RESEARCH ARTICLE

CHANGE IN LEARNING PERCEPTION DURING PANDEMIC AND BEYOND

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Manuscript Info	*Abstract*
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Since 2020, entire world adopted effective measures to counter the spread of deadly pandemic, caused by the virus SARS-CoV-2 (COVID-19). Restrictions, in terms of movement of people and goods, which was imposed by the governments, compelled various institutions to search for alternative approaches to maintain their stipulated work flow. Online platforms appeared to be best suited approach to cope-up with the altered and challenging environment. Education system was under the purview of these restrictive measures as well. As all the educational institutions were closed for a longer period of time, authorities tried online platforms, as a new avenue to provide education to the students. To provide effective and productive education, both the 'interactive' (bidirectional) and 'non-interactive' (unidirectional) communication strategies were adopted. In this longitudinal study, perception of three groups, i.e. Higher Secondary, Under Graduate and Post Graduate students were evaluated. Perception regarding online mode of education and gradual transition thereafter toward regular mode of education were taken into account while this study was conducted. To carry out this evaluation, 'two tier' structured questionnaire survey was conducted amongst 320 students through the stratified random sampling. In the first tier, survey conducted through online mode, whereas, second tier of survey was carried out through off line/regular mode, that is after reopening of institutions from January,2022. This study suggested that, as far as access to the online mode of education is concerned, 87.50% students marked it to be the most positive factor whereas, 92% students considered network to be the major barrier. Study also revealed that there are perception wise differences amongst Higher Secondary and Under Graduate students. However, it could be opined from this study that after re-entering into offline mode, most of the students faced learning deterioration.

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Introduction:-

World Health Organisation (WHO), defined 'Pandemic' as spread of a certain disease worldwide or across international borders which affects a large number of people (Kelly, 2011). Outbreak of SARS-CoV-2 (COVID-19) virus was first reported in Wuhan province of Republic of China in December, 2019. WHO declared COVID-19 outbreak as pandemic in the month of March, 2020. In consequence, India also went into lockdown measures to

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prevent spread of virus. Strict lockdown measures imposed restricted movement, social isolation, digital media based information sharing, unstable work culture and social vulnerability to its citizen. Sequential extension of lockdown makes this situation much more complex to cope up with (Huremovic, 2019).

Studies also revealed, a great psychological risk resulted on the women, elderly persons and the young of age group between 16 to 24 years, due to this sudden stagnation (Taylor,2017). Amongst the young section of the society, most vulnerable section is the learners, whose physiological and social clock has been disrupted during this period, as unavailability of formal schooling, peer group interactions, social communications imposed an impasse situation, which caused a major stress on them.

Teaching-learning process is considered to be the core element for the development of multi-skills amongst the learners. And the prime condition behind the effective learning process is motivation and aspiration, which are controlled by variety of psychological facets like level of intelligence, emotional attitude, ways of thinking, career decisions etc. (Banaji & Prentice,1994). Vallerand and Blanchard, 1998 define motivation as a hypothetical construct of human mind that describe the internal and external forces which leads towards the initiation, direction, intensity and persistence of a specific behaviour. Whereas, aspiration is a cognitive state that motivates or drives adolescents to strive for academic success (Khoo & Ainsley, 2005). Considering the academic achievement for present study, it is important to note that, academic motivation is a complex process where cognitive, social, cultural and institutional factors (Goodenow, 1993) work together and build a factorial web (Ferreire et al., 2011) for academic development.
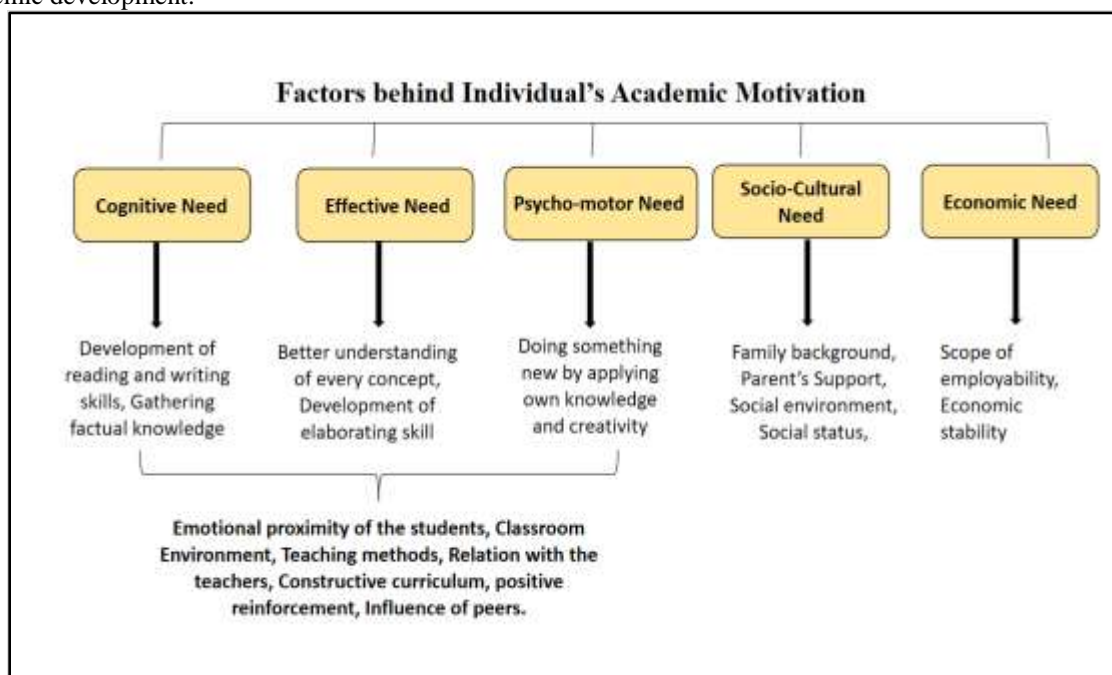

Fig 1:- Different factors behind academic motivation.(Woolfock, 2004) (Deci & Ryan, 1985) (Hunter,1967) (Henderson, 1987) (Yahaya et al.,2009).

It has been observed that around 320 million learners from primary to tertiary level have been affected in India due to interruption in formal education system since the commencement of lockdown. In this phase, online teaching and learning platforms evolved as a new avenue to conduct the teaching and learning processes (Darius et al., 2021). Positive impact of the online platforms can be observed on education through timely maintenance of annual curriculum and overcoming mental stress and anxieties during this sudden transformation (Raju, 2020). Considering the situational constrain, UGC (the Apex body of Govt. Of India for higher education) has put enough emphasis on online learning system to complete the assigned courses and asked academicians of different universities for constructive initiatives to make the online system more effective. UGC also mentioned to maintain quality for participative learning management system (Berking & Gallagher, 2016) to commencement curriculum transaction effectively (Times of India, 2020).
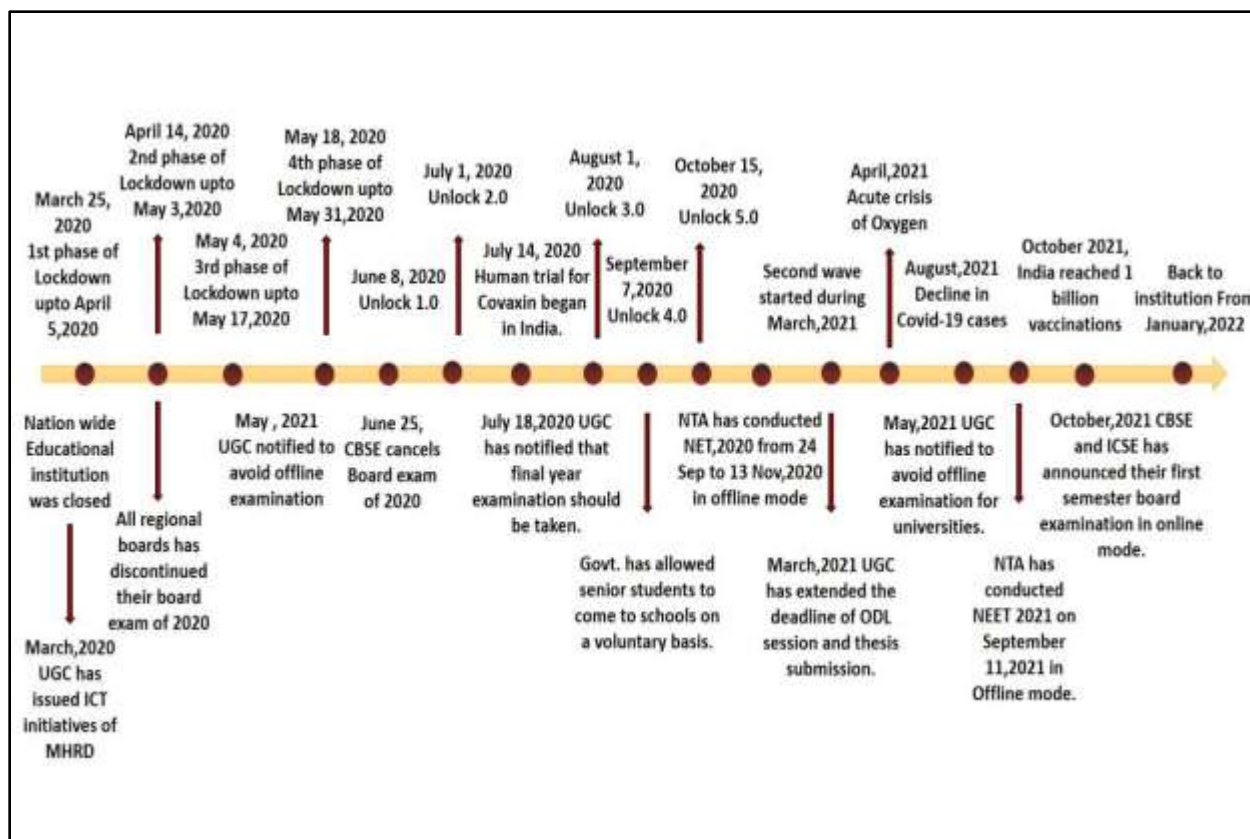
Fig 2:- COVID-19 outbreaks in India and its impact on education system.

Educational institutions are considered as the domicile for the children aged 16 to 23 years. During this period, they devote their energies to gain optimum knowledge, develop their potential to innovate, ready to face challenges and they also ensue their teachers as a preceptor (Yahaya et al.,2010).As a consequences of lockdown, the connection between teachers and students got interrupted. Intense outbreak of the COVID-19 pandemic from January,2020 forced educational institutions to prosecute the online platforms for conducting teaching and learning process.

Institutions has re-framed their pedagogical strategies to maintain their academic calender in online platform. Google meet, Zoom has been used as interactive teaching tool and facebook, youtube live classes are been registered as a non-interactive platform (Ventayan et al.,2018) (Ilag, 2018) (Alqahtani, 2019). Exploration of digital media to the students through online lecture, virtual interactions with the teachers, online examination, project presentation provide them a new way to cope with this new normal (Kumar & Nayer, 2020). All the students irrespective their age, gender, space are became attached to this inevitable digital world.

From the end of 2021, gradually the educational institutions has opened up and they shifted towards offline classes. After two years of physical incoherence from institutions, students again got the momentum to back to campus. This transitional phases has provided different credence to the learners about their stand in the spectrum of educational achievement. So this longitudinal study was conducted to evaluate the perceptions of students about offline to online system and again back to offline system.

Objective of the Study:-
This study is structured to achieve the following objectives:
1. To identify the incoherence of the learnersabout online teaching-learning process
2. To assess the achievement of the learners during online and offline classes

Methodology:-
Procedure:
To complete the whole study, two tier questionnaire survey has been conducted. In the first level total 25 samples was considered to take general perception about online learning system. Stratified random sampling has been applied. Mostly open ended questions were there to take their inner conception.

After that a final structured questionnaire has been formed on the basis of general responses what students are given. Then the structured questionnaire has been standardized and distributed through Google link. Stratified Random sampling method has been applied to collect the data. Total 320 student samples have been collected. After that, the collected data has been analyzed to understand the trend of the student's perception. Cronbach's alpha value is 0.812 which clearly indicates the reliability and internal consistency of the schedule.

Participants:
The sample consisted of 320 students from three different levels, respectively high school students, graduation level students and post-graduation level students. 16 to 23 years' age group learners were considered as respondents. This age group were selected because from this age, inspiration to prepare a draft for the future to choose the path of their own choice has been developed. It included 160 senior secondary level and 160 UG and PG level students. Among them 178 were male and 142 were female. 189 respondents resided at rural to peripheral areas and 131 respondents resided at core urban to urban fringe areas. 198 respondents belong to the family whose income is less than 15,000 per month. 170 respondents were from science stream, 118 and 32 from arts and science stream respectively.

Measures:-
1. A structured questionnaire which includes basic information and perception based rating scale was administered on 320 students.
2. Collected responses has been analysed through basic descriptive statistics to understand the average responses of the sample.
3. T-test has been applied to understand the significant differences between the approach of different students on online mode of learning.

Data Analysis and Discussion:-
Learning is the process of acquiring knowledge. It is a never ending dynamic process. Face to face learning mode is considered as a formal way of learning system. Where, every students used to communicate direct with their teachers or with mentors within the institutional structures. Students spent 6 to 7 hours everyday within the boundary of their respective institution. Teachers used different pedagogical tools to impart the knowledge as well as to motivate the pupils (Wlodkowski & Jaynes, 1990) in their classes. Students also got enough scope to enrich their understanding in practical field under the guidance of their teachers (Goodenow & Grady, 1993). However, from march , 2020 formal face to face mode of education system has been collapsed due to COVID outbreak in India and suddenly the whole academic courses got shifted in online process. From December,2022 gradually face to face formal academic courses has began to continue again in institutions. A major transformation has been taken place in education system during this phase. Sudden shift towards online classes forced the academician to commence the classes in online mode. After two years of online transaction of teaching processes ; the system began to resettled in formal mode.

Students are the core objectifying element of teaching- learning process. Their achievement is the base to evaluate the success of this process. From preparing curriculum, pedogogy, assessment all are structured through remembering the mental age of students. Impact of the transformation from online to offline on students is measured through this paper. Responses has been collected to understand the base line status of the students about the educational transition. Among the collected responses, 38% respondents marked that, they used desktop/ laptop to attend the classes. Whereas 42% respondents used mobile phone and 20% marked that, they used others mobile phone to attend the classes. During the data collection process, when the students are asked why they have used others device. They clearly mentioned that, they don't have android phone to install all the advanced apps. But in order to attend the classes, they try to join with other's devices and try to understand the content of the classes. Although to them offline classes is still the most acceptable. Respondents are also expressed that continuing online classes are often not financially feasible for them.

Table 1:- Different substances about the online classes.

Main Attributes	Components	Responses (%)
Which form of online classes you preferred most?	Two way communicating live classes	65.00% (208)
	One way recorded lectures	24.68% (79)
	Suggested videos from online	9.06% (29)
	Suggested materials	1.26% (4)
Which app you preferred most for live classes?	Google-Meet	62.81% (201)
	Zoom	36.88% (118)
	Cisco-Webex	0.31% (01)
Which platform you preferred for different information about your course?	Website of your institution	10% (32)
	Google Classroom	30.94% (99)
	G-mail	27.81% (89)
	Whats App	31.25% (100)
What kind of problems you have faced at the very primary stage of the commencement of online classes?	Lack of access to ICT tools	37.19% (119)
	Lack of understanding	24.68% (79)
	Lack of Network	38.13% (122)
How much you find the presentation of your teacher is effective in online classes?	Very informative and satisfactory	47.81% (153)
	Good and informative	30.94% (99)
	Not so satisfactory	21.25% (68)
How many classes you have attended in online mode?	More than 75% classes	38.44% (123)
	50% to 75%	27.81% (89)
	Less than 50%	33.75% (108)

65% students responded that live classes where they have the opportunity to understand through direct conversations with teachers are more acceptable to them. But in the case of recorded classes which are posted through various online channels, the motivation of the students greatly reduced. Only 24.68% respondents marked this recorded lectures effective. Whereas 9% and 1.26% respondents marked suggested videos and materials are effective respectively. When they are asked about their preferences of suggested materials, they revealed that when we miss the classes due to network problem or due to power shortage in my locality, it is easy for us to understand the content matter by looking at such materials. They also marked that in some cases, they request their teachers also to share the recording of their classes.

When the students have been asked about their preferred platform for live classes, 62.81% respondents said that, they preferred google meet over other platforms. It is directly linked with the G-mail and it is also effective to share and to handle. Whereas 36.88% respondents preferred Zoom app for online classes. Respondents found that with Zoom app, network problem is less encountered and its capacity to run a class much more than Google- meet.

Students have also responded that Whats-app and Google classroom are more effective platform to share any information and materials during the online classes. Students found it also useful to communicate with their teachers and peers outside learning process. 31.25% respondents preferred Whats-app whereas 30.94% respondents preferred Google classroom to collect or share any information about formal information. 27.81% preferred email for formal notification and information. Although it is important to mention that most of UG and PG students are marked email as an effective tool rather than school students. And only 10% respondents marked Website as an effective tool.

When the students have been asked about their problem during the early phase of online classes, 37.19% respondents said that in the very early stages they faced lot of problems due to lack of ICT tools and for that they missed few classes. Later as the trend of online classes gradually increased and the lockdown continued for a long time, they gradually began to settle it. Whereas 38.13% marked network problem as a major problem during the beginning phase. Along with the network problem at the regional level, respondents also marked strength and

validity of their data packs as a factor behind this problem. Significantly 24.68% respondents said that primarily they did not understand the mechanisms of online platforms. Due to this insufficient knowledge, they often faced problems in online classes and they they also could not participate in discussion. When they have been asked about the support of their family members in this regard, they said that their parents are not so efficient or learned about online platforms.

47.81% respondents portrayed that they found the content presentation by their teachers in online platform is very structured and informative. It helped them to understand the content more easily. 30.94% remarked the content matter good enough to understand. But 20.25% respondents found it not so satisfactory. They further added that for hard concept or application based concept, content design should be much more innovative and analytical, so that it can be easily understandable.

Students have also been asked about their attendance in online classes, 38.14% respondents said that they have attended more than 75% classes. Whereas 27.81% and 33.75% respondents attended below 75% and 50% classes respectively. Both the numbers are quite disappointing. In discussion, they have mentioned that, due to network problem, they often could not join to online classes. Some students have also pointed out about the financial conditions of their parents and in some cases, they have to join different work to support their parents. Some students marked towards the health issues of their family members as a cause of poor attendance.
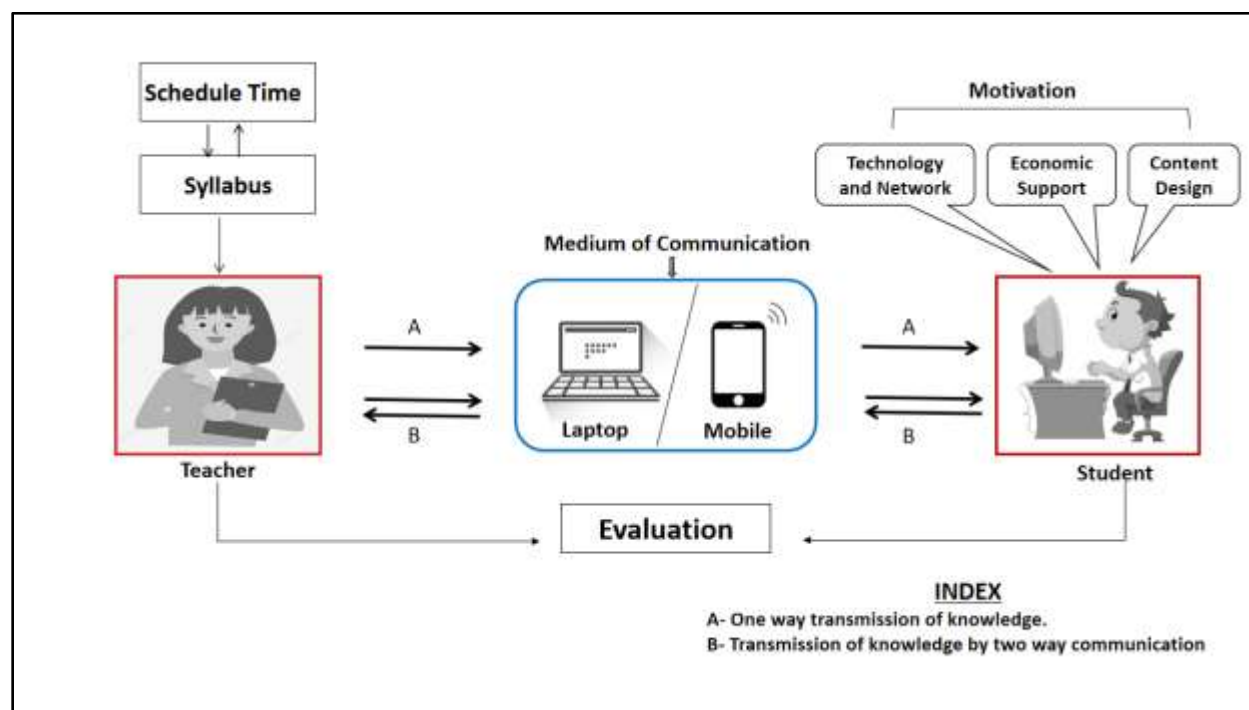

Fig 3:- Different dimentions of online learning.

After collecting the base line information from the students, they are also asked what they think is the best and the worst side of online learning systems in terms of their experiences. It is already seen that many students have 50% or less attendance in online classes, so it is justified here to identify the factors behind their participation in online classes. However, the advantages and barriers associated with online teaching and learning processes are listed below. It has been framed through the primary data and further incorporated through reviews of related literature.

Responses of the students clearly indicates that easy accessibility, development in technological skills and flexibility are the major supportive factors for online classes. During lockdown, students can access their classes, communicates with teachers and got the study materials through online platform which helped them to continue their study and for this online mechanism they used to learn many technical mechanisms. By considering the flexibility of online classes, students also agreed to consider it as supportive factor. Whereas self-centered learning

approach, active participation in classes and retention rate enhancement has been considered as rank four, five and six respectively by students. (Table 2)

Table 2:- Supportive factors related to Online Classes marked by Higher Secondary and College Students.

Attributes	Examples from Primary Surveys	Related Literature	% of Respondents	Rank
Accessible from home	'Online classes are helpful because we can access the classes from our home during the pandemic period. We received study materials and library book links from our teachers through mail.'-Sayani Neogi, B.Sc.(2nd Sem) in Geography.	Butnaru et al.,2021 stated that online classes has provided a good platform to continue the learning process during pandemic.	87.50%	1
Helps in improving technical skills	'During the online classes, Me and my friends got to understand many technical skills. We have created google form. Used jam board, attended meeting in google meet, learned to live stream the presentation video etc. Overall it helped us to become techno savvy.'- Shama Parvin, Class 11.	Wegner et al,2000 clearly mentioned that by attending online classes, students enriched themselves in various technological skills.	75.63%	2
Time flexible and convenient	'We attended the classes by following a online routine. It was not so rigid like offline classes. Teachers asked us for convenient time and also used to give us break after 2continuous classes. Have attended classes in evening also.'- Rajjan Prasad, BBA (4th Sem).	Thomas,2010 clearly indicated that flexibilities of time is the most important factor of online classes. It reduces the wastage of time and both instructor and student can intensely focus on their content matters.	63.13%	3
Self-study (student) centered system	'Online classes taught us to study by our own way. Teachers suggested us books, articles and we used to prepare our own study material and it was not so monotonous.'- Kartick Khan, M.Sc (3rd Sem) in Botany.	Kirtman,2009 and You & Kang,2014 stated that it is a self -guided platform where students can utilize their effort by their own way. It also improves their meta-cognitive skills.	58.44%	4
Ensure active participation of students	'Online class has provided the scope to interact with our teachers on a specific issue.'- Dhiran Sadabat, Class 12.	Fortune et al. ,2011 demonstrated that there is there is no significant differences between online and offline classes if the students have that courage.	43.44%	5
Enhances Retention rate	'Due to sudden lockdown, our colleges are closed off. But through online classes we got the chances to continue our education, communicate with teachers and friends. Without this platform many of us lost this privilage to continue our education.'- Tripti Pathak, Class 11.	Muthuprasad et al.,2021 proved that in spite of many barriers, online classes are proved as an important platform during pandemic.	41.25%	6

Every teaching strategies have some limitations. Online learning system also not so exceptional.Although many research has highlighted the positive effects of online classes, but this online system of learning did not become equally acceptable to all the learners (Lathrof, 2011). Results are clearly indicated towards different barriers of online classes. 90.94% students has stated that unstable network and non-affordability of data packs is the major barriers towards the accessibility of online classes.it clearly shows the social divide between the India's population. Whereas lack of technological tools among the students and lack of provisions to clear the practical concepts are got the second and third rank respectively. Then about 59.38% respondents said that they missed the formal face to face interaction with their peers and teachers. Uncertain mechanism of evaluation system and over emphasized on technologies had also been considered as the significant barriers to the students respectively (Table 3). So, along with the positive elements, many students have also faced different barriers which indirectly forced them towards motivation loss.

Table 3:- Drawbacks related to Online Classes marked by Higher Secondary and College Students.

Attributes	Examples from Primary Surveys	Related Literature	% of Respondents	Rank
Lack of proper network and data shortage	'In my area, network is not so proper. For that reason,I have missed few classes and in next class, I got lost my flow of learning.'- Prithish Sengupta, XII 'I have no wifi facility in my home. And my parents could not effort high rate data packs. So, I got missed many classes.'- Ajay Goldar,B.A (3rd Sem) in History.	Muthuprasad et al.,2021 stated that in many fringe or isolated areas, where the network was not properly established there were a great chance of drop outs.	90.94%	1
Lack of technological support in home	'I have missed so many classes because I don't have any laptop and my phone is not so expensive.'- Indranil Mukherjee, MSW (2nd Sem).	Song et al.,2004 stated that technological tools is a major attribute to continue the online system. Lack of this approach can hamper the students' participation.	84.38%	2
Lack of clarification on practical concepts	'For theory papers, it was well sufficient but to understand some practicals, me and my friends used to face lots of trouble.'- Lukesang Nagma, B.Sc (5th Sem).	Khalil et al.,2020 showed that students faced problems in understanding the practical which needs some skills.	74.38%	3
Lack of interaction with teachers and peers	'Our interactions become so limited. We got dis-connected with our peers and teachers.'- Wardha Omar, Class 12.	Bali et al.,2018 and Ocak,2020 admitted that most of the students bunked online classes due to lacking of interactivity compared traditional classrooms.	59.38%	4
Uncertainty about evaluation system	'I am not satisfied with evaluation tools. Open Book Examination have no base to judge ones knowledge. Because everyone is copying from books. And we all are getting so high and equal marks.'- Kawshik Mondal, Class 12.	Elzainy et al.,2020 indicated that proper assessment tool is necessary to evaluate the students' achievement. Lack of a proper tool of assessment, students found the course irrelevant.	49.38%	5

More concentration on technologies	'Teachers have placed more importance on tools rather than actual contents. I don't have laptop and my parents are not so techno savvy. Then how they expect to do everything in virtual mode.'- Nairit Dasgupta, Class 11.	Dhawan, 2020 showed that many institutions has shifted their learning platform in the online mode without addressing the social divide.	47.50%	6

In addition to elaborating the different positive and negative factors about online classes, students responses are also considered to understand about every components regarding students participation in online classes. Under three different domains, total 16 statements were reasoned on rating scales to interpret the perspectives about online learning systems. Mean and Standard Deviation were also calculated to understand the average position of 320 participants.

Table 4 showing the different aspects about the usefulness of online learning mode. 65.34% students agreed that during lock down, online learning system appeared as a useful tool to conduct the teaching and learning processes. 56.33 % said that online learning mode was also useful to cover all the syllabus within a specific time frame. About 53.67% respondents said that it has also provided scope to conduct examination even during this stagnation period. 59 % respondents agreed to the statement that, during the confined situation, they could able to attend the online classes from home. 57.33 % respondents said that, they have learned some new learning tools through this online learning mode. And only 45% respondents agreed that, this mode helped to maintain proper communication with teachers. Overall it can be concluded that, most of the students are agreed to the usefulness of online learning system during the confined period. But, if the lower level of rates can be considered, then 20 to 30% respondents are there in each category who are not satisfied with the useful attributes of online learning system.

Table 4:- Does Online Learning Mode is useful ?

Contents	Frequency of responses (%)					Central Responses	
	SD	**D**	**M**	**A**	**SA**	**Mean**	**SD**
It is proved as useful tool during lock-down process	7 (2.33)	32 (10.67)	85 (28.33)	125 (41.67)	71 (23.67)	3.94	0.72
It is useful to cover the whole curriculum after sudden stagnation	22 (7.33)	39 (13.00)	90 (30.00)	109 (36.33)	60 (20.00)	3.69	0.88
Provides scope for online examination	51 (17.00)	49 (16.33)	59 (19.67)	96 (32.00)	65 (21.67)	3.45	0.63
It can be accessed from home	13 (4.33)	37 (12.33)	93 (31.00)	72 (24.00)	105 (35.00)	3.93	0.74
It provides different online tools to enrich the knowledge	42 (14.00)	29 (9.67)	77 (25.67)	112 (37.33)	60 (20.00)	3.60	1.11
Helped to maintain proper communication between teacher and students	47 (15.67)	41 (13.67)	97 (32.33)	62 (20.67)	73 (24.33)	3.44	0.83

Self-satisfaction of the learners are more important for every pedagogical strategies. Although each method has its own usability but the acceptability is the core of concern. Table 5 shows that, how students react differently about their satisfaction about online mode of learning. About 44.33% students agreed that through online mode also, assigned syllabus of each course has been completed properly. Whereas rest of the students are not agreed to this statement. It means about 55.67% students was not satisfied about the completion of the syllabus through online mode of learning.32.67% students were stated that they found this online mode useful to understand the concept of practical properly but rest of the students were not satisfied. As a reason, they further elaborate that due to unavailability of instruments or practical tools, they could not practice it in home. On the other hand, teachers also

used only verbal communication to make the concept clear. So, most of the students found it difficult to understand practical concept in online learning mode. From the perspective of equal attention, only 31.33% students have said that all the students received attention in online learning mode but rest of the students were not satisfied with the attention. Attendance were also not so satisfactory in online classes. According to 31% students, it was satisfactory. Network was considered one of the main issue for which many students did not attended the classes on regular basis. 49% students gave their feedback to oppose that network is not an issue.

Table 5:- Does Online Learning Mode is satisfactory as much as face to face mode ?

Content	Frequency of responses (%)					Central Responses	
	SD	D	MA	A	SA	Mean	SD
It ensure proper completion of all the syllabus	61 (20.33)	50 (16.67)	56 (18.67)	69 (23.00)	64 (21.33)	3.08	0.89
It is useful to clear all the practical concept also	72 (24.00)	78 (26.00)	52 (17.33)	39 (13.00)	59 (19.67)	2.78	0.92
All students are getting equal responses	75 (25.00)	69 (23.00)	62 (20.67)	49 (16.33)	45 (15.00)	2.73	1.01
Attendance are satisfactory in classes	82 (27.33)	67 (22.33)	58 (19.33)	49 (16.33)	44 (14.67)	2.69	0.56
Accessibility to internet does not create any issue	84 (28.00)	63 (21.00)	54 (18.00)	49 (16.33)	50 (16.67)	2.73	0.95

Evaluation is the core of every learning process. Every course came up with a structured evaluation tool not to provide grade but to judge whether the students understood the concept properly or not. In this domain, 5 questions were asked to the students to get their perception about evaluation during online learning system. 22% students agreed about the effectivity of online platform during lockdown process. Whereas 56.67% students were strongly opposed to open book evaluation system. They further explained that open book examination with direct questions cannot be a standardized tool to judge the ability of the students. 53 % students disagree to the preparation of results on the basis of last academic year. According to the learners, it is unjustified because one can improve from the last year and one can deteriorate also. 67.33% students disagree to consider this evaluation tools as a motivational one. 57.67% students were also said that it was not the proper followed any proper assessment (Table 6).

Table 6:- Does evaluation system through online mode is effective ?

Content	Frequency of Responses (%)					Central Responses	
	SD	D	MA	A	SA	Mean	SD
It is an effective platform to maintain the time frame for examination	93 (31.00)	65 (21.67)	76 (25.33)	46 (15.33)	20 (6.67)	2.45	0.49
Open book home based examination is a standard tool for evaluation	81 (27.00)	89 (29.67)	65 (21.67)	38 (12.67)	27 (9.00)	2.47	0.78
Results on the basis of last year marks is justified	102 (34.00)	57 (19.00)	74 (24.67)	52 (17.33)	15 (5.00)	2.40	0.98
It motivates students to study hard	99 (33.00)	103 (34.33)	65 (21.67)	33 (11.00)	0	2.11	0.87
It ensure the proper assessment of the students	95 (31.67)	78 (26.00)	64 (21.33)	58 (19.33)	5 (1.67)	2.33	0.76

Above interpretation has clearly indicated towards different contributing factors to online classes and also the perception of student's about different dimentions. With linked to the above discussion, comparison between the perception of senior school students and college students are tabulated (Table 7). Comparison has been drawn on the basis of following hypothesis:

Ho1- There is no significant difference in between the perception of college students (UG and PG) and senior school students about online mode of learning.

During the lockdown process, students have faced a lot of troubles in the personal and social life. Trouble in the social and personal life has a direct effect on the academic achievements. Reports said that dropout rates are higher among the school going children than the other higher level institution (Pokhrel & Chhetri, 2021). Which clearly justifies this comparison on the basis of average responses of both groups. Statements are judged on the basis of α 0.05. Among the 12 statements, statement no.3 and statement no.7 are found not significant. It means both the groups are equally worried about their family's economic condition and about the stability of the network. But in the others statements, their perception varied from each other and indicated a significant difference.

Online classes has been considered as the 'Education in Emergency' (Pokhrel & Chhetri, 2021). The online platform is a step towards continuing the learning system even in the midst of the sudden stagnation in the lives of the learners. But since it proved that learning is driven by self motivation and aspiration, the students were feel stagnant in confined situation. Mean score of the college students are higher than the school level students. It clearly indicates that, the students belonging to higher age group are felt much more restricted than school level students. So, there is a significant difference between these two groups (p value < 0.05). (Table 7:S1)

In the statement 2, When the students have been asked about their worries regarding family members' health. In this context, the perception of college students is significantly higher than that of school students. In this respect, the age and the desire to take the responsibility of the college students are considered to be the main reason. (Table 7:S2)

In the statement 3, students have been asked to give their perception about their worries regarding the economic condition of their family. Calculated p value is higher than 0.05, which clearly indicated that there is no significant difference between two groups. Because during the lockdown, every family those who involved in the unorganised sector, has suffered financial losses and that impact has also been seen in the students perception. (Table 7:S3)

Educational institutions are considered as the second home to the students. Gathering of many students under one umbrella enriched the students socially and culturally. During sudden lockdown, students feel restricted that they lost their communication with peers. School level students are much more effected here than college students. The reason for above responses is that the use of social networking sites among the college level students is much higher than that of school students. (Table 7: S4)

The school is a great platform where students get the scope to build the connections with the peers as well as with the teachers. In the online platform, many students have lost their provision to communicate with the teachers. In this respect also, school students have been affected most than that of college students (p value < 0.05). In this case, technical convenience of the college students, the scope of communicating with teachers, scope of personal acknowledgement is wider whereas for school students, the scope is limited. (Table 7: S5)

In the statement 6, when the students were asked about the availability of technical supports in their home, among the college students the availability of ICT tools was a bit higher than school going children (p value < 0.05). It can be also considered as a prime reason for higher drop out rates in school going children than college. (Table 7:S6)

After considering the technical supports, when the students has been asked to rate their perception that how much network is important. Then both the groups showed an equal reaction towards this statement. There is no significant difference on this statement in between both the groups (p value > 0.05). So, for attending the online classes network is very important factor irrespective to all the other contributing edges. (Table 7: S7)

Technology and network both are the major contributing factors for online classes. After addressing these two issues, when the students have been asked about their attendance in online classes. Then the data has revealed that, average response regarding the regular attendance in online classes bit higher for school students than the college students. This difference is very significant (p value < 0.05) because many college students are getting employed at this time to help their families, for that reason they have not had the opportunity to attend all the classes. Although the response value of school students also not so satisfying. (Table 7:S8)

In statement 9, students have been asked about their satisfaction regarding practical classes in online mode. Here also a significant difference between both the groups are observed (p value < 0.05). School level students are much satisfied than the college level students. As a reason, the hardness of the contents and their applicability is

considered. But both the students have significantly drawn their attention for well-structured content designs in the practical. (Table 7:S9)

In respect to study materials, both the groups have faced equal problem but the significant difference is there (p value < 0.05). College students are much affected by non-availability of study materials because they have much diversified syllabus to cover. Whereas, school students have easy access to syllabus oriented books and study materials. (Table 7:S10)

In statement 11, students have been asked about their perception on evaluation techniques. Where college students are much more satisfied than school students (p value < 0.05). Most of the college students found satisfied on Open Book Examination. Whereas, for school students, assessment on the basis of last year marks was not justified. (Table 7: S11)

In the last statement, when the students have been asked about how worried they are about their future. Then college students are found significantly more worried than school students (p value < 0.05). College students have interpreted that, due to confined situation, they did not able to understand all the contents subsequently it hampers learning process. For this lagging, they are worried to crack any examination in future.

Table 7:- Comparison between the perception of Higher Secondary students and College students.

Statements	College Students		School Students		t	p
	X	SD	X	SD		
S1: My life is becoming restricted without any diversity	4.125	0.6981	3.75	0.8651	1.9682	0.0000
S2: I am worried about the health of my family members	3.4375	0.9362	3.000	0.8577	1.9680	0.0000
S3: I am worried about the economic condition of my family	3.3125	1.0472	3.375	1.2166	1.9679	0.6466
S4: My interaction between peer groups becoming restricted	3.5	0.7093	3.875	0.8089	1.9677	0.0000
S5: My interaction with my teachers becoming restricted in online mode	2.625	0.9299	3.375	1.1744	1.96815	0.0000
S6: I have all technical support in my home for online classes	3.125	1.2725	2.75	1.1992	1.9676	0.0049
S7:Stability of Network is very important	2.8125	1.0768	2.75	0.9932	1.9676	0.5343
S8: I am attending all the online classes on regular basis	2.78	1.0768	3.25	1.0469	1.9675	0.0001
S9: I am satisfied with practical classes	2.625	0.8596	3.0625	0.8713	1.9674	0.0000
S10: Study materials are easily available	2.625	1.0565	2.875	1.0623	1.9674	0.0350
S11: I am satisfied with all the evaluation techniques and gradation format	3.125	0.9953	2.125	1.0549	1.9676	0.0000
S12: I am worried about my future plan	3.5625	0.8664	3.0625	0.9178	1.9674	0.0000

After transformation from online to offline classes, students back to formal face to face mode class after more than a year long gap. A major shift has again taken place from online to offline mode. Students are again came back to formal educational institution , continuing face to face learning experiences, facing offline examination. Here, as a

part of longitudinal survey, achievement test has been scheduled in three different subjects to compare the effectiveness between online and offline classes from January,2022 to March,2022. English, Geography and Business Economics have been considered for achievement test. 40 students from each subject are selected from 6 different colleges as sample. For online class, topic was selected from last session and for offline class a new topic have been selected. But for both mode, offline achievement test was applied to assess the understanding level clearly. Test result of three different domain has clearly indicated that achievement of students in offline mode is better than online mode. Although it is clearly indicated that in application based subject (Geography, Business Economics) , difference is very prominent than literature based subject.

Table 8:- Score of Achievement Test of Geography.

Content	Group	Number of Sample (N)	Mean	Std. Deviation	Standard Error Mean
Rain drop formation Theory	Online	20	17.32	3.25	0.73
	Offline	20	20.21	4.367	0.98

Table 9:- Score of Achievement Test of English.

Content	Group	Number of Sample (N)	Mean	Std. Deviation	Standard Error Mean
Loving in truth by Sir Philip Sidney	Online	20	18.30	3.10	0.69
	Offline	20	19.25	3.50	0.78

Table 10:- Score of Achievement Test of Business Economics.

Content	Group	Number of Sample (N)	Mean	Std. Deviation	Standard Error Mean
Consumption Theory	Online	20	17.50	3.12	0.70
	Offline	20	21.25	3.01	0.67

Conclusion:-

With the uncertainty surrounding COVID-19 being unleashed around the world, people are more interested in adopting the methods of ensuring a normal life. Use of online learning platforms among all the learners is a major landmark during this uncertain condition. But suddenly the invention of this method did not become equally acceptable to all the students. Network problem and the lack of technologies were came-up as a major barrier of online classes whereas students found it most accessible tool for learning during lockdown phase. Transformations in the formal learning system, less interaction with teachers and peer groups, poor scope for practical based activity, new evaluation system make the students more anxious. From the above discussion, it is very clear that self-motivation or aspiration is the core element towards the enrichment of cognitive and effective understanding. Therefore, during lockdown phase, confined and restricted lifestyle make the learners so anxious about their future that they gradually lost their motivation. Mixed responses has come out regarding different aspects of usefulness, effectiveness and about assessment. These disparities increased the learning loss among the deviated learners. However, senior school students and college students expressed equal perception regarding network issues but they differ in their feelings about social restriction, communication with teachers, about family health, evaluation process and their future life plan. But through the direct communication with the students and the teachers, some concerned substances were recorded, which is also found justified propositions with our findings. Test results of offline and online mode also clearly indicated towards the acceptance of online mode. Suggestions are made on the basis of findings for future preferences: a) Before implementing the online learning mechanism, school or college should ensure that all the students should access that facilities. Decision should be taken with a lot of consideration thorough intense review of spatial and socio-economic status of the students. b) Group wise flipped classroom can be arranged to maintain the positive communication with students.c) Teachers should be more concern about the content matter and related pedagogical strategies. Depending on the difficulty of the content, teachers should make their teaching strategy more innovative, so that the students can easily understand it and if there is any difficulty, remedial classes can be arranged on the requirement.d) All the students should fell inclusive irrespective their intelligence level in the online platforms. e)Online class routine should be more flexible to make the students motivated for each classes. Consecutive classes should be avoided.

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