AN ANALYSIS ON THE ATTITUDE OF COLLEGE STUDENTS TOWARDS LEARNING BEYOND CLASSROOMS DURING COVID-19 PANDEMIC WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

The traditional model of college is changing, as demonstrated by the proliferation of colleges, hybrid class schedules with night and weekend meetings and most significantly, online learning. Now with the pandemic being on phase for the last 2 and a half years, the attitude of college students are very important for them to adapt online and offline classes changing like a sign wave and it is off-course need of an hour for the students to fix in with the same fashion even in their corporate roles. Meanwhile the colleges also have to fix on to the expectation of the next generation students by offering hybrid / blended type of learning. The study is mainly based on primary data; however, the secondary sources are also registered with theoretical overview. Here the researcher has used convenient sampling method to select the sample from Coimbatore city and the data was collected using a well-structured questionnaire. The respondents (110) for this study are the college students both from bachelor's and Master's graduation. The findings are the students have familiarised with the basic etiquettes towards online classes, expect many more interesting factors every day which keeps them engaged in the virtual classes, awaiting for an influential teacher who can shape them in both subjects with relevant IT skills and life skills.

KEYWORDS: *Hybrid learning, Etiquettes, Relevant IT skills, Life skills.*

INTRODUCTION

COVID-19 stands for coronavirus disease and even referred to as the 2019 novel coronavirus or '2019-nCoV', which is declared as a pandemic by World Health Organisation. Since ,this new virus can be transmitted just in minutes through droplets or even touching surface metals or other materials which have been infected from a person who has respiratory problems. There has been a greater panic among public regarding the spread of virus and the death fatality rates that the media projects every day. On considering the health and safety of the public , the government has come up with national lock periods. Here in India , as of March 2021 we were in our lockdown period. And further extension of lock down period as expected will happen this year. Every lock down has its own rules and relaxation considering the economy as a whole. But since the first day of lockdown the educational institutions were tapped to take-off their online version with full capacity. This study focuses on the attitude of college students towards virtual learning/ learning beyond classrooms in Coimbatore city.

Need for the study

The traditional model of college is changing, as demonstrated by the proliferation of colleges (particularly for-profit institutions), hybrid class schedules with night and weekend meetings, and, most significantly, online learning. Now with the pandemic being on phase for the last 2 and a half years, the attitude of college students are very important for them to adapt online and offline classes changing like a sign wave and it is off-course need of an hour for the students to fix in with the same fashion even in their corporate roles. Meanwhile the colleges also have to fix on to the expectation of the next generation students by offering hybrid / blended type of learning.

Objectives

1. To study the opinion of college students in learning through digital classrooms

2. To identify the interesting facts that students experience with digital class room transformation

3. To understand the motivating factors which influence them to learn more effectively

4. To analyse the challenges faced by students in adapting to virtual classroom

5. To find out the ways in which colleges strategize according to the student's attitude towards teaching learning.

Research Design

The study is mainly based on primary data; however, the secondary sources are also registered with theoretical overview. Here the researcher has used convenient sampling method to select the sample from Coimbatore city and the data was collected using a well-structured questionnaire. The respondents (110) for this study are the college students both from bachelor's and Master's graduation. Duration of the study was March 21 to Sep 22 of 2021. Analysis was made using statistical tools like Simple Percentage, Chi-square, t-test, Weighted Average and Garret raking technique and the findings were discussed

Review of Literature

Mohammed Salim Karattuthodi et.al (2022), in his study "Pharmacy Student's challenges in virtual learning system during the second COVID 19 wave in southern India" found out A proper educational system with an advanced student monitoring portal, periodical motivation programs, workshops and extra-curricular activities shall keep students focused on their online academic responsibilities..

Amani Nawi et.al (2022) , in his research "Exploring Student's Readiness and Behavioural Towards Virtual Learning via Microsoft Teams", Implementation of online learning in the era of COVID-19 pandemic has become a global issue and had a major impact on higher education.

This study found that readiness among undergraduate students is at a medium high level, while student behaviour considered at a high-level despite Microsoft Teams platform is regarded as something new for the students. The finding revealed that students easily operate the platform without further training.

Xiaogai Shen; Jianli Liu (2022), in his research, he found that with the growing recognition and acceptance of virtual online education, more and more educational institutions are switching from offline business to online business. However, users differ in their willingness to use virtual online education platforms. This paper explores the factors affecting user willingness to use such platforms, laying a theoretical basis for promoting virtual online education. The main findings are as follows: college students are positive and in favor of extracurricular learning; the students' demand for online learning contents varies with gender, grade, and major; the long-term willingness to use depends on perceived usefulness, satisfaction, and perceived switching cost, of which the last factor is the key contributor to increasing user resistance; the long-term willingness to use online education platforms is influenced by perceived usefulness, expected confirmation, content quality, service quality, system quality, satisfaction, and perceived switching cost, etc.

A. Sheik Abdullah et.al(2021), "Assessment of Academic Performance with The E-mental Health Interventions in Virtual Learning Environment Using Machine Learning Techniques: A Hybrid Approach" , The quality of teaching-learning depends on the utilization of digital technologies with the advancement in educational technology.The design process involves the 775 student responses with 27 attributes with differentiation of labels corresponding to behaviourism, cognitivism, and social constructivism. The preprocessed data is fed to genetic algorithm with processing parameters focusing crossover and mutation probability and then classified using artificial neural network. The estimation of academic performance is made using the techniques followed in virtual learning environment such as:online quiz.flipped classes, MOOC online courses,prototype design and research proposal.

Analysis and interpretation

Demographic factors

Factors	Variables	Frequency	Percentage
Gender	Male	49	45
	Female	61	**55**
Age	18 – 21 years	33	30
	22-25 years	35	**32**
	26-29 years	28	25
	Others	14	13
Income level	20000-30000	33	30
	30000-40000	35	**32**
	40000-50000	14	13
	Above 50000	28	25
	Rural	18	16
	Semi-urban	15	14
	Urban	47	43
	Metropolitan	30	27

| Arts and Science	19	17
Commerce and Management	25	23
Engineering and Technology	30	27
Medical and Pharmaceutical	18	16
Architecture	14	13
Others	4	4

Primary source

From the above table it is evident that, majority of the students were female(55%) with the age category of 22-25 years (32%). The monthly income level (32%) of the parents ranges between 30,000 – 40,000 for majority of them and they are found to be located in Urban space (43%). Stream of the study for majority of them was found to be engineering and technology (27%)followed by Commerce and Management (23%).

Opinion of College Students in learning through Digital Classrooms

Online or virtual teaching learning provides various channels such as mail, online chat and video conferences, through which students and instructors can interact with each other. In the classroom, there is only one channel to communicate with each other. Many students have a visual memory and seem to learn more willingly and are interested in online modes of teaching. Virtual learning is opted these days due to the shutdown of schools and institutions due to covid-19 pandemic.

The opinion of college students with regard to digital classrooms is collected from the students regarding frequency of usage, application of SYAYAM portal for the basic subjects as per the norms if higher education council in distinct fields.

Frequency of online classes
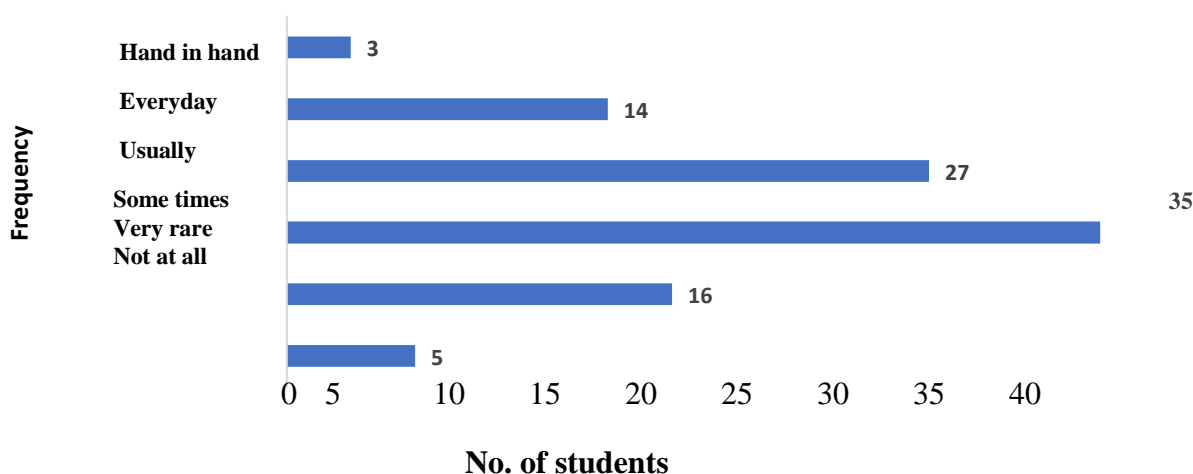
From the above chart it is clear that 35% of the students opine that sometimes they use digital platform for learning whereas 27% have mentioned they usually use one or the other digital platforms for their academic learning. Only few college students have put up hands for hand- in-hand (3%) usage of digital / online platforms for classroom learning.

SWAYAM is a digital media platform comprising of courses and certifications for e-learning. It is a digital learning solution of MHRD. There are many colleges(59%) in the city of Coimbatore who have already adapted towards partial / blended learning whereas others(41%) have not yet or being in the process of adapting to SWAYAM portal for at least the introductory subjects initially.

Usage of SWAYAM portal in colleges

■ **Yes** ■ No
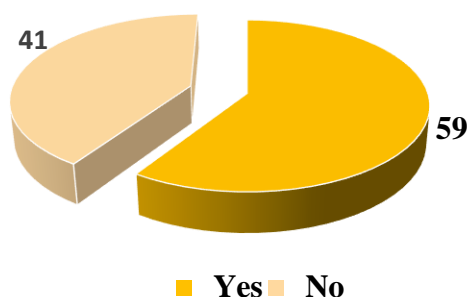
The Ministry of Human Resource Development has taken many initiatives towards the uninterrupted learning in schools and higher education institutions during the phase of covid- 19 pandemic. The DIKSHA, e-Pathshala, National Repository of Open Educational Resources (NROER), Swayam Prabha are some of the apps which are available even offline. The app houses books, videos, audio, etc. aimed at students, educators and parents in multiple languages including Hindi, Urdu, and English.

The colleges in the city makes use of online/virtual learning only for limited purposes but this pandemic situation has led to the utilisation of virtual platform in a wider sense. Online classes have become inevitable .Due to pandemic and in unprecedented times online classes have become a basic necessity.

Types of activities using Virtual Learning Methods

Type of activities using VLM	Always	Sometimes	Rarely	Weighted Scores	Average Weights	Rank
Online MCQ exams	110	0	0	330	55	1
Posting assignments	59	49	2	277	46	3
Case discussions	69	34	7	282	47	2
Internship and project reviews	25	73	12	233	39	4
Revision for exams	0	61	49	171	29	5
Others	0	48	62	158	26	6

*AS: Average Score, * AW : Average Weights

The above table shows that its time to have online classes regularly till the regular classes commence. Majority of the colleges use it for online MCQ exams (AW: 55) followed by case discussions (AW:47) and Posting Assignments (AW:46) consecutively. The fourth position is bagged by internships and project review discussions (AW:39) followed by revision for exams (AW:29) and others (AW:26).

Type of activities using VLM in colleges
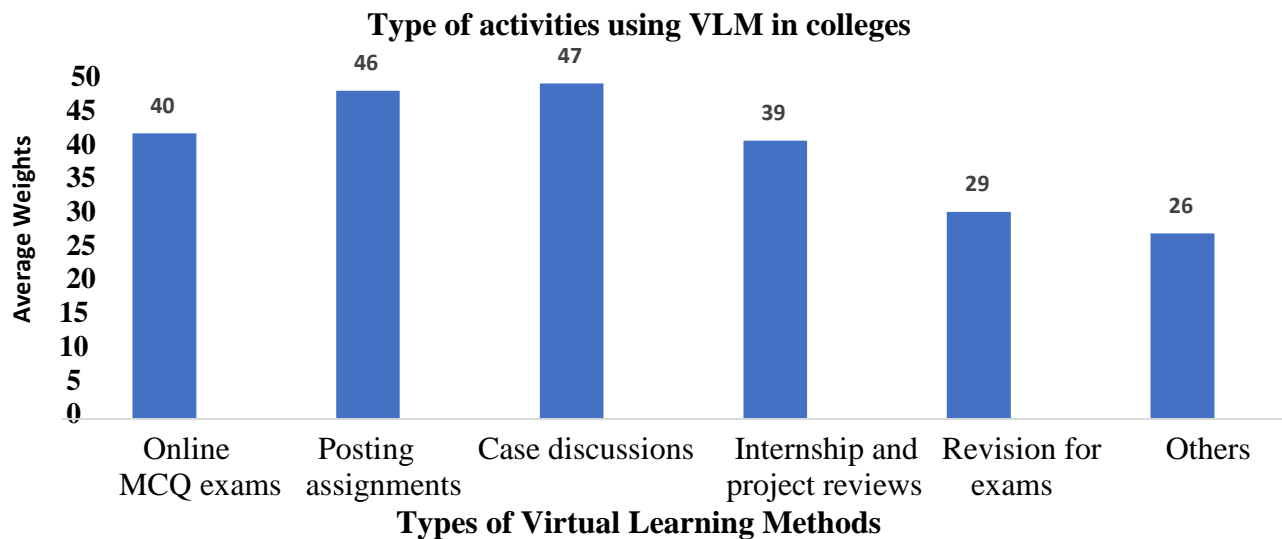
There is always a close relationship between the stream / faculty of studies and the type of activity adapted in virtual learning method.

Relationship between the faculty of studies and virtual learning activity
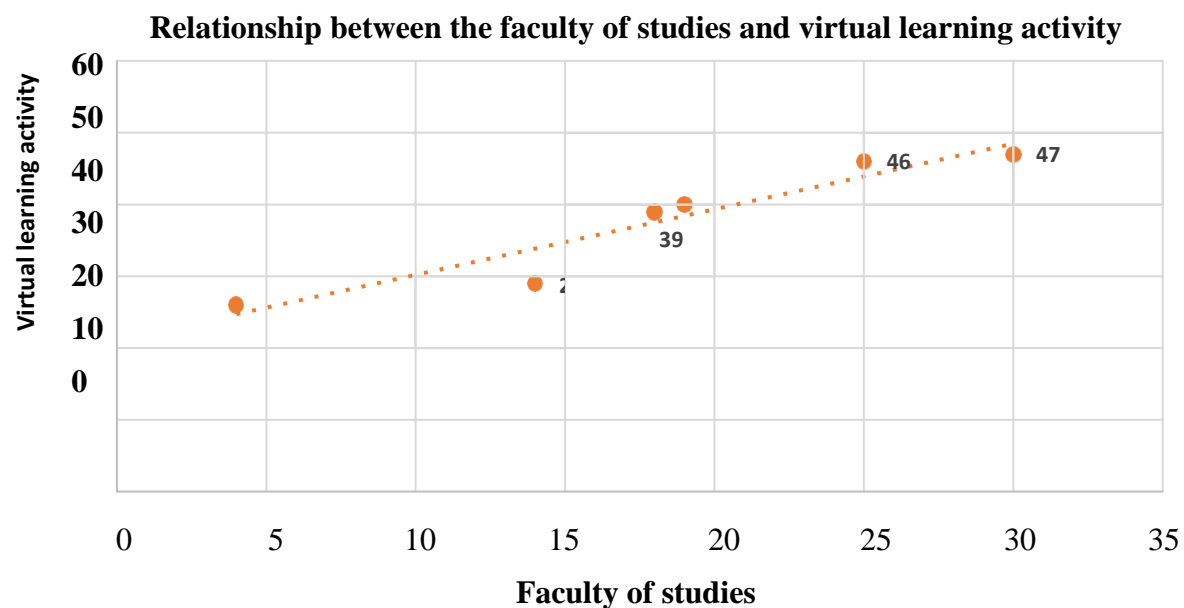
From the above diagram it is clear that there is a positive correlation between the faculty of studies and the type of virtual learning method adapted in the colleges due to unexpected lockdown of educational institutions. The final year Bachelor's and Master's students take up their internship reviews and project viva respectively during this pandemic using online platform (Google Meet), whereas post grad students submit their assignments online using virtual classroom app and take part in case discussions using virtual conference. Since their exams have got postponed due to this covid-19 pandemic, still they attend revision classes regularly at par.

Opinion of college students about online classes during Covid-19 lockdown

Teaching and learning in a virtual classroom is a unique experience both for teachers and students. Online classes are more effective as compared to the offline ones as these save

students' time and money. Virtual learning is a bliss if the students and teachers have easy access to technology and internet. The platform enables students to attend lectures while being in the comforts of their home. Even the students who are very shy and calm inside the physical classrooms are very responsive in digital media, as they need not face the class room crowd.

Students by themselves feel that they are getting more engaged with online classes during covid-19 lockdown, otherwise they could have got bored by using electronic gadgets and social outings all the time without any benefit.

Students Opinion towards Virtual Learning

Students opinion towards virtual learning based on various factors is accessed and the ranks were given below.

Percentile position and Garrette value

Rank	100(R-0.5)/n	Percentile position	Garrette Value
1	100(.5)/7	7.1	78
2	100(1.5)/7	21.4	65
3	100(2.5)/7	35.7	57
4	100(3.5)/7	50	50
5	100(4.5)/7	64.2	42
6	100(5.5)/7	78.5	34
7	100(6.5)/7	92.8	22

Opinion about online classes (Garrette Ranking Method)

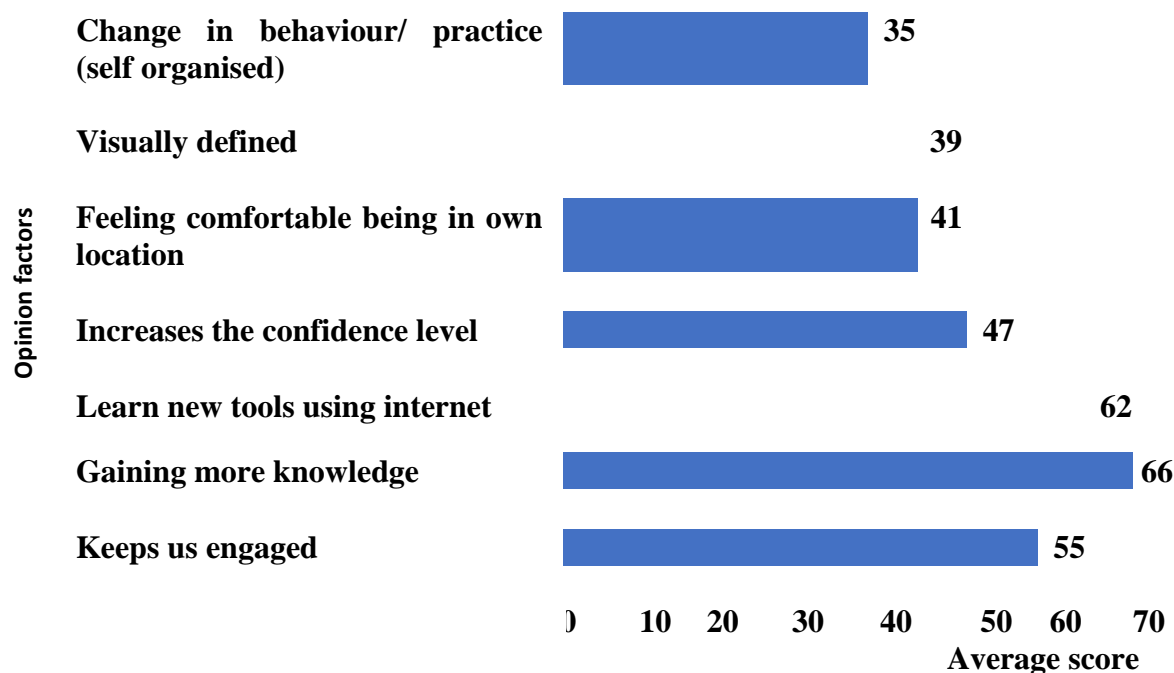| Opinion about online classes	1*78	2*65	3*57	4*50	5*42	6*34	7*22	Total	Avg. Score	Rank
Keeps us engaged	312	4355	57	50	42	1258	0	6074	55	3
Gaining more knowledge	2808	2405	1995	100	0	0	0	7308	66	1
Learn new tools using internet	2886	130	1938	1750	42	34	0	6780	62	2
Increases the confidence level	0	0	2109	1800	0	1258	0	5167	47	4
comfortable in own location	2886	0	0	0	0	0	1606	4492	41	5
Visually defined	0	0	0	0	3066	1258	0	4324	39	6
Being self organised	0	0	0	1850	0	1224	814	3888	35	7

*AS : Average Score

From the table it is found that students opine online classes are very helpful in gaining more knowledge(Rank 1) followed by learning new tools using internet (Rank 2) and are getting more

engaged (Rank 3) rather than sitting infront of social media gadgets. Even the shy students come out to be an interesting participant as they are out of classroom crowd. This gives the students to attain more confidence(Rank 4), moreover the students attend classes who are locked in their own native places due to covid – 19 have the feasibility to attend classes from their own locations(Rank 5).

Opinion of Students towards online classes

Opinion factors	Average score
Change in behaviour/ practice (self organised)	35
Visually defined	39
Feeling comfortable being in own location	41
Increases the confidence level	47
Learn new tools using internet	62
Gaining more knowledge	66
Keeps us engaged	55

Students get more interested towards virtual learning as it is all visually defined (Rank 6). It could capture the mind very easily and with stay long effect. The self-organising skills (Rank

7)   Gets improved within oneself , when they have a habit of setting up alarms and notifications for their classes and assignments.

Level of awareness towards basic etiquettes during virtual classes

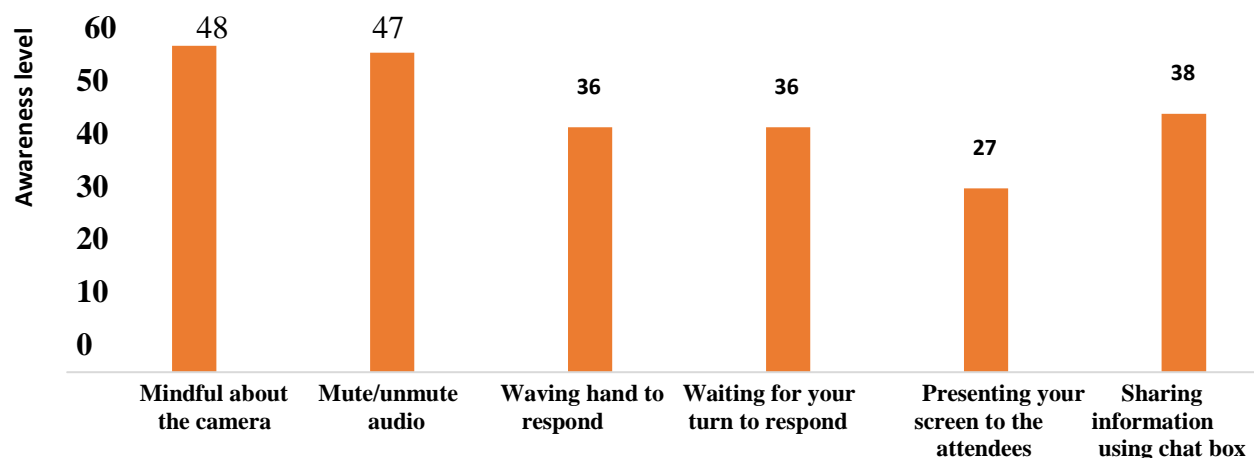| Awareness factors	Highly Aware	Aware	Not Aware	Weighted Scores	Average Weights	Rank
Mindful about the camera	70	37	3	287	48	1
Mute/unmute audio	68	36	6	282	47	2
Sharing information using chat box	36	56	18	228	38	3
Waving hand to respond	36	37	37	217	36	4
Waiting for your turn to respond	36	37	37	217	36	4
Presenting your screen to the attendees	0	54	56	164	27	6

AW: Average Weights

From the above table, it is evident that students are interested in attending online classes during covi-19 lock down and they easily learn the basic etiquettes in attending those classes. Almost everyone are mindful about the camera/video (AW: 48) during online classes. They either turn off to reduce the band width or have a display image for recognition. Followed by Mic / audio(AW:47) , chat box (AW : 38) information sharing and waving hand (AW :36) and waiting for turn to respond (AW : 36) are in the consecutive ranks. The last rank is obtained by the action of presenting their screen to the attendees(AW : 27), which requires some effort to pre test the presentation before they broadcast to the attendees/audience.

Demographic Factor	Study Factor		Calculated value	Table value	Degree of freedom	Null hypothesis(H_0)
	Awareness towards VL tools					
Age of the respondents	Camera		1.81	21.02	df =12 P=0.05	Accepted
	Audio		5.48			
	Chat		9.66			
	Presenting to everyone		3.05			

Awareness about the basic etiquette in attending online classes

Chi-square analysis between the age and awareness level of the students

Ho - There is no significant difference between the age of the students and awareness level towards virtual learning tools

H1 - There is significant difference between the age of the students and awareness level towards virtual learning tools

Age and awareness level of the respondents

From the above chi-square table it is found that, there is no significant difference between the age of the students and their awareness towards virtual learning tools camera

(CV=1.81,TV=21.02), Audio (CV=5.48), Chat (CV=9.66), presenting to everyone(CV=3.05) during COVID-19 lockdown.

Iden tification of interesting facts experienced by students through digital learning (Chi- square analysis)

H0 – There is no significant relationship between the age of the respondents and the various interesting facts found in virtual learning methods

Ha – There is significant relationship between the age of the respondents and the various interesting facts found in virtual learning methods

Demographic Factor	Study Factor Interesting facts in VLM	Calculated value	Table value	Degree of freedom	Null hypothesis(Ho)
Age of the respondents	Interactive and collaborative	7.75	12.5	df =6 P=0.05	Accepted
	Learning new features	7.48			Accepted
	Self-motivation	9.34			Accepted
	Doing assignments in an interesting way	28.2			Rejected
	More excited than traditional way of learning	3.9			Accepted
	Access from remote place	2.32			Accepted

From the above chi-square table it is found that, there is no significant difference between the age of the students and the interesting facts like interactive and collaborative(CV=7.75), learning new features (CV=7.48), self motivation(CV=9.34), more excited (CV=3.9) than traditional way of learning(CV=3.9) and access from remote place(CV=2.32). Whereas, doing assignments (CV=28.2) in an interesting way have got significant association with the age of the respondent. It means the students according to their age maturity and experiential learning they contribute/submit innovative assignments on digital portal.

Motivational factors for online learning among college students

Even though conducting and participating in online academic sessions become mandatory today, only when the motivation drives the students to listen and learn , the selfless effort of teachers become worth as 7.48)online sessions are 100% learner centric There are some of the motivating factors for college students to learn online The motivational factors were listed and asked to give ranks by the students according to their priority. Garrette Ranking technique was used to find the value.

Percentile position and Garrette Value Table

Rank	100(R-0.5)/n	Percentile position	Garret value
1	100(.5)/5	10	75
2	100(1.5)/5	30	60
3	100(2.5)/5	50	50
4	100(3.5)/5	70	39
5	100(4.5)/5	90	24

Garrette Ranking Table

Motivational factors	1*75	2*60	3*50	4*39	5*24	Total	Avg Score	Rank
Influential teacher	5325	2100	100	78	0	7603	69	1
Teacher respects / listen's to students	2025	4380	0	0	0	6405	58	2
Like the subject	0	0	3650	1443	0	5093	46	3
Hard to learn, so needs more effort	0	0	0	1404	1776	3180	29	5
Easiest / fun learning, so I attend	0	0	1850	1443	864	4157	38	4

AW: Average Score

From the above table, it is evident that majority of the students have given first rank to influential teacher (AW:69) where the students learn not only the subjective lessons but the life values. Second and third rank was secured by teacher respects / listens to the student(AW:58) and liking for the subject(AW:46). This is because only when the teacher reflects back for the students feedback/learning their liking towards the subject gradually increases. The other two reasons maybe of two extremes, either the subject by itself is fun to learn (AW:38) or may be too hard (AW:29)which requires additional effort.

Challenges faced by the students based on their location (Chi-square)

H0 – There is no significant relationship between the age of the respondents and the various interesting facts found in virtual learning methods

Ha – There is significant relationship between the age of the respondents and the various interesting facts found in virtual learning methods

Demographic Factor	Study Factor Challenges in VLM	Calculated value	Table value	Degree of freedom	Null hypothesis (Ho)
Location of the respondents	Network issues	25.25	16.92	df =9 P=0.05	Accepted
	Unavailability of technology	11.5			
	Emotions	0.88			
	Computer literacy	0.2			

CV=Calculated Value

From the above chi-square table it is found that, there is no significant difference between the age of the students and location factors like network issues(CV=25.25), unavailability of technology(AW:11.5), emotions(AW:0.88) and Computer Literacy(CV=0.2). Hence Null Hypothesis is accepted.

Findings from the study

- Majority of the students were female (55%) with the age category of 22-25 years (32%). The monthly income level (32%) of the parents ranges between 30,000 – 40,000 for majority of them and they are found to be located in Urban space (43%). Stream of the study for majority of them was found to be engineering and technology (27%) followed by Commerce and

Management (23%).

- From the study it is evident that, 35% of the students opine that sometimes they use digital platform for learning whereas 27% have mentioned they usually use one or the other digital platforms for their academic learning. Only few college students have put up hands for hand-in-hand (3%) usage of digital / online platforms for classroom learning.

- **SWAYAM** is a digital learning solution of MHRD. There are many colleges (59%) in the city of Coimbatore who have already adapted towards partial / blended learning whereas others (41%) have not yet or being in the process of adapting to SWAYAM portal for at least the introductory subjects initially.

- From the study, it is found that students opine online classes are very helpful in gaining more knowledge (Rank 1) followed by learning new tools using internet (Rank 2) and are getting more engaged (Rank 3) rather than sitting in front of social media gadgets. Even the shy students come out to be an interesting participant as they are out of classroom crowd. This gives the students to attain more confidence (Rank 4), moreover the students attend classes who are locked in their own native places due to covid – 19 have the feasibility to attend classes from their own locations(Rank 5). Students get more interested towards virtual learning as it is all visually defined (Rank 6). It could capture the mind very easily and with stay long effect. The self-organising skills (Rank

  7) gets improved within oneself, when they have a habit of setting up alarms and notifications for their classes and assignments.

- It is evident from the study, that students are interested in attending online classes during covid-19 lock down and they easily learn the basic etiquettes in attending those classes. Almost everyone are mindful about the camera/video (AW: 48) during online classes. They either turn off to reduce the band width or have a display image for recognition. Followed by Mic / audio(AW:47) , chat box (AW : 38) information sharing and waving hand (AW :36) and waiting for turn to respond (AW : 36) are in the consecutive ranks. The last rank is obtained by the action of presenting their screen to the attendees(AW : 27), which requires some effort to pre test the presentation before they broadcast to the attendees/audience.

- Form the chi-square study it is found that, there is no significant difference between the age of the students and the interesting facts like interactive and collaborative(CV=7.75), learning new features (CV=7.48), self motivation(CV=9.34), more excited (CV=3.9) than traditional way of learning(CV=3.9) and access from remote place(CV=2.32). Whereas, doing assignments (CV=28.2) in an interesting way have got significant association with the age of the respondent. It means the students according to their age maturity and experiential learning they contribute/submit innovative assignments on digital portal.

- Majority of the students have given first rank to influential teacher (AW:69) where the students learn not only the subjective lessons but the life values. Second and third rank was secured by teacher respects / listens to the student(AW:58) and liking for the subject(AW:46). This is because only when the teacher reflects back for the students feedback/learning their liking towards the subject gradually increases. The other two reasons maybe of two extremes, either the subject by itself is fun to learn (AW:38) or may be too

hard (AW:29)which requires additional effort.

- From the chi-square analysis it is found that, there is no significant difference between the age of the students and their awareness towards virtual learning tools camera (CV=1.81,TV=21.02), Audio (CV=5.48), Chat (CV=9.66), presenting to everyone(CV=3.05) during COVID-19 lockdown.

- Using chi-square analysis it is found that, there is no significant difference between the location of the students and Challenging factors like network issues(CV=25.25), unavailability of technology(AW:11.5), emotions(AW:0.88) and Computer Literacy(CV=0.2). Hence Null Hypothesis is accepted.

Suggestions

Convenience of the students are the future. Majority of the students will attend classes online, prefer to study part time, take subjects and courses from multiple universities both inland and abroad. It is suggested to make it easier for them to do what and when they want to do it. At times it can be the choice based on economic reasons too.

Taking up one or two subjects through **SWAYAM will become mandatory** for all the colleges in forthcoming years. And only on completion they will be awarded with their degree. Teachers should induct them the importance and guide them for their timely registration for the respective courses. Many online courses and online universities will be available in forthcoming years, which will encourage and facilitate students.

Colleges have to offer more of **community Oriented learning (online/offline)**, where many jobs still do not require a college certificate or corporates do require one as their entry criteria. It is better the colleges encourage blended kind of learning even after pandemic is over because some may prefer with their convenient time and location whereas others may feel it is a discipline to attend classes in college classes. Areas where practical experience is needed can be hybrid type of classes.

College teachers have to be motivated and enriched with their subjective knowledge and teaching skills. With hybrid/blended kind of teaching learning, the teachers should be updated with the relevant professional IT skills, so that students engagement becomes an easy task.

Individual teacher's have to take up their responsibility to find many ways to **develop collaborative or social based learning** and provide unique opportunities for the students to be the content developers.

CONCLUSION

College students from various backgrounds initially found it new to take up online version of teaching learning and very soon learning beyond classrooms become the new normal. Off-course the students are familiar with the platform and interested to learn new every day. They keenly look for broadening their knowledgebase and learn life skills. The college have to focus on creating interest towards the subjects by giving an exposure through industry orientation.

It is always student's convenience to be considered in future. Because of time and economic factors the students might prefer online or hybrid mode of classes in higher education. The colleges have to adapt to this transformation on a permanent basis even after the pandemic war

ends. Moreover courses on community oriented learning can even be encouraged which will create greater value for the students in their corporate life.

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