



ONLINE LEARNING VERSUS CLASSROOM LEARNING – A COMPARATIVE STUDY AMONG COLLEGE STUDENTS

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ABSTRACT

The goal of this research is to better understand student awareness, preference and perceptions of online learning and traditional classroom learning. This research is also an attempt to study the effectiveness of these two teaching methodologies i.e. online learning versus classroom learning. This research was conducted with the help of both online and classroom learners by providing them questionnaires. In addition, this research investigates dimensions of classroom and online learning that we believe are perceived by students as providing advantages over the traditional teaching methodology. The paper is structured into four broad sections. The initial section deals with the theoretical basis to better understand student perceptions of classroom learning and Online learning. This is followed by research methodology which includes the design of the survey instrument. The results of the survey are then discussed. Finally, conclusions are drawn.

KEY WORDS: Traditional Learning, Online Learning, Students Perception & Preferences.

INTRODUCTION:

The art of learning is the art of assisting discovery. Learning is very essential for human growth and development. Human society has been always striving to find better means of doing things and the same has been reflected in the field of education also. Students have found themselves torn between traditional approach and technological advancements, The present age is driven by digital technology and the whole globe has come under the influence of internet. The internet has equipped both education seeker as well as education provider and laid them together under a virtual roof, due to which the concept of online learning is popularized across the globe. Comparatively online education is now more accessible even to the less privileged groups. Several degrees and diplomas are offered online and the response rate is also encouraging.

OBJECTIVES OF THE STUDY:

- 1) To study the concept and evolution of online courses and adoption of online learning.
- 2) To study the level of awareness of such online courses among college students

- 3) To study the preference of online courses to classroom learning.
- 4) To compare student's perception towards traditional class room learning and online learning.

SCOPE OF THE STUDY:

The study compares the views of the students of Justice Basheer Ahmed Sayeed College over traditional learning to online learning courses. It aims to measure level of the awareness of such courses among the students and their preferences and perception of such courses over the traditional classroom learning.

LIMITATIONS:

The major limitation of the study is that it is predominantly focused on the students of Justice Basheer Ahmed Sayeed College for women. It only compares their preferences and perceptions. It views the initial thoughts of the students in selecting the traditional classroom learning to the modern and advanced online learning. Hence it has thrown up a major need for creating awareness among the students.

LITERATURE REVIEW:

Current literature related to the comparison of students learning in online and traditional classroom environment is limited. Comparable research studies have involved variations with student's perception and satisfaction with instructions in the different learning environment. Some of literature review on online learning versus classroom learning are listed below:

- Redding, T.R. & Rotzien, J. (2001). Comparative Analysis of Online Learning versus Classroom Learning. Journal of Interactive Instruction Development, Compares the learning outcomes of an Internet-delivered course to the educational outcomes of the same course delivered in the classroom. The higher level of cognitive learning achieved by the online group was attributed primarily to the self-selected nature of the online students. Also associated with the higher learning outcomes were the instructional design of the online course that applied adult motivation and learning theories. [1]
- Claire de la Vare, Julie Keane and Matthew J. Irvin (2011), This study examines on-site facilitator practices and activities that support rural high school students taking online courses. Authors compare online instructors " perspectives of facilitator practices with facilitators" own reports of their practices and activities. A qualitative analysis of end-of-course interview data from instructors and facilitators was undertaken. The resulting codes were mapped onto and used to expand the teaching presence element. [2]
- Gail Casey, Terry Evans (2011), This paper deploys notions of emergence, connections, and designs for learning to conceptualize high school students" interactions when using online social media as a learning environment. It makes links to chaos and complexity theories and to fractal patterns as it reports on a part of the first authors action research study.[3]
- Lalita Rajasingham (2011), the paper examines potential challenges of new educational approaches within the framework of more traditional open learning and e-learning environments. The main challenge is to develop a university that shifts the paradigm from the conventional national university to a sustainable global learning system that maintains quality in teaching, learning, processing and applying knowledge to real-life problems in diverse cultural contexts . [4]
- Manoj Killedar (2009) Evidence indicates that application of the proposed model for Total Quality and Web Technology can simultaneously optimize quality, access and cost. Thus, a better learning experience can be provided even in open and distance education system, which can be comparable with the best. This study found

that, regarding economy in time and money utilization, Virtual Classroom is not more effective than the Traditional Classroom. [5]

- Mohammed Al-Zoube , Samir Abou El-Seoud and Mudasser F. Wyne (2010) In this paper authors present a solution that is based on cloud computing and can be used for building a virtual environment both for teaching and learning. They present an interactive tool that can be used for education; They combined various technologies to achieve this goal. The environment and the design proposed can also be used as a platform for exploring and sharing new ideas as well as for designing, modifying and monitoring educational or course contents. [6]
- Murugan Krishna Pillai (2011), In this article, the quality concerns in the Online learning system against those of the campus education are examined with a view to establishing the fact the indicators of quality in both the education systems are not identical. In closing , a compendious account of the benchmarks of quality as they pertain to the various activities that come under the area in focus is given.
- Sharon L. Peterson, Louann Bierlein Palmer (2011), This study identified the problem solving strategies used by students within a university course designed to teach pre-service teachers educational technology, and whether those strategies were influenced by the format of the course (i.e., face-to-face computer vs. online). It also examined to what extent the type of problem solving strategies and/or course format was correlated with students expressed level of confidence and competence to integrate technology into their future classroom settings. [7]
- Trisha Dowerah Baruah (2011) This paper aims to find out the impact and assessment of E-learning Technologies on student retention in ODL system . For the purpose of assessing the impact of E-Learning technologies on student retention Indira Gandhi National Open University(IGNOU) has been taken as a model university and IGNOU Regional centre, Guwahati as a case study to find out the implication of E-Learning on student retention. [8]
- Karl K. Szpunar, Samuel T. Moulton and Daniel L. Schacter Here, discussions were made on the importance of understanding the nature and occurrence of mind wandering in the context of classroom and online lectures. In reviewing the relevant literature, they began by considering early studies that provide important clues about student attentiveness via dependent measures such as physical markers of inattention, note taking, and retention. They then provided a broad overview of studies that have directly measured mind wandering in the classroom and online learning environments. Finally, they concluded by discussing interventions that might be effective at curbing the occurrence of mind wandering in educational settings, and consider various avenues of future research that they believe can shed light on this well-known but little studied phenomenon. [9]
- A Comparison of E-Learning and Traditional Learning: Experimental Approach , Dr. Wanwipa Titthasiri, : Department of Computer Science : Faculty of Information Technology, Rangsit University : Pathum Thani, Thailand : This research aims to compare the students achievement of E-Learning and traditional learning using the experimental approach. A pair of student groups (in E-Learning and traditional class) was learned in a semester as an experiment. Two experiments with two pairs of student groups were conducted in two semesters. T- Test comparison analysis was performed in order to examine the differences of mean scores between two treatments. Results showed that there are no statically significant differences in all measurements. Moreover, both of student groups were interviewed at the end of each semester about student's satisfaction. The findings highlight the importance of identifying the blended learning-mixed of E-Learning and traditional learning. It is expected that the blended learning would be an improvement of student's achievement. [10]
- Online learning: Adoption, continuance, and learning outcome—A review of literature, by Ms. Ritanjali Panigrahi, a research scholar at Indian Institute of Management Rohtak, reviews the online learning literature to address the attrition issue and increase the learning outcomes. The review is classified into three categories,

technology adoption, continuation of technology use, and learning outcomes. Antecedents of adoption, continuance, and learning outcome are classified according to social cognitive theory framework. Future directions are discussed to enrich the online learning experience. [11]

RESEARCH METHODOLOGY:

Primary and Secondary data was used for the study. The primary data was collected from a sample size of 275 students by using convenient sampling technique. This analysis was used to discover and interpret the student's opinions and views with respect to the study on online learning versus classroom learning- A comparative study among college students. A questionnaire was sent to the students of JBAS College for Women to fill their answers according to their opinion. The entire study is based on primary and secondary data collected.

TOOLS USED FOR DATA ANALYSIS:

The term analysis refers to the computation of certain measures along with the searching pattern of relationship that exist among data groups. Thus, in the process of analysis, relationships or differences supporting or conflicting with the original or new hypothesis should be subjected to statistical tests of significance to determine with what validity data can be said to indicate any conclusion. The various statistical tools used for analyzing the data are Percentage Analysis, Chi- Square Test and Correlation.

EVOLUTION OF ONLINE LEARNING

Online education is no longer a trend. Rather, it is mainstream. As developments in academic technology continues to get advanced, the ways in which we have the tendency to deliver and receive knowledge in both the regular and online classrooms will further evolve. It is necessary to examine and understand the progression and developments in educational technology and the variety of methods and strategies used to deliver knowledge, in order to boost the standard of education we provide today to the students of the 21st century. Online learning is a modified version of distance learning. Distance learning involved correspondence courses wherein the student correspondent with the school or college through postal services. With the introduction of computer and internet in the late 20th century online learning came into existence. The evolution of online learning ties together several historical threads—computers, distance learning, and telecommunications, just to name a few. This means tracing the history of online education goes back much further than just the dawn of the Internet, so, let's go back to the history and see how online learning has evolved from time to time.

1. The modern era and also the web boom: The 1990s are marked by a tech boom, because the industrial prospects of the web are setting out to settle down. The first pioneers of online learning enter the fray around now, with the primary authorized online high school, similarly because the development of learning management systems (LMS). However, different firms begin utilizing the web to pioneer new brand avenues of amusement, learning, discovery and exploration. It is typically known as " Internet Bubble" This tech boom is marked by inflated economy progress.
2. The information era - International community: The fast growth of the web within the nineties the novelty begins to wear off and it's really unstable impact is felt across the globe. Different households and distant villages are

getting connected to the web. Legislations and policies is progressively challenged to stay up with the hastened pace of knowledge hunt through the web. Increasingly traditional businesses are getting transformed to online format and it is becoming the norm for everyone to possess the website as well as a "unique digital profile" (Record of ones interactions in social media, browsing, commenting and shopping). There is a proliferation of online schools and online degrees similarly free open online education choices. From 2000 forward, the web is firmly entrenched as an important dimension of contemporary society as against the simple brand new technology added onto old society.

The present situation of Learning With the advent of online learning, more people than ever before are able to connect, learn, and grow on their own terms, without many of the obstacles that are associated with traditional, on-campus education. While online colleges may never totally replace the traditional experience, it is undeniable that online education has had a major impact not only on how we pursue formal education, but on how we teach, learn, and perceive knowledge. The present online learning involves the following activities:

- **Webinar:** A seminar conducted in the online mode is referred to as a webinar. These days many online players conduct webinars that help candidates in conceptual clarity.
- **Mock tests:** Mock tests are emerging as a popular course component for students wherein they participate in a series of tests and get a comparative assessment (with other students) of their performance. With mock tests, candidates also get to know their areas of improvement as well as test pattern of the competitive exam they are planning to appear for.
- **Videos:** Videos are helpful for candidates in solving exam papers and other problem areas.
- **Counseling:** As a differentiator, players in online test prep market have also started offering course and career counseling services to students

ADOPTION OF ONLINE LEARNING:

Since the early 1970s, there has been many opportunities to study correspondence, wherein the student corresponded with the school via post, radios and televisions. This later, with the advent of technological progress, developed into learning via the internet (online learning). Currently the trends are shifting; people prefer online learning techniques over the traditional way of learning.

Hence many educational institutions, from schools to universities, use online tools and platforms for learning. Many educational institutions also offering real time platforms which are either with web camera or through a virtual classroom facility, where tutorials are being conducted or students and tutors can 'virtually discuss' specific topics or ideas. students can now learn from the comfort of their own houses.

Through using virtual tools, whether that is showing a video in a classroom to explain a concept or participating in an online quiz, students are more likely to remember information. Research shows that online learning increases retention by 25 to 60 percent when compared to traditional classroom-based courses. Moreover, 42 percent of companies say e-learning boosts revenue.

Nowadays mobile learning, a modified version of online learning is largely preached. Mobile learning is considered to be more effective. Research shows that smartphone users completed courses 45 percent faster than computer users. In addition, 70 percent of people reported "improved motivation" when studying for a mobile course. It allows the learner access content from their device when they are on the go. Gamification technologies, that incorporate elements of game play, is a recent trend in e-learning. Subsequently, more online learning providers now invest in game mechanics. These engage students and offer a greater learning experience. With gamification, students still learn core skills but in an interactive way. They can

discover new information, earn points, receive instant feedback and retain more knowledge. Social networks like Facebook and Twitter provide students and tutors with a place to exchange information. Currently, tutors use social media to post announcements and learning materials. Also, students discuss course-related topics on these platforms.

Online courses also provides students with a greater degree of control over their study journey and offers the opportunity to study at any time convenient to them. The 'shift' from traditional face to face to online learning is driven by the requirements of the student, lifestyle and economic factors.

From the first online correspondence course to now, the biggest change has been with the perceptions. Students in present scenario no longer choose something because it is impossible to take a class in a traditional setting, online learning has emerged successfully as a workable education choice in its own right. Each student choosing an online course gets to play a small part in the evolution, shaping the course of online learning for the students of tomorrow.

DATA ANALYSIS:

Two tests were applied to the primary data collected. Correlation analysis was used to study the relationship between perception and preference and Chi-Squared test was used to establish the association between awareness and preference to online learning. The following are the results of the two tests:

CORRELATION

Null Hypothesis: There is no relationship between Perception and Preference on Online Learning

Alternate Hypothesis: There is relationship between perception and Preference on Online Learning.

	Convenience	Procrastination	Face to face Interaction	Flexibility	Additional Qualification	Global Resource	Enjoyable.	Time bound	Subjective	Experiential Learning
Convenience	1	.250**	0.021	.304**	0.119	.339**	0.044	0.114	.273**	0.01
Procrastination		1	.263**	.436**	.312**	.277**	.313**	.336**	.251**	.306**
Face to face Interaction			1	.338**	.409**	.142*	.395**	.190**	0.075	.268**
Flexibility				1	.271**	.432**	.314**	.305**	.369**	.212**
Additional Qualification					1	.218**	.315**	.283**	.197**	.436**
Global resource						1	.331**	.400**	.439**	.183**
Enjoyable.							1	.425**	.354**	.493**
Time bound								1	.345**	.459**
Subjective									1	.292**
Experiential Learning										1

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

Inference: The correlation Co-efficient between Chances of procrastination and diversion are more in online courses than classroom learning and Flexibility in completing a course is an added advantage to online learning is **.436**** which indicates a positive relationship between variables of perception and preference.

CHI-SQUARE TEST

Null Hypothesis : Level of awareness of online Learning of students are equally distributed.

Chi-square test for goodness of fit of equality of level of awareness of online learning of students

Level of Awareness	Frequency	Percent	Chi-square value	P value
Low	69	25.4	23.547	< 0.001**
Moderate	128	47.1		
High	75	27.6		
Total	272	100		

Note: ** denotes significant at 1% level.

Interpretation:

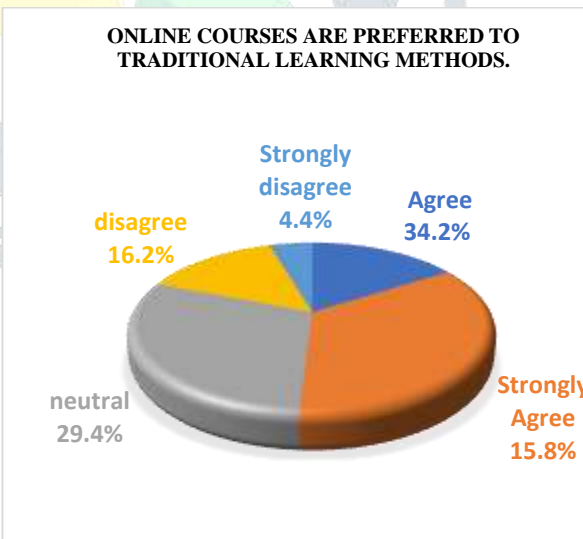
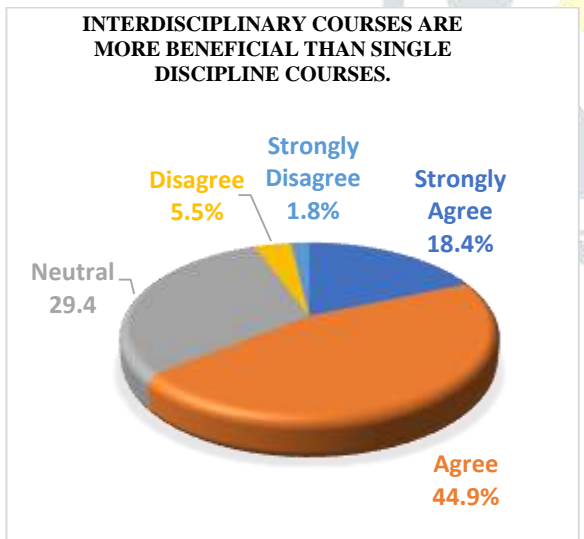
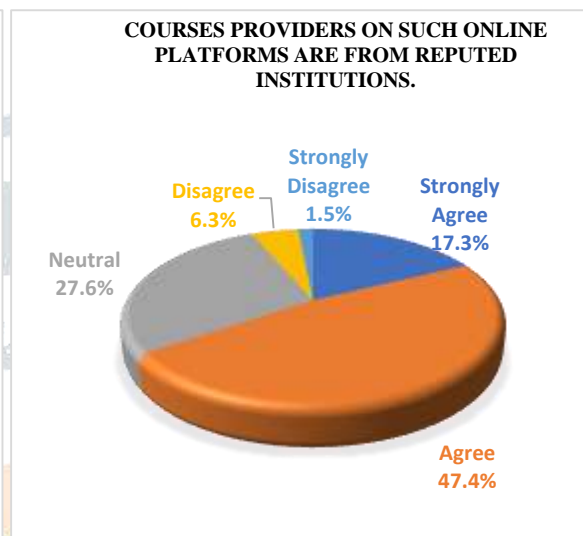
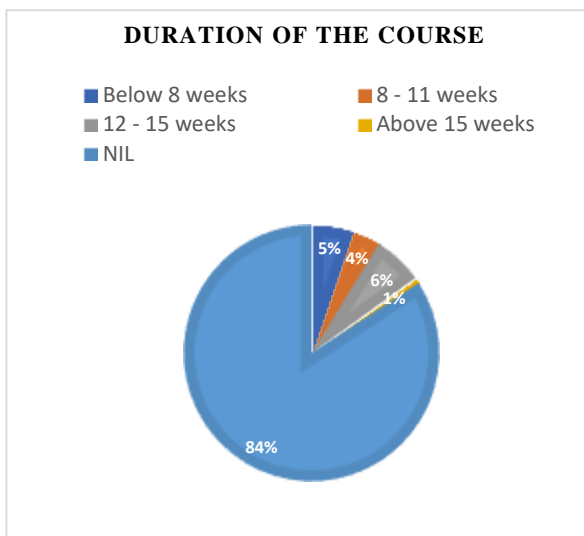
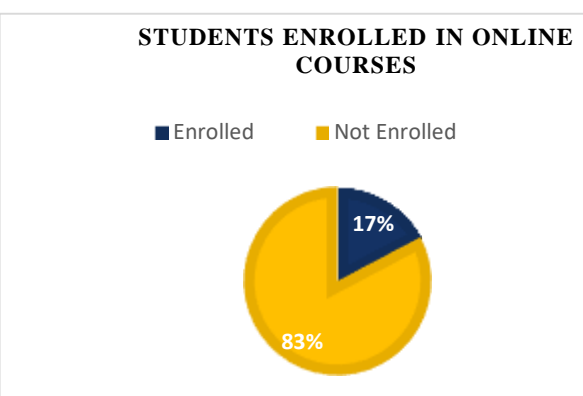
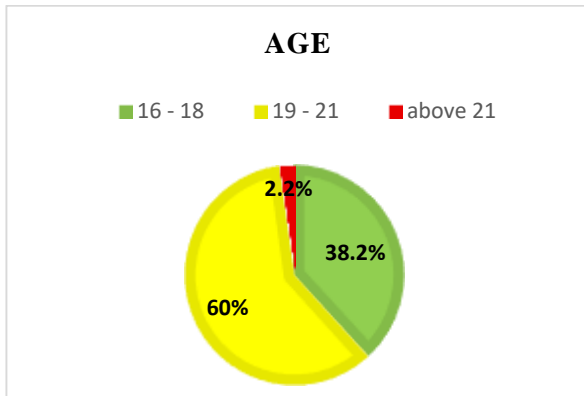
Since P value is less than 0.001, null hypothesis is rejected at 1% level of significance. Hence concluded that the level of awareness of online learning of students are not equally distributed. Based on percentage majority of student's awareness level (47.1) is moderate.

Reasons:

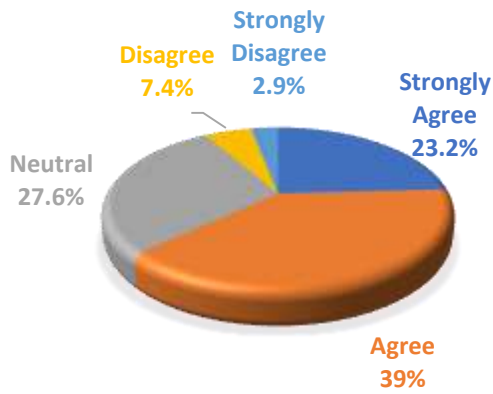
1. The level of awareness about online courses is moderately distributed
2. This is because not all students have the required ICT tools to take up online courses.

PERCENTAGE ANALYSIS

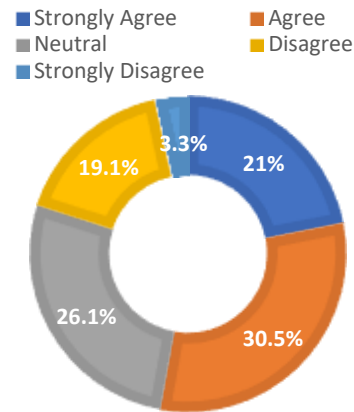
The results of the percentage analysis are listed below in a diagrammatic representation



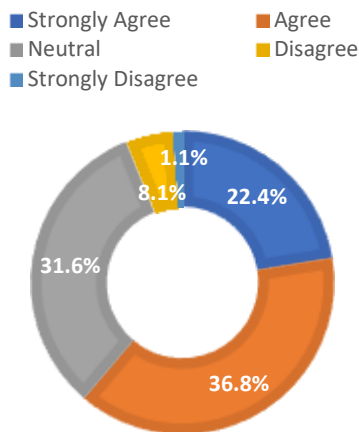
THE COST OF ONLINE COURSES IS LESSER COMPARED TO TRADITIONAL LEARNING.



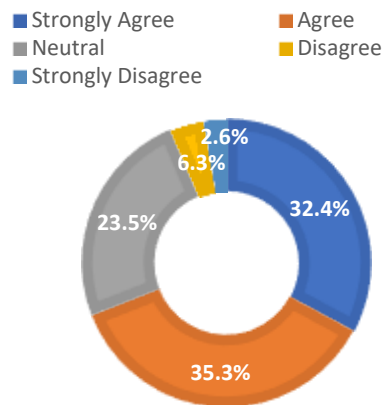
ONLINE COURSES ARE MORE CONVENIENT THAN CLASSROOM LEARNING.



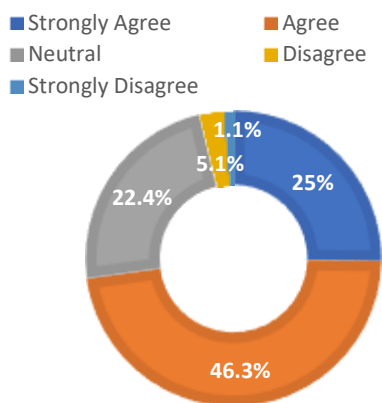
THE CHANCES OF PROCRASTINATION AND DIVERSION ARE MORE IN ONLINE COURSES THAN CLASSROOM LEARNING.



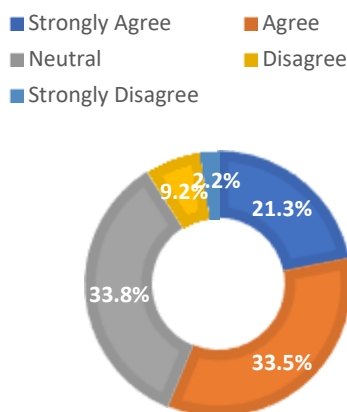
FACE TO FACE INTERACTION FACILITATES BETTER LEARNING THAN ONLINE LEARNING.

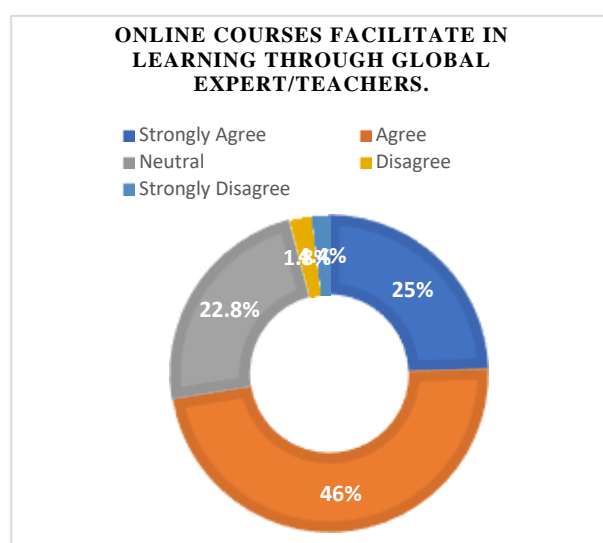
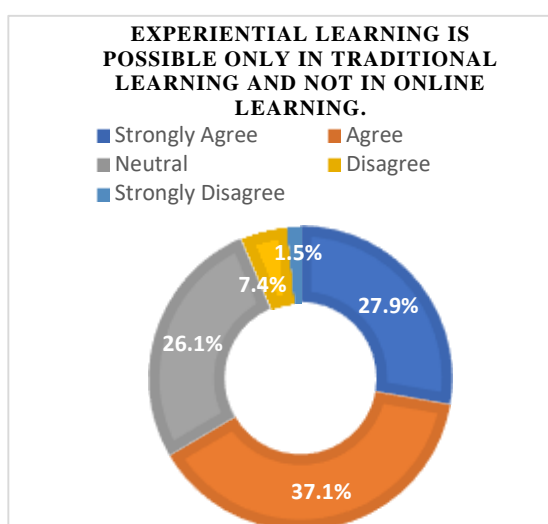
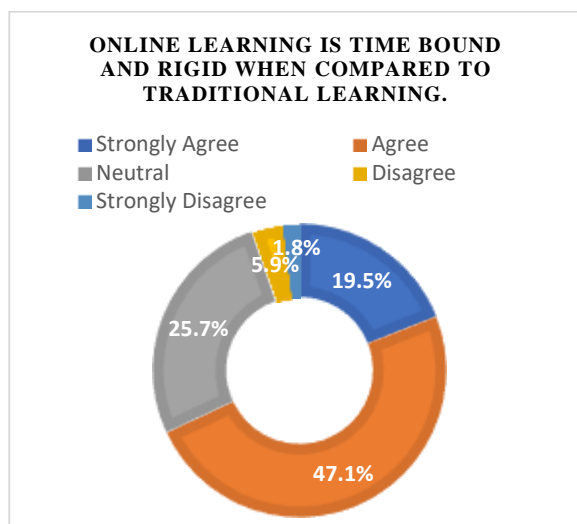


FLEXIBILITY IN COMPLETING A COURSE IS AN ADDED ADVANTAGE TO ONLINE LEARNING.



ONLINE LEARNING HELPS TO ADD QUALIFICATIONS BUT DOES NOT IMPARTS SKILLS.





FINDINGS OF THE STUDY

- ❖ 60% of the student's sample age between 19 – 21
- ❖ 84% of students have not engaged in any online courses.
- ❖ 5% of respondents have enrolled in online courses of duration below 8 weeks, while
- ❖ 4% of students have enrolled in online courses of duration between 8-11 weeks and
- ❖ 6% of respondents have enrolled in online courses of duration between 12-15 weeks.
- ❖ 1% of respondents have enrolled in online courses of duration above 15 weeks.
- ❖ 59.6% of respondent's students agree that online websites such as Swayam, Coursera, and Udemy are most sought after.
- ❖ 64.7% of respondents accept that course providers on online platforms are from reputed institutions.
- ❖ 50% of respondents agree that online courses are preferred to traditional learning methods, while 29.4% of respondents are unsure and 20.6% of respondents disagree that online courses are preferred to traditional learning methods.
- ❖ 53.2% of respondents accept that the cost of online courses is lesser compared to traditional learning.
- ❖ 51.5% of respondents agree that the online courses are more convenient than classroom learning.
- ❖ 59.2% of respondents agree that the chances of procrastination and diversion are more in online courses than classroom learning.

- ❖ 67.7% of respondents accept that face to face interaction facilitates better learning than online learning.
- ❖ 71.3% respondents agree that the flexibility in completing a course is an added advantage to online learning.
- ❖ 54.8% of respondents admit that online courses facilitate in learning through global experts / teachers.
- ❖ 71% of respondents have same opinion that the online learning helps to add qualification but does not imparts skills.
- ❖ 62.9% of students agree that the traditional learning tests the students only subjectively with online learning is more objective.
- ❖ 65% of students agree that the experiential learning is possible only in traditional learning and not in online learning.

CONCLUSION:

This study reveals that online learning is in its nascent stage. Though there is no dearth of courses being offered online, students have not started exploring them. Hence awareness of these courses is the primary importance. Similarly, the mindset of students and academicians must shift towards such online courses. Today, online learning is seen only as a value addition or add on course that complements the traditional classroom learning. Yet another concern is the availability of facilities to take up online courses. This is also a reason for the low level of awareness about online courses. But it is quite evident that online courses are fast picking up and in the next decades may become more popular than traditional learning.

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