



A Statistical Study On The Pedagogy Of South Indian ESL Students During COVID Lockdown Applying Data Mining Techniques

Dr. Abirami Kanagarajan^{1*}, Dr. M. K. Durgamani², Dr. M. Ganesan³, S. Subha⁴,
B. Mariappan⁵, A. Emily Jenifer⁶

^{1*}Department of English, School of Arts, Sciences, Humanitie sand Education, SASTRA Deemed to be University, Thanjavur, India, abirami28@gmail.com

²Department of Commerce and Management Studies Srinivasa Ramanujan Centre, SASTRA Deemed University, Kumbakonam, India, durga.latha@gmail.com

³Department of Commerce and Management Studies Srinivasa Ramanujan Centre, SASTRA Deemed University, Kumbakonam, India, aaruganesan1982@gmail.com

⁴Department of English M. Kumarasamy College of Engineering Karur, India City, Country, subhaprasath2012@gmail.com

⁵Department of English Sri Ramakrishna Engineering College Coimbatore, India, marssrec@gmail.com

⁶School of Computing, SASTRA Deemed University Thanjavur, India, emideepak23@gmail.com

***Corresponding Author:** Dr. Abirami Kanagarajan

^{*}Department of English, School of Arts, Sciences, Humanitie sand Education, SASTRA Deemed to be University, Thanjavur, India, abirami28@gmail.com

Abstract:

The novel Corona virus turned itself into a pandemic leaving the educational sector to thrive online. Thanks to the developments in technology which gave online teaching and learning as a ready remedy for the challenges faced by the educational sector. But there are possibilities that a remedy itself may become a threat or an issue and, as such happened with the online teaching during this novel COVID pandemic scenario. In compliance with this, the present study analyses the temper of the students who undergo learning via online in terms of their knowledge gain, attitude, and comfort, physical and mental health with special reference to their locality. Methods/Analysis: This study is conducted among the students of Tamil Nadu which is considered as the biggest state of the south India. The study focuses on the location of the students from where they attend their online classes. The study is conducted through questionnaire method where 457 respondents have recorded their response to 28 questions that were asked from different spheres of their experience in an online learning environment. The researchers have used Experiential Sampling Method and used Data Mining techniques. A detailed and structured questionnaire was constructed and administered to collect the primary data through Google forms and the link was sent via online platforms. The study makes a comparative analysis of traditional and online learning among the rural and urban students of Tamil Nadu. Findings: The findings reveal that rural students find it difficult to stay motivated in an online class due to connectivity issues. The respondents felt that online classes make them mentally tired, and, creates lack of concentration. Many other impacts of COVID pandemic in relation to pedagogy remains identified by the study and a detailed investigation of those challenges were provided. The study remains crucial in the pandemic time and also offers affordable solution to the challenges encountered by online learners.

Keywords: COVID 19, Datamining, Principal Component Analysis, pedagogy, online teaching and Learning, Rural/ Urban students, network Connectivity, Anxiety

1. INTRODUCTION

Teaching and Learning are indispensable in the global context. The world confronts many challenges in the graph of growth yet the novel COVID pandemic is supposedly one of the crucial challenges faced by every individual and every sector alike. Though it offered a stun in the beginning of the identification of the pandemic, the human community found their means and modes to survive and the stream of education is no exception. Of course the entire world sought the support of the technological advances being aware of its impact on various other sectors both optimistically and pessimistically. The ultimate aim of education is to thrive and flourish even in uneven times.

When the CORONA virus is identified as a communicable disease, the government issued orders to close the educational institutions at all levels to control the spread of the disease. The world came under continuous lock down mode. WHO (World Health Organisation) identified it as a pandemic and order the respective countries to issue orders to control the spread of the pandemic and the world came under the lock down mode and most of the official works became frozen. The impact of lockdown is felt by every sector of the country and the educational sector is predominantly affected initially as the department entirely functioned based on face to face communication. Awareness of Online teaching and learning is less and the possession of relevant gadgets is also uncommon.

This reveals that the challenge is not only for the teachers to teach online but also on the part of the learners to learn online. This immediate change in the mode of their learning from the traditional face to face learning to learning through technological tools advocated tremendous change in the pedagogy. Students were also in a disadvantaged situation as they could not communicate with their teachers, peers in person and this made them feel worse. Not all have technological advances nor they have access to uninterrupted internet connectivity. Unfamiliarity of the situation also became a threat. Once everyone came to terms with the situation, Online mode of teaching and learning is sought by many as a temporary solution to continue the knowledge transfer as it seemed preferable during the lockdown. Though the online learning is not forced upon the students due to peer pressure and of the tension that they may be left behind, students also opted to learn online. Online teaching and learning have much feasibility but not without problems pertaining to pedagogy, psychological impact, health deterioration and posed communication deficiencies. The paper discusses the impact of the novel COVID pandemic scenario in the knowledge gain, attitude and anxiety of the students of a few districts of Tamil Nadu.

A. Objectives of the study

- To assess the effect of COVID-19 on educational institutions, in rural and urban area, with special reference to a few districts in Tamilnadu, India to predict challenges
- To analyze challenges faced by online learners in comparison with traditional mode of learning and suggest remedies for successful output of online class

LITERATURE REVIEW

The literature review revealed that various studies have been conducted to explore the difference between e-learning and traditional learning experience. Wong and Ng's studies in 2016 revealed that the students preferred e-learning as it is not expensive and also comfortable. A study by Al-Omari and Saleme in 2012 conveys that traditional learning methodology that is offline, direct learning lacks flexibility and affects the scores of the learners whereas e-learning enhances both the scores and the skills of the students. Sethughes (2012) states, in his article favours traditional learning, highlights the lack of personal interaction with the teacher in online learning. On the contrary, Vaona et al. (2018) in their study found that e-learning is learner-friendly as there is opportunity for personalized instruction. They add that the learners can adjust the duration of the course depending on their needs. In traditional learning, the teacher's preparation for the class and delivery of the lecture are limited, and in e-learning, the materials and resources are unlimited (Rondon, 2013). Anu Baisel (2020) et al. in their study found that a hybrid method of blending both online and offline learning would do justice in all aspects of teaching and learning. From the literature review it is revealed that depending on the situation of the learner, learning can happen continuously but the result of the learning is entirely dependent on the learner.

METHODOLOGY

This study aims to analyze the impact of COVID-19 on educational institutions when the government has taken early decisions to announce lock down to breakdown the spread of virus among the community. The study is descriptive and analytical in nature where the data has been collected from students of various classes who attend to their online class from their respective residential location in rural as well as urban areas. Based on the response received from the questionnaire, the data is interpreted and solutions arrived.

The questionnaire was conducted with six different aspects of pedagogy over online learning's impact namely learning challenges, study material challenges, psychological challenges ,technological problems, transformation to online from traditional mode challenges, intrapersonal and interpersonal challenges.

TABLE I. KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.913
Bartlett's Test of Sphericity	Approx. Chi-square	3.8433
	Df	378
	Sig.	.000

The various indications of the factorability of the dependent variable were excellent and appropriate. The KMO measure of sampling adequacy was 0.913 and the Bartlett's test of sphericity was significant (Chi square=3.8433, DF=378, P<0.05) indicates the appropriateness to be processed with factor analysis.

TABLE II. TOTAL VARIANCE EXPLAINED

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	4.770	17.037	17.037
2	2.619	9.355	26.392
3	2.375	8.484	34.875
4	2.358	8.423	43.298
5	1.405	5.017	48.314
6	1.379	4.926	53.240

B. Extraction Method: Principal Component Analysis.

Eigen values of greater than 1 had suggested the number of factors suitable for extraction. These values also represent the amount of variance accounted for by each factor. The six factors with Eigen values exceeding 1 explained 17.037 percent, 9.355 percent, 8.482 percent, 8.423 percent, 5.017percent and 10.414 percent of the variance respectively of the 53 percent total variance explained by the factors prior to rotation. Thus the above table shows how output helps to determine the number of components to be retained for further analysis.

TABLE III. ROTATED COMPONENT MATRIX (A)

	Rotated Factor Component					
	1	2	3	4	5	6
Unlike a traditional classroom, after the classes are over I feel weary and tired.	.662	Learning problem				
When compared with a traditional class, I could focus only for a shorter duration in an online class.	.577					
Lot of personal environment disturbances takes place which are beyond my control, and that affect my concentration during an online class.	.533					
Students with physical ailments find it difficult to sit in front of an electronic device continuously.	.642					
I feel lonely in an online class.	.450					
Despite the facilities at home, my classroom is better.	.650					
Apart from learning the subject, offline teaching has much more learning like etiquettes, paralinguistic features which is missing in an online class.	.543					
Attention span is less in an online class than a traditional class.	.686					
I have to practice healthy eye exercises as I use gadgets throughout the data and also after the class to complete my after class academic works. Or else, my eyes online class affects my eyesight.	.651					
I feel Online class affects my communication skills and It will reflect during my placement selection.	.500					
Clarifying doubts is difficult in an online class.		.684	Study materials problem			
Gathering of materials is immediate and storage is difficult online.		.703				
Availability of recorded lectures occupy large storage which is not feasible to import all the lecturers together.		.649				
I have no confidence to understand difficult topics as I listen better in an online class.		.584				
Availability of recorded videos, PPT makes the online class difficult to understand.		.695				
In an online class, as students mute themselves, it's difficult to communicate with the teacher and also with peers.			.493	Psychological problem		
More than classes, online test are more stressful.			.593			
Students joining and leaving the often irritates others. Online discipline should be framed and educated to all.			.761			
While attending an online class, popup notifications tempts to check messages, mails which creates a loss in the learning.			.572			
Online class is costlier than a traditional class.			.375			
I felt enthusiastic when the online classes started but my interest declined in the course of a few days.	Techonological problem	.485				
Network and connectivity issues make me lose track of the class and eventually, I lose interest in the class.		.748				
Technical and connectivity issues affect my attention towards the class.		.648				
Peer support is abundant in a traditional class.	Transformation problem		.551			
Shyness and hesitation to speak or to respond to a question is less in an online class.			.536			
Opportunities to apply learned concepts is less in an online class.			.537			
Grasping of Content a live class is better than an online class.	Inter personal problem		.524			
Accountability of a student is more in an online class.			.632			

C. Rotation Method: Varimax with Kaiser Normalization. A Rotation converged in 25 iterations.

To factorize the important motivational factors, the 25 variables were subjected to factor analysis using the Extraction Method of Principal Component Analysis and the rotation Method of Varimax with Kaiser Normalization.

Questionnaire

Attitude of learners towards Online Class – Questionnaire

The following are the labels in the demographic profile of the respondents.

Demographic Profile

Name
 Class
 Department
 Name of the college
 Place

The questionnaire consists of 28 questions which are interpreted below. The questions were clustered under six factors. The six factors analyzed were

1. Learning problem
2. Study materials problem
3. Psychological problem
4. Technological problem
5. Transformation problem
6. Inter personal problem

Let us discuss the responses received from the students on their experience on online class when compared with an offline class.

TABLE IV. QUESTIONNAIRE ANALYSIS

		SDA	DA	N	A	SA	TOTAL
I felt enthusiastic when the online classes started but my interest declined in the course of a few days.	Rural	5	11	58	50	96	220
	Urban	13	30	92	57	43	235
Network and connectivity issues make me lose track of the class and eventually, I lose interest in the class.	Rural	2	1	5	31	181	220
	Urban	24	44	82	75	10	235
Clarifying doubts is difficult in an online class.	Rural	54	38	63	28	37	220
	Urban	32	37	71	52	43	235
Gathering of materials is difficult in an online.	Rural	26	30	56	47	61	220
	Urban	20	26	75	63	51	235
Technical and connectivity issues affect my attention towards the class.	Rural	4	7	27	43	139	220
	Urban	17	21	80	60	57	235
Unlike a traditional classroom, after the classes are over I feel weary and tired.	Rural	7	18	38	42	115	220
	Urban	15	25	72	57	66	235
when compared with a traditional class, I could focus only for a shorter duration in an online class.	Rural	14	14	33	48	111	220
	Urban	12	20	89	50	64	235
Lot of personal environment disturbances takes place which are beyond my control, and that affect my concentration during an online class.	Rural	2	4	26	41	147	220
	Urban	15	20	95	44	61	235
Students with physical ailments find it difficult to sit in front of an electronic device continuously.	Rural	3	8	24	35	150	220
	Urban	12	14	70	49	90	235
Availability of recorded lectures occupy large storage which is not feasible to import all the lecturers together.	Rural	20	13	72	43	72	220
	Urban	12	21	82	50	70	235
Grasping of Content in a live class is better than an online class.	Rural	26	20	45	34	95	220
	Urban	15	30	67	53	70	235
Accountability of a student is more in an online class.	Rural	27	24	93	41	35	220
	Urban	19	23	118	48	27	235
Peer support is abundant in a traditional class.	Rural	4	14	79	48	75	220
	Urban	5	16	116	54	44	235
In an online class, as students mute themselves, it's difficult to communicate with the teacher and also with peers.	Rural	17	13	50	43	97	220
	Urban	15	28	90	61	41	235
Shyness and hesitation to speak or to respond to a question is less in an online class.	Rural	18	26	38	45	93	220
	Urban	16	29	96	50	44	235
I feel lonely in an online class.	Rural	11	16	35	27	131	220
	Urban	29	36	75	33	62	235
I have no confidence to understand difficult topics as I listen better in an online class.	Rural	48	31	72	31	38	220
	Urban	19	41	86	59	30	235
Opportunities to apply learned concepts are less in an online class.	Rural	5	17	58	54	86	220
	Urban	10	28	103	53	41	235
Despite the facilities at home , my classroom is better.	Rural	6	13	32	31	138	220
	Urban	10	13	83	49	80	235
Apart from learning the subject, offline teaching has much more learning like etiquettes, paralinguistic features which is missing in an online class.	Rural	2	11	42	47	118	220
	Urban	6	19	84	54	72	235
More than classes, online tests are more stressful.	Rural	11	9	33	38	129	220
	Urban	17	20	73	55	70	235
Students joining and leaving the often irritates others. Online	Rural	16	13	63	52	76	220

discipline should be framed and educated to all.	Urban	12	29	81	56	57	235
While attending an online class, popup notifications tempts to check messages, mails which creates a loss in the learning.	Rural	3	9	46	53	109	220
	Urban	17	24	100	39	55	235
Availability of recorded videos, PPT makes the online class deficult to understand.	Rural	7	17	54	51	91	220
	Urban	5	25	70	60	75	235
Attention span is less in an online class than a traditional class.	Rural	4	10	40	48	118	220
	Urban	17	20	79	49	70	235
I have to practice healthy eye exercises as I use gadgets throughout the day and also after the class to complete my after class academic works. Or else, online class affects my eyesight.	Rural	5	6	33	33	143	220
	Urban	4	1	63	61	94	235
Online class is costlier than a traditional class.	Rural	23	11	56	36	94	220
	Urban	17	39	82	45	52	235
I feel Online class affects my communication skills and It will reflect during my placement selection.	Rural	9	9	41	42	119	220
	Urban	19	30	86	40	60	235

Attitude of learners towards Online Class - Questionnaire

Demographic Profile

Name

Class

Department

Name of the college

Place

Questions

Out of 455 respondents, 220 were rural students and 235 were urban students. The following interpretation highlights the impact of online classes among the rural and urban students and the deciding factors for their performance in their courses.

Q1. I felt enthusiastic when the online classes started but my interest declined in the course of a few days. The pandemic scenario created the need for online classes. The success of these classes is measured by many criterias' and one among them is the motivation of students to participate in online classes. Out of 220 rural students, 66% agreed that they feel the decline of interest while attending online classes and only 7 % have agreed that they stay motivated throughout the class. This reveals that the reliability on online classes for rural students is difficult.

Q2. Network and connectivity issues make me lose track of the class and eventually, I lose interest in the class. For this statement, 96% percent rural students agreed that they lose continuity of their class due to network and connectivity issues which happens in urban locations only in a lesser percentage. So, the rural students though competitive in spirit and ready to learn are affected by connectivity issues of which they have no control.

Q3. Clarifying doubts is easy in an online class. The purpose of any learning is to be learnt with perfection. In a traditional direct classroom the teacher and students will be in interaction in person and the students gain confidence to ask questions related to the teaching and thereby make themselves clear in the concepts taught. But due to the online classes the students feel that they have lost the human touch which becomes more complicated because of the network issues. It is evident from the response of both the rural and urban students who expressed their difficulty in clarifying doubts whereas this difficulty in not much perceived by urban students who have good connectivity. Both the rural and urban students find it comfortable as well as difficult based on their content absorption.

Q4. Gathering of materials is immediate and storage is easier online. A majority of rural (49%) as well as urban (48%) students agree that it is easy to store their study materials in cloud space as it is not so costly when compared to buying books.

Q5. Technical and connectivity issues affect my attention towards the class. For an offline class, the average attention span of a student range from 15 minutes to half an hour, the same does not apply to an online class. But with added disadvantage of network issues the students face the risk of attention deviation as the online platform invites them for an online class with a variety of distractions. To this statement, 83% of rural students, 45% of urban students confirmed their discomfort.

Q6. Unlike a traditional classroom, after the classes are over I feel weary and tired. The atmosphere and environment in a classroom can be difficult to create in everybody's home. A classroom is formed by teachers, peers and like-minded people whereas a home is completely personal. The motivation one derives in each class makes them feel good and help them to stay focused. To this statement, both the rural and urban students responded in a similar ratio, 71% and 52%, rural and urban students respectively.

Q7. When compared with a traditional class, I could focus only for a shorter duration in an online class.

As said earlier, focus in a class is crucial in learning. 72% of rural students and 48% of urban students affirm that they couldn't focus in an online class.

Q8. Lot of personal environment disturbances takes place which are beyond my control, and that affect my concentration during an online class.

A classroom is under the control of a teacher and other administrators to ensure hassle free learning but home is not such a place to learn amiably. 88% rural students support this statement. Even 44% of urban students feel disturbance of a home environment.

Q9. Students with physical ailments find it difficult to sit in front of an electronic device continuously.

The posture we take is important with respect to our health. Not all are granted complete health. The toll that these electronic take on the students health is viewed negatively by both rural and urban students. 84% of rural students and 60% of urban students realized the physical discomfort of an online class.

Q10. Availability of recorded lectures makes it easier to study before the exam which is not possible in a traditional class.

The boon of an online class is the availability of recorded classes and their access anywhere and anytime. Though it consumes data, 52% of rural students and 51% of urban students advocates the easy access for classes that were already happened.

Q11. Grasping of Content in a live class is better than an online class.

To this question, which focus on the understanding of contentt delivery in an online class, both the rural and urban students have the same opinion, that is, it is difficult to understand.

Q12. Accountability of a student is more in an online class.

To this question also, bit the rule and urban students have agreed in the same ratio that there is no difference when it comes to one's responsibility towards learning. Both the rural and urban students have agreed to that feel accountable whether it is an online or offline class.

Q13. Peer support is abundant in a traditional class.

Peer group is very essential in learning in the 21st century. But the online education brought a disruption in peer learning as the students were forced to stay apart from their classes. It is estimated from their responses that 91% of the rural students and only 8% of urban students disagreed on this remark.

Q14. In an online class, as students mute themselves, it's difficult to communicate with the teacher and also with peers.

Online communication is instant and immediate but is there any time allotted in a class time exclusively for speaking ? Many students have felt that they are only passive listeners and rarely do they get a chance to communicate in an online class. 86% of rural students and 63% of urban students, felt that they are passive in an online class.

Q15. Shyness and hesitation to speak or to respond to a question is less in an online class.

Soft skills and Public speaking develop in a student in a course of time they are present in the class but as the shutdown of educational institutions forced them to attend classes from their residence, students developed an inhibition to share their thoughts . 80% o rural and 81% of urban students have felt this loss in their communication skills.

Q16. I feel lonely in an online class.

Virtual reality has its own disadvantages and one such barrier is a psychological alienation created by the online class. 87% of rural students and 72% of urban students have felt this isolation though all the other students were present in an online class.

Q17. I have confidence to understand difficult topics as I listen better in an online class.

Self- confidence is an important student trait. It will be developed in many students during their course as they would have chances to interact in a traditional classroom. But though there are plenty of opportunities available in an online class to boost up one's confidence, eventually at the end of the class, many students feel inferior as they could not communicate freely in an online session.

Q18. Opportunities to apply learned concepts are less in an online class.

Goal of any learning is the useful application of the concept in one's needy times. But online class does not complete its part when it is applicative learning as done in a traditional class. 90% of rural students and 84% of urban students felt this gap.

Q19. Despite the facilities at home, my classroom is better.

A student's learning depends partly in the environment surrounding them which inspires them to learn. Though one's home is convenient no place can match a classroom. This need is felt by 90% of rural and 91% of urban students.

Q20. Apart from learning the subject, offline teaching has much more learning like etiquettes, paralinguistic features which is missing in an online class.

Soft skills cannot be taught effectively online. When the students attend placement interviews, soft skills are a pre-requisite. Many students from rural (94%) and urban (89%) felt that soft skills are not taught nor can be developed through online class.

Q21. More than classes, online tests are more stressful.

Testing forms an essential component in learning. Due to the pandemic, institutions have to adopt online mode of testing of which students and even many teachers were not familiar with testing tools and how to conduct tests online. 94% of rural students and 84% of urban students advocated this argument.

Q22. Students joining and leaving often irritates others. Online discipline should be framed and educated to all.

Though there was a rise in the number of institutions who transferred their classes from offline to online, no basic code of conduct is framed and shared with the students and this created a disturbance in the smooth conduct of online class. Students from both rural (87%) and urban (84%) locations felt this dire need for code of conduct in an online class.

Q23. While attending an online class, popup notifications tempt to check messages, mails which creates a loss in the learning.

As online classes invariably require internet connectivity, students fell an easy prey to distraction, rural (89%) and urban (84%) while attending classes or when they prepare their content later.

Q24. Availability of recorded videos, PPT makes the online class worthy.

Among the best use of online classes is the availability of contents for use at ease. Rural students of about 90% and urban students of 87%, alike advocates this facility of an online class in a positive light.

Q25. Attention span is less in an online class than a traditional class.

Studies have found that an attention span of a student is less than 15 minutes in an offline class and this goes even lower in time in an online class. Unanimously more than 90% of rural and urban students admitted that they couldn't stay focused in an online class.

Q26. I have to practice healthy eye exercises as I use gadgets throughout the day and also after the class to complete my after class academic works. Or else, online class affects my eyesight.

The major physical resource to attend an online class apart from good connectivity is eyesight. Whether rural or urban, eyesight is very important is realized by more than 95% and 93% of rural and urban locations respectively.

Q27. Online class is costlier than a traditional class.

Online classes cost much for the students as they paid for both online and offline classes. 85% of rural students admitted that it is difficult for them to afford for data packs and 76% of urban students also admitted their difficulty.

Q28. I feel online class affects my communication skills and it will reflect during my placement selection.

For those students who opt to get placed, online classes did not have much to contribute towards their soft skill development as it is a practical component and it cannot be learnt by books alone. 92% of rural students and 79% of urban students realized the impact of online classes in their communication.

Learning Challenges in Online Mode of Class

To the question elicited to know the enthusiasm of students during an online class 68% of the students responded that they lose interest in the course of the class. Learner motivation is important to the learners' success in an online learning environment as it could influence students' decision to stay in or drop out of a course (Bonk & Khoo, 2014), their degree of engagement in the course, the quality of the work, and their level of achievement in the online course (Hartnett, 2016). Intrinsic motivation refers to "doing something because it is inherently interesting or enjoyable" (Ryan & Deci, 2000, p. 55) while extrinsic motivation refers to "doing something because it produces a separable outcome" (Ryan & Deci, 2000, p. 55). Sometimes, these motivators interact with each other to promote or undermine one's intrinsic motivations in social contexts (Ryan & Deci, 2000). When students are intrinsically motivated, learning outcomes can be maximized. On the other hand, extrinsic motivation sometimes tends to undermine intrinsic motivation based on autonomy in one's own social context. Students tend to be intrinsically motivated when they feel in control or have choice, possess high perceived competence, receive informational rewards, and the activity is task-involved (Mandigo & Holt, 2000). When a student feels controlled by external factors, the level of intrinsic motivation is undermined. The student also becomes weary at the end of an online class. They have to do some simple exercise to protect their health regularly. It is also observed from the analysis of the respondents that with regard to network and connectivity also, students lose interest and attention in an online

class. On the contrary, students feel that clarifying doubts and storage of reference materials is easy in an online mode of education.

Challenges in Study Materials

Students from the rural areas felt that storing of all the recorded lectures of the professors for use in offline is difficult with respect to the gadgets they use. Taking notes is difficult in an online class as the eyes require constant watching of the screen, not all the students could be with a financial blessing to buy gadgets with high memory and storage. Students responded that most of the teachers use a Power Point presentation, it is sometimes exhausting to listen.

Psychological Challenges

The students feel that in an online class, as students mute themselves, it's difficult to communicate with the teacher and also with peers. In a traditional class, the communication among the students and the teachers is also non verbal but in an online class, students feel isolated from their teachers and peers. They also have stated that more than the classes the tests are the most stressful. The students made it clear that students joining and leaving while the class is going on often irritates other listeners. While attending an online class, popup notifications tempt to check messages, mails which creates a loss in the learning.

Technological Issues and Challenges

Most students felt that using technology is costlier than a traditional way of learning. In spite of spending money for data and internet, network issues still persists in many localities. With less help from the internet service providers across locations, many students face connectivity issues and the ways to resolve them are unknown. Also, adding fuel to the fire is the non availability of service engineers in case of any fault with the gadgets which are used more during the lockdown. Transformation Challenges from Traditional to Online Mode of Learning

Majority of the respondents feel that they feel shy to unmute and speak in an online class owing to their technical issues and voice clarity. Many students feel that their opportunity to apply the learned concepts has lessened in an online class. Grasping of content in a traditional class is better in an online class. When compared with an online class, the students expressed that peer support is abundant in a traditional class.

Intrapersonal Challenges

The students' ability to perceive oneself in a classroom and preparing oneself for it happens in a continuum from the elementary to tertiary level. A sudden change in the routine severely affects anyone's application skills and online learning is no exception to it. Through the questionnaire the students have expressed that accountability of a student is more in an online class than in a traditional class as they have to keep a check on many aspects like network, data pack, mindset, follow up of classes, online exams, reference time, study time, revision, peer discussion, etc.

Findings

1. No training to attend an online class.
2. No code of conduct framed for an online class.
3. Less technical support from the teaching end in case of issues.
4. Loss of learning soft skills, interpersonal skills and communication skills
5. More of a one way flow of communication. It depends on the teacher to make an online class of variety and interesting.
6. Financial support for data to be provided by education institutions to avoid network and connectivity issues.
7. Counseling to students who face difficulties to be arranged by the educational institutions.
8. Motivation lectures to be arranged along with syllabus content to keep the students in track.
9. Students are willing to learn in any mode, provided, proper care from the teachers and management to make the students comfortable in learning and taking exams in the onset of the new mode of pedagogy – Online Mode of Teaching and Learning.

Suggestions to overcome the Challenges

In the COVID Pandemic lockdown all the stakeholders in educational sector face innumerable issues but the consumers, the students are affected much. In order to overcome these challenges listed above, the management has to come forward and make new policy changes for the benefit of their wards. A proper code of conduct should be framed and made to follow during an online class. In spite of the unexpected lockdown, and of the non availability of traditional classes, students' pay fees and they should be given proper financial assistance to equip themselves for attending online classes seamlessly. The management should allot a committee of staff to identify learners who miss classes and asked to motivate them and to extend counseling service in the interest of the learners. Students should be given opportunities to communicate in an online class. The classes should be planned in advance in such a way that it includes learning materials like visual presentations, etc to hook the interest of the students and to keep them in tact during an online class. Verbal appreciations by the teacher can bring a lot of changes in the attitude of the learners to attend online classes.

Conclusion

Technology is a mode for reaching the students and the ultimate goal is to educate the students and in this process, care should be taken to ensure that technology should not become a barrier to their learning. In our study we found that E-Learning skills should be popularised among the students and group discussions can be arranged in an online class to ensure soft skill and personality development. This study reports that the teachers are the people who travel with a student in their productive development years and it is the prim duty of the teachers to equip with the latest trends in pedagogy and attract the students in the course of learning irrespective of the mode and the mood.

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