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**COLLEGE OF EDUCATION (AUTONOMOUS)**  
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Phone No.: (+91) 80125 33915, Website: [www.srkvcoe.org](http://www.srkvcoe.org)

E-mail: [srkvcoejere@gmail.com](mailto:srkvcoejere@gmail.com)

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Department of Education and  
Community Service  
Punjabi University  
Patiala - 147002

**Dr. HARPAL KAUR**

Associate Professor  
Akal College of Education  
Mastuana Sahib, Sangrur  
Punjab - 148001

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Professor and Head  
Department of Development Studies  
Dean, School of Social Science and Policy  
Central University of South Bihar  
Gaya, Bihar - 824236

**MD ASRAUL HOQUE**

ICSSR Doctoral Fellow  
Department of Development Studies  
School of Social Science and Policy  
Central University of South Bihar  
Gaya, Bihar - 824236

**SANJAY KUMAR**

Ph.D., Research Scholar  
Department of Development Studies  
School of Social Science and Policy  
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Tamil Nadu-636 011

**Dr. K. NACHIMUTHU**

Professor

Department of Education

Periyar University, Salem

Tamil Nadu-636 011

## INTERNET USAGE IN RELATION TO LONELINESS AMONG COLLEGE STUDENTS

**1****RAMANDEEP KAUR**

Ph.D. Research Scholar  
Department of Education and  
Community Service  
Punjabi University  
Patiala - 147002

**Dr. HARPAL KAUR**

Associate Professor  
Akal College of Education  
Mastuana Sahib, Sangrur  
Punjab - 148001

### INTRODUCTION

Internet plays crucial role in every field of life including education. In the earlier stage education took place simply through oral lectures, dialogues, reading books, and use of chalks etcetera. Moreover, traditional system of education was teacher-centered but in this digital era, technology has brought a noticeable change in the education system. It has provided many facilities to all the learners according to their capabilities and interest. Students involve more actively in the learning process with the help of technological gadgets.

On one side internet is very helpful for learners but on the contrary, it can get through some users particularly students, to the point that interferes with normal living, enforcing them into internet overuse. Hence, it becomes important for us to be aware of the impact of internet usage on students' behaviour. Internet usage in younger generation has become a buzz word all over the world of learning.

It has been connected particularly in higher education for students' academic and career pursuits. Institutions of higher education promote learners to use Internet. A lot of students are using the internet not only for their educational purposes but also for chatting, e-mail, music, career guidance, for world information, online shopping, e-banking etc.

Given the explosive pace of technological development associated with the sheer creativity of tech-savvy teachers, it is certain that technology will impact education in multiple ways involving artificial intelligence, machine learning, block chains, handheld computing devices, and other forms of educational software and hardware (National Education Policy 2020). In many higher institutions, the move to distance learning has been an opportunity to expand elastic learning modalities, setting the stage for a sustained shift towards more online learning in this sub-

sector in the future (IAU Global Survey Report 2020).

## REVIEW OF RELATED LITERATURE

Moody (2001) investigated relationship between internet usage and loneliness. The study revealed that low levels of social and emotional loneliness were associated with high degrees of face-to-face interaction of friends. Whereas, high levels of Internet usage were related with low levels of social loneliness and high levels of emotional loneliness. Pandeya (2010) investigated predictors of loneliness among adolescents and found that male adolescents scored significantly high on loneliness than female adolescents. Depression, locus of control are the factors caused loneliness among male adolescents, whereas depression, negative automatic thoughts and active recreation contributed as significant predictors of loneliness among female adolescents. Ozgur et al. (2014) explored male students had more problematic internet use as compared to their female counterparts. Findings revealed significant relationship between the level of problematic internet use and loneliness, and loneliness was found to be among the predictors of problematic internet use. Amutha and Kennedy (2015) investigated significant gender difference in utilization of social networking sites among teacher trainees in relation to stream of study. It was found that male teacher trainees in Arts stream used more social networking sites as compared to their female counterparts. On contrary, female teacher trainees in science stream

used social networking sites more as compare to their male counterparts.

Demir and Kutlu (2016) positive and significant relationship was found between depression and loneliness. The internet usage caused depression and loneliness. Prabhu (2016) showed that male college students were more addicted to internet as compared to female college students. Further, college students in Arts stream had more internet addiction when compared to college students in science stream. Gorain et al. (2018) revealed that high internet users were more socially isolated than that of average and low internet users. There was no significant difference on internet usage between humanities and science undergraduate students. Positive and significant relationship was found between internet usage and social isolation. Das (2019) examined no significant difference among the students of different streams as their awareness towards the internet usage. It was also investigated that there was no significant difference between male and female students in universities as far as their awareness towards the internet usage. Singh et al. (2020) found that that 92% of the respondents were being lonely, 22% were having social phobia, 21% were having social anxiety, and 38% were found to have high level of perceived social support. In internet addiction 15% respondents were at significantly above average use. Results showed that loneliness had a significant positive correlation with social anxiety. On contrary, loneliness was negatively correlated with internet addiction.



Dalton and Cassidy (2021) found that significant positive correlation between problematic Internet use and loneliness but psychological well-being was negatively correlated with problematic internet usage. Furthermore, it was found that gender did not differ significantly for problematic internet use, personality, loneliness and well-being. Singh et al. (2022) investigated perceived stress, maladaptive coping strategies, repetitive thoughts and actions, and impact of COVID-19 were found significant independent predictors of problematic internet use. It was also explored that adolescents and youth were more susceptible to problematic internet use.

## **OBJECTIVES**

- To study the internet usage and loneliness among college students.
- To find out the significant difference in internet usage among college students in relation to their stream of study i.e., Humanities, Science and Commerce.
- To study the interaction effect of loneliness and stream of study i.e., humanities, science and commerce on internet usage among college students.

## **HYPOTHESES**

1. There is no significant difference in internet usage among college students in relation to their stream of study i.e., Humanities, Science and Commerce.

2. There is no significant interaction effect of loneliness and stream of study i.e., humanities, science and commerce on internet usage among college students.

## **METHODOLOGY**

The study was conducted by using descriptive survey method. The variables of the study included internet usage and loneliness. The population of the study comprised of all the adolescent students in studying in Government colleges affiliated to Punjabi University, Patiala and the sample included 107 government college students selected by using random sampling technique. Among 107 participants, 46 college students were selected from humanities, 41 and 20 college students from science and commerce streams respectively. Further the sample was divided in to two categories namely low loneliness and high loneliness group. In order to collect data from the sample the investigator constructed Internet Usage Scale and adapted Loneliness Inventory developed by Meenakshi and Krishna (2008).

## **DESCRIPTION OF THE TOOL**

The internet usage scale consisted of 35 items with 5 point scale. The items are constructed on the basis of three dimensions, namely Educational Purpose, Social Purpose and Personal Purpose. In order to find out the reliability of the scale three tests Cronbach Alfa, test retest and split half method of reliability were applied and the correlation values found to be 0.92, 0.67 and 0.86 respectively. Scoring was done by assigning the scores like 1 to

'Never', 2 to 'Rarely', 3 to 'sometimes', 4 to 'often' and 5 to 'Always'. Thus, on the total scale the scores ranged between 35-175.

Loneliness Inventory comprised of 19 items based on five-point Likert scale in which eight were positive and eleven negative worded statements. Scoring for the positive statements was as followed: a numeric value given 5 to 'Never', 4 to 'Rarely', 3 to 'sometimes', 2 for 'Many a time' and 1 for 'always'. Scoring is direct reversed to negative statements.

## STATISTICAL ANALYSIS

- Mean, S.D. and quartile deviation was employed to study the internet usage and loneliness among college students.
- Two way analysis of variance (ANOVA) was used to study the interaction effect of loneliness and stream of study on internet usage among college students.

## ANALYSIS OF DATA AND INTERPRETATIONS

**Table 1: Mean and S.D of Internet Usage Scores among College Students based on Loneliness and Stream of Study**

Stream of Study		Loneliness		Total
		Low	High	
Humanities	N	23	23	46
	Mean	108.30	110.70	109.5
	SD	15.56	23.82	19.69
Science	N	23	18	41
	Mean	112.57	111.33	111.95
	SD	14.81	15.39	15.1
Commerce	N	8	12	20
	Mean	107.88	112.33	110.10
	SD	12.32	17.38	14.85
Total	N	54	53	107
	Mean	109.58	111.45	110.51
	SD	14.23	18.86	16.54

It is revealed from the table 1 that students from humanities with low loneliness had low level of internet usage (108.30) and with high loneliness had high level of internet usage (110.70). It is also further seen that among science students, those who had low level of

loneliness had high level of internet usage i.e., 112.57 and those with high level of loneliness had low internet usage i.e., 111.33. It is revealed from table that among commerce students who had low loneliness had low level of internet usage (107.88) and those with high level

of loneliness had high internet usage (112.33). The mean values stated that the internet usage was high among Science discipline students (111.95), followed by commerce students (110.10) and humanities students (109.5).

**Table 2: Summary of Analysis of Variance (Loneliness × Stream of Study)**

Source of Variation	Sum of Squares (SS)	df	Mean Square	F-ratio
Loneliness (A)	40.29	1	40.29	0.13
Stream of Study (B)	138.46	2	69.23	0.22
(A x B)	136.19	2	68.09	0.22
Error Within Treatments	31042.95	101	307.35	
Total		106		

### Main Effects

#### Loneliness (A)

The table 2 showed that F-value for main effect of loneliness (A) came out to be 0.13, which is not significant at 0.05 level. This indicated that there is no significant difference in internet usage in two levels of loneliness i.e., low level of loneliness and high level of loneliness.

#### Stream of Study (B)

Further the F-value for main effect of stream of study (B) came out to be 0.22, which is not significant at 0.05 level. It is inferred from the results that there is no significant difference in internet usage with respect to three categories of stream of study i.e., Humanities, Science and Commerce.

Therefore, the hypothesis 1 “There is no significant difference in internet usage among college students in relation to their stream of study i.e., Humanities, Science and Commerce” is accepted.

However, from the mean table 1 it is evident that science stream students have higher mean of internet usage (111.95) than commerce (110.10) and humanities streams (109.5), but the difference is not significant statistically. Hence it is stated that College students in different streams of study i.e., humanities, science and commerce do not differ significantly with regard to internet usage.

### Interaction Effect

#### Loneliness (A) and Stream of Study (B)

The table 2 revealed that the F-value for the interaction effect of loneliness and stream of study i.e. (A x B) came out to be 0.22, which is not significant at 0.05 level of significance. It clearly indicated that loneliness and stream of study were independent to each other.

Hence, hypothesis 2: “*There is no significant interaction effect of loneliness and stream of study i.e., humanities, science and commerce on internet usage among college students*” was accepted

## FINDINGS OF THE STUDY

- It was revealed that college students had average level of internet usage and loneliness.
- Stream wise analysis stated that college students belonging to science stream had more internet usage followed by college students belonging to commerce and humanities stream respectively but they did not differ significantly on internet usage in relation to stream of study.
- There was no significant interaction effect of loneliness and stream of study on internet usage among college students.

## EDUCATIONAL IMPLICATIONS

The results of present study have numerous essential recommendations that may be worthwhile for students, teachers, parents, principles and college administration. It needs to be emphasized that students will have to be educated in

safe practices for effective internet use. Suitable strategies need to be developed to encourage rational use of internet in order to protect the physical and mental health of the users. Comprehensive prevention programs for students should be carried out to increase awareness regarding wisely internet usage. Parents need to be educated regarding the use and misuse of these technologies to children. It can restrict to prevent them from getting addicted and healthy education sessions/seminars need to be organized regularly and awareness among college students. Parents should spend more time with their wards so that avoids feeling of loneliness and they should also fix some time limit and reasonable rules for internet access and should keep proper watch on activity performed by their wards. In addition to this, educational institutions should conduct seminars and awareness programmes to overcome psychological issues caused by internet addiction.

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## HIGHER EDUCATION DURING AND AFTER COVID-19: IS ONLINE EDUCATION THE NEW NORMAL?

2

### **Prof. KRISHNAN CHALIL**

Professor and Head  
Department of Development Studies  
Dean, School of Social Science and  
Policy  
Central University of South Bihar  
Gaya, Bihar- 824236

### **MD ASRAUL HOQUE**

ICSSR Doctoral Fellow  
Department of Development Studies  
School of Social Science and Policy  
Central University of South Bihar  
Gaya, Bihar- 824236

### **SANJAY KUMAR**

Ph.D., Research Scholar  
Department of Development Studies  
School of Social Science and Policy  
Central University of South Bihar  
Gaya, Bihar- 824236

## INTRODUCTION

The Covid-19 has brought about an unprecedented crisis across the world economy. It has affected all sectors of the economy. The production and services sectors have been affected badly during this Pandemic. Governments all over the world are in a dilemma on how to combat the hither-to-unknown crisis. Among the various sectors seriously impinge on during the Covid -19 crisis is Education in general and higher Education in particular. The day when Education was restricted to clearly delineated rooms, frequently called classrooms, is passed, right? A person may study everything they want now with the aid of technology, at their own pace, at a time that works

for them, and all with the press of a button. Similarly, various institutions, autonomous bodies, and even private players have come forward with solutions to mitigate the problem of Education during these difficult times.

Online Education is the most sought-after mechanism adopted by and large by most countries. As an illustration, after the World Health Organization declared the new coronavirus a pandemic on March 11, universities all over America closed their doors in an effort to stop the virus' spread. The University of Washington took the initiative on March 6, 2020, by canceling all in-person classes (Chiodini, 2020). A wave of colleges and universities around the nation soon

followed suit, including Duke, Stanford, Harvard, Columbia, Barnard, N.Y.U., Princeton, and Stanford. Both wealthy and emerging nations share a similar situation. (UNESCO Report, 2020). All these universities have shifted into virtual class classrooms. (Sun, L., Tang, Y., & Zuo, 2020).

In order to capitalize on the increasing demand for online Education, many EdTech startups have been emerging across the world Naylor, R. (2020). The EdTech industry is expected to grow and generate close to \$2 billion by 2021, according to reports by KPMG and Google. Famous EdTech startups include Byju's, Adda247, Alolearning, AptusLearn, Asmakam, Board Infinity, ClassPlus, CyberVie, Egnify, Embibe, ExtraaEdge, iStar, Jungroo Learning, GlobalGyan, Lido Learning, Pesto, Vedantu, Edubrisk, ZOOM Classroom, ZOOM Business, Toppr, Unacademy, Coursera Zheng, B., Hsi Lin B, C., & Kwon, J. B. (2020). Some of the Digital e-Learning Platforms in India like SHAGUN Online Junction, National Repository of Open Educational Resources (NROER), DIKSHA, e-Pathshala, SWAYAM, Swayam Prabha, Other Online Platforms for Education Approximately 55 school boards, 359 state universities, 123 deemed universities, 47 central universities, and 260 private universities are affiliated with the National Academic Depository (NAD), which is controlled by the UGC. In order to give content to students pursuing higher Education and doctoral degrees, the National Digital Library of

India is administered by the Ministry of Human Resource Development (MHRD) as part of the National Mission on Education through Information and Communication Technology (NMEICT). Another important project of the MHRD and GoI is called Virtual Labs, and it is administered by NMEICT. It is a partnership between 12 IITs that aims to offer online courses and study materials via virtual laboratories, where 700+ virtual experiments are created and promoted for candidates to study and comprehend.

## **REVIEW OF RELATED LITERATURE**

Before and after the outbreak of the Pandemic, a few attempts were done by scholars to understand the effect and problems of online Education on different levels of Education across the world. As a preface to this paper, it is meaningful as well as useful to go through such studies. It will also provide a proper guideline to frame the present study on sound footings. The learning and teaching environment have undergone a noticeable transformation thanks to web technologies. Supporters of online learning have observed that it can be efficient in possibly removing barriers while providing more convenience, flexibility, current content, personalized learning, and feedback compared to a typical classroom teaching environment. (Harasim, 1990; Matthews, 1999; Swan et al., 2000; Brown, G., & Wack, M. 1999; Matthews, 1996). Rivals, however, are worried that students in an online setting

may feel alone (Brown, 1996), confused, and disappointed (Hara & Kling, 2000), and that students' interest in the subject and learning effectiveness may be diminished (Maki et al, 2000).

Bhushan (2020) carried out a survey to learn more about the realities of the online alternative and other approaches to opening higher education institutions. The survey's findings support the absence of internet access. It was challenging to conduct online classes. The ability of the teachers to use IT resources needs to be developed. There is a problem with students' access to online classes that have to be resolved. Many private unaided institutions believe that there will be a significant drop in enrollment, a hike in fees that will shift the incidents to students, and a decrease in the employment of contract teachers and temporary teachers. The government may offer a financial stimulus package in the situations mentioned above. The University Grants Commission may provide the university more freedom to make judgments that are appropriate for the situation.

Vaccani (2016) studied whether webcast lectures are equally effective as live lectures as a teaching tool in medical school. Third-year medical students were given three lectures on otolaryngology-head and neck surgery (OTO-HNS) as part of their usual academic program; one group attended live lectures, and the other group watched webcasts of the lectures. The same instructor delivered the same content in all lectures, whether

they were broadcast live or online. A student satisfaction survey, performance on the OTO-HNS portion of their written exam, and performance on an OTO-HNS OSCE station during the general end-of-year OSCE assessment session were employed as the three outcome measures. Study results showed that both sets of students performed equally well on the written test. Performance in the OSCE station's webcast group was superior to that of the live lecture group. In the opinion of the vast majority of students in the webcast group, it was a useful educational tool. The majority of participants reported that they found it helpful to watch the lectures more than once.

According to the KPMG (2017) survey study, online Education will continue to grow in popularity among prospective students, professionals, and others driven by features like simple and on-demand access to content, self-paced learning opportunities, and interactive and modular modes of learning. Due to the lack of connection with peers and instructors, roughly one-third of online students also hold the view that online learning cannot replace traditional learning. Saxena et al., (2016) believed that the educational system is transforming. There is a growing understanding that Education must be regarded from the perspective of lifelong learning. People are starting to take control of their Education. As a result, "e-Learning," a new educational phase, has emerged. The term "eLearning" describes creative ways



to use technology to share information and provide more people access. Through the development, application, and management of suitable technology processes and resources, online Education's primary goal is to facilitate learning and enhance performance. By removing the barriers between students and the rest of the world, these eLearning techniques are converting the static learning environment into a dynamic one. The main barrier to the widespread adoption of this technology-driven learning, despite encouraging trends in India as a whole, is the lack of internet connectivity in smaller towns and semi-urban areas. Only once these problems are resolved can the enormous promise of learning tools like gamification, video-based learning, competency training, etc. be realised. It is anticipated that India would see a profound transition in the upcoming ten years, driven by companies that are bringing technology-driven Education to a pan-Indian scale through digital learning.

The Research Institute of America discovered that eLearning enhances retention rates by 25% to 60%, whereas face-to-face training has far lower retention rates (8–10%). This is because eLearning gives students more control over the learning process and gives them the chance to review the material as much as necessary. Compared to learning the same subject in a traditional classroom setting, e-learning often consumes between 40% and 60% less employee time, according to a Brandon-

Hall Study. This is due to the fact that it may be completed whenever the student needs it and in an asynchronous manner, preventing interruptions to workflow.

Only 23.8% of Indian families, as reported in the Key Indicators of Household Social Consumption on Education in India report based on the 2017–18 National Sample Survey, have access to the internet (NSSO, 2018). Furthermore, only 4.4% of rural homes have computers, compared to 23.4% of urban households. Only 33% of women have internet connectivity, according to Internet and Mobile Association of India (IAMAI) ( Bolliger & Halupa, 2018). This ratio is even more alarming when one realises that 67 percent of men in the same nation have internet access. in rural areas, where only 28% of women and 72% of men have access to the internet, respectively.

Joshi (2017) provided evidence that student performance as measured by grade is independent of the mode of instruction by comparing student performance measures and assessments of learning experience from both online and traditional sections of a required Quantitative methods & techniques course taught by the same instructor. In quantitative techniques classes more so than in other subject areas, persistence in an online environment could be difficult. Online classes may also see a decrease in participation aggression and a change in the type and volume of engagement.

In this light, it is relevant to look at how beneficiaries in the Indian setting view online Education. Reviews of the experience with online Education shed information on the system's strengths and weaknesses. However, further study is necessary for this innovative field of teaching. This study describes the models and issues of the online Education provided by a Central University in India in the context of its student body.

### OBJECTIVES OF THE STUDY

- To examine the trend and experience of online Education in the country.
- To understand the role of online Education in the aftermath of Covid-19.
- To review the online education endeavor in India.
- To analyse the experience of learners about online Education.

### RESEARCH QUESTIONS

- What is the role of online education in the aftermath of Covid-19?
- What are socio-economic features of the online learners?

- What is the online education endeavor in India?
- What are learners' perceptions of problems of online classes?
- What is the experience of learners about online Education?

### METHODOLOGY

The study was conducted using survey method and has used both primary and secondary data. Primary data were collected from a randomly selected 100 Post Graduates currently undergoing Education through online mode. The students belonged to the School of Social Science and Policy of the Central University of South Bihar. The survey was conducted during April-May 2021 using a structured questionnaire. Secondary data were collected from various published and unpublished sources.

### Empirical Experience

The researchers have conducted a quick survey among the postgraduate students who were undergoing online learning during the COVID-19 period at the Central University of South Bihar.

## Socio-Economic Features of the Online Learners

**Table 1: Socio-Economic Characteristics of the Sample Population**

Characteristics		Number	Percentage
Gender	Male	16	16.0
	Female	84	84.0
Residential Status	Rural	54	54.0
	Semi-urban	24	24.0
	Urban	22	22.0

Characteristics		Number	Percentage
Caste	Forward	59	59.0
	Backward	35	35.0
	SC/ST	6	6.0
Marital Status	Married	4	4.0
	Unmarried	96	96.0
Monthly Income (Rs.)	Below 10000	48	48.00
	10000-20000	26	26.00
	20000-30000	19	19.00
	Above 30000	7	7.00

Source: Sample Survey

### Technology and Platforms used for Online Learning

Online Education requires technological support. So, a set of equipment is a prerequisite for the successful completion of the program. An inquiry in this regard has been conducted among the sample learners. The results are provided in Table 2. The main equipment for online learning are desktop computers, laptops, smartphones, tablets, etc. It is seen that 80 percent of learners use their smartphones for online learning. Around 15 percent use desktop computers and only 5 percent have laptop availability. The second important

requirement is internet connectivity for accessing classes. The learners can go for broadband connection or major other companies. In the case of Bihar students, it is seen that the majority are using the Jio network followed by Airtel. As 80 percent of the learners learn through smartphones, a question was asked about the trademark of the phone. It is seen that Realme, Samsung Galaxy, and Oppo are the major brands used by learners. To the question on the data pack used by the learners, it is seen that 60 percent purchase 1.5. GB daily package and 20 percent 2 GB daily data package.

**Table 2: Platforms Used for Online Learning**

Types of Equipment Used for Online Learning			
Desktop Computers	Laptops	Smartphone	Tablets
15.0	5.0	80.0	0.0
Internet Networks Used for Accessing Classes			
Airtel	Jio	Vodafone	BSNL
20.0	78.0	1.0	1.0

Brand Names of Smartphones Used			
Realm	Samsung Galaxy	Oppo	Others
67.0	17.0	14.0	2.0
Daily Data Pack Used			
1 GB	1.5 GB	2 GB	3 GB and above
10.0	60.0	20.0	10.0

Source: Sample Survey

### Expenditure for Data Packs

In order to stand the monthly expenditure for using the internet for online Education before and after online Education, it is revealed that before online Education was mandatory, 78 percent were using a below Rs.149 pack. But its share decreased to 23 percent after online Education started. While

the monthly expenditure was between Rs.150-249 pack, earlier only 16 percent were the users, but after the online Education, the share of this group has increased to 56 percent. In conclusion, the monthly expenditure for using the internet after online Education has increased considerably.

**Table 3: Monthly Expenditure for Internet before and after Online Education**

(Figures are Percentage users)

Sl.No.	Range of Expenditure (Rs.)	Before	After
1	<149	78.00	23.00
2	150-249	16.00	56.00
3	249-399	6.00	15.00
4	>399	0.00	6.00
	Total	100.00	100.00

Source: Sample Survey

### Location of Online Classes

An inquiry was carried out to understand the accessibility of online education location-wise. It is really interesting to see that 81 percent of them

access online Education from their own home. Only 6 percent uses neighbors' home and 9 percent relatives' home and 4 percent public institutions like the public library, Anganwadi, etc.

**Table 4: Location of Accessing Online Classes**

Location	Male	Female	Total
At own home	9.00	72.00	81.00
Neighbours' home	3.00	3.00	6.0
Relatives home	4.00	5.00	9.00
Public institutions	0.00	4.00	4.00
Total	16.00	84.00	100.00

Source: Sample Survey

### Opinion about Online Classes

Information has been sought from the learners about the different dimensions of online support. The information in this regard is presented in Table 5. The learners' perception of online class revealed that 40 percent perceive it as 'good', while 28 percent feel it as 'average' and 11 percent consider it as 'excellent'. But it is serious to see that about 21 percent perceive that online classes have only 'poor' standards. Regarding the quality

of study materials, 35 percent grade it as 'very good and 29 percent 'good'. But at the same time, 28 percent find the study materials as 'average', and 8 percent see it as 'poor' only. Regarding the satisfaction with online classes, 16 percent are 'highly satisfied', and 42 percent have stated 'satisfied'. At the same time, it is be seen that 31 percent are 'dissatisfied' and 11 percent are 'highly dissatisfied' about online classes. Video classes are the most preferred medium of online classes.

**Table 5: Opinion about Online- Study Support**

(Figures are in Percentages)

Perceptions about Online Classes			
Excellent	Good	Average	Poor
11.00	40.00	28.00	21.00
Quality of Study Materials			
Very Good	Good	Average	Poor
35.00	29.00	28.00	8.00
Satisfaction Level of Online Classes			
Highly Satisfied	Satisfied	Dissatisfied	Highly Dissatisfied
16.00	42.00	31.00	11.00
Preferred Mode of Online Classes			
Video classes	WhatsApp	Audio Clips	Email
84.00	16.00	6.00	4.00

Source: Sample Survey

## Learners' Perceptions of Problems of Online Classes

In accessing online classes, the learners are confronted with various constraints. An inquiry in this regard was conducted among the sample learners and their opinion is presented in Table 6. In the rural areas, the learners were assigned irregular power supply as the first rank

followed by low internet bandwidth. The third and fourth ranks assigned by them are low voltage and technical errors. As far as urban learners are concerned technical errors were assigned the first rank followed by long hours of online classes. The third problem felt by them is the absence of peer groups and so on.

**Table 6: Major Problems in Proper Access to Online Education (Rank)**

Sl.No.	Problem	Rural	Semi-urban	Urban
1	Low Internet bandwidth	III	VIII	VI
2	Irregular power supply	IV	VII	V
3	Voltage instability	V	V	VII
4	Technical errors	VI	IV	I
5	Long hours of online classes	VIII	VI	II
6	Lack of interaction with faculty	I	II	IV
7	Absence of peer group	VII	I	III
8	Data shortage	II	III	VIII

Source: Sample Survey

## DISCUSSION

The aforesaid discussion on the impact of online Education during the period of the Covid-19 Pandemic has brought out some revealing facts. Countries all over the world have come forward to promote Education through online platforms. Though it is new to India, Indian universities have picked up fast. Even the governments have come forward with exclusive education channels like the KITE-VICTORS Channel of Kerala. Similar to that many universities have started various types of Learning Management Systems (LMS). The most popular Learning Management System adopted by educational

institutions in India are INFLIBNET LMS (ILMS). Similarly, various teachers have used Google Meet, Zoom, WebEx, Jitsi Meet, etc., for delivering online classes.

As our study revealed online Education has both positive and negative features. On the positive side, in times of a pandemic like Covid-19, online Education is a blessing. As students and teachers cannot move from their homes, but to continue their Education, online is the only medium. It will prevent the spread of disease. Secondly, online Education provides learners with the classes of the best teachers. Also, they can use different courses offered by

SWAYAM and other learning online structures. On the negative side, online Education has innumerable issues. First of all, in developing countries like India with a high digital divide, online Education is not at all accessible to large numbers. Secondly, online Education requires some basic infrastructure at the disposal of learners like computer/smartphone, internet connectivity, regular power supply, high bandwidth of internet, etc. These requirements demand that the learners should have enough income to make available these facilities. Moreover, the major problem as revealed by our study is that in rural areas most online learners facing low bandwidth connectivity and irregular power supply. Thirdly, in a family with more learners who venture into online learning, some of them have to forgo online classes someday as the family may not have adequate gadgets. Fourthly, the majority of people still adhere to the traditional model of learning and think that employing technology in the classroom is confined to PowerPoint presentations, despite the fact that a small number have adapted to the new ways of learning. So, these flip sides of online learning are also seriously looked into. Most of the findings of the present study conforms to the findings of the recent studies on online Education referred to in the review of the literature.

## **CONCLUSION AND SUGGESTIONS**

The present scenario of the Pandemic due to Covid-19 has forced the society and administration to abruptly close

the academic institutions, basically non-operating the face-to-face mode of teaching, for more than five months now. The prevailing situations also clearly indicate the non-opening of the face-to-face mode of teaching for at least one more semester i.e., odd semester of 2020-21. Therefore, in this critical situation, there is a need to transform our teaching, learning, and assessment approaches by using quality online resources, strategies, and digital platforms.

The global footprint of the digital world and e-learning is growing. With the advancement of technology, online Education in India has advanced significantly. India is one of the countries where technological development is accelerating exponentially. India boasts the most technologically savvy people with a population of more than 1.3 billion with access to high-speed internet and smartphones. India's way of life has changed as a result of the internet's growth.

The survey conducted by the authors found that online classes are no better than regular classes because of the absence of peer groups, lack of interaction with teachers, and inexperience with the online experience. Similarly, the teachers are not well trained in online teaching which results in the supply of long notes which are difficult to read on mobile phones. Some students are unable to access classes due to the sparing of the same phone as other members of the family. The slow speed of networks, irregular power supply, and lack of adequate

study infrastructure at home make the continuity of online classes very difficult to use effectively. In a poor country like India, these problems are very serious in the case of marginalized communities and Dalits. So, adequate Information and Communication Technologies (ICTs) should be ensured to make the online classes functional. Similarly, broadband connectivity, subsidized data packs for students, and other measures should be implemented to ensure the participation of weaker sections in the online platform. Otherwise, our inclusion agenda will be questioned and polarization in society will happen.

A few suggestions are here for the practitioners. Before going for any pre-scheduled online class in real-time synchronous mode, faculty members are required to provide e-material to the students through LMS and/or using other asynchronous modes like email, WhatsApp, Google Meet, etc. The e-materials should be preferably in the

form of self-instructional handouts/ concept notes/key points/short videos/ small excerpts/preloaded material of LMS. The faculty members will avoid giving long readings/full PDF books as e-material. Once the students have gone through the shared e-materials, then an online synchronous video interaction session of a maximum of one hour in one go will be advisable by the concerned teacher on a particular topic/or group of topics. - Instead of delivering a lecture like a face-to-face class using video meeting technology, the session should focus to discuss key highlights of the topic and taking the questions/doubts of the students. If required, video lectures may be recorded and uploaded on the Learning Management System (LMS) beforehand so that learners can view them before and after the class. If these types of measures are introduced, there is no doubt that online Education will be a new normal in the Indian educational sphere.

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## ENSURING QUALITY EDUCATION: THE IMPORTANCE OF PROFESSIONAL STANDARDS FOR VOCATIONAL TEACHERS IN SCHOOLS

3

**Dr. R. RAVICHANDRAN**

Associate Professor

Department of Humanities, Science, Education and Research

PSS Central Institute of Vocational Education (NCERT)

Shyamla Hills, Bhopal – 462 002

### INTRODUCTION

The importance of vocational education in today's society cannot be overstated. With the changing nature of the job market and advancements in technology, it has become increasingly important for students to acquire skills that will prepare them for the workforce. This is where vocational education comes in. Vocational education provides students with practical skills and knowledge that can be directly applied in the workplace (Antera, 2021). However, in order for vocational education to be effective, it is essential that it is delivered by competent and qualified teachers. This is where professional standards come in. Professional standards are a set of guidelines that define the knowledge, skills, and attributes that a vocational teacher should possess (Nurtanto, Sudira, Sofyan, Kholifah, & Triyanto, 2022). These standards ensure that teachers have the necessary qualifications and training to provide quality vocational education to students.

The purpose of this article is to explore the importance of professional standards for vocational teachers in schools. We will examine what professional standards are, why they are important, and how they are implemented in schools. We will also look at some of the challenges and best practices associated with the implementation of professional standards for vocational teachers (Murkatik, Harapan, & Wardiah, D. 2020). Finally, we will discuss the role of stakeholders in promoting and maintaining professional standards in vocational education.

### UNDERSTANDING VOCATIONAL EDUCATION AND ITS ROLE IN TODAY'S WORLD

Vocational education refers to the specialized training and education that prepares students for employment in a specific field or industry. It is also known as career and technical education (CTE) or vocational training (Gordon & Schultz, 2020). In today's rapidly changing world, vocational education plays a

crucial role in bridging the skills gap and preparing students for the workforce. Vocational education encompasses a wide range of programs that offer hands-on, practical training in areas such as healthcare, construction, manufacturing, information technology, and other skilled trades. The focus is on developing specific skills and knowledge that are directly applicable to the workplace. Vocational education programs also often provide opportunities for students to gain real-world experience through internships, apprenticeships, and other forms of work-based learning.

The role of vocational education has become increasingly important as the job market continues to evolve. The demand for skilled workers in various industries is on the rise, and employers are seeking candidates who possess the necessary skills and knowledge to perform their jobs effectively (Ahad, Mustafa, Mohamad, Abdullah, & Nordin, 2021). Vocational education programs provide students with the technical and practical skills that are required for success in today's workforce. Moreover, it is not only beneficial to students but also to the overall economy. It helps to reduce unemployment by creating a workforce that is prepared for the demands of the labor market. It also contributes to economic growth by supporting industries that require specialized skills.

Vocational education thus plays a vital role in preparing students for successful careers and contributing to the overall economic development of

society. Its importance continues to grow as the job market becomes increasingly specialized, and the need for skilled workers intensifies.

### **WHAT ARE PROFESSIONAL STANDARDS FOR VOCATIONAL TEACHERS?**

Professional standards for vocational teachers are a set of guidelines and expectations that define the knowledge, skills, and attributes required for effective teaching in vocational education settings. These standards are designed to ensure that vocational teachers have the necessary competencies to provide high-quality instruction to students and to support their career readiness.

Professional standards for vocational teachers typically cover a range of areas, including subject matter expertise, pedagogy, curriculum development, assessment and evaluation, classroom management, communication, and professional development (Sims & FletcherWood, 2021). The specific standards may vary depending on the country, region, or organization that has established them.

Some examples of professional standards for vocational teachers include:

- National Board for Professional Teaching Standards (NBPTS) Career and Technical Education Standards
- Australian Institute for Teaching and School Leadership (AITSL) Standards for Career Development Practitioners

- European Training Foundation (ETF) Core Skills for Lifelong Learning and Employability

These standards are often developed with input from stakeholders such as vocational education experts, employers, students, and vocational teachers themselves. They are intended to guide the preparation, certification, and ongoing professional development of vocational teachers to ensure that they have the knowledge, skills, and attitudes necessary to prepare students for success in the workforce.

### **BENEFITS OF PROFESSIONAL STANDARDS FOR VOCATIONAL TEACHERS**

Savickas, M. (2019) stated the benefits of professional standards for vocational teachers.

**Improved Teacher Competence:** Professional standards provide clear guidelines on the knowledge, skills, and attitudes that vocational teachers must possess. This ensures that teachers are well-trained and competent in their subject matter and teaching practices.

**Enhanced Student Learning:** When vocational teachers meet professional standards, they are better equipped to provide high-quality education to students. This can lead to improved student learning outcomes, such as higher test scores and better job placement rates.

**Recognition and Career Advancement:** Professional standards

provide a framework for vocational teachers to develop their skills and advance in their careers. Meeting these standards can lead to recognition from peers, administrators, and employers, and may open up new career opportunities.

**Accountability:** Professional standards set clear expectations for vocational teachers, and provide a basis for evaluating teacher performance. This helps to ensure that teachers are held accountable for their work, and that they are continuously improving their skills and practices.

**Improved School Culture:** When teachers meet professional standards, it can help to create a positive school culture. Teachers who are committed to their profession and are continuously developing their skills can serve as role models for students and other teachers.

**Increased Public Confidence:** Professional standards can help to increase public confidence in vocational education. When teachers meet these standards, it demonstrates a commitment to providing high-quality education to students, and can help to build trust between schools and the community.

### **IMPLEMENTATION OF PROFESSIONAL STANDARDS IN SCHOOLS: CHALLENGES AND BEST PRACTICES**

The implementation of professional standards for vocational teachers in schools is crucial to ensuring quality education for students. However, this

process can pose several challenges (Darling Hammond, 2019). Here are some of the common challenges faced during the implementation of professional standards for vocational teachers in schools, along with best practices to address them.

1. **Resistance to Change:** One of the biggest challenges faced during the implementation of professional standards for vocational teachers is resistance to change. Teachers may be reluctant to adopt new practices and may feel that the standards do not apply to them.

**Best Practice:** To address this challenge, it is important to involve teachers in the development and implementation of professional standards. This can be done by creating a collaborative process that involves teachers, administrators, and other stakeholders. Additionally, it is important to provide professional development opportunities that allow teachers to build their skills and knowledge.

2. **Limited Resources:** Implementing professional standards for vocational teachers can require significant resources, including time, funding, and staff support.

**Best Practice:** To address this challenge, it is important to prioritize the implementation of professional standards in the school's strategic plan. This can help ensure that the necessary resources are allocated to

support the implementation process. Additionally, leveraging partnerships with external organizations or institutions can provide additional support and resources.

3. **Ensuring Equity:** Another challenge is ensuring that the professional standards are implemented equitably across all teachers and students, regardless of race, gender, socioeconomic status, or other factors.

**Best Practice:** To address this challenge, it is important to provide training and support to all teachers to ensure that they understand the importance of equity and the role they play in promoting it. Additionally, monitoring and data collection can help identify and address any disparities that arise in the implementation of professional standards.

4. **Maintaining Accountability:** Finally, it is important to ensure that the professional standards are being implemented consistently and effectively across all teachers and schools.

**Best Practice:** To address this challenge, it is important to establish clear benchmarks and metrics for assessing progress and holding teachers accountable. Additionally, ongoing monitoring and evaluation can help identify areas for improvement and ensure that the

standards are being implemented effectively.

By addressing these challenges and adopting best practices, schools can successfully implement professional standards for vocational teachers, thereby ensuring quality education and opportunities for their students.

### **EXAMPLES OF SUCCESSFUL IMPLEMENTATION OF PROFESSIONAL STANDARDS FOR VOCATIONAL TEACHERS IN SCHOOLS IN ABROAD**

Here are some examples of successful implementation of professional standards for vocational teachers in schools:

- Australia's National Standards for Quality Teaching: The Australian government has implemented a set of national standards for quality teaching, which apply to all teachers, including vocational teachers. The standards focus on areas such as subject knowledge, teaching practice, and professional engagement, and they provide a framework for professional development and career progression.
- Singapore's Skills Future Framework: The Singaporean government has implemented the SkillsFuture Framework, which is designed to support the lifelong learning and career development of individuals in Singapore. The framework includes a focus on the development of vocational skills, and vocational teachers are expected to demonstrate a high level of competence in their subject areas. (<https://www.skillsfuture.gov.sg/skills-framework>)
- Germany's Dual System of Vocational Education and Training: Germany has a highly regarded system of vocational education and training, which is based on a dual system of classroom instruction and workplace training. Vocational teachers in Germany are required to have extensive practical experience in their subject area, and they are expected to maintain a high level of professionalism and industry knowledge.
- The United States' Career and Technical Education (CTE) Standards: The United States has developed a set of CTE standards, which provide a framework for the development of vocational education programs and the evaluation of vocational teachers. The standards focus on areas such as curriculum design, assessment, and professional development, and they are used to support the continuous improvement of vocational education programs.
- Finland's Teacher Education Programs: Finland has a highly regarded system of teacher education, which includes extensive training and professional development for vocational teachers. Vocational teachers in Finland are required to have a master's degree in their subject

area, and they are expected to have a high level of subject knowledge and pedagogical expertise. The Finnish system is widely regarded as one of the best in the world, and it has been praised for its emphasis on teacher professionalism and continuous improvement.

### **THE ROLE OF STAKEHOLDERS IN PROMOTING AND MAINTAINING PROFESSIONAL STANDARDS FOR VOCATIONAL TEACHERS**

The success of promoting and maintaining professional standards for vocational teachers in schools largely depends on the active participation of various stakeholders. These stakeholders can be categorized into different groups, each with a unique role to play. Some of the key stakeholders and their roles include the following (Caena, & Redecker, 2019).

- **School Administrators:** School administrators play a crucial role in promoting and maintaining professional standards for vocational teachers. They can support teachers by providing professional development opportunities, allocating resources, and creating a positive work environment that fosters professional growth.
- **Professional Associations:** Professional associations provide a platform for vocational teachers to connect and share best practices. They can also develop and promote standards and guidelines for professional practice, as well as

provide professional development opportunities for their members.

- **Government Agencies:** Government agencies play a critical role in setting policies and regulations related to vocational education. They can develop and enforce standards for teacher certification and accreditation, as well as provide funding for professional development programs.
- **Employers:** Employers have a stake in ensuring that vocational education programs produce graduates who are well-prepared for the workforce. They can provide input on the skills and knowledge that vocational teachers should possess and offer work-based learning opportunities for students.
- **Students and Parents:** Students and parents are key stakeholders in vocational education. They can provide feedback on the quality of instruction and help to ensure that vocational teachers are meeting their needs and expectations.

The role of stakeholders in promoting and maintaining professional standards for vocational teachers cannot be overemphasized. When stakeholders work together, they can help to create a supportive environment that enables vocational teachers to develop the knowledge, skills, and expertise needed to provide high-quality instruction to their students.

## CONCLUSION

The importance of professional standards for vocational teachers cannot be overstated. By defining what is expected of vocational teachers, professional standards ensure that students receive high-quality education that prepares them for the workforce. The benefits of implementing professional standards include increased teacher effectiveness, improved student outcomes, and greater accountability for educators. However, implementing professional standards is not without its challenges, such as ensuring consistency across different schools and adapting to changing industry needs. To address these challenges, it is essential

to involve all stakeholders, including teachers, administrators, policymakers, and industry experts, in the development and implementation of professional standards. Moreover, professional standards should not be static; they should be regularly reviewed and updated to reflect the evolving needs of students and industries. By continuously improving and supporting professional standards in vocational education, we can ensure that our students are equipped with the skills and knowledge they need to succeed in their chosen careers, and our workforce remains competitive in a rapidly changing global economy.

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## PERSPECTIVE ON TEACHING METHODS AS SOURCE OF DIFFICULTY FOR STUDENT LEARNING

4

**Dr. BIBHUTI NARAYAN BISWAL**

Academic Lead

Reliance Foundation School Academic Council (RFSAC)

Reliance Corporate Park

Navi Mumbai- 400 701

### INTRODUCTION

The classroom is considered the crucible of schooling wherein continuous efforts are made to arouse the curiosity of students and enable them to unleash their innate potential. According to Wiggins and Mc.Tighe (2006) the point of school is to learn in school how to make sense of learnings in order to lead better lives outside of school; to learn how to apply lessons to later challenges, effectively and thoughtfully. Schooling is like a voyage on a ship and sailing across an unknown sea, to an unknown destination. An adult would be desperate to know where he is going. But a child only knows he is going to school and very quickly, the daily life on board ship becomes all important. The daily chores, activities of the day and the inspections become the reality, not the voyage, nor the destination. It is in these context activities of teacher's plays a very important role and they make the life of student more meaningful each day. Teachers are experts to provide excellent opportunities for allowing

children's learning to progress. However, many times teachers carry certain misunderstandings with them that, the teaching profession is to-teach, to test, engage learners with activities, cover the content / syllabus, promote children from one class to another class and help the child pass board examinations, etc.

This is ascribed to the fact that there exist many mistaken perceptions among teachers that hinders learning in the classroom and the life of the child as well which is having larger bearings in instructional planning, instructional delivery, and assessment. This causes faulty teaching and assessment strategies, low emphasis on learning outcomes, etc, that overrides the very objectives of learning and the entire learning process is jeopardised which is evident from the research. Farkota's (2005) belief that many cases of learning difficulty can be traced to inappropriate or insufficient teaching, rather than to deficiencies in the students.

The central questions are that, are schools ensuring authentic learning culture that nurtures academic excellence and intellectual preparation for higher education? and are our schools helping students to -

- develop mature habits of mind and attitudes?
- achieve academic excellence and intellectual preparation for higher education?
- sharpen cognitive capabilities?
- personal skill development and professional direction?
- artistic and aesthetic ability and sensitivity?
- attaining holistic health and wellness?
- develop sound character and ethical conduct?

Ideally, students improve their learning and attainment when they have opportunities to think about what counts as good learning. However, the lack of improvements in students' basic skills, competencies, and concepts, and low achievement in schools indicates that students not understanding what it is they are meant to be learning. Students' work becomes more purposeful if they have access to the 'chart' that helps them see that they are 'getting somewhere' in their learning.

## **LEARNING THE KEY FOUNDATIONS OF SCHOOLING**

Learning is a process that happens due to participation and it is often seen as synonymous with schooling. It happens before school, in school and continues after school; and happens rapidly, and in parallel with school, in a great number of different ways and settings. Learning proceeds in a number of different ways. Vygotsky emphasised that an important characteristic of learning is that it proceeds by the interaction between the teacher and the learner, in a social context, mediated by language and promoted by the social norms that value the search for understanding.

Constructivist theories look at the learning process differently i.e. more attention is on the mental models that a learner employs when responding to new information or new problems. Accordingly, learning involves analysing and transforming any new information. This transformation of information is possible in light of what the learner already knows and understands that forms the foundation of new knowledge. This implies that teaching must start by exploring the existing ideas of students and encouraging their expression in our teaching-learning processes. However, the cut throat competition among schools to provide excellent results has affected the very foundational principles of learning due to which the teaching-learning processes are designed around scoring marks instead of true learning.

## **WHAT DOES A LEARNING CLASSROOM LOOK LIKE?**

A learning classroom is a place where learners make sense of where they are in their learning, where they are going, and how to improve; in other words, when they engage in assessment for learning for themselves.

- Students learn most in classrooms that are well-managed and provide clear structure and goals.
- Students spend much of their time being guided by teachers and working under direct supervision from teachers.
- Clear presentations, explanations, questioning, and feedback (active teaching are given.
- The pace of a lesson is such that it influences student participation throughout the learning process.
- Academic engagement is optimum through students' participation.
- classroom climate and social interactions in the classroom are conducive
- Different approaches to teaching are used to obtain different desired outcomes.

## **BROADER AREAS OF TEACHERS OPERATIONS IN SCHOOLS THAT INFLUENCE STUDENT LEARNING**

In a typical school, the teacher plays a multifarious role i.e. sharing procedural knowledge, meeting and exceeding

learning outcomes, ensuring the utility of the curriculum format, taking a systematic approach to the curriculum process, meeting the critical role of classroom management, identifying “just-right” targets for students, adhering to rules and procedures, designing disciplinary interventions, nurturing teacher-student relationships, supporting mental set/ cognitive/ psychological state/ socio emotional learning, bringing cross curricular linkages, giving appropriate feedback, understanding the difference between content and lifelong learning benchmark, etc. (Mary James & Dylan William,2006).

## **TEACHING METHODS THAT HINDERS STUDENT LEARNING**

Following are the indicative list of ways /strategies employed by the teacher that really hinders student learning or often does not help them to facilitate their students for greater learning.

- **Pace of Teaching**
  - Presenting concepts that are too far ahead of the cognitive level of the students.
  - Teaching too fast as compared to students' pace of learning
  - Talk too much and Listen to students too little
- **Age Appropriate Teaching Strategy**
  - Use instructional methods that are not suited to the ways in which students learn most effectively.

- Using topics and materials that are less relevant to students of that age and does not help to arouse their interest.
- Communicate poorly with the students of that age when instructing/when asking or answering questions.
- **Understanding the difference between content and lifelong learning benchmark**
  - Overloading the classes with too much content.
  - Adopt an approach that is too unstructured and informal for some students, or unsuitable for achieving certain learning objectives.
  - Provide too few practical activities to engage and hold students' attention.
  - Create insufficient opportunities for students to acquire knowledge and skills to mastery level before moving on to new topics.
  - Curriculum that does not connect with their lives, interests, and prior knowledge makes students curriculum (Elliott & Garnett, 1994).
- **Discriminating between declarative and procedural knowledge**
  - Review and revise previously taught material too infrequently.
- Make too little use of explicit teaching for information and strategies.
- **Independent Learning:**
  - Overestimate students' ability to learn independently.
  - Provide too little feedback to students.
  - Rely too much on a textbook approach to learning.
- **Identifying "just-right" targets**
  - Less frequently uses visual aids, concrete materials, and technology.
  - Fail to cater the learning differences among learners and their needs
  - Often leaving tasks unfinished or manage time ineffectively.
- **Taking a systematic approach to the curriculum process**
  - Fails to scaffold only concept that is essential for students to understand and needs.
  - Fails to give students enough opportunity to design their own learning or any assessment task
  - Fails to emphasize key vocabularies given in each para of the chapter
- **Meeting and exceeding learning outcomes**
  - Fails to Explain learning objectives: at the start of a

- lesson or unit and revise those throughout the lesson.
- **Feedback**
  - Provide little feedback that really helps each learner understand their strengths and weakness to improve their work.
  - Giving feedback that is too abstract or not actionable for the child.
- **Classroom Mistakes**
  - Student's mistakes are pointed out.
  - It is not viewed as a learning opportunity for students/teachers to modify their instructional plan
- **Peer Learning**
  - No guidance to students to assess one another work
  - The peer learning concept is neither clear to students nor to the teacher
  - Mostly teacher-centered classroom practices are adopted
- **Self-learning**
  - No guidance to students to assess self-learning
  - Little or no opportunity is given in a subject for the self-learning
  - Not Identifying child's strengths and advising them on how to develop them
- **Students Efforts**
  - Often assigning less weightage to students' effort is important while assessing their learning.
  - Students' Efforts sometimes is ignored in many self-learning assignments/activities.
- **Assessment**
  - Assessment Criteria are not discussed with students in their language.
  - Fails to communicate question patterns and expected answer framework for assessment with students in their language
  - Lack of connection to students' abilities and understanding
- **Last 10 min. of the class**
  - Fails to summarise the concept in the last 5 min. of the class and ask for oral /written responses from the students.
- **Questions**
  - Use questions to elicit factual knowledge from the learners
  - Asks questions that aims to mark a child than to learn from the questions
  - Poor wait time while asking questions to students
  - Not using Blooms Taxonomy of higher levels
  - Asking low cognitive questions. A good question can challenge

and surprise but should not be seen as a weapon by which a child's curiosity is challenged (Morgan & Saxten,1991).

▪ **The Critical Role of Classroom Management. Many a time teachers fail to -**

- Gain learners' attention
- Inform learners of the lesson objective
- Present stimulus material
- Provide learning guidance
- Elicit performance (i.e., practice)
- Assess learning outcome-related performance
- Enhance retention and transfer
- Incorporate Humour

▪ **Disciplinary Interventions**

- Fails to define classroom rules and execute them during the class
- Unable to bring awareness among learners about good classroom discipline that helps in learning.

▪ **Teacher-Student Relationships**

- Unable to strike a balance between peer relationships and the teacher-student relationship

▪ **Cross-Curricular Linkages Among Subjects**

- Ineffectively presenting in accessible language a rationale

and framework for teaching across the subjects.

- Excluding questions that assess cross-curricular learning.

▪ **Vertical and Horizontal progression of concepts**

- The teacher's instructional plan is not aligned with the concept and aspect such as 'when a student what learns in one lesson/grade level prepares him for the next lesson/grade level' is not taken care of.
- Teaching is purposefully not structured and logically sequenced so that students are learning the knowledge and skills that will progressively prepare them for more challenging, higher-level work

**IMPLICATIONS OF TEACHERS' STRATEGIES ON STUDENTS' LEARNING**

Poor teaching leads to learning difficulties. The 21 areas where teachers fail to facilitate students learning need to be taken care of by every teacher as it is having severe consequences on students learning and their life ahead. According to Brophy (1998), poor teaching leads to the 'Failure Syndrome', characterized by poor self-esteem, reduced motivation, and weakened faith in their own self-efficacy. Teachers may regard them as 'problem learners' and lower their expectations regarding the students' potential.

## WHAT TEACHERS SHOULD DO IN CLASS?

Teaching is an art because it requires decision-making and it is also science because it requires knowledge of technique. Every syllabus aims at equipping students to achieve the transfer of concepts, skills, and competencies. The textbook should thus be a resource, not the syllabus. Random teaching methods should never take up a majority of class time, anymore in the changing contour of teaching-learning practice. Because the goal is to transfer, significant amounts of class time should be devoted to students learning how and practicing to use content to accomplish meaningful tasks, connecting concepts with daily life, and becoming lifelong learners. It needs process orientation of teachers wherein teachers show genuine concern for learning and interest in time management, skills development, participation, and involvement of students in the learning process. Also

bridges the gap between ends and means, learning goals and measures, and helps students to see the big picture, and attain enduring understanding. Effective teachers take the learning responsibility and progress of their students.

## CONCLUSION

In nutshell no single teaching method can possibly be appropriate for bringing about all types of learning (Purdie et al, 2005). A teaching approach should be selected because of its goodness of fit for the type of learning involved in a lesson and for the learning characteristics of the students in that class. The teacher should give a great amount of stress to the learning process rather than only result orientation. Careful selection of methods/strategies along with the learning outcomes to be achieved can be the right mix for teachers, which will enable them to effectively engage students in their subjects.

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## INNOVATIVE TECHNOLOGICAL STRATEGIES IN YOGA EDUCATION FOR EFFECTIVE TEACHING AND LEARNING

5

### **K. AMUTHA**

Ph.D., Research Scholar  
Department of Education  
Periyar University, Salem  
Tamil Nadu-636 011

### **Dr. K. NACHIMUTHU**

Professor  
Department of Education  
Periyar University, Salem  
Tamil Nadu-636 011

### INTRODUCTION

Education is primarily concerned with individual and societal development. It's always on the lookout for new ideas in a range of sectors. Humans have profited enormously from advances in science and technology. Technical developments have also had an impact on the social institution of education. The word modernization is used to describe how changes affect people. The focus of the instructor should be on the media, which motivates pupils to become more engaged in their physical and mental health. Scientists explain are interested in the usefulness of e-content in increasing the transmission of inputs to our younger generations.

Teachers and educators who use cutting-edge teaching techniques to connect with students' minds and capture the audience's hearts are featured in some of our most moving and memorable films. A few years ago, such creative and successful teaching could only be seen on screens, but today, technology has

provided teachers all around the world with a variety of tools to improve teaching techniques. Here are some cutting-edge instructional techniques that every teacher uses to spice up their classes.

Yoga is a distinct way of life that emphasizes balance, health, togetherness, and enjoyment. The goal of yoga is to achieve moral, physical, emotional, and mental discipline as well as enlightenment (Burkett et al., 2006). Yoga's physical benefits include the ability to maintain cognitive control, especially in areas like focus, concentration, and memory, and its mental benefits include the ability to achieve physical wellness through breathing methods, meditation, and asana. Meditation is the practice of focusing one's attention on a specific topic (e.g., breathing, a mantra). Physical fitness, mood, anxiety, and cognitive functions have all been reported to benefit from yoga and meditation workouts (Abadi et al., 2008; Subramanya & Tells, 2009).

Concentration is a mental activity that focuses on selecting an object. He said yoga makes a positive difference in terms of focus, energy, and general well-being, the ability to remember or recall prior events, information, or previously gained skills is referred to as memory (Dolde,2011)). They conducted a study on adolescents that shows that yoga teenagers exhibit improved short-term memory and attention despite the ease with which yoga and meditation may be integrated into our everyday activities, intellectual pursuits, and well-being, yoga has yet to become a regular part of our curriculum. Many schools have recently come forward to introduce the compulsory components of yoga and its daily practice in school (Kauts & Sharma, 2012).

Current research is being conducted among school students to discover the influence of regular yoga, then a meditation on students' intellectual functioning switching instructions despite not utilizing technology, this approach to teaching has advantages for both students and teachers. Through activities like visits to museums and galleries or after-school learning clubs, learning occurs here in a laid-back setting. The teacher draws parallels between the experiences the pupils are undergoing and the teachings being taught. This lesson is reinforced and made great by providing questions about the subject. The students then participate in classroom discussions through field trip notes, photography

projects, and other group projects related to the excursion.

## **INNOVATIVE TEACHING STRATEGIES**

The innovative strategies for teaching and learning. There are different kinds of strategies accepted worldwide. There are Utilizing smart boards for teaching, Active Education, Technology and innovative teaching strategies, Teaching through Virtual Reality.

### **Utilizing Smart Boards for Teaching**

By making the course material interactive and visual, smart boards are a powerful tool for bringing the classroom to life and assisting students in achieving a deeper level of engagement and understanding. The utilization of dynamic multimedia content by teachers to assist students to understand the subject matter more effectively and make it a visually appealing experience on the smart boards transforms the learning process into an interactive and collaborative experience.

### **Active Education**

Active learning techniques encourage students to participate in their education by analyzing, debating, researching, and producing. In class, students put their knowledge into reality, work through difficult decisions, solve issues, offer answers, and articulate concepts on their terms through writing and discussion. The learning process depends on timely feedback from the teacher or other students. According to educational

studies, including active learning techniques in university courses greatly improves students' learning outcomes (Freeman et al., 2014; Theobald et al., 2020).

### **Technology and Innovative Teaching Strategies**

The use of technology in the classroom fosters an atmosphere of activity-based learning by providing the students with a variety of stimuli. It adds excitement to the school curriculum and makes learning enjoyable. Depending on the needs of the pupils, technology offers teachers a limitless array of resources that they can use. While this blog provides a few of these tools, a teacher looking for modern, successful classroom teaching strategies should look to the latest technological advancements.

### **Teaching through Virtual Reality**

With the use of virtual reality technology, students interact with a 3D world while learning. For instance, rather than forcing the kids to sit through a dull history session, the teachers could use 3D technology to study ancient civilizations, travel to far-off places for a geography lesson, or even go to space for a science lesson, and feel as if are in the universe while meditating. Students have a priceless opportunity to learn in an immersive way that leaves a lasting impact thanks to virtual reality technology. It facilitates learning and aids in the retention of information for a longer period.

### **NEED OF THE STUDY**

Because of improvements in computer technology, the information society of the twenty-first century has produced an information society in which the majority of the workforce is expected to work in information-related jobs. Yoga instruction benefits greatly from the unanticipated expansion of interactive multimedia and e-content in the realm of education. E-content is essential in the classroom in today's environment. The utilization of e-content through instructors will boost student achievement. As a result, the researchers decided to pursue a career in this sector. As a consequence, the researchers have decided to create secondary-level e-content material on the subject of yoga practice.

### **YOGA ON HEALTH**

Yoga is a way to a better life. Physical and mental harmony can be achieved through yoga. Health is the greatest blessing of all. Yoga promotes physical, mental, and social well-being and helps to live a disease-free and healthy lifestyle. To achieve the full development of children, an education system that includes the mental, emotional, social, and physical components of health is essential. The medical community is focusing more on the practice of engaging the mind and body through meditation, breathing, and body stabilization and has researched yoga extensively to have a positive influence on physical and mental health effects. Depression, diabetes, high blood pressure, and heart disease are

growing infectious diseases as a result of lifestyle changes with globalization and modernization.

## **SIGNIFICANCE OF YOGA IN EDUCATION**

Yoga education improves mental faculties, supports good health, encourages lofty ideals, offers peace and tranquillity, and cultivates moral attitudes that might help us reach a greater goal in life and yoga education. The significance of yoga in education is undeniably immense. Today's yoga education is very informative as it requires consistent quality changes in the physical, mental and spiritual development of the students (Bera, 2017).

## **CONCLUSION**

Meditation affect people on various levels and each person will experience the effects of meditation to differing degrees. In other words, because we are all unique, the results of the meditation we practice vary from person to person. We all respond and behave differently to various stimuli, even though we all share common connections through a wide range of things. (Singh, 2014). Previous research found that teenagers who practiced yoga had better focus, attention, and memory than adolescents who weren't trained. Students' health, conduct, discipline, concentration,

memory, and endurance have all been found to improve with yoga (Ali, & Brar, 2002).

Thus, students have a promising future. Students' development as decent people for themselves and the community is greatly assisted by yoga. The ultimate meaning and purpose of education be realized via yoga. The development of 21st-century skills should be a primary goal of education, according to the Common Core State Standards and Partnership for 21st Century Skills. These abilities aid pupils in preparing for life in college and the workplace. There are several ways to develop 21st-century abilities, including problem-solving, critical thinking, collaborative learning, integrating the environment, and using digital teaching tools.

A flimsy and unfinished response to the issue posed at the outset of this article: Is it preferable to structure the curriculum for the 21st century on the traditional disciplines, or is there a more promising substitute? Since the disciplines will likely continue to serve as the framework for the curriculum, it a proposed that we push back the borders between disciplines and consider how each of the extended courses may be created to support new goals for the twenty-first century.

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