologies in

the following areas: (1) a platform for ideal speech; (2) greater opportunities for interactions; (3) the extent to which communities of learners can be created; (4) provision of a new kind of learning environment; (5) a platform for discussions; (6) demand for e-learning by students; (7) the degree to which the environment is equal and equitable; and (8) the quality of the learning experience. The findings of this study indicate that the value of e-learning requires further research before higher education leaders and teacher-practitioners are willing to incorporate them in teaching practices and policy documents.

26. **Ziadat A. H. (2019).** -the result showed that there are statistically significant differences in the social interaction according to the grade and the variance was in favor of the third grade.

27. **B Baharuddin, J Dalle** - Journal of Social Studies Education (2019) - learntechlib.org- The study aims to develop a prototype eLearning system and to gather feedback from teachers on the developed prototype to demonstrate its effectiveness. The study uses a four-phase iterative process to develop and analyze a prototype eLearning system: understanding the problem, designing the system, developing the system, and gathering user feedback.

28. **Baharuddin B., Dalle J. (2019).** This study aims to analyze the cognitive characteristics of deaf adults, as well as the way they learn better, for the development of an innovative and user-friendly e-learning platform, which will be adapted to the educational needs of the target group.

29. **P Filippello, C Buzzai, G Messina-** Journal of Disability, 2020 - Taylor & Francis-The purpose of this research was to conduct an exploratory study to investigate any differences in the risk of developing school refusal in students with low academic achievement and students with specific learning disorder (SLD), and moreover to compare both groups to students with high academic achievement. Furthermore, we want to investigate whether or not school self-esteem, interpersonal self-esteem, and psychological control are predictive of risk of developing school refusal.

30. **Nidhi Phutela, Sunita Dwivedi(2020)** The findings indicate that most of the previous works used a learning style from the cognition learning domain category to model individual

personal traits, while the computer-based detection technique was commonly applied to identify a learner's personal traits in adaptive learning environments.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

A research design is considered as a framework or a plan for a study that guides as well as helps the data collection and analysis of data.

Descriptive Research Design- Is a type of study that is designed in order to depict the response of the respondents in an accurate way. In simple words the descriptive research is all about describing the respondents who take part in the study.

3.2 SAMPLE TECHNIQUE:

To study the project simple random sampling technique under descriptive method is used.

3.3 SOURCE OF DATA

The data collected for this project work was from two sources

1. Primary Source
2. Secondary Source

3.3.1 PRIMARY DATA

Primary data is collected from people by using structured questionnaire.

3.3.2 SECONDARY DATA

The secondary data was collated by websites, books and internet, Wikipedia.

3.4 STRUCTURE OF QUESTIONNAIRE

- Closed Ended

3.5 SAMPLE SIZE:

The sample of 100 responded was taken into consideration for my study and the data was collated.

3.6 PERIOD OF STUDY

The period of study is 4 month.

3.7 Hypothesis

An idea or theory that the researcher sets as the goal of the **study** and examines it and is replaced as a theory when the **hypothesis** is true in the **study's** conclusion.

3.8 ANALYTICAL TOOLS

The analytical tools used for the study in SPSS used to study hypothesis

- Correlation
- Chi- Square test
- Anova

CHAPTER 4

DATA ANALYSIS AND INTERPRETATIONS

4.1. PERCENTAGE ANALYSIS:

TABLE 4.1.1: Gender of the respondents

GENDER	No. of respondent	Percent
Male	53	53
Female	47	47
Total	100	100.0

Sources: Primary data

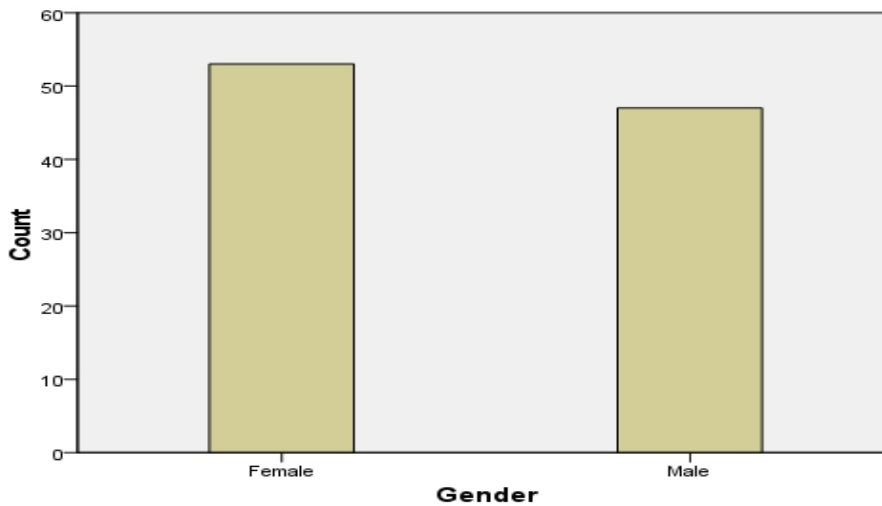


CHART 4.1.1: Gender of the respondents

INTERPRETATION

From the above table it is interpreted that the number of male respondent is 53% and female respondent is 47%.

INFERENCE

Majority (53%) of the respondents are male.

TABLE 4.1.2: Age of the respondents

S.No	Particular	No. of respondents	Percentage
1	18 to 20	40	40%
2	20 to 22	26	26%
3	22 to 24	22	22%
4	24 above	12	12%
Total		100	100

Source: Primary data

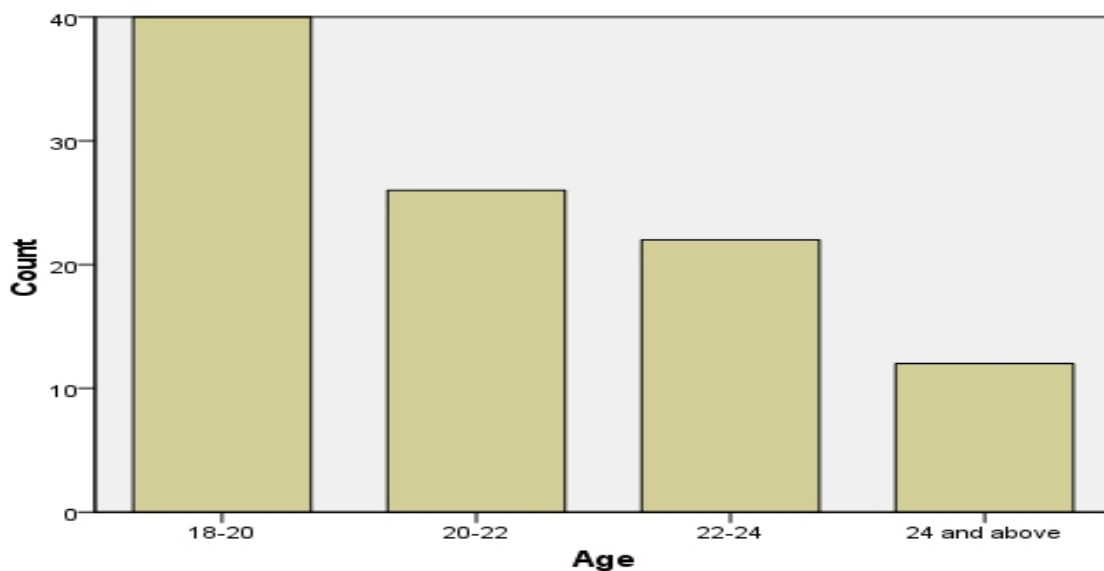


CHART4.1.2: Age of the respondents

INTERPRETATION

From the above table it is interpreted that the numbers of respondents between 18 to 20 is 40%, 20 to 22 is 26%, 22 to 24 is 22%, and 24 above is 12%.

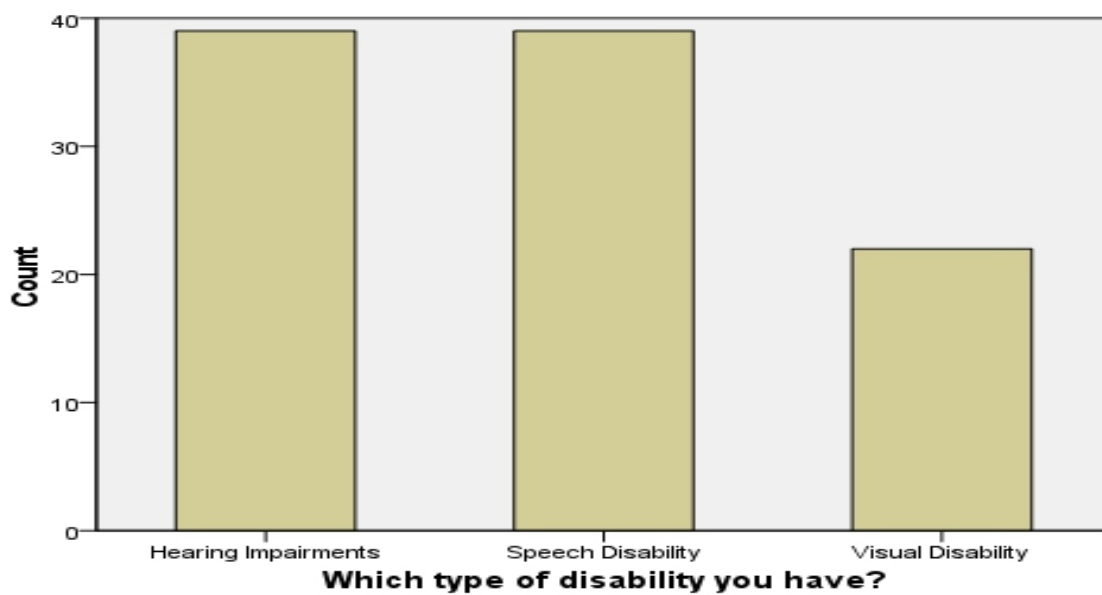
INFERENCE

Majority (40%) of the respondents fall in the age group of 18 to 20 years.

TABLE4.1.3: Type of disability of the respondents.

S.No	Particulars	No. of respondents	Percentage
1	Visual Disability	39	39%
2	Hearing Impairments	39	39%
3	Speech Disability	22	22%
Total		100	100.00

Source: Primary data



CH

ART4.1.3: Type of disability of the respondents

INTERPRETATION

From the above table it is interpreted that the number of respondents hearing impairments is 39%, speech disability is also 39% and visual disability is 22%.

INFERENCE

Majority (39%) of the respondents are facing hearing impairments and speech disability.

TABLE4.1.4: Education wise classification

S.No	Particulars	No. of respondents	Percentage
1	UG	26	23%
2	PG	51	51%
3	Diploma	23	26%
Total		100	100.00

Source: Primary data

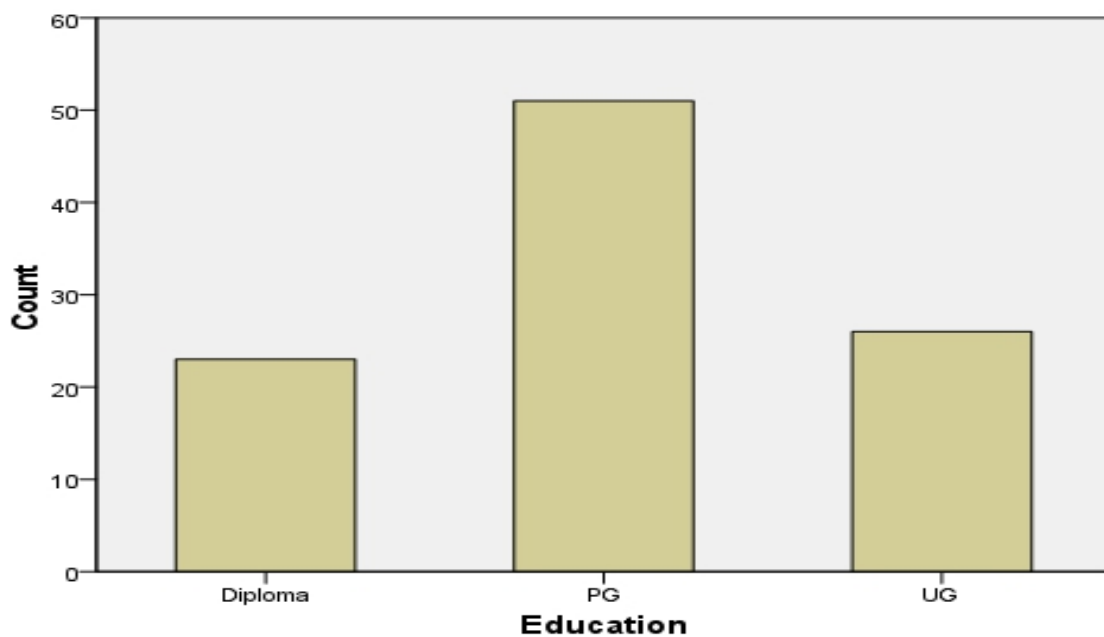


CHART4.1.4: Education wise classification

INTRPRETATION

From the above table it is interpreted that 26% of respondents in UG,23% of the respondents in diploma and 51% of respondents in PG.

INFRENCE

Majority (51%) are in doing post-graduation.

TABLE4.1.5: Per day time spend on online learning wise classification

S.No	Particular	No. of respondents	Percentage
1	1 to 2 Hours	20	20
2	2 to 3 hours	34	34
3	3 to 4 hours	33	33
4	Above 4 hours	13	13
Total		100	100.00

Source: Primary data



CHART4.1.5: Per day time spend on online learning wise classification

INTERPRETATION

From the above table it is interpreted that the number of respondents are spending time on online learning 20% of students are spending 1 to 2 hour ,34% of students are spending 2 to 3 hour ,33% of students are spending 3 to 4 hours, and 20% of students are spending time more then 4 hour on online learning.

INFERENCE

Majority (34%) of the respondents are using online courses 2 to 3 hours each day.

TABLE4.1.6: Specifically E-learning wise classification

S.No	Particulars	No. of respondents	Percentage
1	Managing interactive self- study and tutorials	19	19%
2.	Reduce learning time	27	27%
3	Increase the consultation time	29	29%
4	Enhance learning activities	25	25%
Total		100	100.00

Source: Primary data

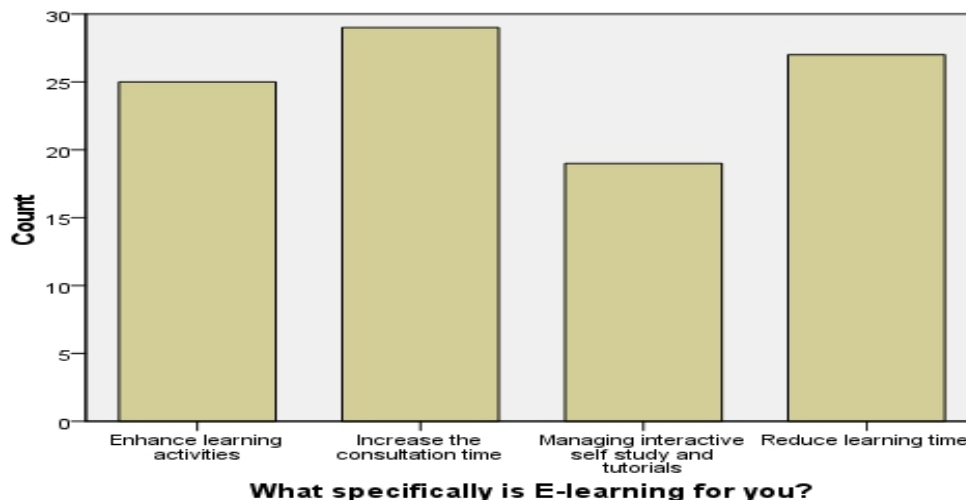


CHART4.1.6: Specifically E-learning of respondents

INTERPRETATION

From the above table it is interpreted that 19% of respondent Managing interactive self- study and tutorials, 27% of respondents reduce learning time, 29% of respondents Increase the consultation time, 25% of respondents Enhance learning activities.

INFERENCE

Majority (29%) of respondents enhance learning activities.

TABLE4.1.7: Knowledge of MS-office of the respondents.

S.No	Particulars	No. of respondents	Percentage
1.	Poor	-	-
2.	Fair	10	10%
3.	Average	10	10%
4.	Good	30	30%
5.	Excellent	50	50%
Total		100	100.00

Source: Primary data

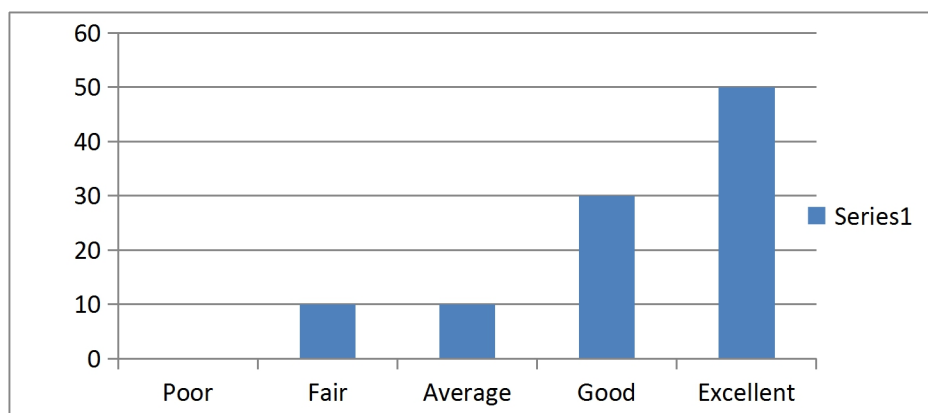


CHART4.1.7: Knowledge of MS-office of the respondents

INTERPRETATION

From the above table it is interpreted that the number of respondent says 50% of students have excellent knowledge, 30% of students have good knowledge, 10% of students are average, and 10% of students are fair.

INFERENCE

Majority (50%) of respondents has excellent knowledge of MS-office and they know how to operate.

TABLE4.1.8: Social media of the respondents

S.No	Particular	No. of respondents	Percentage
1	Poor	22	22%
2	Fair	8	8%
3	Average	20	20%
4	Good	10	10%
5	Excellent	40	40%
Total		100	100.00

Source: Primary data

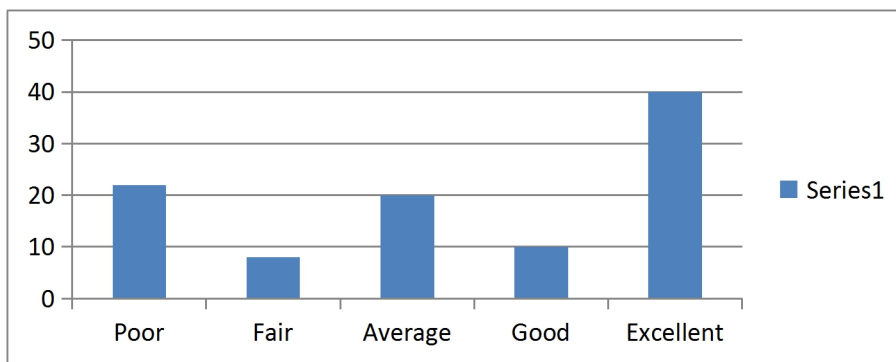


CHART4.1.8: Social media of the respondents

INTEPRETATION

From the above table it is interpreted that the number of respondents 40% of students are excellent in social media, 10% students are good, 20% of students are average, 8% of students are fair, 22% of students poor.

INFERENCE

Majority (40%) of respondents are excellent in social media.

TABLE4.1.9: Knowledge of online courses of respondents

S.No	Particulars	No. of respondents	Percentage
1	Poor	0	nil
2	Fair	3	3%
3	Average	20	20%
4	Good	43	43%
5.	Excellent	34	34%
Total		100	100.00

Source: Primary data

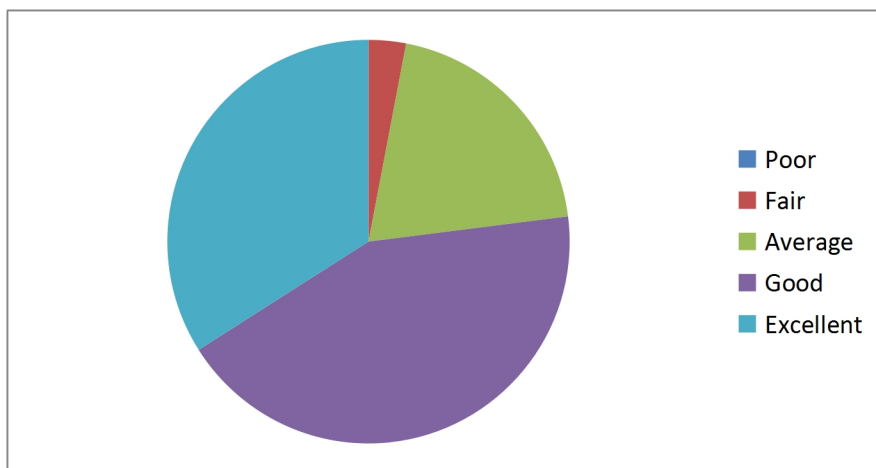


CHART4.1.9: Knowledge of online courses of respondents

INTERPRETATION

From the above table it is interpreted that 34% of respondent are excellent, 43% of respondents are good, 20% of respondents are average, 3% of respondent's fair knowledge in online courses.

INFERENCE

Majority (43%) of respondents are good in operating online courses.

TABLE4.1.10: Effective courses wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Effective	50	50%
2	Neutral	45	45%
3	Not effective	5	5%
Total		100	100.00

Source: Primary data

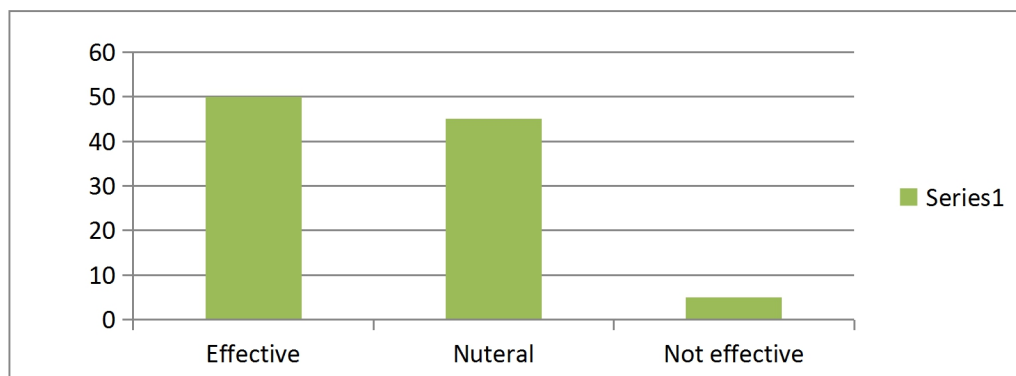


CHART4.1.10: Effective courses wise classification

INTERPRETATION

From the above table it is interpreted that 50% of respondents are saying online courses are effective, 45% of respondents saying online courses is nutral, 5% of respondents are saying online courses is not effective.

INFERENCE

Majority (50%) of respondents are saying online courses are effective.

TABLE4.1.11: Easy was the online course of respondents.

S.No	Particulars	No. of respondents	Percentage
1	Very poor	1	1%
2	Poor	3	3%
3	Average	39	39%
4	Good	48	48%
5	Excellent	9	9%
Total		100	100.00

Source: Primary data

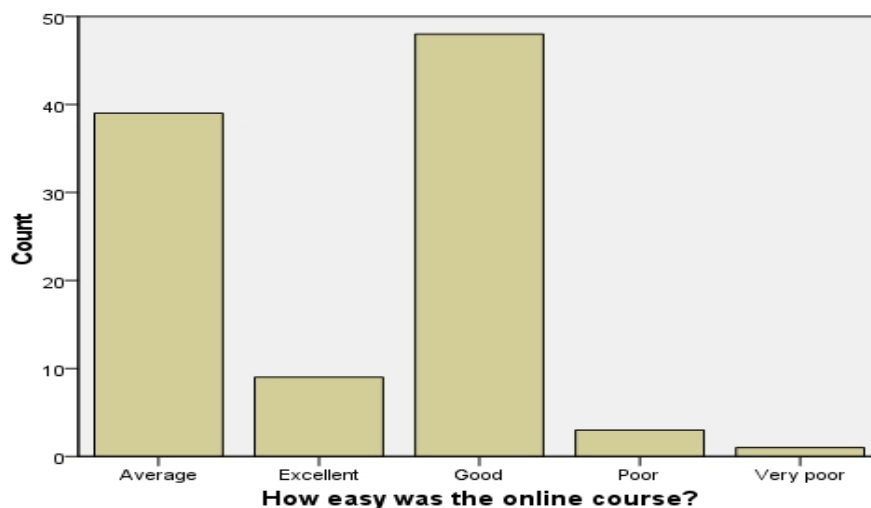


CHART4.1.11: How easy was the online course of respondents.

INTERPRETATION

From the above table it is interpreted that 9% of respondents is online courses are excellent, 39% of respondents is thinking online courses are average to understand, 48% of respondents are thinking online courses are good, 3% of respondents are thinking online course are poor, 1% of respondent are thinking online courses are not easy to understand.

INFERENCE

Majority (48%) of respondents is good on E-learning and they can understand easily.

TABLE4.1.12: How engaging is virtual learning wise classification

S.No	Particulars	No. of respondents	Percentage
1	Never	2	2%
2	Rarely	7	7%
3	Sometimes	31	31%
4	Often	37	37%
5	Always	23	23%
Total		100	100.00

Source: Primary data

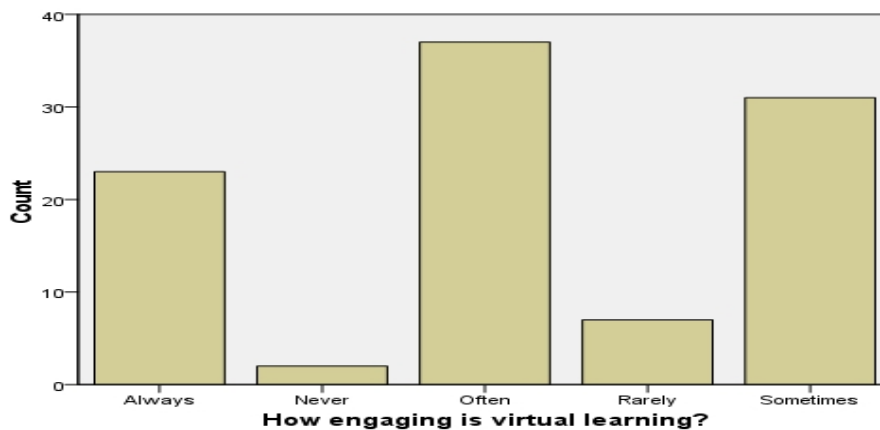


CHART4.1.12: How engaging is virtual learning wise classification.

INTERPRETATION

From the above table it is interpreted that virtual learning engaging 23% always, 37%often,31%sometimes, 7% rarely, and 2%never.

INFERENCE

Majority (37%) of respondents saying virtual learning is often engaging.

TABLE4.1.13: Length of online courses of the respondents

S.No	Particular	No. of respondents	Percentage
1	Strongly disagree	5	5%
2	Disagree	8	8%
3	Neither agree nor disagree	25	25%
5	Agree	56	56%
6	Strongly agree	6	6%
Total		100	100.00

Source: Primary data

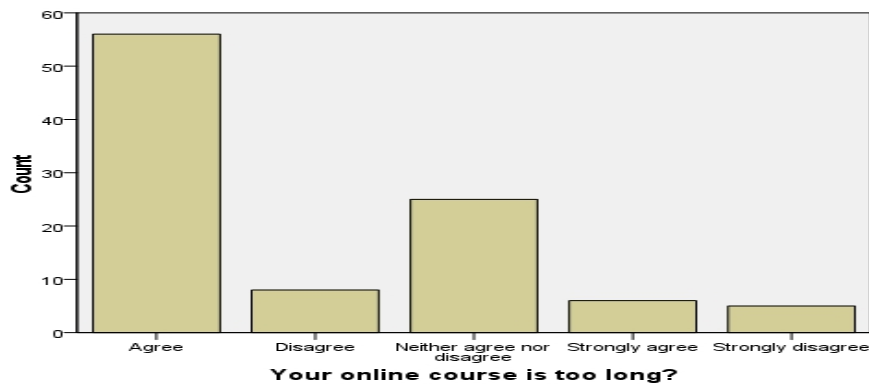


CHART4.1.13: Length of online courses of the respondents

INTERPRETATION

From the above table it is interpreted that the number of respondents were 56% is agree, 6% is strongly agree, 8% is disagree, 25% is neither agree or nor agree, and 5% is strongly disagree .

INFERENCE

Majority (56%) of the respondents agree online courses are too long.

TABLE4.1.14: Online courses led to change behavior and practice of the respondents.

S.No	Particulars	No. respondents	Percentage
1	Strongly disagree	3	3%
2	Disagree	9	9%
3	Neither agree nor disagree	21	21%
4	Agree	57	57%
5	Strongly agree	10	10%
Total		100	100.00

Source: Primary data

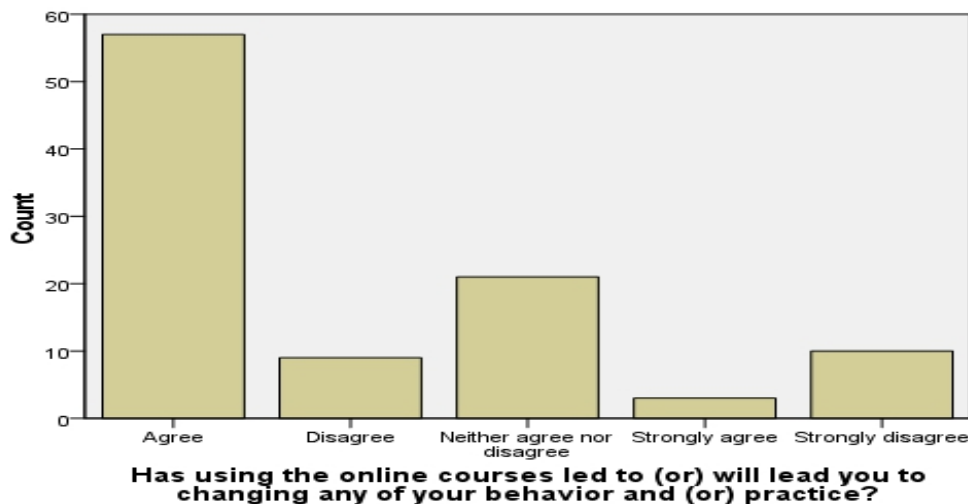


CHART4.1.14: Online courses led to change behavior and practice of the respondents.

INTERPRETATION

From the above table it is interpreted that 57% agree, 21% neither agree nor disagree, 10% strongly agree, 9% disagree and 3% strongly disagree the online courses led to changing behavior and practice.

INFERENCE

Majority (57%) of the respondents are agreeing for online courses led to change behavior and practice.

TABLE4.1.15: Managing time while learning remotely of the respondents.

S.No	Particulars	No. of respondents	Percentage
1.	Poorly 1	1	
2.	2	5	
3.	3	21	
4.	4	28	
5.	Excellently	45	
Total		100	100.00

Source: Primary data

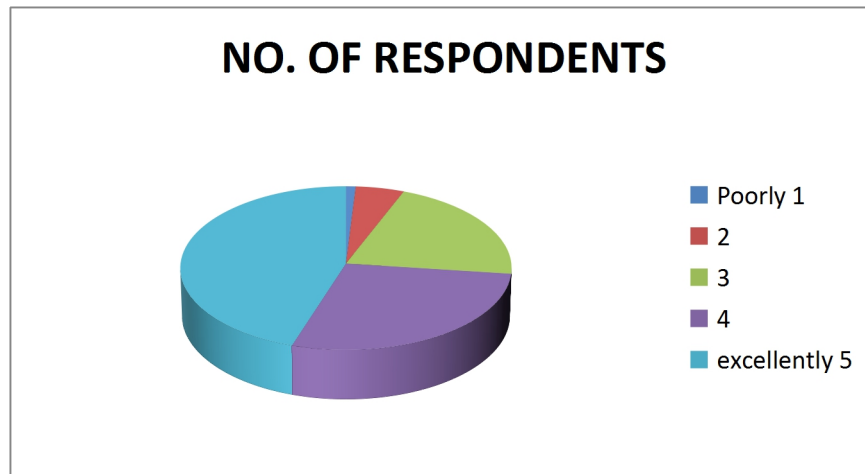


CHART4.1.15: Managing time while learning remotely of the respondents.

INTERPRETATION

From the above table it is interpreted that 45%, 28% of respondents says they can manage there time while learning remotely ,in other side 21% respondents says in sometime it's hard to do that and 5%, 1% of respondents says they cannot manage their time while learning remotely.

INFERENCE

Majority (45%) of respondents are extremely agreed that they can manage their time while learning remotely.

TABLE4.1.16: Teachers guidance of the respondents.

S.No	Particulars	No. of respondents	Percentage
1	Not at all helpful	2	2%
2	Slightly helpful	16	16%
3	Moderately helpful	13	13%
4	Very helpful	62	62%
5	Extremely helpful	8	8%
Total		100	100.00

Source: Primary data

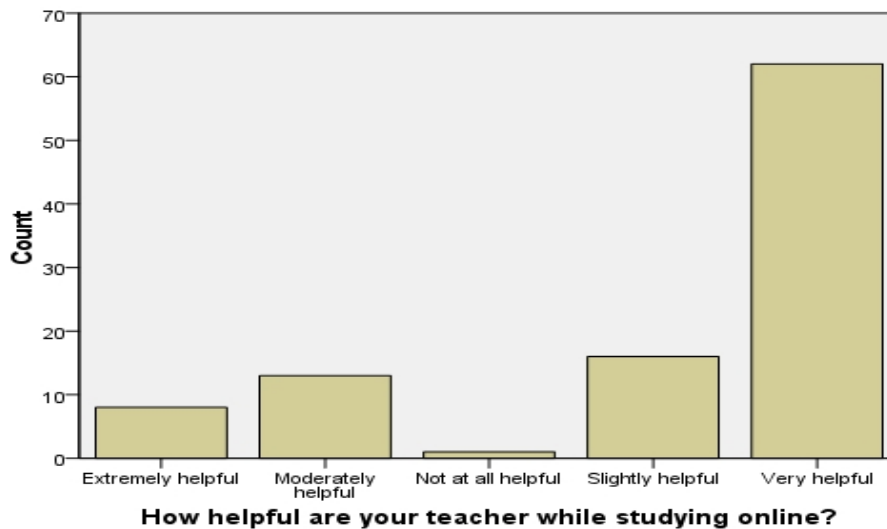


CHART4.1.16: Teachers guidance of the respondents.

INTERPRETATION

From the above table it is interpreted that 62% and 13% saying teachers are helping them, 16% of respondents says sometime teachers are helping when they get doubt, 8% and 2% of respondent says teachers are not helping at all.

INFERENCE

Majority (62%) of the respondents says teachers are helping them while learning remotely.

TABLE4.1.17: Images and text clarity wise classification.

S.No	Particulars	No. of respondents	Percentage
	Strongly agree	33	33%
	Agree	51	51%
	Neither agree nor disagree	12	12%
	Disagree	3	3%
	Strongly disagree	1	1%
Total		100	100.00

Source: Primary data

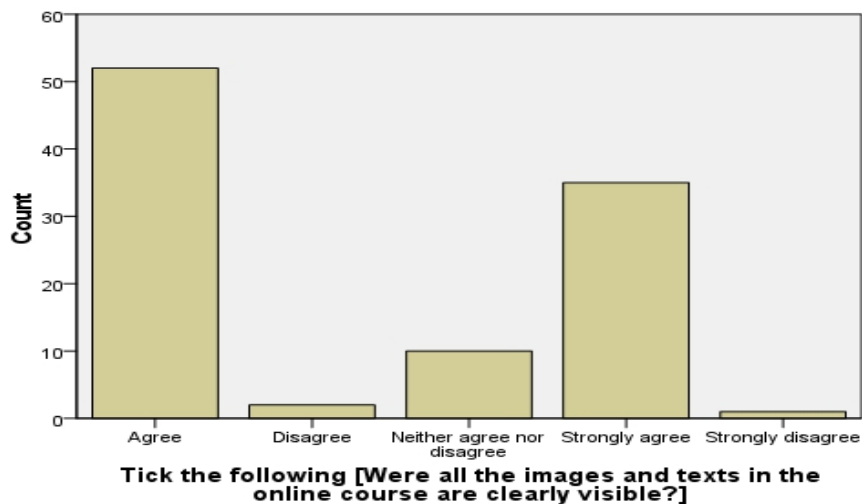


CHART4.1.17: Images and text clarity wise classification.

INTERPRETATION

From of the above table it is interpreted that 33% of respondents strongly agreed images and text are cleared, 51% respondents agree images and text are cleared, 12% of respondents are neither agree nor disagree, 3% and 1%of respondents disagree and says images and text are not clear at all.

INFERENCE

Majority (51%) of respondents says text and images on E-learning are cleared.

TABLE4.1.18: Online courses sound wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	35	35%
2	Agree	50	50%
3	Neither agree nor disagree	12	12%
4	Disagree	1	1%
5	Strongly disagree	2	2%
Total		100	100.00

Source: Primary data

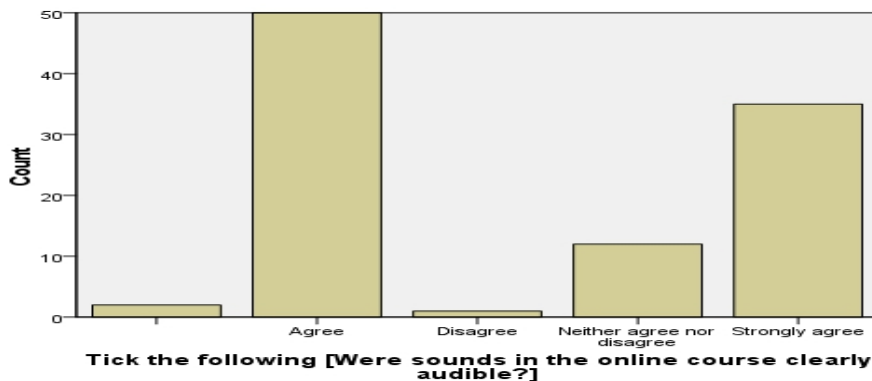


CHART4.1.18: Online courses sound wise classification.

INTERPRETATION

From the above table it is interpreted that 50% of respondent are agree, 35% of respondents are strongly agree, 12% are neither agree nor disagree, 1% of respondent is disagree, and 2% of respondents are strongly disagree.

INFERENCE

Majority (50%) of respondents are agreeing that online courses sounds are audibled.

TABLE4.1.19: Connection problem wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	24	24%
2	Agree	37	37%
3	Neither agree nor disagree	11	11%
4	Disagree	20	20%
5	Strongly disagree	8	8%
Total		100	100.00

Source: Primary data

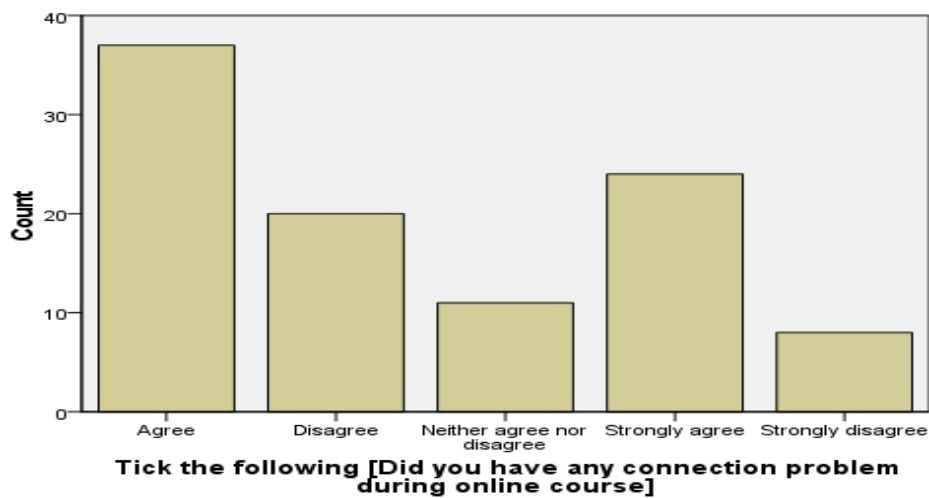


CHART4.1.19: Connection problem wise classification.

INTERPRETATION

From the above table it is interpreted that 24% strongly agree, 37% agree, 11% neither agree nor disagree, 20% disagree, 8% strongly disagree toward online connection problem.

INFERENCE

Majority (37%) of respondents are agreeing they did not face any connection problem while learning through online.

TABLE4.1.20: Virtual courses easily understandable wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	24	24%
2	Agree	37	37%
3	Neither agree nor disagree	11	11%
4	Disagree	20	20%
5	Strongly disagree	8	8%
Total		100	100.00

Source: Primary data

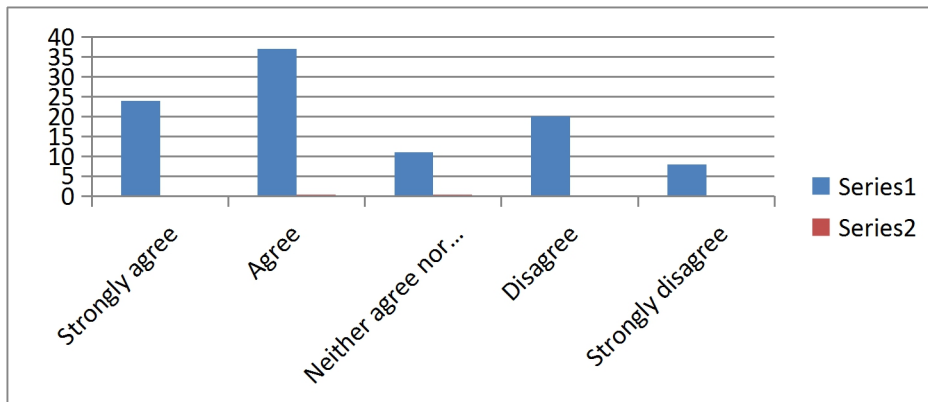


CHART4.1.20: Virtual courses easily understandable wise classification.

INTERPRETATION

From the above table it is interpreted that 37% of respondents agree, 24% of respondents strongly agree, 11% of respondents neither agree nor disagree, 20% of respondents disagree, 8% of respondents strongly disagree about virtual courses application is easily understandably by them.

INFERENCE

Majority (37%) of respondents are agreed for virtual courses are easy to understand.

TABLE4.1.21: Family environment wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Always	18	18%
2	Often	33	33%
3	Sometimes	25	25%
4	Rarely	10	10%
5	Never	14	14%
Total		100	100.00

Source: primary data

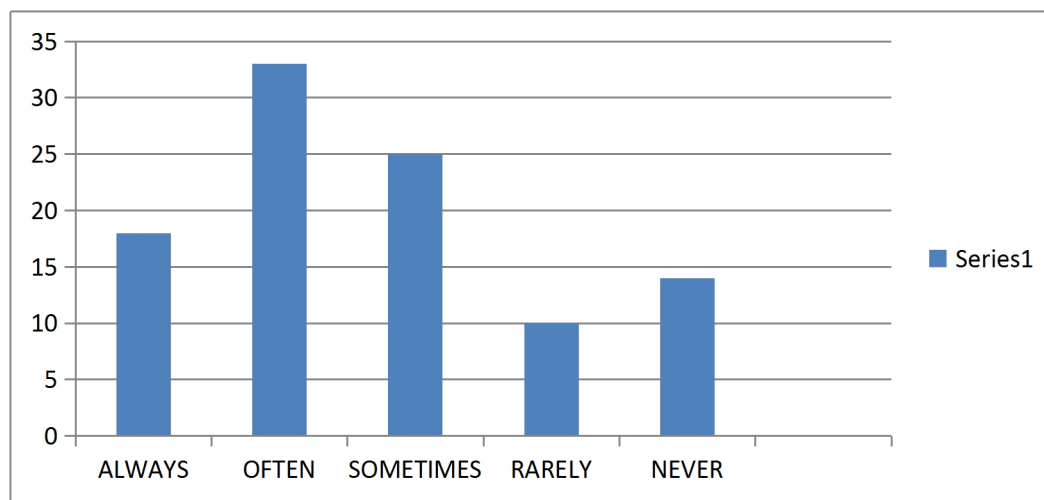


CHART4.1.21: Family environment wise classification.

INTERPRETATION

From the above table it is interpreted that 18% always, 33% often, 25% sometimes, 10% rarely, and 14% never, are the respondents opinion about their family provides environment to concentrate on their courses.

INFERENCE

Majority (33%) of respondents says often they got studying environment by their family.

TABLE4.1.22: Further guidance offered where information was complex wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	11	11%
2	Agree	66	66%
3	Neither agree nor disagree	16	16%
4	Disagree	5	5%
5	Strongly disagree	2	2%
Total		100	100.00

Source: Primary data

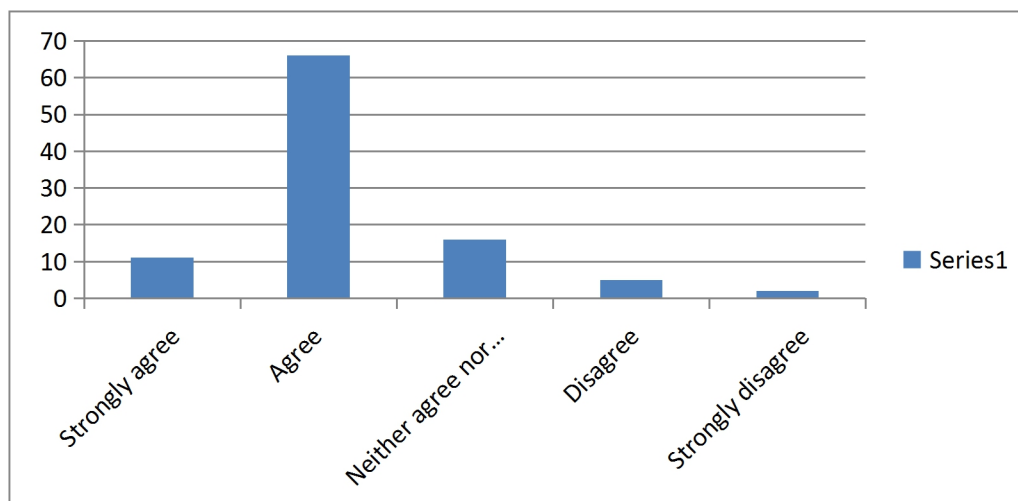


CHART4.1.22: Further guidance offered where information was complex wise classification.

INTERPRETATION

From the above table it is interpreted that 66% of respondents agree, 16% of respondents neither agree nor disagree, 11% of respondents strongly agree, 5% of respondents are disagree, and 2% of respondents are strongly disagreed about further guidance offered when information was complexes.

INFERENCE

Majority (66%) of respondents are saying they are getting further guidance when information was complexes.

TABLE4.1.23: E-learning system is user-frendly wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	17	17%
2	Agree	64	64%
3	Neither agree nor disagree	14	14%
4	Disagree	4	4%
5	Strongly disagree	1	1%
Total		100	100.00

Source: Primary data

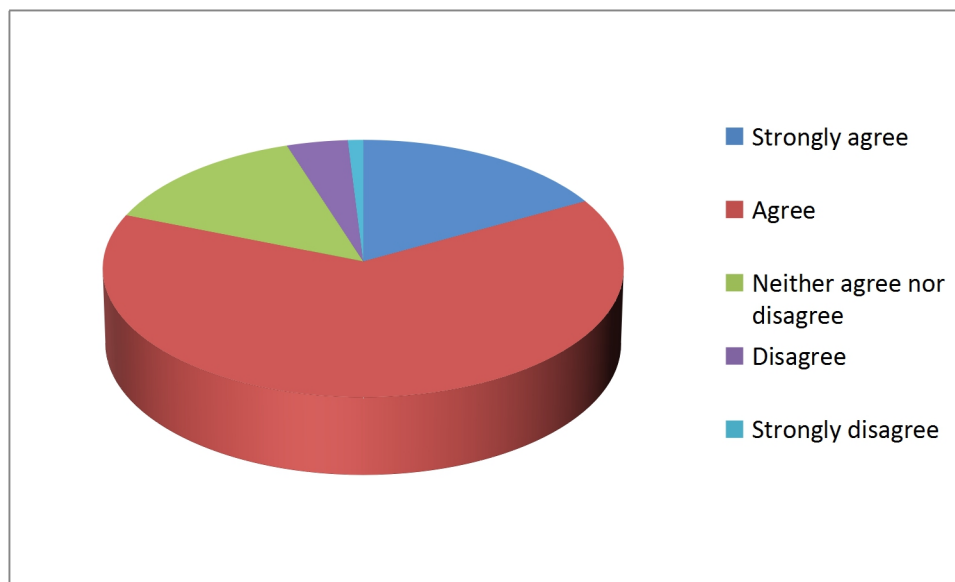


CHART4.1.23: E-learning system is user-frendly wise classification.

INTERPRETATION

From the above table it is interpreted that of respondents are 17% strongly agree, 64% agree, 14% neither agree nor disagree, 4% disagree, and 1% strongly disagree for E-learning system is user friendly.

INFERENCE

Majority (64%) of respondents are agree for E- learning is user-friendly.

TABLE4.1.24: E-learning system content wise classification

S.NO	Particulars	No. of respondents	Percentage
1	ALWAYS	21	21%
2	Often	38	38%
3	Sometimes	37	37%
4	Rarely	3	3%
5	Never	1	1%
Total		100	100.00

Source: Primary data

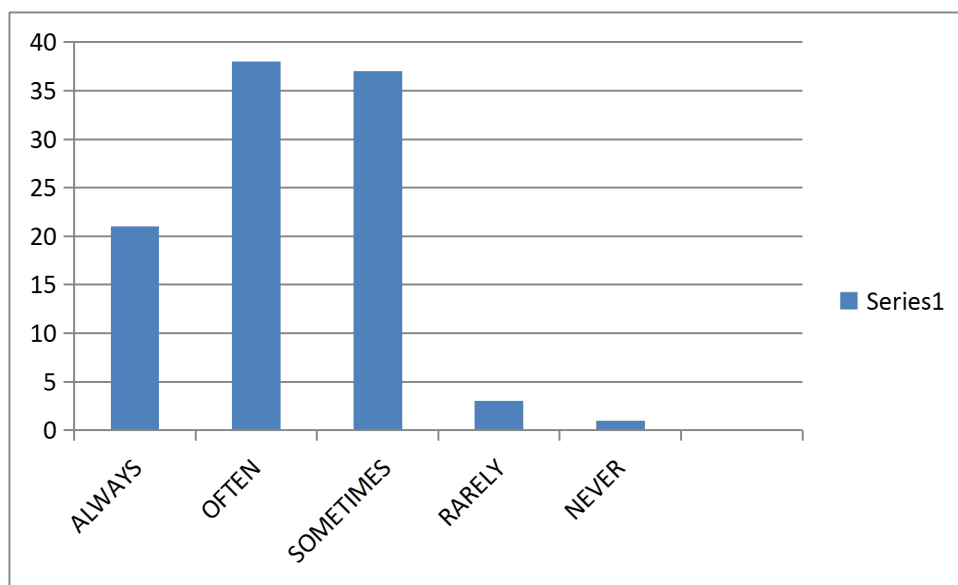


CHART4.1.24: E-learning system content wise classification.

INTERPRETATION

From the above table it is interpreted that E-learning system provide content is 21% always, 38% often, 37% sometimes, 3% rarely, and 1% never.

INFERENCE

Majority (38%) of respondents are said often they are getting content what they need for their study.

TABLE4.1.25: Motivation wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	18	18%
2	Agree	62	62%
3	Neither agree nor disagree	15	15%
4	Disagree	3	3%
5	Strongly disagree	2	2%
Total		100	100.00

Source: Primary data

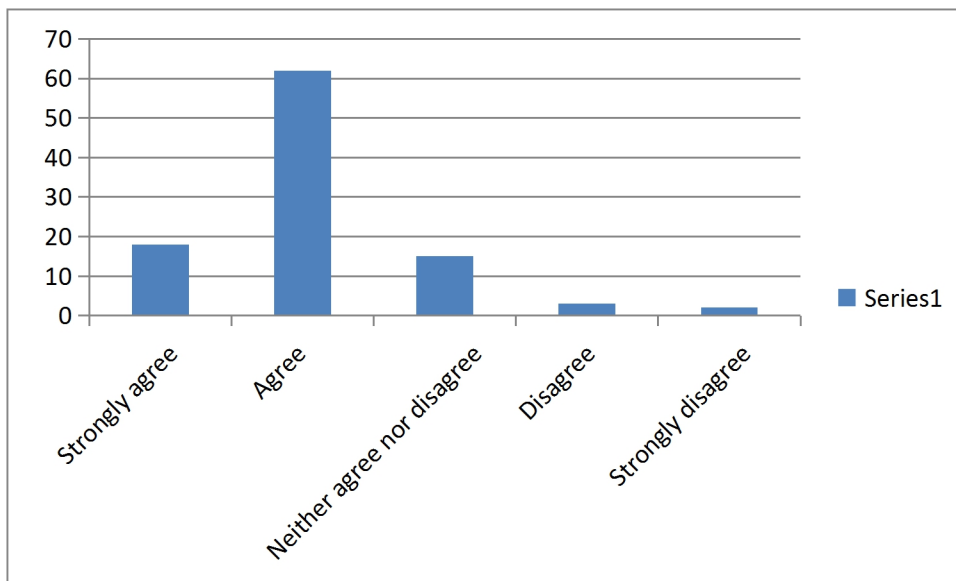


CHART4.1.25: Motivation wise classification.

INTERPRETATION

From the above table it is interpreted that 18% strongly agree, 62% agree, 18% neither agree nor disagree, 3% disagree, 2% strongly disagree e-learning system motivate them to do own study.

INFERENCE

Majority (62%) of respondents agreeing for online courses are motivating them to learn by themselves.

TABLE4.1.26: Confidence of respondents.

S.No	Particulars	No. of respondents	Percentage
1	Confident 1	51	51%
2	2	28	28%
3	3	19	19%
4	4	1	1%
5	Not confidents 5	1	%
Total		100	100.00

Source: Primary data

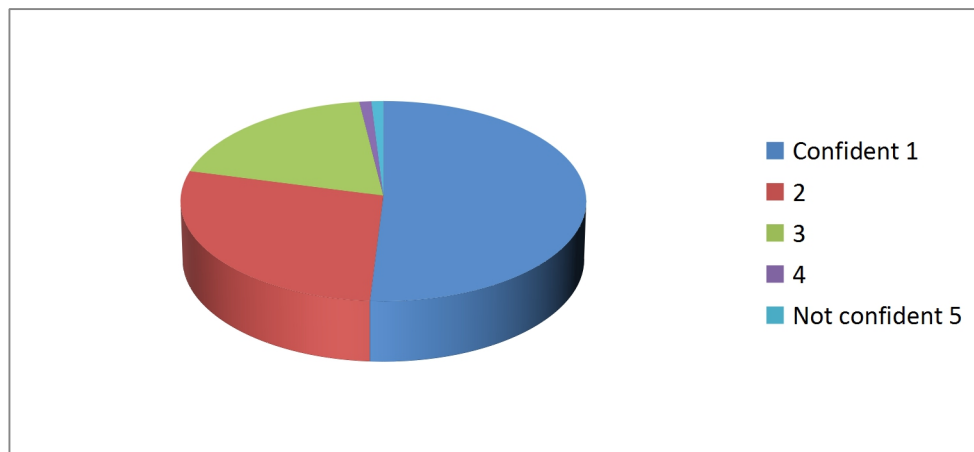


CHART4.1.26: Confidence of respondents.

INTERPRETATION

From the above table it is interpreted that most of the respondents are feeling confident while applying their learning, 9% of respondents are feeling not confident while applying their study on practical, 19% of respondents are not sure about online learning.

INFERENCE

Majorities (51%) of respondents are feeling confident while applying what they have learnt.

Table4.1.27: Overall E-learning Experience of the respondents.

S.No	Particulars	No. of respondents	Percentage
1	Excellent 1	48	48%
2	2	32	32%
3	3	16	16%
4	4	3	3%
5	Very poor 5	1	1%
Total		100	100.00

Source: Primary data

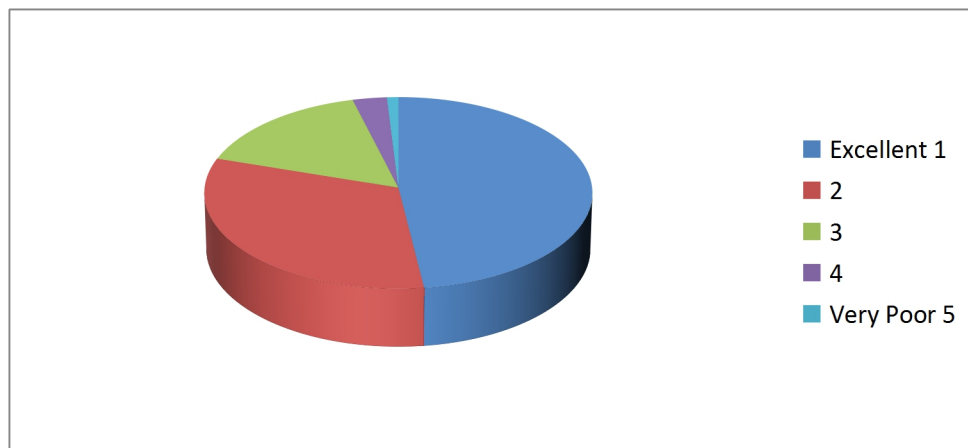


CHART4.1.27: Overall E-learning Experience of the respondents.

INTERPRETATION

From the above table it is interpreted that most of the respondents thinking E-learning is excellent and 4% of respondents thinking E-learning is poor.

INFERENCE

Majority (48%) of respondents are thinking E-learning is excellent and they can suggest to other students.

TABLE4.1.28: Setting goals and deadlines wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	10	10%
2	Agree	58	58%
3	Neither agree nor disagree	16	16%
4	Disagree	10	10%
5	Strongly disagree	6	6%
Total		100	100.00

Source: Primary data

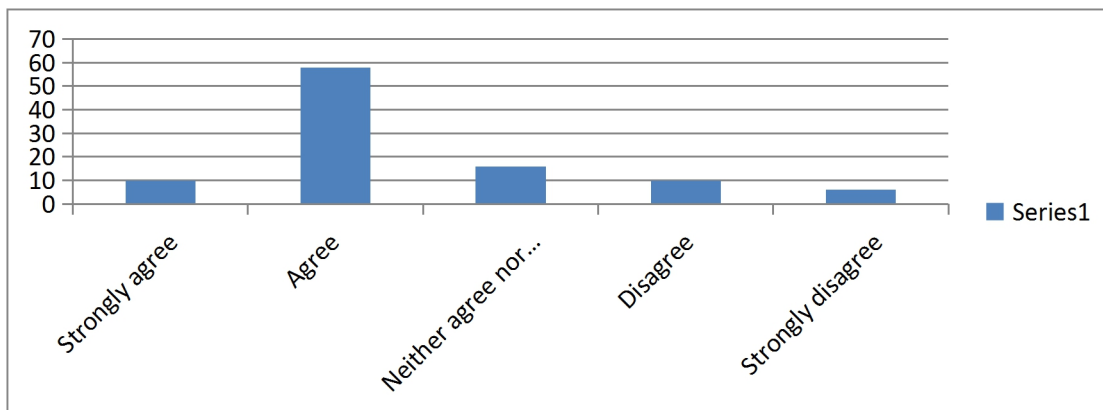


CHART4.1.28: Setting goals and deadlines wise classification.

INTERPRETATION

From the above table it is interpreted that of the respondents 10% strongly agree, 58% agree, 16% neither agree nor disagree, 10% disagree, 6% strongly disagree in good at setting goal and deadlines for themselves.

INFERENCE

Majority (58%) of respondents are agreeing on good at setting goal and providing deadlines for themselves.

TABLE4.1.29: Good reason for taking online courses wise classification.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	26	26%
2	Agree	36	36%
3	Neither agree nor disagree	23	23%
4	Disagree	12	12%
5	Strongly disagree	3	3%
Total		100	100.00

Source: Primary data

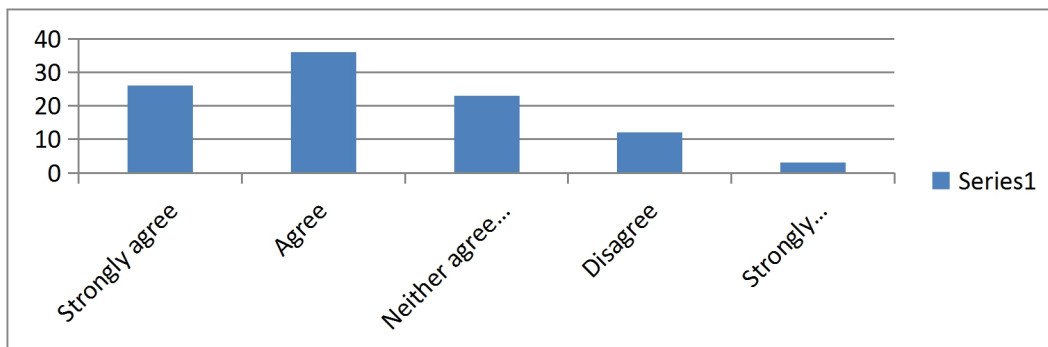


CHART4.1.29: Good reason for taking online courses wise classification.

INTERPRETATION

From the above table it is interpreted that of respondents 26% strongly agree, 36% agree, 23% neither agree nor agree, 12% disagree, 3% strongly disagree their reason for taking Courses.

INFERENCE

Majority (36%) of respondents says they have a good reason for studying online.

TABLE4.1.30: Project and assignment of the respondents.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	42	42%
2	Agree	19	19%
3	Neither agree nor disagree	23	23%
4	Disagree	14	14%
5	Strongly disagree	2	2%
Total		100	100.00

Source: Primary data

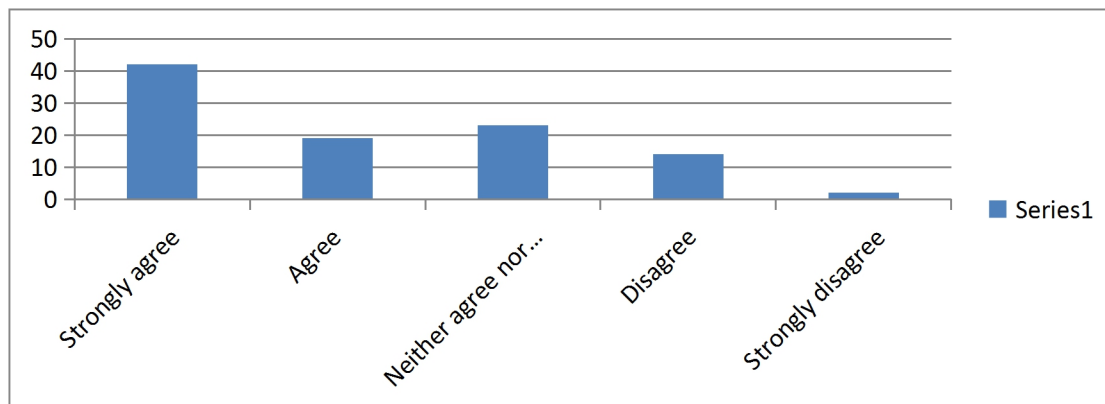


CHART4.1.30: Project and assignments of the respondents.

INTERPRETATION

From the above table it is interpreted that of respondents are 19% strongly agree, 42% agree, 23% neither agree nor disagree, 14% disagree, 2% strongly disagree for their project and assignments finishing on time.

INFERENCE

Majority (42%) of respondents says then can do their project and assignments on time.

TABLE4.1.31: Not quite just because things get difficult of respondents.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	34	34%
2	Agree	40	40%
3	Neither agree nor disagree	13	13%
4	Disagree	7	7%
5	Strongly disagree	6	6%
Total		100	100.00

Source: Primary data

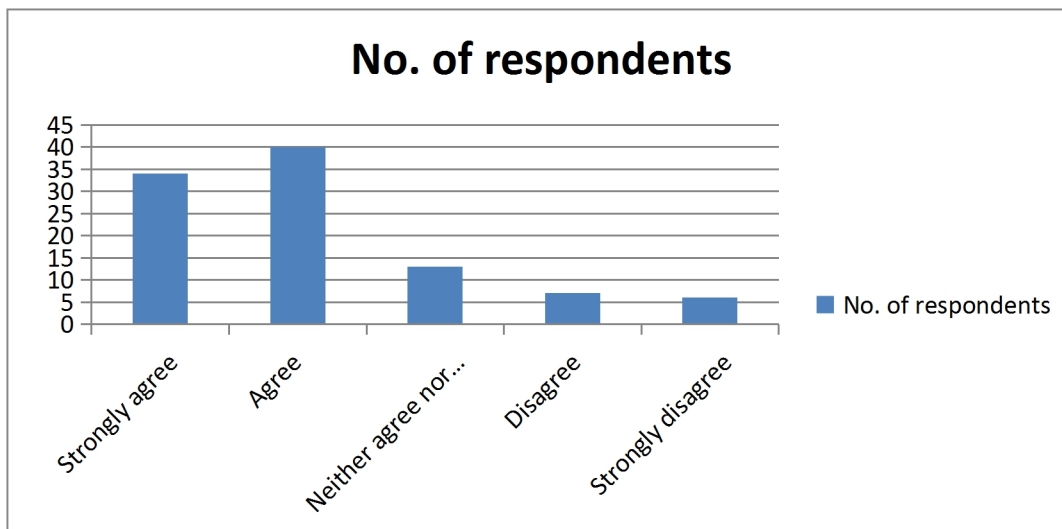


CHART4.1.31: Not quite just because things get difficult of respondents.

INTERPRETATION

From the above table it is interpreted that 34% strongly agree, 40% agree, 13% neither agree nor disagree, 7% disagree, 6% strongly disagree of the respondents are not quite just because things get difficult.

INFERENCE

Majority (40%) of respondents agreeing that they are not going to quite just because things getting difficult.

TABLE4.1.32: Keeping myself on track of respondents.

S.No	Particulars	No. of respondents	Percentage
1	Strongly agree	33	33%
2	Agree	44	44%
3	Neither agree nor disagree	18	18%
4	Disagree	5	5%
5	Strongly disagree	-	-
Total		100	100.00

Source: Primary data

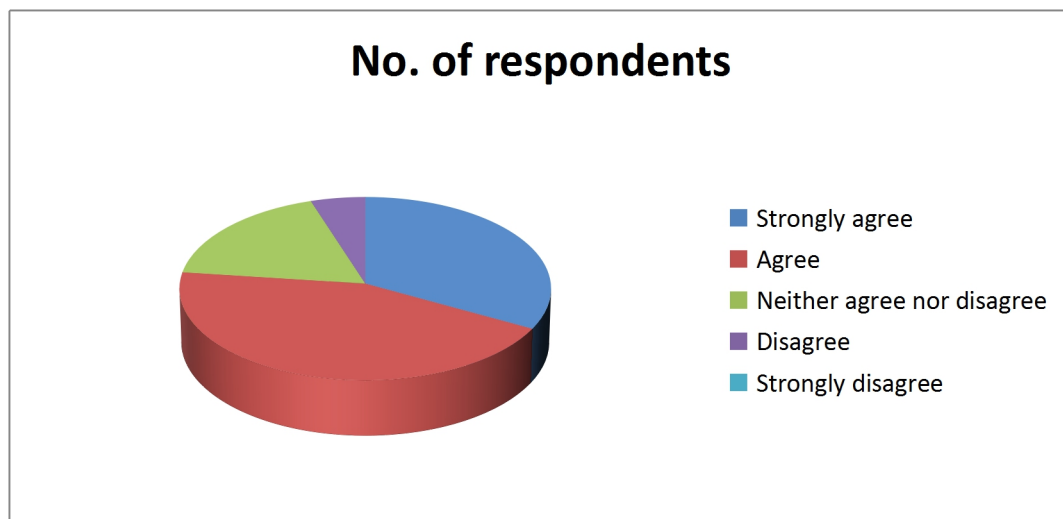


CHART4.1.32: Keeping myself on track of respondents.

INTERPRETATION

From the above table it is interpreted that 33% strongly agree, 44% agree, 18% neither agree nor disagree, 5% disagree of respondents keeping themselves on track.

INFERENCE

Majority (44%) of respondents are agree for E-learning courses make self-confident and keeping themselves on track.

4.2 CHI-SQUARE TEST

4.2.1 TABLE SHOWS THAT DO TEACHER HEPLFUL WHILE SPECIAL STUDENTS LEARNING ONLINE.

H0 (Null Hypothesis) -There is no significant relationship between teachers help and special students while learning online.

H1 (Alternate Hypothesis) - There is a significance relationship between teachers help and special students while learning online.

Case Processing Summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Disability * Teachers	100	100.0%	0	0.0%	100	100.0%

Disability * Teachers Crosstabulation

Count

		Teachers					Total
		1.00	2.00	3.00	4.00	5.00	
Disability	1.00	0	5	4	11	2	22
	2.00	0	4	7	27	1	39
	3.00	1	7	2	24	5	39
Total		1	16	13	62	8	100

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.578 ^a	8	.296
Likelihood Ratio	10.741	8	.217
Linear-by-Linear Association	.503	1	.478
N of Valid Cases	100		

a. 8 cells (53.3%) have expected count less than 5. The minimum expected count is .22.

INTERPRETATION

Since p value is higher than 0.05, we accept the null hypothesis and reject the alternative hypothesis. Therefore there is no relationship between teachers helping while special students learning online.

4.3 PEARSON CORRELATION

4.3.1TABLE SHOWS DO ONLINE LEARNING MOTIVATE STUDENTS TO LEARN BY THEIR OWN.

Correlations			
		Disability	Family
Disability	Pearson Correlation	1	.008
	Sig. (2-tailed)		.937
	N	100	100
Family	Pearson Correlation	.008	1
	Sig. (2-tailed)	.937	
	N	100	100

INTREPRETATION

Since p value is (.008) it is positive correlation. Hence there is a positive correlation between respondents and online learning motivation.

4.4 ANOVA

TABLE4.4.1: SPECIAL STUDENTS AND THEIR OPINION ABOUT E-LEARNING MOTIVATION.

H0 (Null Hypothesis) = There is no significant relationship between no. of respondents and their opinion about online learning motivation.

H1 (Alternate Hypothesis) = There is a significance relationship between between no. of respondents and their opinion about online learning is motivate them to learn by there own.

ANOVA

Motivate					
	Sum of Squares	df	Mean Square	F	Sig.

Between Groups	.628	2	.314	.495	.611
Within Groups	61.562	97	.635		
Total	62.190	99			

INTERPRETATION

From the above analyse data, it is interpreted that the anova .611 which is above the significance level 5, therefore reject the null hypothesis and accept the alternative hypothesis. Thus, there is a significance relationship between between no. of respondents and their opinion about online learning is motivate them to learn by there own.

CHAPTER 5

5.1 FINDING

1. Majority (53%) of the respondents are female.
2. Majority (40%) of the respondents fall under the age category of 18 to 20 years of age.
3. Majority (39%) of respondents have hearing impairments and speech disability.
4. Majority (51%) of respondents doing post graduation.
5. Majority (34%) of respondents spending 3 to 4 hours in E-learning courses.
6. Majority (29%) of respondents enhance learning activities.
7. Majority (50%) of respondents has excellent knowledge of MS-office and they know how to operate.
8. Majority (40%) of respondents are excellent in social media.
9. Majority (43%) of respondents are good in operating online courses.
10. Majority (50%) of respondents are saying online courses are effective.
11. Majority (48%) of respondents is good on E-learning and they can understand easily.
12. Majority (37%) of respondents saying virtual learning is often engaging.
13. Majority (56.6%) of respondent says virtual learning very attractive.
14. Majority (56%) of the respondents agree online courses are too long.
15. Majority (57%) of the respondents are agreeing for online courses led to change behavior and practice.
16. Majority (45%) of respondents are extremely agreed that they can manage their time while learning remotely.
17. Majority (62%) of the respondents says teachers are helping them while learning remotely.
18. Majority (51%) of respondents says text and images on E-learning are cleared.
19. Majority (50%) of respondents are agreeing that online courses sounds are audibled.
20. Majority (37%) of respondents are agreeing they did not face any connection problem while learning through online.
21. Majority (37%) of respondents are agreed for virtual courses are easy to understand.

22. Majority (33%) of respondents says often they got studying environment by their family.
23. Majority (66%) of respondents are saying they are getting further guidance when information was complexes.
24. Majority (64%) of respondents are agree for E- learning is user-friendly.
25. Majority (38%) of respondents are said often they are getting content what they need for their study.
26. Majority (62%) of respondents agreeing for online courses are motivating them to learn by themselves.
27. Majorities (51%) of respondents are feeling confident while applying what they have learn.
28. Majority (48%) of respondents are thinking E-learning is excellent and they can suggest to other students.
29. Majority (58%) of respondents are agreeing on good at setting goal and providing deadlines for themselves.
30. Majority (36%) of respondents says they have a good reason for studying online.
31. Majority (42%) of respondents says then can do their project and assignments on time.
32. Majority (40%) of respondents agreeing they not quite just because things get difficult.
33. Majority (44%) of respondents are agree for E-learning courses make self-confident and keeping themselves on track.

5.2 SUGGESTION

- E-learning is helpful for special students but they face lack of teachers involment.
Teachers are not connecting students for solving their problems or doubt. Teacher have to organized meeting every week to connect or face to face interaction with special students and make sure to make list of their problems and solve as soon as possible.
- Families have to provide proper environment to concentrate their children on studies.
- Courses are so expensive, it should be low.
- Teacher and parents should motivate students.

5.3 CONCLUSION

As per my research E-learning is one of the best platforms for learning. It's really helpful for disabled students, and they can do wonders by using online technology. It easy for them to manage their schedule with studies. Even it is easy to operate, and best part of e-learning can be use any time and any place . If net connection is not available then they can download the video, audio, pdf, e-book, for learning.

REFERENCES

1. Cristian Vasile, Florence Mihaela Singer, Emil Stan, Volume 128, Pages 1-530 (22 April 2014) Implementation of e-learning/e-teaching components in education of students with specific learning disabilities.
2. _Eleonora Guglielman (learning Community Srl)Conference: Proceedings of the 5th Doctoral Consortium at the European Conference on Technology Enhanced Learning, Barcelona, Spain, September 29, 2010.
3. Zainab Pirani, M.H.Saboo Siddik College of Engineering. Mumbai, India, International Journal of Computer Applications (0975 – 8887), Volume 63– No.19, February 2013
4. Kodihalli Ramanna Anil Kumar Prof.Dr. S. Ravi , Prof.Dr. S.K. Srivatsa , International Journal of Scientific & Engineering Research, Volume 2, Issue 11, November - 2011 1 ISSN 2229-5518
5. Matthew J. Erickson , Karen H. Larwin, Department of Special Education, Slippery Rock University, USA 2 Educational Foundation, Research, & Leadership, Youngstown State University, USA International Journal of Evaluation and Research in Education (IJERE) Vol.5, No.1, March2016, pp. 76 ~ 81 ISSN: 2252-8822
6. Adam T, Tatnall A. (2017). The value of using ICT in the education of school students with learning difficulties. *Educ. Inf. Technol.* 22 2711–2726. 10.1007/s10639-017-9605-2
7. Alamri A., Tyler-Wood T. (2017). Factors affecting learners with disabilities–instructor interaction in online learning. *JSET* 32 59–69. 10.1177/0162643416681497
8. Nur BaitiAfini Normadhi^a-Volume 130, March 2019, Pages 168-190 Department of Information Systems, Faculty of Computer Science & Information Technology, University of Malaya, 50603 Kuala Lumpur, Malaysia
- 9.Nidhi Phutela, Sunita Dwivedi -Journal of Applied Research in Higher Education(volume12 ,Issue 4) ISSN: 2050-7003-Publication date: 14 March 2020- “A qualitative study of students' perspective on e-learning adoption in India”.

10. Aksamit, D., Morris, M., & Leuenberger, J. (1987). Preparation of student services professionals and faculty for serving learning-disabled college students. *Journal of College Student Personnel*, 28(1), 53–59.
11. Hisyamuddin HASHIM (hisyamuddinhashim@yahoo.com) Zaidatun TASIR (p-zaida@utm.my) Siti Khadijah MOHAMAD (dieja_80s@yahoo.com)- Faculty of Education, Universiti Teknologi Malaysia, Malaysia-TOJET: The Turkish Online Journal of Educational Technology – October 2013, volume 12 issue 4-E-LEARNING ENVIRONMENT FOR HEARING IMPAIRED STUDENTS
12. Marios A.Pappas/Institute of Informatics & Telecommunications, N.C.S.R. “Demokritos”, 15310 Agia Paraskevi, Greece- E-Learning for Deaf Adults from a User-Centered Perspective-Received: 1 November 2018 / Revised: 20 November 2018 / Accepted: 21 November 2018 / Published: 27 November 2018
13. Baharuddin B., Dalle J. (2019). Transforming learning spaces for elementary school children with special needs. *JSSER* 10 344–365.
14. Beacham N. A., Alty J. L. (2006). An investigation into the effects that digital media can have on the learning outcomes of individuals who have dyslexia. *Comput. Educ.* 47 74–93. 10.1016/j.compedu.2004.10.006 [[CrossRef](#)] [[Google Scholar](#)]
15. Filippello P., Buzzai C., Messina G., Mafodda A. V., Sorrenti L. (2019). School refusal in students with low academic performances and Specific Learning Disorder. the role of self-esteem and perceived parental psychological control. *Intl. J. Disabil. Dev. Educ.* 67 592–607. 10.1080/1034912x.2019.1626006
16. Ziadat A. H. (2019). The impact of e – learning in developing academic skills and social interaction among students with learning disabilities in Jordan from the perspective of their teachers. *TEM J.* 8 1440–1448. 10.18421/TEM84-48
17. World Health Organization (2001). *International Classification of Functioning, Disability and Health*. Geneva: World Health Organization.ISBN9789241547321

18. Terras K., Leggio J., Phillips A. (2015). Disability accommodations in online courses: the graduate student experience. *JPED* 28 329–340.
19. Straub C., Vasquez E. (2015). Effects of synchronous online writing instruction for students with learning disabilities. *JSET* 30 213–222. 10.1177/0162643415618929
20. Sharabi A., Sade S., Margalit M. (2016). Virtual connections, personal resources, loneliness, and academic self-efficacy among college students with and without LD. *Eur. J. Spec. Needs Educ.* 31 376–390. 10.1080/08856257.2016.1141542.
21. Seale J. K. (2013). *E-learning and Disability in Higher Education: Accessibility Research and Practice*. Abingdon: Routledge; 10.4324/9780203095942.
22. NORAH JONES & JOHN O'SHEA (2004). Challenging hierarchies: The impact of e-learning: Higher Education 48: 379–395, 2004. © 2004 Kluwer Academic Publishers. Printed in the Netherlands.
23. Bjekic, D., Obradovic, S., & Vucetic, M. (2012a). Students with Disabilities in e-Environment: Psychological View, The Third International Conference on e-Learning, 27-28 September 2012, Belgrade, Serbia, *eLearning Proceedings*.
24. Catherine S. Fichten, Vittoria Ferraro, Jennison V. Asuncion, Caroline Chwojka, Maria Barile, Mai N. Nguyen, Ryan Klomp and Joan Wolforth. Source: Journal of Educational Technology & Society, Vol. 12, No. 4, New Directions in Advanced Learning Technologies (October 2009), pp. 241-256. Published by: International Forum of Educational Technology & Society.
25. Kanuka, Heather; Kelland, Jennifer -*Canadian Journal of Higher Education*, v38 n1 p45-65 Mar 2008-Has e-Learning Delivered on Its Promises? Expert Opinion on the Impact of e-Learning in Higher Education.
26. Emilia Mikołajewska , Dariusz Mikołajewski -*Adv Clin Exp Med* 2011, 20, 1, 103–109,ISSN 1230-025XE-(Copyright by Wrocław Medical University)learning in the Education of People with Disabilities.

27. Meng-Jung Tsai (2009), The Model of Strategic e-Learning: Understanding and Evaluating Student e-Learning from Metacognitive Perspectives. Educational Technology & Society, 12 (1), 34–48.
28. Kodihalli Ramanna Anil Kumar, Prof.Dr. S. Ravi, Prof.Dr. S.K. Srivatsa - International Journal of Scientific & Engineering Research, Volume 2, Issue 11, November – 2011-1 ISSN 2229-5518- Effective e-learning approach for Students with Learning Disabilities.
29. Matthew J. Erickson , Karen H. Larwin- International Journal of Evaluation and Research in Education (IJERE) Vol.5, No.1, March 2016, pp. 76 ~ 81 ISSN: 2252-8822: The Potential Impact of Online/Distance Education for Students with Disabilities in Higher Education.
30. Joel Kipkemboi Kiboss, 31-59-Article first published online: May 10, 2012; Issue published: January 1, 2012: Effects of Special E-Learning Program on Hearing-Impaired Learners' Achievement and Perceptions of Basic Geometry in Lower Primary Mathematics.

APPENDIX-1

QUESTIONNAIRE

1. Name

2. Gender

- Male
- Female

3. Age

- 18-20
- 20-22
- 22-24
- 24 and above

4. Which type of disability you have?

- Visual Disability
- Hearing Impairments
- Speech Disability

5. Education

- UG
- PG
- Diploma

6. How much time do you spend each day on an average on E-learning?

- 1-2 Hours
- 2-3 hours
- 3-4 Hours
- Above 4 hours

7. What specifically is E-learning for you?

- Managing interactive self study and tutorials
- Reduce learning time

- Increase the consultation time
- Enhance learning activities

8. How effective was the course at helping you to reach those learning objectives?

- Not effective
- Neutral
- Effective

9. Choose the most accurate response to each statement.

	Poor	Fair	Average	Good	Excellent
How well you know to operate MS-office?					
How well you know to operate social media?					
How well you know to operate your online courses?					

10. How easy was the online course?

- Very poor
- Poor
- Average
- Good
- Excellent

11. How engaging is virtual learning?

- Never
- Rarely
- Sometimes
- Often
- Always

12. How attractive you found the virtual courses?

- Not at all attractive

- Slightly attractive
- Moderately attractive
- Very attractive
- Extremely attractive

13. Your online course is too long?

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

14. Has using the online courses led to (or) will lead you to changing any of your behavior and (or) practice?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

15. Choose the most accurate response to each statement.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I am good at setting goals and deadlines for myself.					
I have a really good reason for taking an online courses.					
I finish the project and online courses I start.					
I do not quit just because things get difficult.					
I can keep myself on track and					

on time.					
----------	--	--	--	--	--

16. How well you manage time while learning remotely?

Poorly 1 2 3 4 5 Excellently

17. How helpful are your teacher while studying online?

- Not at all helpful
- Slightly helpful
- Moderately helpful
- Very helpful
- Extremely helpful

18. Tick the following:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Were all the images and texts in the online course are clearly visible?					
Were sounds in the online course clearly audible?					
Did you have any connection problem during online course					

19. Was the information in the virtual course easily understandable?

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

20. Does your family provide you a proper environment to concentrate on E-learning?

- Never
- Rarely
- Sometimes
- Often
- Always

21. Was further guidance offered where information was complex?

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

22. Was interface of E-learning system user-friendly and easy to use?

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

23. Does the E-learning system make it easy for you to find the content you need?

- Never
- Rarely
- Sometimes
- Often
- Always

24. Do E-learning system provides up-to-date content?

- Never
- Rarely

- Sometimes
- Often
- Always

25. Do online learning system motivate you to study on your own?

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

26. How confident are you in applying what you have learnt?

Not confident 1 2 3 4 5 Confident

27. Rate your overall E-learning Experience?

Very poor 1 2 3 4 5 Excellent

ARTICLE

A STUDY ON IMPACT OF E-LEARNING ON STUDENTS WITH SPECIAL LEARNING DISABILITIES

NEHA KUMARI DR. G. BHUVANESWARI

Students, Sathyabama Institute of Science and Technology, Chennai- 600119

Assistant Professor, School of Management Studies, Sathyabama Institute of Science and Technology, Chennai- 600119

ABSTRACT

The right to education is available to all citizens including the (disabled) special students. The study aims at finding impact of E-learning on students with special learning disabilities. The data of 100 students have been collected and SPSS tool have been used to find the results. This study to find what is the gap between special students and E-learning, how to improve technology for providing good education to them.

Key words: *Educational Technology; Student Preferences; Disabled students;*

Students satisfaction, Self-regulation, Switching to technology.

INTRODUCTION

E-Learning, or electronic learning, is providing education through digital resources. Although E-learning is based on formalized learning or study, we can operate E-learning through such as computers, tablets and even smart phone that are connected to the internet. This makes it easy for user to learn anytime, anywhere even if internet connect is not available they can download courses and use anytime .

In present scenario E-learning had been growing rapidly in recent years, India is now accepting new normal an E-learning boom since the pandemic emerged. And many of the college, institute, or university, and school are switching to online class and developing their teaching techniques.

REVIEW OF LITERATURE

1. **Cristian Vasile, Florence Mihaela Singer (2014)** Implementation of e-learning/e-teaching components in education of students with specific learning disabilities supported perspectives of inclusive e-education and importance of teachers' competence of e-teaching in inclusive education.
2. **Eleonora Guglielman (learning Community Srl)(2010)** specifics to make e-learning platforms accessible, the pedagogical and didactic perspective of accessibility is not enough studied; disabled students can access to the e-learning platform but not to contents, resources, activities, collaboration and interaction tools. Starting from the basic assumption that an elearning course is really inclusive when accessibility is addressed both technically and pedagogically, this research has the purpose to examine methods, tools and practices to propose a reference model for designing accessible elearning courses in the higher education context.
3. **Zainab Pirani (2013)** The purpose of this paper is to provide a an e-learning framework for understanding functional limitations related to learning Disability (LD) and to identify various learning principles and dimensions that can be used to overcome limitations and enhance functional capacities in home, school and college settings. The focus of the research is limited to the academic disorders associated with LD and will not address the physical and sensory limitations that often accompany LD.
4. **Kodihalli Ramanna Anil Kumar (2011)**Teaching for specially cared children, Parkinsonism, Pedagogical issues, learning theories, learning design, barrier-free learning, Learning Management Systems, Learning environment, Technology for specially cared students.
5. **Matthew J. Erickson, Karen H. Larwin (2016)** this investigation suggest that there is an absence of empirical research on this topic in the existing published research. Results presented include findings from the K-12 data examining this impact, and the results from federal investigations on the prevalence of individuals with disabilities attending post-secondary institutions.

OBJECTIVES OF THE STUDY

PRIMARY OBJECTIVE

- To study on impact on E-learning on students with special learning disabilities.

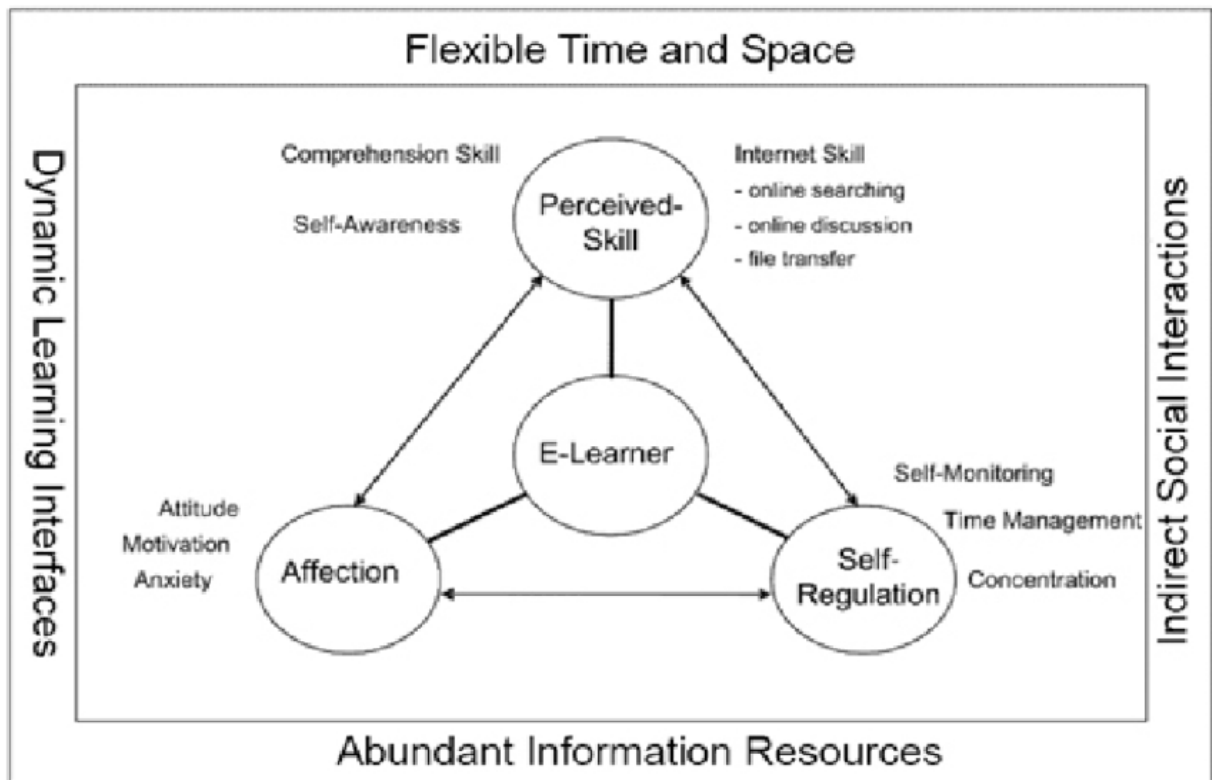
SECONDARY OBJECTIVE

- To identify there perceived skill improvement while use virtual learning.
- To study self –regulation.
- To measure affection. (Attitude, Motivation, Anxiety towards online education system.)

SCOPE OD THE STUDY

- The study defines and analyses the effectiveness of the technology on special students.
- The study completes the gap between education and special students.
- This study change in the motivational and performance levels of special students.

MODEL OF THE PROJECT



-

Dynamic learning interfaces

Dynamic learning means adapt new technology and updating personal skill.

- **Abundant information resources**

Abundant information resources refers to using present technology and make sure to accept it and make ourselves comfortable in that.

- **Indirect social interaction**

Indirect social interaction means to using e-book, pdf, website for learning. Face to face interaction is not involved.

- **Flexible time and space**

Students can learn anytime and anywhere.

- **Perceived skills:** Comprehension skill, self-awareness, internet skill

- **Affection:** Attitude, motivation, anxiety.

- **Self-regulation:** Time management, self-regulation, concentration.

RESEARCH METHODOLOGY

SOURCE OF DATA- The data collected for this project work was from two sources

1. Primary Source
2. Secondary Source

PRIMARY DATA-Primary data is collected from people by using structured questionnaire.

SECONDARY DATA- The secondary data was collected by websites, books and internet, Wikipedia.

SAMPLE SIZE- The sample of 100 responded was taken into consideration for my study and the data was collected.

SAMPLE TECHNIQUE- To study the project simple random sampling technique under descriptive method is used.

PERIOD OF STUDY- The period of study is 4 month.

STRCUTURE OF QUESTIONNAIRE- Closed Ended

ANAYTICAL TOOLS- The analytical tools used for the study in SPSS used to study hypothesis

- Correlation
- Chi- Square test
- Anova

DATA ANALYSIS AND DISCUSSION

CHI-SQUARE TEST

1. TABLE SHOWS THAT HOW TEACHER HELPFUL TOWARDS SPECIAL STUDENTS WHILE STUDYING.

H0 (Null Hypothesis) = There is no significant relationship between teachers help towards special students while learning online.

H1 (Alternate Hypothesis) = There is a significance relationship between teachers and special students (teacher is always ready to help their students while learning online).

Case Processing Summary

		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
Disability	*	100	100.0%	0	0.0%	100	100.0%
Teachers							

Disability * Teachers Cross tabulation

Count

		Teachers					
		1.00	2.00	3.00	4.00	5.00	Total
Disability	1.00	0	5	4	11	2	22
	2.00	0	4	7	27	1	39
	3.00	1	7	2	24	5	39
Total		1	16	13	62	8	100

Chi-Square Tests

Value	df	Asymptotic Significance (2-sided)
-------	----	-----------------------------------

Pearson Chi-Square	9.578 ^a	8	.296
Likelihood Ratio	10.741	8	.217
Linear-by-Linear Association	.503	1	.478
N of Valid Cases	100		

a. 8 cells (53.3%) have expected count less than 5. The minimum expected count is .22.

INTERPRETATION

Since p value is higher than 0.05, we accept the null hypothesis and reject the alternative hypothesis. Therefore there is no relationship between teachers helping while special students learning online.

PEARSON CORRELATION

2. TABLE SHOWS THAT DOES ONLINE LEARNING MOTIVATE STUDENTS TO LEARN BY THEIR OWN.

Correlations

		Disability	Family
Disability	Pearson Correlation	1	.008
	Sig. (2-tailed)		.937
	N	100	100
Family	Pearson Correlation	.008	1
	Sig. (2-tailed)	.937	
	N	100	100

INTREPRETATION

Since p value is (.008) it is positive correlation. Hence there is a positive correlation between respondents and online learning motivation.

ANOVA

3. SPECIAL STUDENTS AND THEIR OPINION ABOUT E-LEARNING MOTIVATION.

H0 (Null Hypothesis) = There is no significant relationship between no. of respondents and their opinion about online learning motivation.

H1 (Alternate Hypothesis) = There is a significance relationship between no. of respondents and their opinion about online learning is motivate them to learn by their own.

ANOVA

Motivate

	Sum Squares	of df	Mean Square	F	Sig.
Between Groups	.628	2	.314	.495	.611
Within Groups	61.562	97	.635		
Total	62.190	99			

INTERPRETATION

From the above analyzed data, it is interpreted that the anova .611 which is above the significance level 5, therefore reject the null hypothesis and accept the alternative hypothesis. Thus, there is a significance relationship between no. of respondents and their opinion about online learning is motivating them to learn by their own.

LIMITATION

- The study confines within the limited period.
- The study may be bias due to primary data.
- The study will be better if pandemic situation is not there.
- The study want to connect their respondents by face to face but because of pandemic is not possible to do that.

SUGGESTION

- E-learning is helpful for special students and it is one of the best technique to upgrade students and providing education. But some where face to face interaction is missing and students are not satisfied by E-learning. Teachers are not connecting to students for solving their problems or doubt.
- Teacher should organized meeting every week to connect or face to face with special students and make sure to solve their problem.
- Families have to provide proper environment to concentrate their children on studies.
- Courses are so expensive, it should be low in cost.
- Teacher and parents should motivate students.
- Courses should be interesting and engage students.

CONCLUSION

As per my research E-learning is one of the best platforms for learning. It's really helpful for disabled students, and they can do wonders by using online technology. It easy for them to manage their schedule with studies. Even it is easy to operate, and best part of e-learning can be use anytime and anywhere. . If net connection is not available then they can download the video, audio, pdf, e-book, for learning. E-learning give comfort to special students but it have to improve. Even parents are also helping special students for providing study environment .

REFERENCE

1. Cristian Vasile, Florence Mihaela Singer, Emil Stan, Volume 128, Pages 1-530 (22 April 2014). Implementation of e-learning/e-teaching components in education of students with specific learning disabilities.
2. Kodihalli Ramanna, Anil Kumar Prof.Dr. S. Ravi , Prof.Dr. S.K. Srivatsa , International Journal of Scientific & Engineering Research, Volume 2, Issue 11, November - 2011 1 ISSN 2229-5518.
3. Matthew J. Erickson , Karen H. Larwin, Department of Special Education, Slippery Rock University, USA 2 Educational Foundation, Research, & Leadership, Youngstown State University, USA International Journal of Evaluation and Research in Education (IJERE) Vol.5, No.1, March2016, pp. 76 ~ 81 ISSN: 2252-8822.
4. Zainab Pirani, M.H.Saboo Siddik College of Engineering. Mumbai, India, International Journal of Computer Applications (0975 – 8887), Volume 63– No.19, February 2013.
5. Joel Kipkemboi Kiboss, page(s): 31-59-Article first published online: May 10, 2012; Issue published: January 1, 2012: Effects of Special E-Learning Program on Hearing-Impaired Learners' Achievement and Perceptions of Basic Geometry in Lower Primary Mathematics.

