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# Theme of Special Issue

# **Teaching and Learning through Technology**

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# **EDITORIAL MESSAGE**

Integration of Technology will assist teachers to the global requirement to replace traditional teaching methods with a technology-based teaching and learning tools and facilities. Used to support both teaching and learning, technology infuses classrooms with digital learning tools, such as computers and had held devices; expands course offerings, experiences, and learning materials; supports learning 24 hours a day, 7 days a week; builds 21<sup>st</sup> century skills; increases student engagement and motivation; and accelerates learning. Technology also has the power to transform teaching by ushering in a new model of connected teaching. This model links teachers to their students and to professional content, resources, and systems to help them improve their own instruction and personalize learning. Technology integration ideally should guide, expand and enhance objectives of learning. Curriculum integration with technology can take place only when technology as a tool is used to enhance learning preferably in the content area. It Empowers educators to efficiently personalize learning with access to data, content and the cloud. Prepare students for the 21<sup>st</sup> century workforce with modern technology, skills and competencies. Helps educators create blended learning environments that make learning relevant to students' lives. It gives educators access to real-time feedback through digital formative and summative assessments and data.

Presently, technology is "restructuring education, and changing teaching and learning in ways that impact on all [educators]. Roles are changing, new expertise is required, and new skills must be learned ... [Teachers] must find meaningful ways and workable strategies for teaching with technology". It has been said that, "Information Technology" is the great enabler. A computer is a wonderful tool for enrichment and may indeed be the primary technological tool available to educators. The use of computers and technology in higher classes can enhance teacher teaching and student learning in many ways. In this way regard we are organised one day national level webinar entitled" Teaching and Learning through Technology.

We are really grateful to the Hon'ble Rt.Rev.Ravikumar.James.Niranjan, Bishop CSI, KND and President BMHEC Dharwad, Hon'ble Prof.J.S.Kuri, and Shri.Sudhakar.D.Bailey, Trustees of BMHEC and Principal Dr.Rekha.M.Jogul for their needed co-operation. We thank to editors and the board of editors of the journal. We thank each one of them for their active participation. Special thanks again to all the Participants. Special thanks to all our esteemed Faculty Members of the Review Committee.

> Editor **Dr.Raju.G**

# Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

Sr.No.	Name of the Aurhor	Title of Paper	Page No.
1.	Dr. Gajanana Prabhu B.	Measures To Overcome Barriers For Online Physical Education: Teacher's Perspective	1
2.	Dr.M.Sharmila Devi, Mrs.J.Manjula Devi	Information Communication Technology In Education	5
3.	Dr. (Smt.) Anuradha.M.P.	Student Satisfacton Survey to Improvise Higher Education	09
4.	Dr.P.B.Kavyakishore	ICT For Effective Teaching & Learning In Higher Education	16
5.	Dr.Raju.G	A Study on an effect of Technology on Teaching and Learning	20
6.	Prof.Prakash.I.Siddanagoudar Dr.M.B.Patil	Teaching and Learning through Technology A Study on influence of Smartphone in effective Teaching and Learning Process	27
7.	Dr. Bharathi Y. Khasnis	The Impact of Scenario-Based Learning	31
8.	Dr. Anil Bamagond	Social Intelligence and Academic Achievement	36
9.	Ms. Ge <mark>e</mark> ta S. Dayannavar Dr. A.V <mark>.</mark> Karaba <mark>sanagoudra</mark>	Incorporation of Asynchronous Web Based Learning Technology in Secondary Schools	40
10.	Prof.Ravula Asmitha Yadav	A Study on Students' Perception Towards Online Learning	45
11.	Mr. Gun <mark>dale Dattatrya</mark> Panduran <mark>g</mark>	Role of Library in Higher Education	52
12.	Prof.Sabhavat Sunitha	A Study on Teacher's Perception Towards Online Teaching	58
13.	Mr. Sachin Kumar Ms. Chetna Suri Ms. Poonam Pandita	Significance Of Information And Communication Technology (ICT) In Teacher Education	64
14.	Ms.Savitha L.J.	Impact of Occupational Stress Among Teachers on Teaching-Learning Process	67
15.	Dr. Ravi C.S.	Effective Practice of Online Methods of Teaching in Indian Higher Education	70
16.	Dr. Ramesh Siddappa K	A Study on The Perceptions of Teacher Educators Towards ICT In Teaching Learning Process	73
17.	Dr. Rinu V. Antony Haritha.C.R	Attitude Of School Teachers Towards Ict: An Assessment.	80
18.	Prof.Prashanth N. S.	A Study of the Impact of School Adjustment, Emotional Stress and Home Environment on Academic Achievement among 9th Standard Students in Davanagere Taluk	85

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

Sr.No.	Name of the Aurhor	Title of Paper	Page No.		
19.	Prof.Yasoth Kumar N. Sankaralingam S.	ICT And Its Application in Teaching & Learning	91		
20.	Mr.Ramachandra H.D. Mr.N.D. Virupaksha	Effect of Yogic Exercises on Flexibility and Agility of College Students			
21.	Prof.Vaishali G. R.	Flaws in on-line coaching			
22.	Dr.N.S Jadhav	Online Teaching and its Outcomes	103		
23.	Prof.Asfiya Jahan Hullatti	Higher Education: The Online Teaching and Learning Experience			
24.	Dr. Prakash N. Naragund	ICT For Effective Teaching and Learning Management	103		



## 1. Measures to Overcome Barriers for Online Physical Education : Teacher's Perspective

#### Dr. Gajanana Prabhu B.,

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#### Abstract

Online teaching-learning has invaded total education process in the recent times, especially during covid19 pandemic. In spite of closure of educational institutions, the teaching-learning has been carried out uninterruptedly by means of online mode. Physical education is undoubtedly an integral part of education. Physical Educators are trying their best impart physical education during lock down. Physical Education strives for overall wellbeing of students. There are a lot of constraints for imparting physical education during Covid19 curfew/ lockdown. Participating in home based physical activities are very essential for its proven health benefits. Physical educators at various levels of educational set up are imparting physical education and suggesting measures to overcome them. The present study was carried out through review of literature by means of online journals, text books, magazines and newspapers. The experience of researcher in teaching physical education through online mode and his insight were detrimental for listing barriers and suggesting measures to overcome them. Altogether five barriers were listed and discussed in the present study. Further, probable solution was given by the investigator. The paper provided recommendations and concluded with its findings.

*Key Words:* education, physical education, online, internet, health, physical fitness. Introduction

Online teaching-learning has invaded total education process in the recent times, especially during covid19 pandemic. Learning cannot cease whatever may be the adversities. The process of learning should be continuous without hindrances for the progress of the child. Although, covid19 pandemic has forced us to shut down the schools and colleges indefinitely. The future of students is at stake due to closure of educational institutions. The students are at huge loss without attending physical classes during covid19 pandemic. From the point of view of student safety, it is inevitable to close down the educational institutions and stay away from schools. According to UNESCO, by the end of April 2020,186 countries have implemented nationwide lockdowns, affecting about 73.8% of the total enrolled learners (UNESCO, 2020).

In spite of closure of educational institutions, the teaching-learning has been carried out uninterruptedly by means of online mode. These measures have certainly caused a degree of inconvenience, but they have also prompted new examples of educational innovation using digital interventions (Muthuprasad, et. al., 2021). The Government of Karnataka and its Education boards after lot of deliberations have decided to impart education through online mode. Students from primary to post graduation have resorted to online mode for knowledge acquisition. In India, there are more than 370m users are on the Internet and helping online education to grow at a fast pace. At present, more than 3 Billion users are using the e-learning platform (Arora, 2017). Although, online mode cannot be considered an alternate for offline teaching forever. It shall be considered a temporary alternate arrangement during unavoidable circumstances. Also, it can be considered as an adjunct to formal classroom teaching in order to make the concepts clearer.

Physical education is undoubtedly an integral part of education. Children enjoy Physical Education classes at all the levels. Physical Education Teachers in primary, secondary, pre-University, Graduate and Post graduate levels are concerned about health and fitness of students. These Physical Educators are trying their best impart physical education during lock down. Since there is an outcry for 'Stay home, stay safe', it has been very difficult for physical educators to conduct activities related to physical education. There is

growing evidence in establishing the effectiveness of physical education in enhancing immunity, reducing mental stress and managing body weight issues. These are some of the key areas related to student's health which needs consideration.

#### **Rational of the Study**

Physical Education strives for overall wellbeing of students. There are a lot of constraints for imparting physical education during Covid19 curfew/ lockdown. Participating in home based physical activities are very essential for its proven health benefits. Physical educators at various levels of educational set up are imparting physical education through online mode. Instructions, Pre-recorded videos, online materials are being sent to students for health and fitness. In spite of untiring efforts by Physical Educators, some barriers have been identified which hinders progress in students. In order to attain significant benefits from physical education, these barriers need to be addressed. Creating an appropriate e-learning experience for physical education has its challenges.

The delivery of physical education online presents a challenge for teachers to transition traditional movement oriented content (Rink, 2010). Considering the unique instructional and contextual variables of physical education, teachers of Online physical education must have an understanding of the potential barriers, benefits, and realistic student outcomes online (Goad and Jones, 2017).

#### Objectives

The purpose of the present study was to review the barriers for online teaching in physical education and suggesting measures to overcome them.

#### Hypothesis

On the basis of review of literature and investigator's insight it is hypothesized that there are barriers for online physical education teaching and measures can be suggested to overcome them.

#### Methodology

The present study was carried out through review of literature by means of online journals, text books, magazines and newspapers. The experience of researcher in teaching physical education through online mode and his insight were detrimental for listing barriers and suggesting measures to overcome them.

#### **Major Findings**

#### 1. Lack of pedagogical knowledge in imparting online physical education.

Williams (2013) found that practicing Online physical education instructors were initially hesitant and skeptical about instructing physical education online when they started. The Online physical education instructors' apprehension was attributed to a lack of online training in their undergraduate preparation and professional development early in their careers. There may be difficulties in pedagogically conceptualizing, creating, and practicing movement concepts, skills, and strategies utilized across a variety of physical activities.

*Solutions:* Instructors may utilize curated videos for gaining information on teaching physical education online. It is important to teach all teacher candidates how and where to search for reliable resources to teach physical education online.

#### 2. Apprehension about online physical education in students.

It should not be assumed that students already possess the knowledge to effectively utilize technology in an online course setting (Goad and Jones, 2017). Studies have suggested that the assumption of generational familiarity with computers and mobile technology possessed by digital natives does not necessarily translate to online education (Daum and Buschner, 2012). Technology in the Online physical education should be connected with content in a meaningful way to meet objectives, assess and deliver content more efficiently, or solve an instructional problem. Students who lacked the proper physical education content and pedagogical knowledge prior to entering the course appeared to struggle in transitioning physical education units online (Goad and Jones, 2017). *Solution:* The Physical Education Teachers should build a supportive and collective online course community via the use of instructional

methods such as group instruction, creation of online shared forums. Further, students may be offered help or tutorial wherever needed.

#### 3. Accountability issues in terms of student learning and performance

The teacher in an online physical education class cannot observe the mistakes of students and correct them. This may eventually lead to learning and reinforcing of wrong techniques as well as skills. Students will also miss the option of receiving immediate feedback about performance.

*Solution:* The Physical Education Teachers should be encouraged to use culturally relevant analogies, vivid language, and mental imagery in instruction of movement skills, concepts, and strategies (Barrett & Lu, 2010; Hall & Fishburne, 2010).

#### 4. Hitches in interacting with students.

Free flow of information from Physical Education teachers to students in an online class cannot be assured, at least in Indian conditions. The charm of offline physical education class is not present wherein a physical education teacher creates a conducive atmosphere for learning. Bork and Rucks-Ahidiana (2013) noted that students felt like they were "talking to a wall" if the online instructor was nonresponsive and did not interact with them through discussion boards or email. The online-only teaching may uncover access/ equity concerns in terms of internet connectivity and speed of mobile phones.

*Solution:* The Physical Education Teachers should consistently and frequently utilize technology to present visual aids (Eg. Jam boards). The study materials can be posted in the student groups. Physical education teachers should be essentially mindful of the pressures and stresses associated with the unprecedented challenges in the online physical education environment.

#### 5. There is little research to support online learning in physical education

Online physical education is a need based recent phenomenon that came into existence to meet the physical activity requirement of students. Very less research is been carried out in this field, especially on the effectiveness of online physical education.

#### **Recommendations and Conclusion**

The results of the study by Williams (2013) support the proposition that online secondary-level physical education instruction has been a feasible option for some teachers in the U.S. and Canada.

To address the identified problems and facilitate the efficient operation of online physical education classes, changes in strategic learning methods are needed to understand online physical education characteristics and thereby better communicate the value of physical education. It is also necessary to cultivate teaching expertise through sharing online physical education classes, where collaboration among physical education teachers is central. In addition, evaluation processes should be less formal to encourage active student participation (Jeong and So, 2020).

On the basis of the present study it is concluded that the barriers of online physical education need to be addressed appropriately for its uninterrupted imparting during covid19 pandemic.

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### 2. Information Communication Technology In Education

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#### Abstract

Information communication technologies (ICT) at present are influencing every aspect of human life. They are playing salient roles in workplaces, business, education, and entertainment. Moreover, many people recognize ICTs as catalysts for change; change in working conditions, handling and exchanging information, teaching methods, learning approaches, scientific research, and accessing information communication technologies. In this digital era, ICT use in the classroom is important for giving students opportunities to learn and apply the required 21st-century skills. ICT improves teaching and learning and its importance for teachers in performing their role of creators of pedagogical environments. ICT helps a teacher to present his teaching attractively and able to learn for the learners at any level of educational programs. Today in India teaching training programs making useful and attractive by the term of ICT. Information and Communication Technologies (ICTs) exemplified by the internet and interactive multimedia are an important focus for future education and need to be effectively integrated into formal teaching and learning – especially in a teacher education institution.

Keywords: Communication, technologies, education

#### Introduction

IICT stands for "Information and communication technology". It refers to technologies that provide access to information through telecommunication. It is similar to Information Technology (IT) but focuses primarily on communication technologies. This includes the internet, wireless networks, cell phones, and other communication mediums. It means we have more opportunities to use ICT in teacher training programs nowadays and improve the quality of teachers to teach effectively. According to UNESCO "ICT is a scientific, technological and engineering discipline and management technique used in handling information, its application and association with social, economic and cultural matters". The Teacher is the main part of the educational field in our society. He more works for the improvement level of our society in every field. Skilled teachers can make creative students in form of a good social worker, politician, poet, philosopher, etc. for the society. Teachers can play a friendly role with the learner. The rapid development in technology has made creative changes in the way we live, as well as the demands of society. Recognizing the impact of new technologies on the workplace and everyday life, today's teacher education institutions try to restructure their education programs and classroom facilities, to minimize the teaching and learning technology gap between today and the future.

ICTs are making dynamic changes in society. They are influencing all aspects of life. The influences are felt more and more at schools. Because ICTs provide both students and teachers with more opportunities in adapting learning and teaching to individual needs, society is, forcing schools to aptly respond to this technical innovation.

The Operational definition of the terms Information Communication Technologies (ICT) in this review article refers to the computer and internet connections used to handle and communicate information for learning purposes.

*E-learning:* is a learning program that makes use of an information network- such as the internet, an intranet (LAN), or extranet (WAN) whether wholly or in part, for course delivery, interaction, and/or

facilitation. Web-based learning is a subset of e-learning and refers to learning using an internet browser such as the model, blackboard, or internet explorer (Tinio, 2002).

*Blended Learning:* refers to learning models that combine face-to-face classroom practice with elearning solutions. For example, a teacher may facilitate student learning in class contact and uses the model (modular object-oriented dynamic learning environment) to facilitate out-of-class learning.

*Constructivism:* is a paradigm of learning that assumes learning as a process individuals "construct" meaning or new knowledge based on their prior knowledge and experience (Johassen, 1991). Educators also call it the emerging pedagogy in contrast to the long-existing behaviorism view of learning.

A Learner-centered learning environment is a learning environment that pays attention to knowledge, skills, attitudes, and beliefs that learners bring with them to the learning process where its impetus is derived from a paradigm of learning called constructivism. In the context of this article, it means students' engagement in the learning task using the computer and or the internet connection.

To effectively harness the power of the new information and communication technologies (ICTs) to improve learning, the following essential conditions must be met:

- 1. Students and teachers must have sufficient access to digital technologies and the Internet in their classrooms, schools, and teacher education institutions.
- 2. High-quality, meaningful, and culturally responsive digital content must be available for teachers and learners.
- 3. Teachers must have the knowledge and skills to use the new digital tools and resources to help all students achieve high academic standards.

Generation of teachers to effectively use the new learning tools in their teaching practices. For many teacher education programs, this daunting task requires the acquisition of new resources, expertise, and careful planning. In approaching this task it is helpful to understand:

- 1. The impact of technology on global society and the implications for education
- 2. The extensive knowledge that has been generated about how people learn and what this means for creating more effective and engaging student-centered learning environments
- 3. The stages of teacher development and the levels of adoption of ICTs by teachers
- 4. The critical importance of context, culture, leadership, and vision, lifelong learning, and the change process in planning for the integration of technology into teacher education
- 5. The ICT competencies required of teachers related to the content, pedagogy, technical issues, social issues, collaboration, and networking
- 6. The importance of developing standards to guide implementation of ICTs in teacher education
- 7. The essential conditions for successful integration of ICTs into teacher education
- 8. Important strategies to consider in planning for the infusion of ICTs in teacher education and managing the change process.

The document provides a framework for ICTs in teacher education and describes the essential conditions that must be met for successful technology integration. It offers case studies illustrating the variety of approaches that may be used in integrating ICTs into teacher education and provides guidelines for the development of a high-quality strategic technology plan. Lastly, it discusses the importance of planning and managing the change process and building a broad base of support among all stakeholders to achieve the goals of integrating ICTs into the teacher education program.

#### Information Communication Technologies in Education

ICT helps to keep pace with the latest developments with the help of different technologies included in it.

*www* – www stands for the world wide web which is one of the most important and widely accepted services (like IRC, E-mail, etc.) of the Internet. Its popularity has increased dramatically, simply because it's very easy to use colorful and rich content.

According to Dennis P. Curtin (2002): -

"Web is a series of interconnected documents stored on computer sites or websites".

**E-learning**– E-learning is also known as online learning. E-learning encompasses learning at all levels both formal and non-formal that uses an information network– the Internet, an intranet (LAN), or extranet (WAN). The components include e-portfolios, cyberinfrastructures, digital libraries, and online learning object repositories. All the above components create a digital identity for the user and connect all the stakeholders in the education. It also facilitates inter-disciplinary research.

**Group Discussion** – Internet Relay Chat (IRC) is among the popular Internet services people mostly use for live chatting. Group of people with common interests can exchange views/opinions with each other instantly through the Internet. Description of the internet technologies required to support education via ICTs (www, video conference, Tele-Conference, Mobile Conference, CD Database, Word-Processor, Intranet, Internet, etc)

**E-Modules** – Modules written are converted and stored into digital versions into a computer using a word processor accessible by the user through the internet.

#### Teleconferencing

- 1. Audio-Conferencing It involves the live (real-time) exchange of voice messages over a telephone network when low-bandwidth text and still images such as graphs, diagrams, or pictures can also be exchanged along with voice messages, then this type of conference is called audio-graphic. Non-moving visuals are added using a computer keyboard or by drawing/writing on graphics tablet or whiteboard.
- 2. Video-Conferencing Video Conferencing allows the exchange not just of voice and graphics but also of moving images. Video-Conferencing technology does not use telephone lines but either a satellite link or television network (broadcast/cable).
- **3. Web-Based Conferencing** Web-based conferencing as the name implies, involves the transmission of text and graphic, audio and visual media via the internet; it requires the use of a computer with a browser and communication can be both synchronous and asynchronous.
- 4. Open and Distance Learning-All these services availed through ICT plays a great role in teacher education. It allows higher participation and greater interaction. It also improves the quality of education by facilitating learning by doing, directed instruction, self-learning, problem-solving, information seeking and analysis, and critical thinking as well as the ability to communicate, collaborate and learn.

#### Conclusion

With the use of such technology in teaching training programs, the quality of teaching will increase effectively. A well-designed teacher training program is essential to meet the demand of today's teachers who want to learn how to use ICT effectively for their teaching. It is thus important for teacher trainers and policymakers to understand the factors affecting the effectiveness and cost-effectiveness of different approaches to ICT use in teacher training so training strategies can be appropriately explored to make such changes viable to all. So if the use of ICT in teaching training programs by the Institute of conducting teaching training programs, our teaching-learning process will be too smooth and able to understand for every type of student of our country. Finally, more attention should be paid to specific roles of ICT in offering multimedia simulations of good teaching practices, delivering individualized training courses, helping overcome teachers" isolation, connecting individual teachers to a larger teaching community continuously, and promoting teacher to teacher collaboration. Intended outcomes, as well as unintended results of using ICT for teacher professional development, need to be explored.

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### 3. Student Satisfacton Survey to Improvise Higher Education

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#### Abstract

Student Satisfaction Index is a prime factor which gives a bird's eye view of the status of the educational institutions. An idea of its degree can only be procured by actually conducting Student satisfaction survey which can be carried out both off line as well as online. With the advent of technology, especially Information Communication Technology there are revolutionary changes in Teaching, Learning and Evaluation methodology, so also the modus operandi of SSS has also been upgraded, made paper less, speedy, covering a wide area over a large population. The SSS carried out by NAAC is a typical and ideal example of Student satisfaction Survey.

In this paper efforts are made to bring to light the origin, the objectives, the bodies which carry out SSS namely HEI and NAAC, benefits of implementing valid suggestions etc.

Key Words: Student satisfaction Survey (SSS), Higher Educational Institutes (HEI), Teaching and Learning methodology, Questionnaire, Information Communication Technology (ICT), etc.

#### Introduction

Student Satisfaction Survey is a systematic evaluation system of students' educational experiences, Services and facilities. The class room environment, Institutional facilities, Curriculum, Teaching methodology, Evaluation system etc is the factors which immensely affect student satisfaction. Student Satisfaction Survey plays a vital role for promoting the system of education and throws a long standing impact on the institution's global ranking.

#### **Origin of SSS:**

Any dedicated, involved teacher would like to know how much his lecture was useful to the students, was the student able to grasp the information, any suggestions for further improvement etc. Earlier procuring feedback on the classes was in practice instantaneously, in very much unofficial, informal manner.

With the advent of new technologies in educational system, its growing importance, increasing population, large scale investment in this sector, to increase the efficiency and output of education, to take up institutions to world class level and many more benefits, the system of student satisfaction surveys was made more methodical, forming a standard operating procedure and taking all possible steps to implement the valid suggestions for improvement.

Today SSS is one of the robust measures to Assess and Accredit Higher Educational institutes by National Assessment and Accreditation Cell, India.

#### **Objectives of Student Satisfaction Survey:**

- 1. To reveal the efficacy of the educational system by uncovering the problems or trends existing in the educational institutions.
- 2. The errors in the system can be detected and corrected before the problems are blown up to a gigantic level.
- 3. To explore what students really want to know or what are their demands.
- 4. It's a means to impart productive and knowledgeable education.
- 5. They are the indicators of the aspirations and work culture of the new generations.
- 6. As the responses are anonymous, students dare to give impartial and unprejudiced answers.
- 7. It's a way to bring inefficient and non sincere teachers back to their resourceful and responsible form.
- 8. It is a means to capture the grievances of both slow learners and Advanced learners.

Student Satisfaction Survey can be conducted by the following authorities:

- 1. SSS by the HEI
  - a) Offline b) Online
- 2. SSS by NAAC

#### 1. SSS by HEI:

Since decades, Feed-back from students were collected by the HEI themselves to detect the spots of Lacunae and to correct and improve up on them. It was institutional. It can be collected in a systematic way through a committee framed to carry out and Analyze SSS.

In a meeting of the SSS committee, with a computer expert as an essential member of the committee, conducted at the commencement of the academic year, a Standard Operating Procedure (SOP) regarding the number of SSS to be conducted in an academic year and when it has to be conducted and how it has to be conducted, has to be chalked out.

The various sectors on which the information has to be collected are usually as follows i) Teaching and Learning status ii) Skill development and Career oriented Facilities iii) Support services iv) Provisions for extension activities.

#### Drafting of a good Questionnaire & Organizing an effective survey:

- 1. Survey should be conducted for regular students as they are in regular contact with the HEI, preferably considering students at exit level as they would be more honest.
- 2. Define the Goals of the survey and the sectors on which feed back has to be collected.
- 3. Define the sample size and method of collecting the sample.
- 4. Draft a clear, complete and precise Questionnaire as the success of the survey depends very much on the quality of the questionnaire.
- 5. Maintain the uniqueness and distinctiveness of the questionnaire.
- 6. As far as possible adopt objective type answer questions, multiple choice answer questions, Yes/No questions, include tricky questions to extract best information, arrange the questions in logical order, incorporate questions from all sectors, include preferably about 10 to 15 questions and also make clear the rating scale.
- 7. Now a days with the usage of ICT on large scale Google forms are very handy for collection, evaluation and analysis of data.
- 8. Attach a covering letter specifying the objective, stipulated time for response and with contact details for any clarifications.
- 9. If the survey is online through email, then write an effective mail invitation indicating the purpose of the survey.
- 10. Obtain the list of the particulars of the students along with their E-mail Ids from the college admission records.
- 11. Before actually administering the questionnaire to the entire population, conduct a Pivot survey and verify the efficiency of the questionnaire in fetching the answers and improve up on its drawbacks.
- 12. Post the Questionnaires to the student's e-mal IDs.
- 13. The feed-back can be collected offline also, in person.
- 14. With help of the computer expert member, tabulate the collected data and analyze the data. Adopt suitable analysis technique and write down an impartial, realistic interpretation.
- 15. List all the valid suggestions made for improvement and the vital demands of the students.
- 16. Discuss the suggestions made in the IQAC and staff meetings.
- 17. It should be bourn in mind to personally discuss the personal responses.
- 18. Carry out the analysis at your earliest with-in the stipulated period so that the information does not become out dated and comes in aid for timely improvement.

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

#### **II) SSS CONDUCTED BY NAAC**

National Assessment and accreditation Council (NAAC) established in 1994, is an autonomous institution of University Grants Commission with its head quarter in Bengaluru. It is established with a purpose to understand the quality status of the educational Institutions like Colleges and Universities. As it is a recognized autonomous body of UGC, its assessment carries weightage and the grade bestowed is like a brand name to the institution.

Student Satisfaction Survey is conducted by NAAC to involve students in the quality assessment and improvement process of the HEI as they are the primary stake holders of the educational system. SSS is an extremely important tool used by NAAC to assess the quality standard of the institution on the basis of Students' Satisfaction. SSS of NAAC is an E-survey in which all the students are required to have their Email ID and are responding to the survey online.

As SSS is being conducted with a particular vision to bring in a revolutionary improvement in the educational process, the entire SSS has to be judiciously conducted, analyzed, the suggestions made and the interpretations have to be implemented for the betterment of the institution. There should be complete transparency in the process. The survey should be carried out and responded with all the sincerity.

The SSS starts soon after the submission of the Self Study Report by the HEI which has applied for accreditation by NAAC. The list of the E-mail IDs of the students has to be mailed to the NAAC. For Colleges either 10% of the student strength or 100 whichever is less and for universities, either 10% of the student strength or 500 whichever is less so many number of students would be randomly selected by the system for the survey. If the number of responses is less than the number stipulated by NAAC, then that metric will not be taken for evaluation. The SSS would be completed within 30 days after the submission of SSR in parallel with data verification and Validation.

#### Methods To Improve Student Satisfaction:

- 1. The Program objectives and course objectives and the syllabus must be available in the college website for all the stakeholders to refer.
- 2. Adopt inventory teaching and learning methods like usage of ICT, Experiential learning techniques, maintaining apt Teacher students ratio, adopt techniques to impart inclusive education with a special focus on slow learners and Advanced learners, adopt a meaningful Mentor mentee system etc
- 3. Increase collaborative and group activities and also teachers being flexible, adoptive, interactive, maintaining congenial atmosphere in the class.
- 4. Promote Co-curricular and Extra curricular activities.
- 5. Promote student centric activities and Student support services.
- 6. Organize programmes to inculcate Ethics and Values.
- 7. Strive to make the student Responsible and Self- reliant citizen.

#### Benefits Of Conducting Sss And Implementing Valid Suggestions:

- 1. It enables to make better plans and Goals
- 2. It facilitates to administer funds and facilities in a more appropriate way.
- 3. It reveals potential issues that the administrators may be unaware.
- 4. Improve curriculum, Teaching and Learning methodology, lessen student grievances improve facilities and many more.
- 5. To identify student challenges and to develop student support system.
- 6. They indicate the lacunae of the teachers and guide to improve Teaching Learning and Evaluation process.
- 7. Problems faced in learning, overcrowded class rooms, curtail in Sports and Cultural activities can be brought down.
- 8. It is an apt indicator for budget allotment.
- 9. Enhances the reputation of the institutions by adhering to quality education
- 10. It helps the students in their search to get admitted to an institute imparting quality education.

#### **Conclusion:**

Educational system is a huge worldwide system which involves the future of the innumerable students every year and in its fold lies the future of the nation. The future of education, economy, Social status, skills, ethics, values, health, development and what not, the entire world's progress lies on the education gained by today's children. Hence it has to be given all primary importance.

There goes a saying "A Stitch in Time Saves Nine". It means if timely precautionary measures are taken, then it can curtail the happening of great loss in terms of many factors. An educational system is an ongoing process. Therefore the quality of education imparted has to be adjudged periodically, intermittently, has to be analyzed and interpreted instantly so that any suggestions, corrections, modifications have to be incorporated and implemented soon after reviewing them from educationists or experts.

The System of Student Satisfaction Survey has a long way to go and abundance to contribute to the education sector and intern to the Nation.

#### A Report Of The Sss Conducted As An Example:

Student Satisfaction Survey was conducted for students of an aided college consisting of programs for Bachelors, Post graduates and other courses (Diploma). Data was collected from 52 students which was 10% of the total strength of the institute.

#### **Objective:**

The survey was conducted with an objective to study the effectiveness of the Teaching learning and evaluation process, about the mentor system, ICT usage, Student support services, Skill development and career guidance opportunities.

#### The analysis of the data resulted in the following findings:

- 1. 97.4% of the students responded to the survey for the first time.
- 2. Range of age: 19 years to 25 years
- 3. Number of students surveyed=52.
- 4. Gender Ratio= Male: Female=68.4:31.6
- 5. Programs pursued:

$\sim$			
Program pursued	<b>Bachelors</b>	Masters	Others
% of Students	44.7	52.6	2.7
	and the second		

#### 6. The subject area currently pursued:

Subject area pursued	Arts	Commerce	Others
% of Students	52.6	44.7	2.7
			VII.

#### 7. How much syllabus was covered in the class?

% of syllabus covered	85% to 100%	70% to 84%	55% to 69%	30% to 54%	0 to 30%
% of Students opined	31.6	39.5	10.5	10.5	7.9

#### 8. How well did the teachers prepare for the classes?

Preparation of teachers	Thoroughly	Satisfactorily	Poorly	Indifferent	Won't teach at all
%	28.9	50	10.5	5.3	5.3

#### 9. How well were the teachers able to communicate?

Efficiency of the teachers to communicate	Always	Sometimes	Just	Generally	Very
	effective	effective	Satisfactory	Ineffective	Poor
%	36.8	39.5	21.1	-	2.6

**10.** Teachers approach to teaching can best be described as:

Teachers approach to teaching	Excellent	Very Good	Good	Fair	Poor
%	23.7	31.6	39.5	-	5.2

**11.**Fairness of the internal evaluation process of the teachers:

<b>Teachers Fairness</b> in I.A.Evaluation	Always Fair	Usually fair	Sometimes unfair	Usually Unfair	Unfair
%	44.7	34.2	15.8	2.65	2.65

12.Was your performance in assignments discussed with you?

Performance in I.A. discussed with the students	Every Time	Usually	Occasionally	Rarely	Never
%	50	26.3	13.2	7.5	3

13. The institute takes active interest in promoting internship, student exchange, field visit opportunities for students

Institute takes	Regularl	Often	Sometimes	Rarel	Never
inter <mark>e</mark> st in	У			y 🛇	
promoting				1	
Experiential					5
Learning					
%	28.9	28.9	34.2	5.2	2.8
5					X

14.The institute provides multiple opportunities to learn and grow:

Institute provides multiple opportunities to learn and grow	Strongly agree	Agre e	Neutral	Disagre e	Strongly dis agree
%	15.8	52.6	26.3	-	5.3

15. Teachers inform you about your expected competencies, Course outcomes and Program out comes:

Teachers inform you about your expected competencies, Course/Program outcomes	Every time	Usually	Sometimes	Rarely	Never
%	34.2	42.1	18.4	2.8	2.5

16. Your mentor does a necessary follow up with an assigned task:

Mentor does follow up	Every time	Usually	Sometimes	Rarely	Never
%	23.7	55.3	8.2	7.3	4.5

17. Teachers illustrate the concepts through examples and applications

Teach illustr conce	ers ate the pts	Every time	Usually	Sometimes	Rarely	Never
%		36.8	36.8	7.8	15.8	2.8

**18.**The teachers identify your strengths and encourage you with providing with right level of challenges:

Teachers identify your strengths and encourage	Fully	Reasonably	partially	Slightly	Unable to
%	28.9	44.7	15.8	7.3	3.3

19. Teachers are able to identify your weaknesses and help you to overcome them:

Teachers identify your weaknesses and help to overcome	Every time	Usually	Sometimes	Rarely	Never
%	23.7	36.8	23.7	10.6	5.2

20. The institution makes efforts to engage students in monitoring the review and continuous quality improvement of Teaching and Learning process:

Efforts are made to continuously improve the TLE process	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
%	21.1	44.7	3.7	15.1	15.4

21. The institute /teachers use student centric methods, such as experiential learning, participative learning and problem solving methodologies for enhancing learning experiences:

Teachers inform	To great	Moderate	Some what	Very little	. Not at
you a <mark>b</mark> out your	extent				all
expected					$\geq$
comp <mark>e</mark> tencies,					
Course 🔨 🔰					5
outcomes and				9	
Program out					
comes:				(A)	
%	23.7	39.5	23.7	10.5	2.6

22. Teachers encourage you to participate in extra curricular activities

Teachers encourage	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
towards extra curricular activities	www		umal	com	
%	26.3	63.2	5.1	2.4	3

23.Efforts are made by the institute/teachers to inculcate soft skills, Life skills and employability skills to make you ready for the world of he work:

Teachers make efforts to inculcate soft skills, Life skills and employability skills	To a great extent	Moderate	Some what	Very little	Not at all
%	28.9	42.1	15.8	7.3	5.9

#### Special Issue No.87 Theme of spcial Issue : Teaching and Learning through Technology

24. What percentage of teachers use ICT tools such as LCD projector, Multimedia etc while teaching:

Teachers use CT tools while teaching	Above 90%	70-89%	50-69%	30-49%	Below 29%
%	15.8	28.9	23.7	15.8	15.8

25. The overall quality of teaching-learning process in your institution is very good:

Overall quality of TL process is very good	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
%	15.8	63.2	15.8	2.5	2.7

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#### 4. ICT For Effective Teaching & Learning In Higher Education

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#### Abstract

Education system creates hope and it should never aim at creating mere hypes. Over a period of time many changes have occurred in different sectors of economy including the education system. Education sector unlike any other sector has seen many stages in its evolution. From Guru-Shishya system of conducting the class in open garden under the trees to closed class room lectures, presentation form of teaching with the aid of LCD touch-screen projector to online notes and now instant Whatsapp messages is the buzzword among the students.

ICT revolution is bringing in sweeping changes in the Higher Education landscape. Every institute is taking various initiatives in promoting digital education. MHRD has taken up novel initiatives like SWAYAM (India's own MOOCs), Swayam Prabha, National Digital Library (containing 6.5 million books), and National Academic Depository.

The technology of online education and all the digital initiatives have the possibility to revolutionize higher education scenario in the near future. Other than the aforesaid initiatives MHRD has also started initiatives like "Cashless Campus" and Digital Financial Literacy of community by students.

This thematic paper is aimed at analyzing the nature of the ICT effectiveness in teaching & learning in higher education process in India.

Key Words: ICT, Teaching & Learning and Higher Education

#### Introduction:

In Higher Education developing countries lack quality and qualified faculty in some particular field. So for the benefit of student, the knowledge must be shared with maximum number of student. Sharing of knowledge possible through ICT.

In some part of the system is popular but we need to implement this knowledge sharing system through ICT in every domain of education. For the example in engineering education the qualified faculty are not sufficient so for nullify this lacking we must encourage Knowledge sharing through ICT.

Social media like, Facebook, tweeter, Whatsapp and instagram has gained the status of being authentic formal means of communication among the students and the academicians. Screenshots have taken off the business of many of the photocopy outlets operating within many school and college premises. Indian subcontinent is comprised of diverse population belonging to various ethnic and cultural groups. Apart from these differences, the most visible difference that makes a direct impact on the Indian higher education system is the diversity in purchasing power and affordability of the Indians.

The aim to raise the Gross Enrolment Ratio (GER) in the higher education from 24.5 (2015-16) to 30 by 2020, and the quest to enhance the quality of education would require a large scale expansion of the high quality education opportunities.

The quest to enhance the quality of education would require a large scale expansion of the high quality education opportunities. However, physical expansion of such facilities is fraught with both infrastructural and human resource limitations. Fortunately, in the days of fast expanding IT facilities, the technology can be leveraged to address these twin concerns of enhancing access and quality. The use of technology through online education in higher education

Various initiatives have been taken to promote digital learning under 'National Mission on Education through Information and Communication Technology' (NMEICT).

Department of Higher Education, Ministry of Human Resource Development is administering a programme 'National Mission on Education through Information and Communication Technology'

(NMEICT) to leverage the potential of ICT to make the best quality content accessible to all learners in the country, free of cost. The various initiatives under this programme are as under:

#### Swayam:

The 'Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM) is an integrated platform for offering online courses and covering school (9<sup>th</sup> to 12<sup>th</sup>) to Post Graduate Level. Till now, 2769 MOOCs (Massive Open Online Courses) have been offered on SWAYAM, wherein about 1.02 crore students have enrolled to various courses till date.

The online courses are being used not only by the students but also by the teachers and non-student learners, in the form of lifelong learning. It may be accessed on <u>swayam.gov.in</u> NCERT (National Council of Educational Research and Training) has been developing course modules for MOOCs for school education system in 12 subject areas (Accountancy, business studies, biology, chemistry, economic, history, geography, mathematics, physics, political science, psychology and sociology) for classes IX-XII.

Twelve (12) courses were launched in the first cycle. Nearly 22,000 students were registered on various courses. Twenty (20) courses were launched in the second cycle. Nearly 33,000 students were registered.

#### Swayam Prabha:

Swayam Prabha is an initiative to provide 32 High Quality Educational Channels through DTH (Direct to Home) across the length and breadth of the country on 24X7 basis. It has curriculum-based course content covering diverse disciplines. This is primarily aimed at making quality learning resources accessible to remote areas where internet availability is still a challenge.

#### National Digital Library (NDL):

The National Digital Library of India (NDL) is a project to develop a framework of virtual repository of learning resources with a single-window search facility. There are more than 3 crore digital resources available through the NDL.

The contents cover almost all major domains of education and all major levels of learners including life-long learners. More than 50 lakh students have registered themselves in the NDL, with about 20 lakhs active users. The NDL is available through a mobile app too. It may be accessed on <u>ndl.gov.in</u>.

### Spoken Tutorial:

They are 10-minute long, audio-video tutorial, on open source software, to improve employment potential of students. It is created for self learning, audio dubbed into all 22 languages and with the availability of online version. The languages are C, C++, Java, PHP, Python, PERL, Scilab, OpenFOAM, OpenModelica,DWSIM, LibreO and many more. The Spoken Tutorial courses are effectively designed to train a novice user, without the support of a physical teacher.

#### Free and Open Source Software for Education (FOSSEE):

FOSSEE is a project promoting the use of open source software in educational institutions (http://fossee.in). It does through instructional material, such as spoken tutorials, documentation, such as textbook companions, awareness programmes, such as conferences, training workshops, and Internships.

Textbook Companion (TBC) is a collection of code for solved examples of standard textbooks. About 2,000 college students and teachers have participated in this activity & close to 1,000 TBCs have been created in Scilab and made them available for free download.

#### Virtual Lab:

The Virtual Labs Project is to develop a fully interactive simulation environment to perform experiments, collect data, and answer questions to assess the understanding of the knowledge acquired. In order to achieve the objectives of such an ambitious project.

It is essential to develop virtual laboratories with state-of-the-art computer simulation technology to create real world environments and problem handling capabilities. There are about 225 such labs operational, with more than 1800 experiments and benefitted more than 15 lakhs students.

#### **E-Yantra**:

e-Yantra is a project for enabling effective education across engineering colleges in India on embedded systems and Robotics. The training for teachers and students is imparted through workshops where participants are taught basics of embedded systems and programming. More than 275 colleges across India have benefited with this initiative. All the projects and code are available on the e-Yantra web-site www.e-yantra.org as open source content.

The Department of School Education, Ministry of Human Resource Development has following schemes through which the learners have access to online resources, Study materials developed by NCERT in the form of **eResources** (audio, video interactive etc.) has been shared with stake holders through web portals (Study Webs of Active-Learning for Young Minds-SWAYAM, e-Pathshala, National Repository of Open Educational Resources (NROER) and mobile applications (e-Pathshala). A web portal (<u>http://epathshala.nic.in/, http://epathshala.gov.in/</u>) and mobile apps (Android, iOS and Windows) has been designed and deployed. The portal has 1886 audios, 1999 videos, 698 e-books (e-pubs) and 504 flip **Quick Response** (**QR**) -To enable students, teachers, parents and educators access digital

resources, **QR** codes have been created and integrated with printed textbooks of NCERT duly mapping e-Resources with each chapter of the books.

1. National Repository of Open Educational Resources (NROER) portal (http://nroer.gov.in/welcome) has been designed by NCERT. Till date a total of 14145 files including 401 collections, 2779 documents, 976 interactive, 1664 audios, 2586 images and 6140 videos are uploaded.

Several initiatives in the field of ICT in education has been taken, such as development and dissemination of ICT curriculum for students and teachers, ICT textbook for class IX, Cyber safety and security guidelines, SWAYAM prabha DTH TV channel 'Kishore Manch, All India Audio Video festival and ICT Mela, National ICT awards to school teachers.

- 2. **ICT in Education Curricula** for students, teachers and teacher educators has been developed at the national level and being implemented across the country.
- 3. **Digital learning Initiatives by CBSE.** SARANSH is a tool for comprehensive self review and analysis for CBSE affiliated schools and parents. It enables them to analyse students' performance in order to take remedial measures.

SARANSH brings schools, teachers and parents closer, so that they can monitor the progress of students and help them improve their performance. It is currently available for Standards IX – XII and provides a comprehensive overview of Standard X performance since 2007 and Standard XII performance since 2009, till the current academic session.

4. Classroom Centric digital intervention: A scheme Operation Digital Board (ODB) for establishing Smart Classrooms in classes IX to XII of Government and Government aided schools is under consideration.

#### **Conclusion:**

Here the use of ICT can be very useful for entry level professional to enhance their skill and learn the techniques from well experience person of their own field. The colleges and government also promote the faculty development program for the faculty in formal education. By the use of technology and computer system the knowledge may be shared effectively and in some place it is used widely through satellite classroom program. Satellite classroom is getting popular these days as the same qualified faculty available for thousands of student at same time.

The faculty in higher education may be performed as leader some time and executive some other time. They must set an example to follow for student. Student look towards teacher as an ideal human and try to copy them so it is supposed to act faculty in ideal way and set example to student. Also teacher must look up to classroom type and nature of classroom to act. They must focus on learning methods, more focus should be the how to learn rather what to learn because learning is self-initiated what faculty can do is motivate them to learn. Explaining them to how to solve the problem is quite good but focus must also give to what to solve. Faculty should understand this as a responsibility towards society. Society always looks towards teacher for a better place to live.

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#### 5. A Study on an effect of Technology on Teaching and Learning

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#### Abstract:

Integration of Technology will assist teacher's community to the global requirement to replace traditional teaching methods with a technology-based teaching and learning tools and facilities. Technology integration ideally should guide, expand and enhance objectives of learning. The present study is an attempt to examine the effect of technology on the teaching and learning process. The major Objectives of the study are 1 To Study the effect of technology on teaching process. 2. To Study the effect of technology on learning process of the students. Review of **Literature**- In order to understand the influence of technology on teaching and learning process, the Study conducted in India and Abroad has been studied. Sample -The present study conducted in Dharwad District. The random sampling design was employed for the selection of the Teacher and Students. The total 150 teachers, 75 male and 75 female and 150 Students 75 male and 75 female were randomly selected from different Degree College, of Dharwad District for the present study. Method-Research paper is basically descriptive and analytical in nature and is based on both primary and secondary data according to the need of this study. **Tools Used**-Technological Strategies designed by Researcher keeping in view of different Components and approaches of technological devices. Statistical Techniques-Simple correlation coefficient, paired t-test, cross tabulation and percentage analyses are used for the analysis of the data. Findings-1. It is found Technology improved the teaching skills of the teachers and academic levels of the students and also improved their awareness on self education. 2. There is a significant change in the teaching of the teachers after introducing technological Centred devices approaches. 3. There is a significant growth in the academic achievement of the under graduate Students after introducing technological Centred devices approaches. Key Words: Technology, Teaching, Learning, Integration, strategies, software

#### Introduction:

Presently, technology is "restructuring education, and changing teaching and learning in ways that impact on all [educators]. Roles are changing, new expertise is required, and new skills must be learned ... [Teachers] must find meaningful ways and workable strategies for teaching with technology". It has been said that, "Information Technology" is the great enabler. (Plotnick, 1999, p. 3) A computer is a wonderful tool for enrichment and may indeed be the primary technological tool available to educators. The use of computers and technology in higher classes can enhance teacher teaching and student learning in many ways.

Technology has the supreme power to transform teaching by ushering in a new model of connected teaching. This model links teachers to their students and to professional content, resources, and systems to help them improve their own instruction and personalize learning. Technology offers tremendous promise for student learning. The upsurge of devices and digital learning platforms, along with external events impacting instruction and student learning, have increased the emphasis states, districts, and schools place on educational technology. The importance of using technology effectively as a tool for teaching and learning has always been a recognized priority for AIR. The use of technology in education also raises challenges, including those related to equity of access, cost-effectiveness, teacher professional development, assessment, privacy, and safety. We are a leader in evidence-based, technology-driven classroom practices and online strategies that enhance learning for all students, including those with special needs.

In 1994, the Educational Leadership Journal cited ten crucial reasons for using technology in schools and colleges, which include: 1. Students learn and develop at different rates. 2. Graduates must be proficient at accessing, evaluating and communicating information. 3. Technology can foster an increase in

the quantity and quality of students' thinking and writing. 4. Graduates must solve complex problems. 5. Technology can nurture artistic expression. 6. Graduates must be globally aware and able to use resources that exist outside the school. 7. Technology creates opportunities for students to do meaningful work. 8. All students need access to high-level and high-interest courses. 9. Students must feel comfortable with the tools of the Information Age. 10. Schools must increase their productivity and efficiency. (Educational Leadership)

Teachers should work collaboratively within and across disciplines to effectively plan for the integration of computers and information technologies into the teaching/learning process. As the technology capable of enhancing student learning becomes available, teachers should, within a reasonable period of time, incorporate that technology into their planning of instruction and learning activities in individual disciplines and, collaboratively, across disciplines. ... Using an activity-based, project-driven approach to learning, they will also develop information technology skills to support their development of knowledge and other skills. The following information and suggestions are examples of how teachers in schools and colleges can use technology, along with best practices to enrich the learning environment and enhance student learning. Some possible ways to use technology that will enhance students learning are as follows: • Examine Real-Life Problems (Pallof and Pratt, 1999), • Problem Solving Skills (Williams, 1996), • Use Different Forms of Media (Thomas & Knezek, 2002), • Improved Thinking Skills (U.S. Department of Education) • Knowledge Builder (Loertscher & Achterman, 2002), • Learn Through Simulations (Levine, 2002), • Become Better Researchers and Independent Learners, • Accessible to Both Male and Female Students (Mooney, 2003), • Assessment Tool (Mooney, 2003), • Increased Communication in Communities (Pallof & Pratt, 1999), and • Cross-curricular.

#### 2. Concept of Tec<mark>hnology</mark>, Teaching and Learning

A) What do we mean by "technology"

The term "technology" refers to advancements in the methods and tools we use to solve problems or achieve a goal. In the classroom, technology can encompass all kinds of tools from low-tech pencil, paper, and chalkboard, to the use of presentation software, or high-tech tablets, online collaboration and conferencing tools, and more.

The newest technologies allow us to try things in physical and virtual classrooms that were not possible before. What you use depends fundamentally on what you are trying to accomplish. **How can technology help** 

- Online collaboration tools, such as those in *Google Apps*, allows students and instructors to share documents online, edit them in real time and project them on a screen. This gives students a collaborative platform in which to brainstorm ideas and document their work using text and images.
  - **Presentation software** (such as *PowerPoint*) enable instructors to embed high-resolution photographs, diagrams, videos and sound files to augment text and verbal lecture content.
  - **Tablets** can be linked to computers, projectors and the cloud so that students and instructors can communicate through text, drawings and diagrams.
  - **Course management tools** such as *Canvas* allow instructors to organize all the resources students need for a class (e.g. syllabi, assignments, readings, online quizzes), provide valuable grading tools, and create spaces for discussion, document sharing, and video and audio commentary. All courses are automatically given a Canvas site!
  - Clickers and Smartphone's are a quick and easy way to survey students during class. This is great for instant polling, which can quickly assess students' understanding and help instructors adjust pace and content.
  - Lecture-capture tools, such as *Panopto*, allow instructors to record lectures directly from their computer, without elaborate or additional classroom equipment. Consider recording

your lectures as you give them and then uploading them for students to re-watch. Studies show that posting recorded lectures *does not* diminish attendance and students really appreciate the opportunity to review lectures at their own pace.

#### Significance of Technology

- 1. Empowers educators to efficiently personalize learning with access to data, content and the cloud
- 2. Prepares students for the 21st century workforce with modern technology skills and competencies
- 3. Helps educators create blended learning environments that make learning relevant to students' lives
- 4. Gives educators access to real-time feedback through digital formative and summative assessments and data
- 5. Technology is transforming education, changing how, when and where students learn, and empowering them at every stage of their journey.
- 6. On the path to personalizing learning, technology empowers students by giving them ownership of how they learn, making education relevant to their digital lives and preparing them for their futures. With technology and access to resources beyond classroom walls, students are inspired to become problem-solvers, critical thinkers, collaborators and creators. Where technology has been successfully integrated into classrooms, students develop a lifelong love of learning.
- 7. Educators are always striving to personalize learning for students. Technology can help them reach new levels with access to real-time student data, longitudinal information, content, apps, and more. Technology can help educators create blended learning environments and leverage digital tools for formative and summative assessments, bringing new models for learning and teaching to classrooms.
- 8. Technology in education and the right devices in students' hands helps prepare them with the career and technical skills they need to be successful today and in tomorrow's workforce. Relevant learning experiences in STEAM can inspire creativity; help students apply meaning to their learning, and prepare them for future career opportunities and jobs that haven't even been created yet. Specific skills in coding, programming, physical computing, and computational thinking have become common requirements in the workforce. Though making, students can gain these skills and hone their problem-solving and critical thinking skills for the 21st century. Learning by doing with maker mindsets and environments can be very engaging when designed and integrated with the right technology.
- 9. School and college systems have the hard decision of choosing devices and technology models that will help achieve their visions of transforming learning. Device decisions should be made by working with multiple stakeholders and evaluating how educators and students use the devices for day-to-day learning. Stakeholders should take into account appropriate grade-level curriculum, content needs, and how the devices will be used inside and outside the classroom. It's no easy task, but considerations such as compatible digital curriculum and content, assessment requirements, manageability options, security features, device functionality, and the overall cost of ownership are key to choosing the right device. A secure and robust IT infrastructure is the foundation of a 360° learning experience, and supports digital content, protects key student data, boosts operational efficiency, and provides the security and privacy protection today's schools needs.
- 10. Intel can help school systems enhance the experience of each student and educator with a holistic solutions approach that focuses on technology to enable personalized learning, connected, and efficient classrooms, and a secure, powerful IT infrastructure. All the while, educators must be properly trained and supported through ongoing professional learning resources and communities.
- 11. It all adds up to a transformative and sustainable impact on the success of all students.

#### Ways classrooms are using technology for teaching and learning

**1. Online learning and blended classrooms:** While K-12 online learning gains traction around the world, many teachers are also exploring blended learning -- a combination of both online and face-to-face education.

**2. Project-based activities incorporating technology:** Many of the foremost rigorous projects are infused with technology from the beginning till the end.

**3.** Game-based learning and assessment: There has been quite a buzz regarding the advantages of incorporating simulations and game-based learning activities into schoolroom instruction.

**4. Instructional tools like interactive whiteboards and student response systems:** Here are just a few possibilities that increase the potential for using interactive whiteboards in school:

- 1. Digital storytelling.
- 2. Creating, viewing, and annotating student PowerPoint and multimedia presentations in real time.
- 3. Showing streamed or downloaded videos.
- 4. Using online map and satellite imagery to teach geography.
- 5. Displaying artwork or online museum presentations.
- 6. Demonstrating moviemaking techniques.
- 7. Teaching students how to conduct research on the Internet.
- 8. Working collaboratively on writing and editing exercises, math lessons, and science experiments.
- 9. Instructing the class on the use of a software program, keyboarding techniques, and other computer skills

**5. Student-created media like podcasts, videos, or slideshows:** One of the central concepts of digital skill or media literacy is that students ought to be creators and critics, not simply customers, of media.

6. Collaborative tools like Wikis or Google Docs: Connecting with others online can turn out to be a realisation for change, both for teachers and for students. Teacher Vicki Davis is an evangelist for such connections.

7. Using social media to engage students: Though social media tools are still blocked in many schools, students around the world spend vast amounts of time on social networks outside of school.

**8. Frameworks for technology integration:** SAMR and TPACK are models which are frequently used for technology integration.

#### The SAMR (Substitution, Augmentation, Modification, and Redefinition) model,

created by Dr. Ruben Puentudura, guides the process of reflecting on how we are integrating technology into our classrooms. The ideal goal of technology integration is to give a new meaning as to how education is taught and received and to do things that never could have happened before the technology was in our hands.

#### The TPACK (Technological Pedagogical Content Knowledge) framework

lays out the information that educators want so as to successfully integrate technology into their teaching. The TPACK web site offers a large collection of free resources for teachers.

#### B) What do we mean by "Teaching?"

Teaching is the process of attending to people's needs, experiences and feelings, and making specific interventions to help them learn particular things. ... They are grouping together teaching, learning and assessment – and adding in some other things around the sort of outcomes they want to see.

Teaching is a process in which one individual teaches or instruct another individual. Teaching is considered as the act of imparting instructions to the learners in the classroom situation. It is watching systematically. Dewey:- considers it as a manipulation of the situation, where the learner will acquire skills and insight with his own initiation.

Teaching is a face to face encounters between two or more persons, one of whom (teacher) intends to effect certain changes in the other participants. Teaching is a scientific process, and its major components are content, communication and feedback. The teaching strategy has a positive effect on student learning.

#### C) What do we mean by "Learning"?

- 1. "Learning is a permanent desirable series of changes in behaviour and experience. It does not include change due to illness fatigue, maturation and use of intoxicants."
- 2. "Learning is a process of bringing relatively permanent changes in behaviour through experience."

#### **3.** Need and Importance the Study:

The present study aims to investigate the Effect of Technology on the Teaching and Learning process. It attempts to shows the effect of technology towards Teaching of the Teachers and Learning of Students.

#### 4. Objectives

This paper examines the effect of Technology on the Teaching and Learning process. The main objectives of the study are as below.

- i. To Study the effect of Technology in teaching process.
- ii. To Study the effect of Technology in learning process of the students.

#### 5. Review of Literature:

In order to understand the effect of Technology on the Teaching and Learning process, the Study conducted in India and Abroad has been studied.

6. Statement of Problem : "A study on an effect of Technology on the Teaching and Learning."

#### 7. Hypotheses

The null hypotheses were set up for the present study.

- i. There is no significant relationship between Technology and Teaching process of the Teachers
- ii. There is no significant relationship between Technology and Learning process of the Students

#### 8. Design of the Study

- 1. **Method:** Research paper is basically descriptive and analytical in nature and is based on both primary and secondary data according to the need of this study.
- 2. Sample: The present study conducted in Dharwad District. The random sampling design was employed for the selection of the Teacher and Students. The total 150 teachers, 75 male and 75 female and 150 Students 75 male and 75 female were randomly selected from different Degree College, of Dharwad District for the present study
- 3. **Tools Used:** Technological Strategies designed by Researcher keeping in view of different Components and approaches of technological devices.

#### • Data Collection procedure

A structured technological strategy was prepared and used for assessing the Teaching and Learning performance of the both teacher and students. A structured technology based strategies used by the investigator were administered to the teacher and under graduate students studying different colleges in Dharwad. The responses of teacher and under graduate students have been collected by the investigator. The responses were given by the teachers and under graduate students were relevant to the subject and strategies.

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#### • Statistical Techniques

Simple correlation coefficient, paired t-test, cross tabulation and percentage analyses are used for the analysis of the data.

#### 7. Analysis and Interpretation:

### Table 1: Paired t-test table

i. Hypothesis: 1. - There is no significant relationship between Technology and Teaching process

	of the Teachers									
		Mean	N	Std. Deviation	Std. Error Mean					
Pair 1	<ul> <li>Teaching performance of the teachers before introducing the technological based strategies.</li> <li>Teaching performance of the teachers after introducing the technological based strategies.</li> </ul>	1.264 0E3 1.772 0E3	150 150	222.01305 222.27029	31.39739 31.43377					

	i un cu sumpres test										
Paired Differences					t	df	Sig.(2- tailed)				
				111-	1-	11/2	<u></u>				
			Mean	Std.	Std. Error	95% Confid	ence Interval				
			Deviation	Mean	of the Difference						
							Lower				
						Upper					
•	Teaching	0	-	160.15299	22.64905	-553.51498	-462.48502	-	49	.000	
	performance	of the	5.08000E2				3	22.429			
	teachers	before					4				
	introducing	new					-				
	technological	based					5				
	strategies and	after					ž	1.4			
	introducing	>					1				
	strategies.	0					C I				

Since the probability value is 0.000 (p<0.01), we reject the null hypothesis and conclude that teaching performance of the teacher after introducing technological based strategies is significantly higher than the before introducing the strategies. Thus the technological based strategies and approaches are significantly increasing the teaching performance of the teachers. On the basis of t test it can be easily concluded that technological based strategies and approaches is playing an important role in increasing the teaching performance of the teachers.

#### Table 1: Paired t-test table

**ii. Hypothesis: 1.** - There is no significant relationship between Technology and Learning process of the Students

		Mean	N	Std. Deviation	Std. Error Mean
Pair	<ul> <li>Learning performance of the students before introducing the technological based strategies.</li> <li>Learning performance of the students after introducing the technological based strategies.</li> </ul>	1.2110E3	150	200.01302	28.39739
1		1.5520E3	150	220.27028	29.43377

# Table 2:Paired samples test

	Paired Differences				t	df	Sig.(2- tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confider the Difference Upper	Lower			
Learning performance of the students before introducing new technological based strategies and after introducing strategies	- 5.08000E2	155.15299	20.54905	-503.51498	-442.48502	- 20.429	46	.000

Table 2: Paired	samples test
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Since the probability value is 0.000 (p<0.01), we reject the null hypothesis and conclude that Students learning performance after introducing technological based strategies is significantly higher than the before introducing the strategies. Thus the technological based strategies and approaches are significantly increasing the learning performance of the students. On the basis of t test it can be easily concluded that technological based strategies and approaches is playing an important role in increasing the learning performance and academic level of the students.

#### 8. Findings:

- 1. It is found that, using technology in teaching, increasing the teaching performance and standard of the teachers and improved the academic levels of the students and also improved their awareness on self education.
- 2. There is a significant growth in the academic performance of the under graduate students after introducing technological based strategies.

#### 9. Conclusion:

Present study an effect of technology on teaching and learning found that overall it was an effective Strategies and approach to enhance the effective teaching Skills of the teacher and academic learning performance of the Students. And students had increased participation, and their academic status. In addition, there was more respect for the student in this approach, that it was more interesting, exciting, and it boosted their confidence and knowledge. Finally, effective integration of technology is successful when teachers and students are able to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information, and present it professionally.

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# 6. Teaching and Learning through Technology A Study on influence of Smartphone in effective Teaching and Learning Process

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#### Abstract:

Smartphone's are regular classroom accessories. Many educational institutions, especially higher education institutions, are considering to embrace Smartphone's as part of learning aids in classes as most students (in many cases all students) not only own them but also are also attached to them. The main question is whether embracing Smartphone's in classroom teaching enhances the learning or perhaps interference. Therefore, **Major objectives** of this research paper are: - 1.To Know the Smartphone's created better learning experiences. **2**. To study the influence of Smartphone in learning achievement of the students. **Method**-Research paper is basically descriptive and analytical in nature. **Tools used**- 1.Student attitude scale constructed by Researcher keeping in view of different components of Mobile were used for data collection. **Findings** – 1.There is significant relationship between Smartphone and better Teaching experience of the students.

Key Words: Teaching, Smartphone, Learning, Learning aids, Internet

#### 1 Introduction:

Smartphone's are regular classroom accessories. Many educational institutions, especially higher education institutions, are considering to embrace Smartphone's as part of learning aids in classes as most students (in many cases all students) not only own them but also are also attached to them. Smartphone's are used by many to access information and knowledge from the Internet. In fact, some people develop knowledge by accessing a pool of knowledge from the Internet using their Smartphone's. Hence, Smartphone's can definitely be taken as to enhance education. Nowadays, students and Teachers can access information and knowledge easily from the Internet and they can also have discussions in social networks and get quick answers from peers, lecturers or even experts.

#### A) Teaching:

"Teaching is the process of attending to people's needs, experiences and feelings, and making specific interventions to help them learn particular things". "Teaching can be defined as engagement with learner's to enable their understanding and application of knowledge, Concepts and Processes"

#### **B)** Learning:

"Learning is a permanent desirable series of changes in behavior and experience. It does not include change due to illness fatigue, maturation and use of intoxicants."

#### C) Smartphone:

A Smartphone is a mobile phone with highly advanced features. A typical Smartphone has a high – resolution touch screen display, Wi-Fi connectivity, Web browsing capabilities, and the ability to accept sophisticated applications. The majority of these devices run on any of these popular mobile operating systems: Android, Symbian, IOS, BlackBerry, OS and Windows Mobile.

#### 2. Major objectives:

Major objectives of this research paper are: -

- 1. To investigate the influence of Smartphone in effective Teaching.
- 2. To investigate the influence of Smartphone in effective Learning.
- 3. To investigate the influence of Smartphone in effective Teaching Learning Process

## 3. Hypothesis:

The null hypotheses were set up for the present study.

- 1. There is no significant relationship between Smartphone and effective Teaching
- 2. There is no significant relationship between Smartphone and effective Learning
- 3. There is no significant relationship between Smartphone's and effective
  - Teaching learning Process.

### 4. Review of related literature;

In order to understand the problem, the Study conducted in India and Abroad has been studied.

#### 5. Statement of Problem:

A Study on influence of Smartphone in effective Teaching - Learning Process

### 6. Design of the Study:

- 1. Method: The nature of present study is Descriptive survey.
- 2. **Sample:** For the present study random sampling technique was used. The total 200 students of Degree College and 50 faculties were selected for the present study.
- 3. Data gathering tools: The tests used in the present study are as follows
  - i. Achievement Test.
  - ii. Students attitude scale (constructed by Researcher keeping in View of different components of Smart Phone (such as; Internet, Mobile Video WhatsApp, Camera face book, Messenger etc.).

#### Data collection procedure

Printed copies of Attitude scale on Smartphone developed and standardized by the investigator were administered to the Staff and students studying different Degree colleges in Haveri district of Karnataka state. The filled in data from Staff and students have been collected by the investigator (Google form). The responses were given by the Staff and students were relevant to the subject. Prior to the administration of the different tools the permission from the Principals of all the selected degree colleges were taken for the collection of data. Along with the different tools the personal information of the Staff and students was obtained.

#### Statistical techniques:

Mean Standard Deviation and Correlation analysis

### 7. Analysis and Interpretation of Data:

- 1. **Hypothesis:** 1. There is no significant relationship between Smartphone and better Teaching experience of the staffs. To achieve this hypothesis, the Karl Pearson's correlation coefficient method was applied and the results are presented in the following table.
- 2. Table:1

Results of Coefficient of correlation between Smartphone and better Teaching experience of the staffs and 't' values of Male and Female staffs.

Sl. No.	Relationship between	Groups	'r' Value	't' value	Remarks	
1	Smartphone and	Male staffs	0.78	5.92		
2	Teaching experience of the staffs	Female staffs	0.46	2.50	Significant	

#### Interpretation:

The above table reveals that the obtained 'r' value of Male staffs is 0.78 which is positive and high. The 'r' value of Female was found to be 0.46 which is positive and moderate. The't' values of both the 'r' values were found to be 5.92 and 2.50 respectively which is significant. Hence, reject the research hypothesis No.1. i.e., there is a positive significant relationship between Smartphone and better Teaching experience of the staffs working in Degree colleges.

1. **Hypothesis: 2.**There is no significant relationship between Smartphone and academic achievement of the students. To achieve this hypothesis, the Karl Pearson's correlation coefficient method was applied and the results are presented in the following table.

#### Table:2

Results of Coefficient of correlation between Smartphone and academic achievement of the students and 't' values of Male and Female students

Sl. No.	Relationship between	Groups	ʻr' Value	't' value	Remarks
1	Smartphone and	Male students	0.82	11.90	
2	academic achievement of the students.	Female students	0.92 10/10a	11.01	Significant

#### Interpretation

The above table reveals that the obtained 'r' value of Male students is 0.82 which is positive and high. The 'r' value of Female students was found to be 0.92 which is positive and high. The't values of both 'r' values were found to be 11.90 and 11.01 respectively and are significant. Hence, reject the research hypothesis No.2, i.e., there is a positive significant relationship between Smartphone and academic achievement of the students studying in Degree colleges.

#### 8. Major Finding<mark>s</mark>: '

- 1. There is significant relationship between Smartphone and better teaching experience of the Staffs and better learning experience of the students.
- 2. Teaching of the Staff and academic achievement of the students through learning process strongly influenced by the Smartphone.

#### 9. Conclusion

The findings and discussion section of this paper presents the results of this research, and from those results some conclusions can be drawn.

The use of Smartphone in teaching and learning process contributes a positive impact to the Teaching experience and increasing of learning achievement. Students tend to achieve higher score when they are taught with the use of Smartphone integrated model of teaching. Students tend to suffer when they are taught with conventional teaching. The academic achievement of the students with using Smartphone is remarkable. This means that using Smartphone in teaching and learning effectively as a creative skill.

"However, if teachers encourage use of the Smartphone in their classroom through "engaging instruction and the continued teaching of digital responsibility, they can move students from being digital natives to digital learners" To sum up, the using of Smartphone in teaching and learning can effectively overcome the students and staffs 'poor performance and this makes them achieve high.

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# 7. The Impact of Scenario-Based Learning

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#### Introduction:

Scenario-based learning (SBL) uses interactive scenarios to support active learning strategies such as problem-based or case-based learning. It normally involves students working their way through a storyline, usually based around an ill-structured or complex problem, which they are required to solve. In the process students must apply their subject knowledge, and critical thinking and problem solving skills in a safe, real-world context. SBL is often non-linear, and can provide numerous feedback opportunities to students, based on the decisions they make at each stage in the process. Scenario-based learning may be selfcontained, in that completing the scenario is the entire task, or it may be the first part of a larger assignment requiring the student to complete the scenario, and then provide a written or oral reflection and selfassessment on the process. Scenario-based learning is based on the principles of situated learning theory (Lave & Wenger, 1991), which argues that learning best takes place in the context in which it is going to be used, and situated cognition, the idea that knowledge is best acquired and more fully understood when situated within its context (Kindley, 2002). SBL can be used in a wide range of contexts, but it works especially effectively when used to simulate real-world practice, providing opportunities which may be difficult for students to experience within the confines of a course. Successful scenarios have been developed around topics as wide-ranging as structural failure in bridges; pesticide applications for apple orchards, and the nursing management of myocardial infarction. SBL can be used as part of either formative or summative assessment SBL usually works best when applied to tasks requiring decision-making and critical thinking in complex situations. Tasks that are routine to the students will require little critical thinking or decision-making, and may be better assessed using other methods.

### How can I start creating SBL?

Identify the learning outcomes: It is important to identify what it is you want students to achieve on completion of the scenario, and then to work backwards from the learning outcomes to create the situation that will lead to this learning. Decide on your format: Is your scenario going to be delivered in the face-to-face or online environments? What media (photographs, audio, video) and other resources will you need? If you are using an online scenario, will you provide other supporting activities, such as wikis, discussion forums, etc.? Choosing a topic: Remember that non-routine tasks lend themselves to scenario-based learning. Consider using 'critical incidents' and challenging situations that have occurred in your subject area. Identify the trigger event or situation: This will be the starting point of your scenario. As you create the scenario, identify decision points and key areas for feedback and student reflection. Creating a storyboard is an effective way to do this. Peer review your scenario: Ask colleagues to work through the scenario to ensure that it flows in the way you expect, and achieves the outcomes you intended.

Scenario Based Learning is an effective approach that provides an excellent framework for active learning. Similar to case-based instruction, SBL utilizes an authentic context in which the problems are presented in certain sequence and choices offered that enable the learner to reach an outcome. Unlike case-based8-9 instruction however, SBL generally adheres to a performance improvement imperative rather than the acquisition of knowledge and skills. Furthermore, SBL enables the system to present new scenarios and outcomes based on what a user selects. As with any constructivist approach, mistakes are an integral part of the learning process. In SBL mistakes inform the system which adapts thereby prompting the learner to make better choices in the future. SBL is based on the understanding that in order for a learner to acquire and retain skills & knowledge, the learner must be placed in a scenario where his/her decisions affect, or alter subsequent events leading to new events, just like in real life. In real life, we are presented with choices

everyday; some good, some bad, some ok, and some irrelevant. Choices we make improve, deteriorate our current situation, or, make no difference. In this way, SBL is a form of experiential learning. In the SBL context, a scenario is a realistic situation where a sequence of events is presented and possible choices allow the learner to reach an outcome. Learning occurs when the user goes through the scenario and is guided to discover principles and develop critical competencies. Information and reference modules are presented in context when required or requested. Mistakes can be made and the resulting scenario will allow the user to make subsequent decisions. Learning still occurs if a user takes a wrong path all the way through. Thus learning becomes an experience and not blindly following a set of rules, or learning by rote.

# SBL area as follow:

- 1. Reality is the ultimate and best learning experience.
- 2. Learning must be fun and enjoyable like playing a favourite sport just as in real life.
- 3. Learning must allow for mistakes. No one has ever learned anything without doing mistakes. However, the current teaching methodologies do not allow for any mistakes and look for one correct answer. This popular approach is too simplistic and doesn't reflect the reality. The better approach is to let the students make mistakes and learn from them.
- 4. Real learning occurs when we can immerse ourselves in a situation in which we are forced to perform, get feedback from our environment, and given chances to correct or adjust our responses.

# Advantages of scenario-based learning

# Offers a learner-centric approach

We all want our learners to transfer their learning to the workplace. Don't we? But many training programs fail to reach that level. Scenario-based leaning focuses exactly on this. Its hows your people how to apply the skills acquired in real-life job situations rather than merely presenting theoretical information. Needless to say, such a strategy, essentially, strengthens the skills and improves the weak areas of employees, helping them improve their performance at work.

# Shows the consequences of failure

It is rightly said "*Failures are the stepping stones to success*." When you make mistakes, you tend to remember them for a long period. Scenario-based learning supports this fact. It offers room for failure; in a risk-free environment. Also, it's not that you fail, fail, and fail until you make the right decision. Scenario-based learning shows you the consequences of every wrong step you take. You have the opportunity to know why you are wrong, and this goes a long way in helping you avoid similar mistakes at work.

# Promotes critical thinking

Not everyone loves action, romance, or drama, but who doesn't love detective movies, books, and TV shows? They put our brains to work, thinking of various plausible scenarios such as what, who, how, and why. And sometimes, we succeed to find the answers even before Sherlock Holmes. Scenario-based learning does exactly this. It is very efficient in stimulating the analytical skills of the learner. It puts his critical thinking abilities to work and expects him to find a solution to the problem presented. This feature of scenario-based learning makes it very useful to help the learner understand the intricacies of complex business problems and find efficient solutions to organizational challenges.

# **Engages with relevant context**

Scenario-based learning programs are based on situations which your people face every day in their work. Such scenarios build an instant personal connect with employees as they will be in a familiar environment. For example, if an employee is working in a workshop with metal objects, the scenarios provided to him would include contexts such has handling metal sheets, the right way of servicing knives and blades, etc. The familiarity of the context presented in the scenario helps the learners immediately connect to their work and the hazards they might face.

So the bottom-line is, scenario-based learning programs are very useful to impart decision-making skills. They help learners identify why some of their decisions are wrong and the consequences of such

decisions in a risk-free environment. They promote critical thinking and present real-world contexts that facilitate good learning. Would you like to share other benefits of scenario-based learning? The Comments section is all yours.

Scenario-based learning (SBL) is an immersive training environment where learners meet realistic work challenges and get realistic feedback as they progress, since everything that happens reflects the learner's choices.

Unlike many e-courses, where learners passively absorb information by reading a text and taking a test afterward, in scenario-based training, they actively participate in the process from the very beginning to the end of the lesson.

# What Can Be Taught with Scenario-Based Learning

There are four scenarios in which you'll benefit from scenario-based learning. It's especially useful when:

- 1] a decision made at a certain point affects how things go later;
- 2] a task requires analysis and problem-solving skills;
- 3] there's no single correct solution to the problem;
- 4] it's difficult to provide real-world practice.

What Are the Key Benefits of Scenario Based Learning (SBL)?

You can use SBL to create both Formal and Informal Training solutions. The key benefits that this approach offers are shown here. It:

- 1. Creates sticky learning experiences.
- 2. Facilitates problem-solving in learners.
- 3. Provides guided exploration to learners.
- 4. Provides a safe practice zone to gain proficiency and mastery.
- 5. Allows learners to make mistakes and through feedback, reinforcing the right approach.
- 6. Reinforces primary messaging.

# How Can You Use Scenario Based Learning (SBL)?

Scenario Based Learning (SBL) can be used to meet varied corporate training needs. At EI Design, we have used this approach notably for:

- 1. Compliance training.
- 2. Soft skills training.
- 3. Professional skills training.
- 4. Leadership training.
- 5. Application simulations training.

Using Scenario Based Learning techniques can enhance the user experience manifold and make learning:

- 1. Motivating.
- 2. Interesting.
- 3. Relevant and relatable.
- 4. Experiential.
- 5. Memorable.
- 6. Continuous.

# Types of scenarios

You will also have to consider the type of scenario you want your students to experience and work through. There are a few different types, but these are the ones that would likely work best in a classroom setting, with middle school or high school-aged students:

- 1. **Problem-based scenario**: Students have to investigate a problem, make decisions, use logical reasoning, and think critically
- 2. **Issue-based scenario**: Students take a stand on issues (usually humanitarian in nature) and explore them to understand how the decision-making process applies to them

3. **Speculative scenario**: Students predict the outcome of an event in the future using their present knowledge, understanding, and ideas

Be sure to provide the necessary details to help structure the scenario and give students as much support as possible. Work through the scenario before presenting it to students and figure out the different paths students may take ahead of time. Think about the natural progressions they might follow as they come up with solutions. Ensure that it flows the way you expect it to (in general terms, don't plan everything down to the detail) and achieves the outcomes you intended. Also make sure that your scenario includes opportunities for students to practice essential skills; for example, collaboration, imagination, flexibility, social responsibility, civic and technological literacy, and initiative.

# **Research method:**

In the current study, the researcher tries to identify the principles and methods which could increase the students' educational achievement by using SBL therefore, the research method is experimental with pretest and posttest with a control group.

		Pre Test	IISCj	Olin	Post Test	
Group M	М	SD	S.E.M	М	SD	S.E.M
Experimental	7.7	3. <mark>1</mark> 3	0.57	14.83	3.17	0.57
Control	7.56	3.07	0.56	13.13	3.94	0.72

As indicated in Table above, the means of both experimental and control groups in pretests were not very different. In other words, students in both groups were almost at the same level in terms of general knowledge. In posttest, however, the mean of the scores of the experimental group (14.83) was higher than that of the control group (13.13)

The results of t-test The results of testing the first hypothesis (The educational achievement of the students who are trained through SBL is higher than the achievement of those who are trained via explanatory method) are shown in Table below

Test	df	t	sig	MD
Educational				
Achievement	58	14.13	0.001	1.56
		2349-00	-	$\wedge$

above, the value of t at the significance level of 0.001 is 4.13 with the degree of freedom of 58. Therefore, it can be concluded that the null hypothesis is rejected and the research hypothesis is confirmed.

# **Conclusion:**

SBL is a very effective pedagogical approach. Our initial efforts in applying SBL approach have clearly demonstrated increased learner interest in the subject and improved knowledge retention. Efforts are currently underway to develop and implement SBL approach to teach all major concepts.SBL is a very effective pedagogical approach. Our initial efforts in applying SBL approach have

clearly demonstrated increased learner interest in the subject and improved knowledge retention. Efforts are currently underway to develop and implement SBL approach to teach all major concepts.

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# 8. Social Intelligence and Academic Achievement

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#### Introducation:

Socially intelligent people are more probable to flourish in everything they undertake in their life. Contrasting what is demanded to I.Q one can learn and improve some vital social capabilities, flagging the way for growing their social intelligence and thus creating their life more healthy, enjoyable, successful and satisfied in the upcoming days. The concept of social intelligence is to be highly praised, not because it is new but because it seizures the essence of work. The present investigation is an attempt to study the relationship between social intelligence and academic achievement of the higher secondary school students from selected government Social intelligence is a mental ability distinct from abstract and mechanical intelligence (Thorndike, 1927). Success in academic performance of the students depends on their intelligence and is positively related to social intelligence (Panigrahi, 2005). Singh (2007) found no significant difference in social intelligence between low and high creative adolescents and between high creative boys and high creative girls. Chesnokova (2005) observed that the development of social intelligence with ages goes through stages. Gakhar and Bains (2009) found that arts students are more socially intelligent than science students. Sembiyan et al (2011) found that there is no significant difference between attitude towards regionalism and social intelligence of college students. Academic scores have become the destiny charters for students. Almost every adolescent student bears the heavy baggage of the expectations of parents and teachers. Thus exploring the predictors of academic success has always been on the agenda of both educational and child psychologists. An important place in education is occupied by the academic achievement in learning process. Academic achievement has become an index of child's future in this highly competitive world. Academic achievement of pupils refers to the knowledge attained or skills developed in the school subject (Balasubramanium, 1992). It is the school's evaluation of the pupil's class work as quantified on the basis of marks or grades (Adedipede, 1985).

The history of the rise, progress and development of advanced countries shows that they have given due consideration and importance to higher education and all their progress owes a lot to the advancement and priority given to higher education. Each person has an individual profile of characteristics and abilities that result from predispositions, learning and development. These manifest as individual differences in intelligence, creativity and many more. Research on the concept of social intelligence began when Thorndike (1920) pu forth the idea that intelligence could be separated into three facets. These facets included social, mechanical and abstract intelligences, whereas social intelligence as per Thorndike is the ability to act wisely in a socialrelationships. Marlowe (1986) suggested that individuals who are socially intelligent appear to experience a rich, meaningful life, as opposed to truncated affective experiences. Furthermore, aspects of social intelligence have been found to be associated with enhanced social problem solving abilities. Social intelligence refers to the ability to read other people and understand their intentions and motivations. People with this intelligence are usually clued into the differences between what others say and what they really mean. As a result, socially intelligent types may sometimes be accused of being mind readers. People who successfully use this type of intelligence can be masterful conversationalists. This can be due to a combination of excellent listening skills and the ability to meaningfully engage others. Weis and Sub (2007) showed that social understanding and social knowledge were separate constructs of social intelligence. Additionally, their model showed support for existence of an underlying general social intelligence and possibly a hierarchical model of social intelligence. Academic achievement occupies a very important place in education as well as in the learning process. It has become an index of child's future in this highly competitive world. Busari (2000)

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

states that academic achievement is generally regarded as the display of knowledge attained or skills developed in the school subject. It is a key mechanism through which adolescents learn about their talents, abilities and competencies which are an important part of developing career aspiration. Osokoya (1998) also stated that achievement is the end product of a learning experience. Attaining a high level of academic performance is what every parent or guardian as well as teacher wishes for their children, wards and students. Schools and teachers are generally graded qualitatively by achievement based on the performance of their students. The aim of the present study is to come up to the expectations of the adolescent students so that they will have better social intelligence and academic achievement, as adolescence is the age when the individual becomes integrated into the society of psychologically adults, the age when the child not feels that he is below the level of his elders but equal, at least in rights. This integration into adult society has many affective aspects, more or less linked with puberty. It also includes very profound intellectual changes. These intellectual transformations typical of the adolescent's thinking enable him not only to achieve his integration into the social relationships of adults, which is, infact, the most general characteristic of this period of development. While all periods in the life span are important, some are more important than others because of their immediate effects on attitudes and behaviour, whereas others are significant because of their long-term effects. From child classification to college students, in all situations where people live and work together, intelligence and academic achievement are constantly under scrutiny and being evaluated and IQ alone is no more the only measure for success; emotional intelligence and social intelligence also play a big role in a person's success Goleman (1995). Transitions through education from school to college career are challenging and difficult. These transitions are critical to academic achievement, programme completion and college success. With the current emphasis on academic accountability as measured by tested performance, there needs to be an increased emphasis, and more balanced perspective, on the development of social and emotional learning essential to academic and careerexcellence

#### **Objective:**

To study and compare rural and urban college students on various dimensions of social intelligence and academicachievement.

#### Method AndProcedure

#### Sample:

The sample for the present study consisted of 5% from the total population of all colleges of district Srinagar. The study was conducted on a sample of 390 rural and urban college students.

# Tool used:

# Chadha and Ganesan Social Intelligence Scale(1986)

Chadha and Ganesan social intelligence scale was used to measure social intelligence. It assesses social intelligence in eight areas- patience, cooperativeness, confidence level, sensitivity, recognition of social environment, tactfulness, sense of humour, and memory.

# Academicachievement

The average marks percentage obtained by the sample subjects in their first and second yearexaminations was used as the measure of academic achievement.

#### Statistical Treatment :

The data was analyzed by applying various statistical methods including mean, S.D, t. test and percentage

#### Analysis and Interpretation

Table No. 1Mean comparison of Rural and Urban College students on various dimensions of social intelligence

S. No.	Dimensions	Group	N	Mean	S.D	t. Value	Level of Significance
1.	. Patience	Rural Urban	187 203	20.83 20.36	1.52 1.42	3.35	Significant at 0.01

2.	Co-operativeness	Rural	187	23.95	1.75	7.11	Significant at 0.01			
		Urban	203	25.16	1.76					
3.	Confidence	Rural	187	20.01	1.46	3.35	Significant at 0.01			
		Urban	203	20.40	1.43					
4.	Sensitivity	Rural	187	20.51	1.49	6.07	Significant at 0.01			
		Urban	203	21.36	1.49					
5.	Recognition of	Rural	187	1.14	0.08	14.28	Significant at 0.01			
	SocialEnvironment	Urban	203	1.24	0.08					
6.	Tactfulness	Rural	187	3.02	0.22	26.81	Significant at 0.01			
		Urban	203	3.61	0.25					
7.	Sense of Humour	Rural	187	3.13	0.22	15.00	Significant at 0.01			
		Urban	203	3.43	0.24					
8.	Memory	Rural	187	7.73	0.56	21.00	Significant at 0.01			
		Urban	203	8.57	0.60					
	Total	Rural	187	99.24	7.25	15.13	Significant at 0.01			
		Urban	203	103.63	7.27					
	all	1110	alling							

Special Issue No.87 <u>Theme of spcial Issue</u> : Teaching and Learning through Technology

The above table reveals the mean comparison of rural and urban college students on various dimensions of social intelligence. It is evident from the table that urban college students have been found to be cooperative, sensitive, recognized to social environment, tactful, humouress and have good memory than rural college students. On the total score it has been found that the two groups viz. rural and urban college students differ significantly at 0.01 level. It shows that urban college students have better social intelligence than rural college students. Therefore, hypothesis which reads as "Rural and Urban College students differ significantly on various dimensions of Social Intelligence", stands accepted.

# S

# Table No. 2:

# Mean Comparison of Rural and Urban College Students on Academic Achievement

<b>Variables</b>	N	Mean	S.D	t-value	Level of Significance
Rural	187	59.07	4.31		2
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				2.65	Significant at 0.01

The above table depicts the mean comparison of rural and urban college students on academic achievement. It is evident from the table that on academic achievement (t.value 2.65>0.01), the two groups viz. rural and urban college students differ significantly. The table further reveals that urban college students have better academic achievement than rural college students. Therefore, hypothesis which reads as "Rural and Urban College students differ significantly on academic achievement", stands accepted.

# Conclusion

In this study it was revealed that Urban college students have been found to have higher social intelligence as compared to rural college students and urban college students when compared with rural college students were found to have better academic achievement.

# Suggestions

- 1. Teachers working in undergraduate institutions should be properly trained through various orientation and refresher courses to develop uniformity of thoughts and experience among themselves so that the dimensions like confidence, tactfulness, recognition to social environment will be enhanced and used for social and academic betterment of the ruralstudents.
- 2. It is suggested that at all levels of education proper social atmosphere should be provided to the students of rural areas, so that they may develop proper social intelligence in future, in order to deal with the society more effectively as well as to have better academicachievements.
- 3. Further it is suggested that authorities should organize various interaction programmes,

symposium, workshop, athlete meets, skits, cultural activities, social activities at inter and intradistrict levels to develop social intelligence among the ruralstudents.

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# 9. Incorporation of Asynchronous Web Based Learning Technology in Secondary Schools

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#### Abstract:

Every human need change in his life. Same ways students need change in teaching learning to overcome with difficulties. Reviews of related literature about web based learning of recent year is enlightened. Web based learning is an effective, innovative technology in the secondary students. Online learning, e-learning, computer-based learning and technology-based learning are the other terms of web based learning. Web-based learning is one way to learning, using web-based technologies in a teaching learning material. Web-based learning consists of technology that supports to interact with the teacher, peers and learning material. Web-based learning environments. In the present article web based learning meaning with two categories that is synchronous and asynchronous web based learnings disused in detail. Asynchronous web based learning explained with 3 aspects. They are lecture based strategy, transformation of technology strategy and group work strategy. Advantages were discussed in brief. Reviews of related literature were updated.

**Key words:** Web based learning, Synchronous learning, Asynchronous learning, lecture based classes, transformative technologies group work, reviews of literature, and secondary schools

#### **Introduction:**

Technology has put its steps towards higher education, secondary education and elementary education. Technology teaching is also called teaching learning technology was found beginning in higher education. But 21st century education incorporated technology into educational approach. Technology not only refers electronic gadgets or equipment's. Educational technology focuses on the technological tools and media that assist in the communication of knowledge, development and exchange given by *Joseph Lathan*. Web based learning is one of the innovative, effective learning tool, creative, activity based, self-placed technology in the teaching learning process. In the beginning of the 21 st century mass Medias, multi medias electronic gadget's like projectors, OHP, radio, Television and film strips were used to bring effective teaching learning process. Web based learning is a tool of learning computer with internet connection to gain expand knowledge in the presence or absence of teacher. So web based learning (WBL) bring effectiveness, creativity, discipline, increase group activity and connect teachers, peers any time any place to share information among secondary education

#### Literature reviews:

Serder Cifter, Erhan Gunes etal (2010)studied web based learning. The study results shown attitude towards web based learning showed high resistance level among students. Robin Kay (2011) studied on effectiveness of web tools. The study results are that secondary students show positive attitude that is features regarding web based learning tool. B. S. Sawant and S.P. Shinde (2012)the findings revealed that survey showed positive outcome which mainly popular and effective on web based learning comparing to traditional class room teaching learning process. Orhan Erchan and others (2013) studies on the effect of web instruction with educational animation. There is equal response given in science and technology by the students. Robin Kay (2014) studied on web based learning tools in secondary schools Findings revealed that web based learning has positive impact on students as well as on teachers mainly videos, animations, proved that web based tool is effective teaching learning. Adediran Adekunle Amos etal (2015) studied on e-learning

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

to the study of social studies in Nigeria. Findings of the studies explained that e-learning is better to use in secondary students in social science Vivian Nijieka anuobi etal (2016) Investigating the effectiveness of web based instruction. There is no significant difference between male and female students among web based learning. The study stress to give basic learning of technology in students of Nigeria. Miyazaki, Taro Fujita, Keith Jones, Yasuo Iwanga (2017) studied on Designing a web based learning. Findings of the study flow charts in the mathematics through the web based instruction were very easier to students to understand and remember the concepts. N. Hamzah (2017) a study to find out web based learning environment finally students agreed to web based learning provides like online discussion forums to solve relative study problems. Pia Fildzah Vanja and other (2018) studied on Edmodo as web based learning. The result show there is a medium improvement. Also mainly focused on physics subject here questionnaire responses were satisfactorily among high school students. Meng Chuan Tsai and et al (2019): Studied on exploring the effects of web based. The treatment of teaching of web based mediated has shown increase in their learning engagement. PowerPoint and word learning management highly improved students to engage. Evendi, Susanna K and Nurulwati (2020) studied on Effectiveness of a question web based learning model. Result of the study predicts that QWBL model helps to improve science skills among students. Through the reviews we can conclude that web based learning technology improve science with other subject skills and students showed positive attitude towards asynchronous web based learning.

#### Web based learning meaning:

WBL is one way and two way computer based learning with network connections. WBL helps to gather more related information regarding studies. Through web notes can be downloaded, massage can be sent to teacher at and time to clear doubts etc. WBL categorized in to two ways.



#### Synchronous learning:

Students and teachers meet or come together at the same place or time in other words face to face or online (digitally) in the class or out of the classroom connect with each other. This learning needs software preparation with web teaching package for teacher. High cost and absence of teacher. The class take place online only.

#### **Asynchronous learning:**

In this learning teacher can use online and offline anywhere any time in teaching learning process. In the computer laboratory teacher can use online educational websites for more information to provide students. In other words teacher can guide students to learn them self to read and write individually. In this process if students face difficulty to operate or find complicity in learning, teacher give immediate feedback thorough online and offline both ways.

Asynchronous learning contains 3type of strategies, in teaching and learning. They are



#### Lecture based classes:

In the classroom teaching learning process teacher can use and show students web based online subject science experiments, web images, graphics, pictures, text, laboratory videos- audios for more information. It easy to access for teacher and students like to watch more over activeness is present in the classroom environment. Subjects concepts to be clarified using hyperlinks or web links, or through educational websites. Teacher may instruct students to operate individually read and write notes. If students faced difficulties teacher act as guide to solve the problem. So lecture class can be incorporated web based lesson preparation, planning and execute. This increases effectiveness in teaching learning and make students to be active through the classroom. To evaluate, analysis, conduct tests result making is as easier than traditional data analyse. Within a fraction of second teacher can make result and display quickly.

Government educational applications are free for learning and teaching and befit for students as well as teachers, they are



#### Use of transformative technologies:

The transformative technologies are email, face books, twitter, Edmodo, messengers, blogs and WATS up etc. through these technologies communication occurs between students-teachers and peers. Parents also involved in theses to clarify doubts and update their children individual growth. 24 hours education is available through this, as well as teacher can take use of classes online and offline.

# Group work:

Web based education reached every one nowadays. Smart phones computers, laptop, electronic gadgets, and other are available for all in less cost. Teleconferences, WATS up video calls, discussion forums video conferences, skype applications and other various techniques through google meet, zoom application and duo apps bring all students in one platform. Quarries, lessons delivery, Doubts, information

discussions, activities, and intimations can be done between students and teacher. It increases knowledge, creativity, and active participation, remove nervousness, and learn effectively.

# Advantages of Asynchronous web based learning:

- 1. Asynchronous WBL(AWBL) makes students smarter
- 2. It makes students and teacher self-learning and more accountability
- 3. It involves parents to deeper extent to know their children individual development
- 4. Rapid information sharing and flexible in learning/teaching process
- 5. No need of web based package for teaching every time
- 6. It cost reducer and no time limit
- 7. Gives more time for everyone to digest and reflect
- 8. Chunks of information is available fraction of second
- 9. Self-placed and promotes individual development
- 10. Class teacher can use for innovative preparation of lesson plan and execute neatly.

#### **Conclusion:**

Web based learning is very advanced technology in teaching learning process. In the beginning of 21<sup>st</sup> century it was famous in other countries/abroad. But in the present scenarios Indian education adopted WBL and given facilities with infrastructure of computer laboratories in all schools. Students also shown positive attitude among WBL and for elementary and secondary education it has to be incorporated completely. It connect educationist, students, teachers, peers, friends and parents. Through this communication records were safe and justiciable. The proer pre service and in-service teachers has to undergo training about usage and presentation of WBL. Finally it is effective, innovative, creative and applicable for every sections of education.

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#### 10. A Study on Students' Perception Towards Online Learning.

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#### Abstract

In a traditional country like India, we still follow traditional classroom learning but the covid-19 pandemic has changed the situation and now India is ready to impart online education. Due to the pandemic, it was compulsory to shift the classroom learning to online learning if not it was like wasting the time of the young students without imparting knowledge. It's been almost more than one year world is suffering with covid-19 in this type of situation where social distancing is must digital online platform have played an important role In all the fields like business, trade, banking and even in service sectors like food delivery apps for restaurant, online slot booking for doctors and online learning in the field of education etc., So Present study is to focus on online learning its effectiveness, drawbacks, what is students satisfaction towards online teaching and what are the issues and suggestions students want to give to improve the online learning.

Key words: online learning, effectiveness, student's satisfaction, personal interaction, internet.

#### Introduction:

Online learning means using digital applications and using the internet to connect the students with educational institutions to listen to the classes sitting anywhere on the globe. Other developed countries are following online education system from long back due to good technology developing countries like India has not inculcated it because not everyone has internet connection and personal gadgets to access online classes but now due to pandemic in order to follow social distancing norms it was compulsory for educational institutions to inculcate online classes to keep students on track without spoiling the academic vear.

Many of the institutions are using zoom, Google meet platforms to conduct classes whereas other countries use ICT platforms, Moodle etc., With well-versed technology and software's. India is yet to get used to all the techniques as it is the initial stage of online education in India. It's necessary to know what are the problems/issues faced by a student while online learning and how effective the classes are and how satisfied students are with online learning. So, my study focuses on students' perception towards online learning.

#### **Literature Review:**

- WWW 1 con 1. Mohammed Arshad Khan, Vivek, Mohammed Kamalun Nabi, Maysoon Khojah and Muhammad Tahir, Students' Perception Towards E-Learning During COVID-19 Pandemic in India: An Empirical Study -This study analyses the perception of students of university towards e-learning during the COVID-19 pandemic. The study focuses the preferences of students for online learning as it provides them a platform to connect with their teachers, fellow students and engage with their study materials whenever and wherever they want. The study ensures the usefulness of online learning such as ease of study from any location which is not possible in case of traditional face to face-learning. Study also illustrates the analogy between online and face to face learning experience.
- 2. Linjawi AI, Alfadda LS, in their studyStudents' perception, attitudes, and readiness toward online learning in dental education in Saudi Arabia: a cohort study, focused on the acceptable levels of individual characteristics and system competency levels study reported better online skills and motivation level for using online tools for personal purposes than that for learning purposes for dental education. Proper use of online tools in education, time management, and designing online content are the factors demanded by technical support.

- 3. Karl L. Smart and James J Cappel, Students' Perceptions of Online Learning: A Comparative Study, this paper focuses on the components and strategies to be implemented to improve teaching and learning in 21<sup>st</sup> century to promote critical thinking and deep thinking.
- 4. Karen Swan, Research on Online Learning this study focuses on five pillars, they are learning effectiveness, faculty satisfaction, student satisfaction, access, and cost effectiveness.

# Need of The Study:

The need of the study is to know the perception of students towards online learning, it's effectiveness, its drawbacks and students' satisfaction towards it.

## **Objectives**:

- 1. To know the effectiveness and drawbacks of present online learning.
- 2. To analyse the students' satisfaction on online learning.
- 3. To provide suggestions and advice to improve online learning from a student's point of view.

# Scope of The Study:

- 1. Scope of the study consists of 120 respondents who are students of intermediate, undergraduate and postgraduate level.
- 2. As the data has been collected through Google forms so the respondents are netizens.
- 3. Primary data collected has been analysed using a percentage method.

# **Research Methodology:**

Sources Of Data Collection: The data collected in the study includes primary and secondary data. **Primary Data**:

The primary data for the study was obtained by collecting the data from the students by a structured questionnaire with the help of Google form.

Google form questionnaire:

https://forms.gle/M86saH6p51iGApEx6

Sample size: The sample size is 120 responses collected from the students.

Secondary Data: The secondary data for the study was obtained from Websites.

Tools Used For Analysis: Percentage analysis.

#### Limitations:

- 1. The scope of the study is limited to the students of Hyderabad.
- 2. The study includes the perception of 120 respondents.
- 3. The study has been conducted within the time period of 45 days. www aii

#### Data Analysis:

# **Rate Online Learning With Respect To Categories Where** 1 Denotes Strongly Agree And 5 Denotes Strongly Disagree

Categories	1	2	3	Δ	5	Total Responses
	1	20	3	-	10	100
Effectiveness	24	30	- 52	21	13	120
Interesting	33	24	25	16	22	120
Easy To Clarify Doubts	37	16	27	21	19	120
Enjoyment	38	17	20	25	20	120
No Disturbance	40	12	25	22	21	120
Friendly Environment	33	21	27	26	13	120
Easy Sharing Of Notes	37	18	21	27	17	120

#### Special Issue No.87 <u>Theme of spcial Issue</u> : Teaching and Learning through Technology





#### **Interpretation:**

- 1. Effectiveness Of Online Learning: From The Above Chart It Is Clear That 20% Of Students Strongly Disagree With The Effectiveness Of Online Learning, And 10% Strongly Agree.
- 2. Interest In Online Learning: From The Above Chart It Is Clear That 27.5% Of Students Strongly Disagree With The Interest In Online Learning, And 18% Strongly Agree.
- Easy To Clarify Doubts In Online Learning: From The Above Chart It Is Clear That 30% Of Students Strongly Disagree With The Clarification Of Doubts In Online Learning, And 15% Strongly Agree.
- 4. Enjoyment In Online Learning: From The Above Chart It Is Clear That 31% Of Students Strongly Disagree With The Enjoyment In Online Learning, And 17% Strongly Agree.
- 5. No Disturbance In Online Learning: From The Above Chart It Is Clear That 33% Of Students Strongly Disagree With No Disturbance In Online Learning, And 18% Strongly Agree.
- 6. Friendly Environment: From The Above Chart It Is Clear That 27.5% Of Students Strongly Disagree With The Friendly Environment In Online Learning, And 11% Strongly Agree.
- 7. Easy Sharing Of Subject Notes: From The Above Chart It Is Clear That 31% Of Students Strongly Disagree With Easy Sharing Of Subject Notes In Online Learning, And 14% Strongly Agree.





## Interpretation:

From the above analysis it is clear that maximum respondents 32.5% say they are dissatisfied with online learning, 31.7% are neutral, 27.5% are highly dissatisfied and the remaining 8.3% are satisfied with online learning.



# Following Things Required For Online Learning



#### Interpretation:

From the above analysis it is clear that it was a checkbox question where respondents have a choice of selecting more than one option. So, most of the respondents i.e, 53.3% agree recording of classes for future reference is required, 45% say usage of white board placed on wall, 41.7% say good usage of available tools like excel sheet, word etc.35% say fun oriented classes instead of continuous explanation, 25.8% say usage of PowerPoint presentation

#### Chart 4:

Problems Faced During Online Learning



#### Interpretation:

From the above analysis it is clear that it was a checkbox question where respondents have a choice of selecting more than one option. So, most of the respondents i.e., 64.2% face network problem, 61.7% say background noise and disturbance from outside, 49.2% say lack of mobile data to attend all the classes, 36.7% say lack of internet, 30% say other students disturb the class and many other answers given by the

respondents are faculty delay kills the interest to attend class, lack of interaction between students and teachers, etc.

Chart 5: Confidence Of Students To Appear Main Exams Based On Online Learning:



# Interpretation:

From the above analysis it is understood that students collectively are not sure about attending main exam based on online learning there is lot of difference in the options selected 17.5% say they are 40-50% confident, 16.7% say 70-80%,15% say below 40%, 13.3% say 50-60%,12.5% say 60-70%, 11.7% have no confidence, 9.2% have 80-90% confidence, 3.3% have 90% & above confidence and remaining 0.8% have 100% confidence

# CHART 6: How Do You Manage Practical Subjects In Addition To Attending Your Online Classes



#### Interpretation:

From the above analysis it is derived that 59.2% of respondents listen to YouTube classes, 15% go through text books, 9.2% of respondents go through google and ask faculty in person to explain and the remaining 7.5% respondents ask friends.

#### Findings:

- 1. 76.6% are undergraduate, 17.5% respondents are graduates, 4.2% respondents are from intermediate, and remaining 1.7% are post graduates.
- 2. Maximum respondents i.e., 87.5% are from 18-21 years, 7.5% respondents are 21-24 years, 4.2% respondents are intermediate age group and 0.8% respondents are above 24 years.
- 3. Maximum ZOOM application is being used by educational institutions i.e., 95.8%, 2.5% say google meet is being used, 0.8% say Microsoft team is being used and remaining 0.8% say both zoom and google meet is being used whereas Jio meet is not being used.

- 4. It is observed that maximum respondents i.e., 89.2% say classroom learning is effective while the remaining 10.8% say online learning.
- 5. A. 20% of students strongly disagree with the effectiveness of online learning, and 10% strongly agree.

B. 27.5% of students strongly disagree with the interest in online learning, and 18% strongly agree.

C. 30% of students strongly disagree with the clarification of doubts in online learning, and 15% strongly agree.

D. 31% of students strongly disagree with the enjoyment in online learning, and 17% strongly agree.

E. 33% of students strongly disagree with the no disturbance in online learning, and 18% strongly agree.

F. 27.5% of students strongly disagree with the friendly environment in online learning, and 11% strongly agree.

G. 31% of students strongly disagree with the easy sharing of notes in online learning, and 14% strongly agree.

- 6. 32.5% respondents say they are dissatisfied with online learning, 31.7% are neutral, 27.5% are highly dissatisfied and the remaining 8.3% are satisfied with online learning.
- 7. 53.3% agree recording of classes for future reference is required, 45% say usage of white board placed on wall, 41.7% say good usage of available tools like excel sheet, word etc.35% say fun oriented classes instead of continuous explanation, 25.8% say usage of PowerPoint presentations.
- 8. 64.2% face network problem, 61.7% say background noise and disturbance from outside, 49.2% say lack of mobile data to attend all the classes, 36.7% say lack of internet, 30% say other students disturb the class and many other answers given by the respondents are faculty delay kills the interest to attend class, lack of interaction between students and teachers, etc.,
- 9. 17.5% say they are 40-50% confident, 16.7% say 70-80%,15% say below 40%, 13.3% say 50-60%,12.5% say 60-70%, 11.7% have no confidence, 9.2% have 80-90% confidence, 3.3% have 90% & above confidence and remaining 0.8% have 100% confidence.
- 10. 70% of respondents agree that management must train teachers for online classes and the remaining 30% deny it.
- 11. From the above analysis it is derived that 69% of respondents help their senior faculty who are not used to technology and the remaining 31% do not help.
- 12. 59.2% of respondents listen to YouTube classes, 15% go through text books, 9.2% of respondents go through google and ask faculty in person to explain and the remaining 7.5% respondents ask friends.
- 13. 92.5% of respondents will choose classroom learning if given a chance after a pandemic whereas 7.5% of respondents choose online learning.

# Suggestions Given By Students To Improve Online Learning Are:

- 1. Use whiteboards during online classes for practical subjects for better understanding.
- 2. Usage of PowerPoint presentations.
- 3. Textbooks, notes, materials must be given in pdf format so that it's easy to have a link with the ongoing classes.
- 4. Screen view, clarity and internet connections must be improved.
- 5. Value based teaching instead of running with syllabus.
- 6. Maintain punctuality and discipline if not delay in starting class, no discipline or punctuality from students or teachers, network issues just kills the interest of the students.
- 7. Faculty must improve personal connection, good interaction to have a comfort zone to clarify doubts.

- 8. Some faculty are not that confident in online classes when compared to classroom teaching so professional training must be given to faculties with respect to how to grab the attention, manage the class, interactive sessions, usage of tools screen sharing ppt, sharing of notes pdfs, etc.,
- 9. Classes should be recorded for future references so that students can listen whenever they want without any network problem, data issues if they miss out a few minutes can listen to it in recorded classes, absentees can also have a sync and can also revise during the exams.
- 10. Merit scholarly students must be provided with tabs and internet by educational institutions because not every student has a smart phone with all facilities to attend online classes without which there are absentees.
- 11. Online classes must be made more interesting and interactive by using the feature of breakout rooms available on zooms to conduct group discussions and subject oriented quiz games etc.,
- 12. Difficult to clarify doubts, lot many distractions during classes calls, games, social media etc. The application must not give permission to use other windows on the screen or mobile during online classes.
- 13. Conduct online tests to bring seriousness and interest in learning.

# **Conclusion:**

As the whole world is facing the pandemic it became compulsory to keep everything digital and online mode to follow social distancing. The developing countries like India, even after having a good technology, they like to follow traditional teaching as it is habituated but the global pandemic has made a necessity to continue education online which is going good but according to students they feel punctuality, discipline, technological upgradation, good network and proper interaction and lively discussions are not up to the mark in online learning which is killing the interest of the students. Students opine that professional training must be given to the teachers to make maximum use of applications and technology, usage of white boards is must for practical subjects, pdf form of text books, notes are compulsory to share with students and use of PowerPoint presentation to explain the concepts, recording of the classes for future reference to fill the gaps of network issues during online classes.

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# 11. Role of Library in Higher Education

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#### Abstract:

The library is known as a powerhouse of information. In today's world information is the key to success, but it should be authentic and up to date. The library and Information Science profession is the most challenging Profession in the knowledge society. Every Librarian is facing the complex challenges posed by recent trends in Information Communication and Technology. The library is considered 'the heart' of a university or an institute education commission (1948-49) as well as Education commission (1964) emphasized the need for academic libraries in India and suggested certain measures for the betterment and effective management incorporating its organization, the availability of staff, open access system as well as financial support. University Grant Commission played a vital role in the betterment of libraries in higher education by establishing the Information and Library Network Centre (INFLIBNET). The SOUL (Software for University Libraries) developed by INFLIBNET Centre, made available to its member free of charge, proved valuable in modernizing the entire set-up of academic libraries. The reservoir of Indian theses called Shodhganga, a database of thousands of theses from various universities across India has also become a chief source for researchers and academicians to seek the knowledge generated in various branches. The challenges like effective utilization of digital technologies, supporting access to open Access Resources, etc. The laws of library science designed by Dr. Ranganathan should be pursued firmly in a pragmatic manner. Quality education and research are not possible without a modernized Library.

Modern Indian higher education is passing through the phase of the Information revolution. In satisfying the ever-growing information needs of the academic community, the library and Information Networks are playing a great role through resource sharing. In the development of higher education, Library's role is very important from the post-independent period.

Keywords : Higher Education, Academic libraries, INFLIBNET, digital technologies, Shodhganga.

#### Introduction:

Education is primarily at the hub of a country's economic social and cultural development as much as it is science and technology. The evaluation in education can be seen as the increased awareness of the ever-increasing access to the wealth of information or knowledge. The library is an integrated part of any academic institution, so also as any college. Education becomes student-center and encourages students to play a dynamic and creative role in pursuing learning and reading and making him/her perfect citizen. It should provide maximum information and services support to faculty, research scholars, and students in a professional institution. The library is a multi-functional information provider. As such modernization of libraries is essential for research and development activities in any field and library facilities should be developed as a part of the total program of a college.

The role of a library in the education process at any level, especially at the college level for the overall development of students such as personality, skill communication, career, and creativity is very significant, etc. So a well-organized library is essential for the teaching-learning process done in a college, especially when the emphasis is shifted from classroom teaching-cantered process. The quality of education is greatly linked with libraries. The information collected and disseminated by libraries decides the quality of the teaching and learning process in a college. In the words of S.R. Dongerkery, "A well-stocked and up-to-date library is a sine qua non for every modern educational institution". The libraries of modern educational institutions have to plan, develop and organize their library resources and services in such a way that they should facilitate retrieval of the desired information as quickly as possible and save the time of the users. The purpose of a library is to provide the right information to the right user at the right time in the right form.

#### **Higher Education :**

The higher education is the basic need of the society for individual development. Education is to equalized opportunities enabling the backward and under privileged classes and individuals to use education as a lever for the improvement of their condition. Every society that values, social justice and is anxious to improve a layman and cultivate all sections of the society.

"After independence, the first action of a real significance to be taken by the Government of India in the field of education was the appointment of the University commission in 1948 under the chairmanship of Dr. Sarvapali Radhakrishnan, a distinguished scholar and former Vice-Chancellor of Banaras University, who rose to become the Second President of India."

The report of the commission is a document of great importance as it has guided the development of university education in India since independence. The commission made a thorough study of the problems of higher education in India. Higher education is University Education. After independence, the main emphasis was on the consolidation and expansion of facilities in the existing institutions. The revised National Policy on Education, 1992 in the field of higher education provided the following facilities :

- 1. A Regulated admission.
- 2. Open University and Distance Learning.
- 3. Autonomous colleges.
- 4. Redesigning the college education.
- 5. Transformation of teaching methods.
- 6. Qualitative Research.
- 7. Rural University.
- 8. Planning and coordination.
- 9. Setting up the national body.
- 10. De-linking degrees from jobs.

# University Grants Commission (1953) :

The role of UGC is noteworthy in enriching the academic libraries in higher education through financing as well as systematic planning and vital leadership. UGC allocates grants to several universities for building construction. In addition to this, liberal financial assistance has been ensured based on a tentative formula of Rs. 15 per student and Rs. 200 per teacher and research fellow for the annual purchase of books. The new university libraries are granted a special initial grant UGC has helped the professionally qualified academic libraries to get better pay scales equal to the teaching members of the university UGC has been allotting more funds for the development of academic libraries. The provision was made to initiate the work for this function in the 5-year plans of the country.

# Kothari Commission (1964-66) :

Another significant change initiated with 'The Education Commission' under the chairmanship of Dr. D.S. Kothari. The commission paid due attention to the development of university libraries and stressed positive steps to modernize the framework of the library. The committee introduced norms for financial support and suggested required equipment in the library, facilitating the students for the better use of books, proper documentation, and inter - disciplinary communication. The report of the Kothari Commission ardently mentioned that: "Nothing can be more damaging than to ignore its library and to give it a low priority. No new college, university or department should be opened unless adequate numbers of books in the library are provided" (Bhatt 129).

# Ranganatahn Committee (1967) :

The report submitted by the UGC library committee is considered one of the significant steps towards the upgrading of the entire library system in higher education. The report entitled 'University and college Libraries' suggested the standards of libraries, building, pay scales, and library training to modernize the entire set-up. The recommendations of this committee incorporated the provision that the UGC, as well

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

as the State Government, should offer financial assistance to the college and the university libraries for purchasing the required books, periodicals, etc. The committee proposed the formula that funding is given at the rate of Rs. 15 per enrolled student and Rs.200 per teacher and research fellow. The initial library grant in case of a new university or department was also recommended in the report. The committee emphasized that open access system should be introduced in every academic library. The committee opined that: "reference service is the essential human process of establishing contact between the right reader and the right book by personal service. Reference service is vital in the promotion of reading habit in student each library should provide an adequate number of reference librarians to function as library hosts and human converters" (Bhatt 127).

Besides these, the committee also suggested the copying facilities for book/reference material, the appointment of a regular committee to investigate the standards at various levels of teaching, examination, and research work as well as the regular appointment of full-time teaching faculty in place of the part-time teacher. The report of the committee incorporated certain standards in its recommendations that the reader receives the book within two weeks after releasing and due library process, the assessment period of periodicals ought to be three years, the management of regular staff, the proper of books, the co-operation between University and college-level library located in the same region as well as the allocation of annual recurring grants in consultation with the concerned librarian along with the faculty members.

Hence, looking to the entire process conducted for the betterment of libraries, substantial development in the university libraries has taken place thereafter and the condition of libraries has improved to a great extent than in past years.

### Role of Library in Higher Education :

The role of the library can be defined within the framework of the university's mission and a library development programmed can be undertaken accordingly. In the words of Dr.S.R. Ranganathan, "Libraries are not more storehouses, they are rich springs from which knowledge flows out to irrigate a field of education and culture."

The fundamental role of the university library is educational. It should not be operated as a mere storehouse of books attached to a reading room but as a dynamic instrument of education. It is emphasized in different reports brought out by various libraries and educational commissions in India and abroad. A university library is established to aid in the successful accomplishment of the objectives such as teaching, research, publication programmers, etc. In the modern education system, the university library has important responsibilities.

The report by University Grant Committee (United Kingdom) in 1921 is stressed the role of a library in the university system. Thus, the character and efficiency of a university may be extended by its treatment of its central organ library. We regard the fullest provision for library maintenance as the primary need in the equipment of a university.

In India, the University Education Commission (1948-49) headed by Dr. S. Radhakrishnan describes that teachers must have the necessary tools for teaching purposes in the shape of libraries and laboratories as also the right type of students. According to him, "The library is the heart of the University's work; directly so as regards its research work and indirectly as regards its educational work, which derives its life from research work. Scientific research needs a library as well as its laboratories, while for humanistic research. The library is both library and laboratory in one." The training in higher branches of learning and research is mainly a question of learning how to use the tools and if the library tools are not there, how can the students learn to use them.

Dr. S.R. Ranganathan headed the report of the Library Committee of University Grants Commission in 1957 that dealt with in detail the role of the university library in academic development especially in the field of higher education.

# The above observations can be summarizing in the words as :

- 1. The library is the heart of education.
- 2. Quality education is impossible without a quality library.
- 3. A library is a vital organ for the proper exploitation of our intellectual resources.
- 4. A library is essential for the maintenance of free access to ideas and the functioning of the untrammeled mind.
- 5. Methods & fashion in education change from generation to generation, but each generation uses the library as a means of realizing its items, hence the library remains the great conservator of learning.

# Library Facilities & Services :

# **Library Facilities :**

- 1. Online public access catalogue.
- Reading room facility.
  The library has membership with the British Library. *Difference of a state of the sta*
- 5. Drop Box facility to return the books.
- 6. The photocopying facility in the library is available subject to copyright restrictions.

# **Library Services :**

Following services are offered by the library :

- 1. Circulation.
- 2. Article index of selected periodicals.
- 3. Compilation of specialized bibliographies on demand.
- 4. Weekly display of new arrivals.
- 5. Inter Library Loan and inter Library Reference Services.
- 6. Reprographic services.
- 7. Reference files of selected topics.
- 8. Library orientation to fresh members.
- 9. Supply of handouts to guide the users for the use of the library.
- 10. Facility to reserve books.
- 11. Membership to external users.
- 12. Individual attention and help the users to locate their required reading material.
- 13. Display of prospectus for various courses of national and international universities.
- 14. Current awareness service to faculty members through email.
- 15. SMS for messaging to members.
- 17. Display of publications of Faculty Members.18. Ramp exhibition of books
- 19. Lecture series.
- 20. Film screenings.
- 21. Newsletter.
- 22. Book Launches.

# Inflibnet :

UGC has established a national information network named INFLIBNET in 1986 at Gandhinagar. It functions the information communication of the libraries of all universities, higher education, and research institutes of our country. The centre INFLIBNET updates the libraries of universities and colleges at the national level. The task of automation of libraries, digitization of resources, software development of libraries and conducting training programs, etc. Are well-managed by this centre. The more considerable step towards advancement in this field is the development of software for university libraries (SOUL) which is available free of cost to INFLIBNET members. The centre has developed shodhganga, a reservoir of Indian theses which has a database of thousands of theses from several universities across India.

To improve the prevailing system in education, several commissions were set up by the government of India since independence. The system of education has been continuously reviewed and the appropriate measures have been suggested by central or state government commissions. The New Education policy was adopted in 1986 to make the education system more effective and productive. The new education policy focused on the teaching of science and technology to meet diverse future challenges. It insists that there should not be any kind of restriction in the learning process. The academic institution should be open to all without any bias. It emphasizes equity as well as access to all who are keen to learn, read and conduct research work.

The new education policy recommended the perspective planning to face the challenges in the techno-educational fields, the planning of a good liaison between the library and its users, and providing easy accessibility to all the users. It has been considered that 'the direct use of library' should be identified for the common good. Besides, the clients should have all reasonable freedom to avail the various service and resources. The accountability of services, resources, and users should be honestly studied (B.Ravi Kumar 27) as per the norms of this new policy.

Some scholars of modern library science also consider the scope of extending the 'Five Basic Laws' classified by Ranganathan to the 'Web', an internet system. Gorman (1995) has interpreted Ranganathan's laws in the present-day's context and gave 'Five New Laws of Library'.

- 1. Libraries serve humanity.
- 2. Respect all forms by which knowledge is communicated.
- 3. Use technology intelligently to enhance service.
- 4. Protect free access to knowledge.
- 5. Honor the past and create the future (Crawford and Gorman 8).

Gorman laws have been framed from the viewpoint of the 'function of librarian' engaged in a technological society, which needs to be considered at this stage for further progress in the existing setup.

#### **Conclusion :**

In the importance of higher education, every country library and information center's role is very important. Because without library and information resources cannot be implemented, develop and grow the education system and policy. Education and libraries are called the two facets of one coin. They are very much interdependent as education without libraries and libraries without education are paralyzed. Libraries cannot be separated from education. The provision of libraries is crucial and essential to education around the globe. In the ICT era, when informational sources have emerged in online publishing and digital mode and available on the web, the role and responsibilities of libraries have increased in terms of managing information, assessing quality, ensure access, storage, and preservations, and such other activities. Digital resource has a direct impact on productivity and efficiency of the libraries where the library can able to give twenty-four-hour service irrespective of its opening hours. So, the Indian Govt. decides the set up the INFLIBNET center in Ahmedabad in 1991. And its objectives are to promote and establish communication facilities to improve capability in information transfer and access. Which provides support to scholarship, learning, research, and academic pursuit through cooperation and involvement of agencies concerned. Information and Library Network a computer communication network for linking libraries and information centres in universities, deemed to be universities, colleges, UGC information centres, institutions of national importance, and R & D institution, etc. avoiding duplication of efforts. And many more objectives are keeping in front of supporting the higher education of India. All services, activities, and sources of INFLIBNET to help the education.

For any library to succeed in implementing knowledge will require strong leadership and vision from the top administration, which can influence the organization's knowledge-sharing efforts positively. As

libraries enter the knowledge management. Instead, armed with our professional knowledge and experiences, we should be in the driver's seat.

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# 12. A Study on Teacher's Perception Towards Online Teaching

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#### Abstract:

The sudden outbreak of the Novel Corona disease in India resulted in the closure of many sectors like financial sector, Industrial, Education, Manufacturing etc. Every sector has been facing numerous challenges due to Covid and there is an adverse effect of this pandemic on various sectors. In the same way, education sector is also affected by Covid, sudden closure of schools, colleges, interrupted in the teaching plans and schedules. The teaching has become very challenging to the teachers. Although teachers are making a lots of efforts to deliver the lecture by using various online applications for conducting the classes. This pandemic has made the use of technology mandatory in the field of education. This paper focuses on the aspect, perception of a teacher towards online education and it tries to study the challenges faced by them during conducting the online classes. For this purpose, the data was collected by the faculties from social sciences department through a structured questionnaire.

**Key words**: Online Teaching-Learning, Covid, technology, online interactive tools, teacher's perception

#### Introduction

The need of social distancing as a precautionary measure against Covid pandemic has caused a drastic change in the education system as educational institutes are forced to progress from classroom learning to E-learning / online learning. And the importance of online classes has been increased very rapidly and the ICT has been a guide for distance learning. Online education has been the most happening trend in the field of education. With the help of advanced technologies, this mode of learning has been made simpler. Mostly this type of education is highly preferred in higher education. In Online education, the students can attend the class anywhere from the far place and it's more convenient. They are acquiring the study material /notes through online itself which may be in form of texts, audios, videos and images. Some of the advantages of Online teaching is Flexibility of time and place, online resources, information sharing etc, disadvantages can be no access to internet/technology, knowledge to use technology etc. Despite of disadvantages the teachers are trying their best enough to conduct the online classes. There are many online applications like Zoom, Microsoft teams, Google meet etc, for conducting online classes and many of them are not familiar to the technology, so it the responsible of the management to provide the adequate training facilities to the faculties such that the online classes may be effective.

#### **Review Of Literature**

- com WWW 1. Abhinandan Kulal, Anupama Nayak (2020), "A study on perception of teachers and students toward online classes in Dakshina Kannada and Udupi District", this paper focuses on the impact of online courses on the teachers and students and the study has found that students were very comfortable with the online learning and management was also so supportive to the teachers in conducting the online classes but both students and teachers believe that online education will not replace with traditional one.
- 2. Dr Babita Dubey, Dr Shivendra Singh (2020), "Perception of Teachers on Online Teaching In Higher Education During Covid-19 Lockdown", this paper mainly concentrates on the perception of teachers basis on the technical knowledge, communication gap, teacher's burden etc and the study concluded that young teachers are very comfortable in online classes as they are aware about the technology and online tools.
- 3. H Yanti, A Setiawan, Nurhabibah and Yannuar (2017) "Teacher's Perception about the Use of E-Learning/Edmodo in Educational Activities", this paper focuses e-learning in teaching and

learning process. The perception was investigated in terms of three aspects i.e. perception effects on motivation, ease of use usefulness.

- 4. **Richard Watson Todd** (2020) ,"Teachers' Perceptions of the Shift from the Classroom to Online Teaching", this paper focuses on the problems faced by the teachers in the initial days of online education and experience of the teachers after many weeks of online teaching. It has concluded that though the pandemic was affected negatively, but the students learning was not much affected and it had created opportunities that could benefit in long run.
- 5. Arwa Ahmed Abdo Qasem, Viswa Nathappa(2016), "Teacher's Perception Towards ICT Integration: Professional Development Through Blended Learning", this paper focuses blended mode of teaching by using the ICT. It has concluded that blended mode has provided teachers with pleasure, enjoyment while teaching with blended mode and this study may help in determining teacher's professional development for ICT integration in classrooms.
- 6. Dr Gunmala Suri , Sneha Sharma (2016) , "Investigation of Teacher's Attitude towards elearning-A case Study of Panjab", this paper tries to analyze the role of gender on perception of teachers towards e-education and concluded that teachers are in the favor of blended mode of education.

# **Research Gap**

This study is an attempt to analyze the challenges faced by the teachers for conducting online classes and tries to explain the perception of teachers towards online education

# **Objectives of the Study**

- 1. To analyze the perception of teachers towards online teaching
- 2. To analyze the challenges faced by teachers during online classes.

# Period of the Study

The study has been carried since past one month (April-May 2021)

# Scope of the Study

The study is confined to the urban population and studies about the perception of teachers towards online teaching. The sample is taken from the teachers teaching at various levels related to social sciences.

# **Research methodology:**

Type of study: The research is Descriptive in nature.

Sources of data: The data for the study is consists of both primary and secondary Sources.

**Primary data**: The primary data is collected from the teacher by a structured questionnaire includes mode of teaching, applications used to online teaching, issues faced for using the online tools etc.

Google form questionnaire link: https://forms.gle/qk7FirQ1GL1ftySKA

**Secondary data**: The secondary data is collected from the books, online journal and websites related to the study.

# Sample Design

**Sample size**: Sample size taken for the purpose of study is 52 respondents who are the faculties from different collages teaching at different levels in field of social sciences in Hyderabad and the city was chosen on a convenience basis.

Sampling method: Simple random sampling technique is used for the purpose of Study.

# Techniques applied for analysis of the data: Percentile analysis

# Limitations of the Study

It covers only respondents from Hyderabad, by keeping a sample of 52.

Figure 1:

# **Data Analysis And Interpretation**



This result indicates that majority of the teacher's i.e. Around 86.5% are comfortable with the offline /traditional mode of teaching and only 7 of them prefer the online teaching, remaining 9 of them feel that the mode of teaching differs from time to time.



This result indicates that most of the teachers are familiar with the application Zoom and Google meet for conducting online classes. Majority i.e. 80.8% uses zoom and least usage is with Jio meet i.e. 7.7%





The above chart represent that 51.9 % of faculties are not adaptable with online tools, 48.1% were facing the technical issues and remaining 46.2% & 23.1% are facing the problem of time management and computer knowledge.





This results indicates that majority (92.3%) of the teachers are using the PPT for visualizing the concepts and 55.8% are using the note pad /lighting pad and 53.8% are using the excel sheets for explaining the Practical concepts. Only 3.8% are using the Motion /info graphics.



This result indicates that almost 63.5% of them strongly agree that online assessment is very challenging and remaining 13.5% are neutral.

# 

From the above chart, it clearly stated that almost 75 % of the teachers strongly feel that there is a communication gap between students and teachers in online teaching. Remaining 9.6 % are neutral.

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

Figure 7:



The above chart indicates that majority(84.6%) of the teachers are involving each students while discussing Q/A session, while 46.2% are giving the individual feedback and 30.8% are taking the remedial classes and remaining 19.2% of them are keeping a contact and communicating the weaker students.

Analysis of teacher's perception towards Online teaching questions based on Age Group								
Questions	Age group	Yes	No	Sometimes it varies				
Is online teaching comfortable	25-30	18	1	5				
	30-40	7	6	14				
	40-50	0	1	0				
Are the appli <mark>cations user</mark>	25-30	19	0	<u> </u>				
friendly	30-40	6	0	21				
X	40-50	0	0	Q 1				
Do you use both audio and video	25-30	17	6	1				
while conducting the online	30-40	11	2	63 / 14				
classes	40-50	0	0	1				
Is it easy to clarify the students	25-30	13	0	11				
doubts during online classes	30-40	7	1	19				
	40-50 9 -	00	1	0				

Table 1:

This table indicates that age factor seems to play an important role in teacher's response towards questions on online education. The above results states that, teachers of 25-30 age group are more comfortable in online teaching than comparative to the age group of 30-40 & 40-50, as they are aware of technology and its usage.

And majority of teachers belonging to 25-30 age groups uses both audio and video mode while conducting the online classes and teachers of 30-40 age group use both the audio and video depending on the lecture topic.

# Findings

- 1. Out of 52, 86.5% teachers prefer to conduct offline mode of teaching.
- 2. Even though they prefer offline mode, 48.1% are also comfortable in online teaching.
- 3. Out of 52, 44 teachers were trained enough to conduct the online classes.
- 4. As the applications are user friendly, most of the faculties are using Zoom (80.8%) and Google meet (40.4%)

- 5. There are many challenges faced by the teachers for conducting the online classes, majority (51.9%) of them were facing the problem of adaptability ,48.1% were facing the technical issues and remaining 46.2% & 23.1% are facing the problem of time management and computer knowledge.
- 6. Out of 52, 28 teachers uses both audio and video mode while conducting the classes , 21 teachers at times they use both and remaining 3 they won't use audio and video simultaneously.
- 7. Majority (92.3%) of the teachers are comfortable in using the PPT for visualizing the concepts and 55.8% are using the note pad /lighting pad and 53.8% are using the excel sheets for explaining the Practical concepts. Only 3.8% are using the Motion /info graphics.
- 8. 63.5% of teachers strongly agree that online assessment is very challenging and remaining 13.5% are neutral.
- 9. 75 % of the teachers strongly feel that there is a communication gap between students and teachers in online teaching. Remaining 9.6 % are neutral.
- majority(84.6%) of the teachers are involving each students while discussing Q/A session, while
  46.2% are giving the individual feedback and 30.8% are taking the remedial classes and remaining
  19.2% of them are keeping a contact and communicating the weaker students
- 11. Age factor seems to play an important role in teacher's response towards questions on online education. As the teachers of 25-30 age group are more comfortable in online teaching than comparative to the age group of 30-40 & 40-50, as they are aware of technology and its usage.

# **Conclusion & Recommendations**

Online teaching is an exciting way of teaching, as it involves innovative methods to teach. Due to this pandemic the importance has been increasing tremendously. The teachers are trying to deliver the lecture in the best and simplest way. The only problem is that many of the teachers are facing the lack of awareness, usage regarding the online applications/tools. The management has to provide enough training facilities to the faculties, such that they are enough confident while delivering the lecture. Though, young teachers are very much comfortable with online teaching as they are aware about the technology and its usage. And it is observed that there is more communication gap between the students and teachers due to this online teaching, this can be overcome by creating an interactive environment and by interactive questions and answers activities etc. However, this online teaching can't replace the face to face classroom teaching. But we can't ignore the benefits derived from online teaching. Due to this pandemic, we can't stop teaching and learning so there is a need to accept /understand the obstacles that come in the way of online teaching and take a corrective measure to overcome such issues/challenges.

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# 13.Significance Of Information And Communication Technology (ICT) In Teacher Education

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#### Abstract

Dynamic ICT is a logical, innovative and designing order and the board strategy utilized in taking care of data, its application and relationship with social, monetary and social issue (UNESCO, 2002). ICT represents Information and Communication Technologies. ICT is a piece of our lives throughout the previous few decades influencing our general public just as individual life. ICT which is currently comprehensively utilized in educational world. Teacher, Student, manager and each individual identified with education are prevalently utilized ICT. Teacher use ICT for making showing learning measure simple and fascinating. An able teacher has a few abilities and strategies for giving fruitful instructing. So improvement and increment of abilities and skills of teacher required information on ICT and Science and Technology. Presently – a-days ICT''s are changing schools and study halls another look by acquiring new educational plan dependent on certifiable issues, projects, giving devices to upgrading getting the hang of, giving teachers and understudies more offices and openings for criticism. ICT likewise helps teachers, understudies and guardians to meet up. Nonstop and Comprehensive Evaluation (CCE) assists understudies with welling teachers to utilize more innovation for making showing learning more alluring for the improvement of our group of people yet to come. Teachers should know the utilization of ICT in their branches of knowledge to help the students for learning all the more successfully. In this way, the information on ICT is a lot of fundamental for the both planned teachers just as in-administration teachers moreover. This will assist teachers to know incorporated innovation with homeroom instructing. This paper examined about the job of ICT in 21st Century's teacher education. **Keywords**: ICT, innovation, pre-administration, in-administration, , teacher preparing, understudy teacher

#### Introduction

Today's time of 21st Century and it is likewise the time of data and innovation (IT). Each part of life are identified with science and innovation. Gigantic progression of data is arising on the whole fields all through the world. Presently data and innovation is prominently utilizing in educational field for making showing learning measure fruitful and intriguing for understudies and teacher both. In 1998, UNESCO World Education report alludes about understudy and teachers should have adequate admittance to improve computerized innovation and the web in their homeroom, schools, teacher educational organizations. Teachers should have the information and abilities to utilize new advanced instruments to assist all understudies with accomplishing scholarly norm. The nature of expert improvement of teacher education relies upon the degree of ICT mix in teacher education program. As per UNESCO (2002) "ICT is a logical, mechanical and designing order and the board method utilized in taking care of data, its application and relationship with social, monetary and social issue". Teachers are at the center of any living society. Advances assume a significant part in preparing project of teachers. Students" gets to information and data through TV, advanced media, link organization, web and online media I. e. Facebook, Twitter, WhatsApp, Linkedinn, Igo, Line, Wechat and so forth ICT is vital for Pre-administration teacher education program in the 21st Century. Without legitimate information on ICT teacher can't act in his/her study hall and it couldn't be supposed to be a finished one.

### **Use ICT in Teacher Education**

The study hall is presently changing its look from the customary one I. e. from one approach to two way correspondence. Presently teachers just as understudies take an interest in homeroom conversation. Presently Education depends on youngster driven education. So the teacher ought to plan to adapt up to various innovation for utilizing them in the study hall for making showing learning intrigued. For successful execution of certain understudy driven systems, for example, project-based realizing which places the understudies in the part of dynamic explores and innovation turns into the fitting apparatus. ICT has empowered better and swifter correspondence; introduction of thoughts more viable and applicable way. It is a viable apparatus for data getting accordingly understudies are urged to search for data from numerous sources and they are presently more educated than previously. So hence ICT is a lot of essential for Teacher Education.

#### **Ongoing Trends in Teacher Education**

In view of different changing requirements of our general public now accentuation is additionally given to the different educational hypothesis and educational practices. As indicated by these hypotheses and practices changes are additionally go through in teacher education moreover. It is normal that teacher education should incorporate new innovation. Teachers ought to likewise know the correct perspectives and qualities, other than being capable in abilities identified with educating. As we probably are aware the base necessity of any preparation program is that it should assist the learner with securing the essential abilities and skills of a decent teacher. Presently a-days new patterns in teacher education are Inter-disciplinary Approach, Correspondence courses, direction courses and so on Reproduced Teaching, Micro Teaching, Programmed Instruction, Team Teaching are additionally utilized in teacher education. Presently a-day Action Research likewise executed in Teacher Education. ICT goes about as the doorway to the universe of data and encourages teachers to be refreshed. It makes consciousness of inventive patterns in instructional techniques, assessment system and so on for proficient turn of events.

### Various Strategies For Applying Ict In Teacher Education

- 1. Providing satisfactory framework and specialized help.
- 2. Applying ICT taking all things together subjects.
- Applying new Pre-administration teacher Education educational program. 4. By utilizing application programming, utilizing interactive media, Internet email, networks, understanding framework programming.

### Part Of ICT in 21st Century's Teacher Education

ICT helps teachers in both pre-administration and in-Service teachers preparing. ICT causes teachers to communicate with understudies. It causes them in readiness their educating, give input. ICT likewise encourages teachers to access with organizations and Universities, NCERT, NAAC NCTE and UGC and so on It additionally helps in viable utilization of ICT programming and equipment for instructing – learning measure. It helps in improve Teaching expertise, helps in inventive Teaching. It helps in viability of study hall. It additionally helps in improving proficient Development and Educational administration just as upgrades Active Learning of teacher Trainees. It is presently supplanting the antiquated innovation. As we probably are aware now-a day's understudies are consistently have serious psyche. So teacher should have the information regarding the matter. This should be possible through ICT. ICT helps teachers in anticipation of educating. To present ICT in pre-administration teacher education various techniques and procedures are applied. Various devices are utilized, for example, word preparing, Database, Spreadsheet and so forth Different innovation based plans are utilized to help the teachers for their work on instructing. ICT gets ready teacher for the utilization of their abilities in the genuine homeroom circumstance and furthermore make understudies for their future occupation and public activity. ICT utilized as a "assisting tool" for instance while making tasks, conveying, gathering information and documentation, and leading

examination. Commonly, ICT is utilized autonomously from the topic. ICT as a vehicle for instructing and learning. It is a device for educating and learning itself, the medium through which teachers can instruct and students can learn. It shows up in various structures, for example, drill and practice works out, in reenactments and educational organizations. ICT as a famous device for association and the board in Institutions. Teachers should offer mechanical help to master utilizing film, liveliness, reenactment preparing which encouraged understudy teachers to give model introduction. On the off chance that the teacher is profoundly furnished with innovation, the understudy will likewise be outfitted with innovation. It eliminates the customary strategy for educating and get ready teacher to apply present day technique for instructing. ICT is assumes a significant part in understudy assessment. ICT is storage facility of educational organization since all educational data can securely store through ICT. ICT causes Teacher to discuss appropriately with their understudies. So ICT overcome any barrier among teacher and understudies. ICT causes Teacher to pass data to understudies inside an almost no time. ICT causes Teacher to plan educational climate. ICT encourages Teacher to distinguish inventive kid in educational foundation.

ICT encourages Teacher to inspire understudies and developing revenue in learning. ICT helps Teacher for authoritative preconditions (vision, strategy and culture). It is likewise helps Teacher for their staff uphold (information, disposition, and abilities). ICT supportive for specialized preconditions (foundation). ICT supportive for planned learning circumstances which are required for both professional education and the preparation of future teachers (in the teacher preparing organizations). Teacher preparing establishments can build up their educational plan utilizing ICT. With the assistance of ICT Teacher preparing foundations (gaining from others) with the assistance of ICT.

#### Conclusion

Teaching possesses a noteworthy situation in the general public. ICT causes the teacher to refresh the new information, abilities to utilize the new advanced devices and assets. By utilizing and secure the information on ICT, understudy teacher will become successful teachers. ICT is one of the major factors for producing the rapid changes in our society. It can change the nature of education and roles of students and teacher in teaching learning process. Teachers in India now started using technology in the class room. Laptops, LCD projector, Desktop, EDUCOM, Smart classes, Memory sticks are becoming the common media for teacher education institutions. So we should use information & communication Technology in Teacher Education in 21st Century as because now teachers only can create a bright future for students.

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# 14. Impact of Occupational Stress Among Teachers on Teaching-Learning Process

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#### Abstract:

Teachers are key social agents that help learners to dream and reach their highest potential and develop into responsible citizens. Teachers play a critical role in the lives of children, but over the years teaching has become increasingly stressful. It has been found that teacher stress impacts teacher's health, their performance and well-being, work attitudes. This teacher stress is directly or indirectly impacting on the performance of learners. This paper examines the causes of teacher stress and impact of teacher stress on the performance of both teacher and learners. **Key words**: stress, occupational stress, teaching, performance and causes.

#### **Introduction:**

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Education is the process of instruction aimed to develop the knowledge skills, attitude, or character of individuals for preparing them to live in a meaningful way. It is education that makes an individual rational. The strength of a nation depends upon how well educated its citizens are. Teachers are arguably the most important group of professionals of a nation's future. But it has been observed over the years that the teachers are more prone to stress because dealing with students and caring for their better performance throughout the day is itself a stressful situation. School is considered a major source of stress in the lives of teachers. Teachers work daily with students; cope up with number of problems, student absenteeism and students with special needs, insufficient funding, and lack of personal support. Moreover, teachers have to perform a lot of work after they reach home like preparation, correcting the notebooks, evaluation etc. All these indicate stress is always present among the teachers. The success of any educational program depends largely upon the effective way of the teacher works. The teacher forms the most important link in our educational system. They are called "Nation builders" as provide inspiration, direction and meaning to all the activities of the school. If the teacher is unable to do his part of work effectively, then the whole schooling would collapse. Teachers must play multiple roles i.e., an administrator, role models, friends, philosopher and counselor for the students which in turn increase stress in teachers. So, we can say that today's teachers perceive lot of stress in their occupation.

#### **Rationale of the study:**

The impact of teacher stress can include implications on their ability to teach, their personal life, and their interaction with the students according to Adam (1999). Teacher stress therefore affects both the teachers and students in the learning process. A teacher needs to use a lot of energy in his daily chores in the classroom coupled with his personal and family commitments. This trend which is a routine for a teacher forwards a lot of stress to the teacher. Teachers not only have the stress of dealing with so many diverse children daily. They are also charged with educating and helping to mold these children into productive members of society. The job is very demanding in that it has hardly any end. Quite often teachers must take their work home overnight or on the weekends in order to be prepared for the next class section. Teachers are key social agents that help learners to dream and reach their highest potential and develop into responsible citizens. Teachers play a critical role in the lives of children, but over the years teaching has become increasingly stressful. It has been found that that teacher stress impacts teacher's health and well-being, work attitudes and turnover but very little is known as to how this teacher stress impacts on the performance of learners in high schools.

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It is often said that the teachers are the backbone of any society as they guide and help the future generations in realizing their full potential. All children have the potential to become future leaders and it is the responsibility of the teachers to make the children ready for their future. Children carry what they learn
and experience in their formative years throughout their lives and hence teachers play an especially important role in shaping their views and attitude towards life. As Dr.A.P.J. Abdul Kalam mentioned, no profession in the world is more important to the society than that of a teacher. Hence, it is particularly important for the society in general and the school authorities in particular to ensure the wellbeing and job satisfaction of the teachers.

# **Objectives:**

- 1. To study how occupational stress impacts on teaching
- 2. To study how occupational stress impacts on learning
- 3. To study how to improve the quality of teaching -learning process

**Definitions of Stress:** Stress is a feeling of tension which is both emotional and physical. It can occur in specific situations.

**Occupational stress**: Occupational stress occurs when workers perceive an imbalance between their capability and resources to meet these demands. It is that which derives from conditions in the workplace. Occupational stress, in particular, is the inability to cope with the pressures in a job. It is a mental and physical condition which affects an individual's productivity, effectiveness, personal health and quality of work.

**Teaching:**Teaching is the process of attending to people's needs, experiences and feelings, and intervening so that they learn particular things, and go beyond the given.

As Dewey stated, teaching relies upon "the educational significance of social arrangements [as] means used to educate the young" (1916/Dewey).

# The Key Causes of Stress among Teachers and its Impact on teaching learning process

- Heavy Workload: Teachers must accomplish through the day which include responsibilities such as teaching, marking, administrative work, disciplining learners amongst other things is such a great burden to bear. According to the reports, it has been revealed that stressed teachers are not able to perform up to their mark as the heavy workload leads to exhaustion, hence impacting on their quality of teaching and learning of students.
- Unreasonable Demands from Parents: The study revealed that pressure coming from the unreasonable demands from parents put a lot of stress on the teachers. Some parents do not want to take any responsible over their kids and feel that because they are paying school fees then the school has to do everything for the kids. This also impacts on teaching and learning.
- Lack of Consultation and Engagement in Key Decision Making: It is revealed that lack of participation in the decisions that affect the lives and work environment of the teachers is another cause of stress for teachers.
- Lack of resources : It has been found that lack of resources in schools puts a lot of pressure on teachers as they are expected to do more with less. This leads to exhaustion and cancellation of classes on regular basis which result in either more learners failing, or the quality of their grades being compromised.

# **Classroom challenges:**

are one of the adequate problems faced by teachers and a good teacher has the courage to overcome all these challenges bravely. Here we can have a look at some of the top classroom challenges faced by teachers in the present education scenario

- Lack of time for planning
- Lot of paperwork.
- Performance pressure from school administrators
- Balancing diverse learning needs

- Handle too many masters
- Get Burn out easily
- Lack of proper funding
- Limitations of standardized testing
- Lack of parental support
- Changing educational trends
- Limitations of disciplined students
- Lack of self time
- Inspiring students to be more self-directed
- Teachers working too many roles at the same time
- Differentiating and Personalizing teaching
- Textbook exposure to learning

These are all the challenges faced by the teacher in classroom. So teacher gets stress or anxiety to do all these, then teacher wants to overcome this by expressing it on students. This is how teacher stress impacts on teaching-learning process.

## **Conclusion:**

So occupational stress is common in all working place. Especially teachers' life is full of challenge and complicated. Teacher needs to use lot of energy in the classroom, but due to stress teacher unable to fulfill the needs of children. This stress may be due to physical factors, social factors or psychological factors. Anyhow stress arises among the teachers and it impacts on teachers' health, their performance. It not only impacts on teaching but on learning also. So we conclude that by providing a proper basic requirements for teaching it reduces the teachers' stress, so by this we can improve the quality of teachinglearning process.

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## 15. Effective Practice of Online Methods of Teaching in Indian Higher Education

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#### Abstract

An online teaching method has increased to ensure affordability of higher education in India during COVID – 19 times. College student need support to assist with adjustment to the online teaching method context. Effective online teaching practices can enhance student and teachers performances in Indian universities and colleges. During the COVID – 19 times, many educators are able to construct such possibilities by fostering critical learning, in which students are encouraged to increase their capacities of analysis, imagination, creative expression, and self-awareness. The new approaches have been the creation of online methods of teaching very popular in the India. It is becoming increasingly common at many higher education institutions, offering fully online teaching methods all over the Indian universities and colleges. This paper is based on secondary data. In this context, this paper an overview of effective online methods of teaching and learning practices for students and teachers.

Keywords: online education and practice, online methods of teaching, online higher education

#### Introduction

In the onth of March and April 2021, the majority of the higher education institutions (HEIs) in India were busy with completing the prescribed syllabus. The institutions were also preparing to start semester end examinations in May /June 2021. Suddenly, Corona virus has taken the across in India, it would be effected people and governments to go for complete lockdowns May 2021. Lockdown in whole India was administered on 27th March, 2020 and May 2021 for whole month in the first phase, and since then it is continuing so far. This sudden lockdown caught HEIs unguarded and clueless as they have to abruptly end the ongoing teaching, learning, and examination related activities. This sudden closure started affecting studies and HEIs were forced to comprehend how they will manage the losses of students. And then, the HEIs realized that the only choice left for them to face this situation is to migrate to the online mode of teaching and learning. Considering this situation, less prepared, and under sourced faculty members of the HEIs were asked to continue teaching and learning via online mode. Most importantly, the calls to start online teaching and learning came via Government(s) and regulatory bodies. The majority of faculty members in traditional HEIs were not prepared to switch to online mode for teaching and learning. For the majority of faculty members, it was their first real experience to experience online teaching. But, the during of COVID-19 crisis, online education became a pedagogical shift from traditional method to the modern approach of teaching-learning from classroom to Zoom, from personal to virtual and from seminars to webinars. Some of the most popular online communication platforms that would change the destination and direction of the whole Indian education system in COVID-19 circumstances are Start. me, Neo, Classtime, Classwize, Ted-Ed, Coursera, Google Classroom, Bakpax, Pronto, Skillshare, ClassDojo, Edmodo, Blackboard Learn, Parlay, Docebo, Feedback Fruits, Udemy, WeVideo, WizIQ, Flipgrid, Codeacademy, Gynzy, etc.

## **Types of Tools and Technologies Used**

The during COVID-19 crises, now the stage has arrived which made it mandatory to use the online system for teaching methods. Even the students can submit their assignments and projects online. For the sake of sharing my experiences with my counterpart teachers I thought of compiling a few from the sea of resource providing places and tools useful for teaching, these are those which I amply use for my regular

teaching methods process and can be very useful in this Work from Home situation for us, the teachers. Some of the online teaching tools are listed below:

- 1. **SWAYAM** is the acronym for 'Study Webs of Active Learning for Young Aspiring Minds'. SWAYAM provides an integrated platform for various online courses across the educational levels and subject areas also covering the skill sector courses. SWAYAM platform which is the first course delivering online MOOCs platform initiated by the Government of India.
- 2. **SWAYAM Prabha** The SWAYAM PRABHA is a group of 32 DTH channels devoted to telecasting of high-quality educational programmes on 24X7 basis using the GSAT-15 satellite. Curriculum-based video programs at post-graduate, under-graduate, certificate and School level covering diverse disciplines such as arts, science, commerce, performing arts, social sciences, humanities, engineering, technology, law, medicine, agriculture, etc. are available on these channels.
- 3. **Zoom Online Classes** The University of Minnesota has developed this system which provides platform for synchronous class sessions, where everyone can log in to a web conferencing system pre-scheduled by a teacher. This is a way to create a fully teacher facilitated environment for online class/course conduction. The Zoom software can be used on laptops, desktops, phones and tablets.
- 4. **ePathshala** With a view to realise the goals of Digital India in the school education and teacher education sector and to reach out to all the people of India, NCERT took the initiative of providing its resources on the web and mobile platforms. One can download and share the collections of e-textbooks for all classes and all areas of the curriculum, supplementary reading material, and resources for teachers, teacher educators and parents, in English, Hindi, Sanskrit and Urdu.
- 5. **Google Classroom** This is a free application of Google for Education where we can create an online classroom; all the students of a course can be connected with the teacher using their Gmail account. A teacher can share study materials, distribute different individual or group assignments and even can send her feedback to the students.
- 6. Google Hangouts This is a free service provided by Google, through which we can connect with group of people from anywhere in a video call.
- 7. Edmodo Edmodo is a resource providing platform where teachers, students and parents individually can connect and get learning resources, learning tools and a collaborative platform to chat and discuss curricular topics. It provides standard educational materials, can measure student performance and help us to communicate with the parents.
- 8. **YouTube:** YouTube is an online video sharing platform, Google bought the site and now it runs as its subsidiary. YouTube allows its users to upload, share, view, comment, rate and add to playlist small video clips and video programs. Now days YouTube has become the biggest teacher. It has democratized the learning process, now any one can learn with the right selection of videos from it.

# Teaching and Learning Activities Performed by HEIs

Lockdown presented a herculean task before faculty members of HEIs, the task was to plan and conduct teaching activities to accommodate a new set of mechanisms and environment. As an initial step, teachers started delivering scanned versions of printed materials through emails and apps like WhatsApp, telegram, etc. Some of them also delivered pre-recorded short and concise videos and voice lectures through these platforms so that the students having low bandwidth internet connection may also use it. Teachers formed WhatsApp groups to send study material, assignment, and to initiate discussion on students' related problems. Teachers also approached students through phone calls to solve their problems. A good number of teachers started taking online classes and organized webinars, workshops, seminars, and tutorials for students by using platforms like Zoom, Skype, and Google Meet etc. Some also experimented by organizing online quizzes and creative competitions.

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

## **Challenges of Online Teaching Methods**

- 1. In India, most students came from remote areas low socio-economic conditions of the family, therefore, during the lockdown period in rural area, students have not there at home desktop or laptop and the mobile phones were not found enough effective to participate in online classes.
- 2. The major challenge of online teaching methods was the unstable network connection. If the videos and audios of the students were kept off, the connection remains more stable, but that mode of teaching seems to teach to a blank wall.
- 3. Most of the student's faced technical difficulties during online class like uninterrupted electricity connection, intermittent signal issues.
- 4. Among others, level of understanding, lack of scope for meaningful interaction, the range for innovative teaching, and mechanical conduct of classes were the significant challenges reported by teachers.

#### Conclusion

The concluding the above paper, many higher educational institutions were faced lot of problems for conducting the class during the COVID 19 crisis. Therefore, this is the most opportune time for HEIs to come up with such plans and policies to keep both teachers and learners motivated to continue using these newly learned practices. HEIs must realize that helping teachers and learners to mix traditional and online learning practices will be a win-win situation for every stakeholder of the higher education sector. An online method of teaching has continued to increase influence of higher education through a reshaping and restructuring. In online methods of teaching have focus on the relationships between cognitive and teaching presences to determine the best and most desirable practices to conducted all over Indian universities and colleges.

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# 16. A Study on The Perceptions of Teacher Educators Towards ICT In Teaching Learning Process

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## Abstract:

The main aim of this article to analyze perceptions of teacher educators towards ICT in teaching learning process. In this study 200 teacher educators of Vijayanagar Sri Krishnadevaraya University, Ballari, Akkamahadevi University, Vijayapur and Gulbarga University, Kalburagi of Hyderabad Karnataka region were selected randomly as samples. Teacher Educators' Opinion towards ICT application in teaching learning process (TOITLP) tool was used for data collection. There is a significant difference in opinion among the teacher educators of three universities with respect to ICT areas like 'Presentation Facilities', 'Computer Awareness', 'Computer Operational Skills' and 'Internet Applications'.

Key Word: ICT, Perceptions, Opinion and Teaching-learning process

# **1. Introduction:**

The use of ICT in education improves the quality of education and brings about desirable changes both qualitative and quantitative. Teacher education need to imbibe the skill of using computers more than anybody else in the educational setup because these teacher educators are the persons who mold the teachers and the input in the process of education. Therefore it is a need to train teachers in the use of ICT to get good results in the field of education. In the present study reveals that perceptions of teacher Educators of B.Ed. Colleges of Hyderabad Karnataka region. The study reveals that

# 2. ICT in Education:

ICT is a potentially powerful tool for extending educational opportunities, both formal and nonformal. ICT greatly facilitates the acquisition and absorption of knowledge, offering developing countries unprecedented opportunities to enhance educational systems, improve policy formulation and execution. ICT especially computers and internet technologies enable new ways of teaching and learning rather than simply allow teachers and students to do what they have done before in a better way. These new ways of teaching and learning constitute a shift from a teacher-centered pedagogy in its worst form characterized by memorization and rote learning to one that is learner-centered. ICT supported education can promote that acquisition of the knowledge and skills that will empower students for lifelong learning.

ICT could be used in the classroom in different ways.1. As a Tutor, 2. As a tool:, 3. As a Tutee:,4. As a Teaching Resource, 5. As a technique of Research, 6. As Information storage, retrieval and dissemination.

# 3. Objectives:

- 1. To study the perceptions of teacher educators towards application of ICT in Teaching Learning Process.
- **2.** To study the relationship between various aspects of Teaching Learning Process on the application computes.

# 4. Hypothesis:

- 1.  $H_01$ : This shows that there is a significant difference among the teacher educators of three universities with respect to `Presentation Facilities'.
- 2. H<sub>0</sub>2: There is no significant difference among the teacher educators of three universities with respect to `Computer Awareness'.

- 3. H<sub>0</sub>3: There is no significant difference among the teacher educators of three universities with respect to Computer Operational Skills'.
- 4. H<sub>0</sub>3: There is no significant difference among the teacher educators of three universities with respect to ` Internet Applications'.
- 5.  $H_05$ : there is a significant difference among the teacher educators of three universities towards the Overall perceptions in Teaching Learning Process'.

# 5. Operational Definitions:

**Teacher Educators:** Any person male are female teacher educator or principal working in collages of teacher education, a part of the total sample (200) who answered the opinionnaire and whose responses were considered in the analysis.

**Teaching – Learning Process:** Teaching is a process of communication for achieving certain objectives these objectives should be desirable and specific to various groups of learners. Teaching aims at helping learners to learn are change their behaviour in a relatively permanent manner and involves arrangement of situations for facilitating learning. Learning is the modification of behaviour and consists of all changes in thinking, feeling and doing in course of life. The teaching learning process is made effective and efficient through various strategies and techniques among student's behaviour modeling and other learning skills are essential.

## 6. Design of the study

## 6.1. Sample:

Simple Random method of sample selection was used to select samples for the study. 200 teacher educators of Sri Krishnadevaraya University, Ballari, Akkamahadevi University, Vijayapur and Gulbarga University, Kalburagi of Hyderabad Karnataka region were selected randomly.

## 6.2. Data Collection tools:

Investigator himself prepared and standardized the too needed for his study. The tools used in this study were: a) Personal information sheet and b) Teacher Educators' Opinionnaire towards ICT application in teaching learning process (TOITLP)

## 6.3. Data Collection procedure:

The investigator personally visited each teacher educator and collected data from them by means of Teacher Educators' Opinionnaire towards ICT application in teaching learning process (TOITLP) tool.

N 2349-63

## 6.4. Statistical techniques used:

The investigation has been carried out by the descriptive statistical analysis, such as calculating measures of central tendency like Mean and calculating measures of dispersion like Standard Deviation. For testing the null hypotheses, the 'F' - test and Analysis of Variance have been used by the investigator.

# 7. Hypothesis wise Analysis of Data:

 $H_01$ : This shows that there is a significant difference among the teacher educators of three universities with respect to `Presentation Facilities'.

Table -1:

# Analysis of Variance (ANOVA) – Perceptions of teacher educators of three universities with respect to `Presentation Facilities'

Area	University	N	Mean	Group	Sum of Squares	df	Mean Square	F- val ue	P- value
Presentati	Vijayanagar Sri	44	40.05	Between	396.35	2	198.18	7.0	0.00
on	Krishnadevaraya			Groups				7	
Facilities	University, Ballari.								

Theme of spcial Issue : Teaching and Learning through Technology								
Akkamahadevi	88	43.26	Within	5519.65	197	28.02		
University, Vijayapur			Groups					
Gulbarga University,	68	40.75	Total	5916.00	199			
Kalaburagi								
-								

Special Issue No.87

Table-1, shows that, the ANOVA results of teacher educators of three universities with respect to `Presentation Facilities' between groups and within groups, the df values are 2 and 197 respectively and sum of squares are 396.35 and 5519.65 and mean squares are 198.18 and 28.02 respectively. The F-value is found to be 7.07 and the p-value is 0.00, which is significant at 0.01 levels. This shows that there is a significant difference among the teacher educators of three universities with respect to `Presentation Facilities'. Hence, the null hypothesis is rejected and alternative hypothesis is accepted i.e. "There is a significant difference among the teacher educators of three universities with respect to Presentation Facilities'. The above data can represented graphically as follows:



H<sub>0</sub>2: There is no significant difference in the opinion among teacher educators of three universities with respect to `Computer Awareness'.

Table -2:	
Analysis of Variance (ANOVA) – Perceptions	of teacher educators of three
universities with respect to Comp	outer Awareness

Area	University	NS	Mean	Group 49-6	Sum of Squares	df	Mean Square	F- value	P- value
Computer Awareness	Vijayanagar Sri Krishnadevaraya University, Ballari	44	183.05	Between Groups	945.94	2	472.97	1.35	0.26
	Akkamahadevi University, Vijayapur	88	185.22	Within Groups	6877556	197	34911		
	Gulbarga University, Kalaburagi	68	180.25	Total	69721.50	199			

Table 4.5 shows that, the ANOVA results of teacher educators of three universities with respect to `Computer Awareness' between groups and within groups, the df values are 2 and 197 respectively and sum of squares are 945.94 and 68775.56 and mean squares are 472.97 and 349.11 respectively. The F-value is found to be 1.35 and the p-value is 0.26, which is not significant. This shows that there is no

significant difference among the teacher educators of three universities with respect to `Computer Awareness'. Hence, the null hypothesis is accepted. The above data can represented graphically as follows:

#### Special Issue No.87 <u>Theme of spcial Issue</u> : Teaching and Learning through Technology



 $H_0$ 3: There is no significant difference in the opinion among the teacher educators of three universities with respect to `Computer Operational Skills'.

 Table -3:

 Analysis of Variance (ANOVA) – Perceptions of teacher educators of three universities with respect to Computer Operational Skills.

Area	Univ <mark>e</mark> rsity	Ν	Mean	Group	Sum of	df	Mean	F-	Р-
	12				Squares	15	Square	value	value
Computer Operational Skills	Vijayanagar Sri Krishnadevaraya University, Ballari	44	103.59	Between Groups	383.98	2	191.99	2.82 NS	0.06
	Akkamahadevi University, Vijayapur	88	106.59	Within Groups	13416.78	197	68.11		
	Gulbarga University, Kalaburagi	68	103.96	Total	13800.76	199			

Table 4.6 shows that, the ANOVA results of teacher educators of three universities with respect to `Computer Operational Skills' between groups and within groups, the df values are 2 and 197 respectively and sum of squares are 383.98 and 13416.78 and mean squares are 191.99 and 68.11 respectively. The F-value is found to be 2.82 and the p-value is 0.06, which is not significant. This shows that there is no significant difference among the teacher educators of three universities with respect to `Computer Operational Skills'. Hence, the null hypothesis is accepted. The above data can represented graphically as follows:



 $H_04$ : there is a significant difference in the opinion among the teacher educators of three universities towards the Internet Applications in Teaching Learning Process'.

 Table -4:

 Analysis of Variance (ANOVA) – Perceptions of teacher educators of three universities with respect to Internet Applications

				-		11				
Area	University		N	Mean	Group	Sum of Squares	df	Mean Square	F-value	P- value
Internet Applications	Vijayanagar Krishnadevaraya Ballari.	Sri University,	44	48.86	Between Groups	299.67	2	149.83	4.43	0.01
	Akkamahadevi Vijayapur	University,	88	5134	Within Groups	666401	197	3383		
	Gulbarga Kalaburagi	University,	68	48.88	Total	6963.68	199			

## \*Significant at 0.05 level

Table 4.7 shows that, the ANOVA results of teacher educators of three universities with respect to 'Internet Applications' between groups and within groups, the df values are 2 and 197 respectively and sum of squares are 299.67 and 6664.01 and mean squares are 149.83 and 33.83 respectively. The F-value is found to be 4.43 and the p-value is 0.01, which is significant at 0.05 level. This shows that there is a significant difference in the opinion among the teacher educators of three universities with respect to 'Internet Applications'. Hence, the null hypothesis is rejected and alternative hypothesis is accepted i.e. "There is a significant difference among the teacher educators of three universities with respect to Internet Applications". The above data can represented graphically as follows:



 $H_05$ : there is a significant difference in the opinion among the teacher educators of three universities towards the Overall perceptions in Teaching Learning Process'.

-	~	-
Tab	le	-5:

Analysis of Variance (ANOVA) – Perceptions of teacher educators of three
universities with respect to Overall perceptions.

Area	University	Ν	Mean	Group	Sum of Squares	df	Mean Square	F- value	P- value
Overall perceptions	Vijayanagar Sri Krishnadevaraya University, Ballary	44	420.95	Between Groups	10233.19	2	5116.59	3.57*	0.03
	Akkamahadevi University, Vijayapur	88	434.36	Within Groups	282640.33	197	1434.72		
	Gulbarga University, Kalaburagi	68	419.38	Total	292873.52	199			

\*Significant at 0.05 level

#### Special Issue No.87 <u>Theme of spcial Issue</u> : Teaching and Learning through Technology

Table 4.11 shows that, the ANOVA results of teacher educators of three universities overall perceptions towards the Application of Computers in Teaching Learning Process' between groups and within groups, the df values are 2 and 197 respectively and sum of squares are 10233.19 and 282640.33 and mean squares are 5116.59 and 1434.72 respectively. The F-value is found to be 3.57 and the p-value is 0.03, which is significant at 0.05 level. This shows that there is a significant difference among the teacher educators of three universities overall perceptions towards the Application of Computers in Teaching Learning Process'. Hence, the null hypothesis is rejected and alternative hypothesis is accepted i.e. "there is a significant difference in the opinion among the teacher educators of three universities overall perceptions towards the Application of Computers in Teaching Learning Process'.



# 8. Finding:

- 1. There is a significant difference in the opinion among the teacher educators of three universities with respect to Presentation Facilities".
- 2. There is no significant difference in the opinion among the teacher educators of three universities with respect to `Computer Awareness'.
- 3. There is no significant difference in the opinion among the teacher educators of three universities with respect to `Computer Operational Skills'.
- 4. There is a significant difference in the opinion among the teacher educators of three universities with respect to Internet Applications".
- 5. There is a significant difference in the opinion among the teacher educators of three universities overall perceptions towards the Application of Computers in Teaching Learning Process".

## 9. Educational Implications:

ICT is playing very important role in teaching - learning process. ICT helps to make teaching - learning process more effective. Teacher Trainees are future teachers we must be train well in ICT skills so that they can use their in their teaching –learning process. Teacher Educators who are trainer must have positive perception as per as applications of ICT is concerned.

## **10.** Conclusion:

The study concludes that all teachers of three universities have more positive perception towards ICT in teaching –learning process. Among different universities teacher educators there is significant difference is there towards different areas of ICT applications in teaching –learning process.

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

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# 17. Attitude Of School Teachers Towards ICT: An Assessment.

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#### Abstract.

Teachers are the cornerstone of the education system. Even though the best curriculum with good infrastructure facilities in an educational enterprise cannot serve the real goal of education without a teacher having a favorable attitude. Nowadays, information communication technology evolved as a part and parcel of human life. It cannot be separated or isolated. It is everywhere in a teacher's life from school administration to classroom. It acts as an aid in the learning process especially with the outbreak of global pandemic Covid 19. This study is an attempt to know the attitude of higher secondary school teachers towards ICT. The investigator examined this by using a structured questionnaire among 100 higher secondary school teachers of Thrissur district. The findings of the study revealed that, most of the teachers have a neutral response towards ICT and teachers are mainly using ICT for online teaching.

Key words: Information and communication technology, online teaching and learning.

#### Introduction.

The era of the 21st century showcases a paradigm shift in the integration of ICT in teaching and learning process. It facilitates the transmission of knowledge and helps in breaking the academic boundaries. It plays a crucial role in enhancing the quality of education by providing a variety of experiences and makes the teaching learning process more interesting. Teachers use ICT for ensuring active student participation in the learning process. Teachers always strive to integrate a variety of teaching methods and techniques for providing successful teaching. And therefore, teachers in the 21st century try to integrate technology in the art of teaching process. In modern education, technology cannot be isolated from the teaching learning process. The pre service training programmes and in service training programmes are extended with this view. The goal of education is to make the individual capable of living according to the needs of the society and therefore in this era technology cannot be avoided. ICT is a transforming tool in the classroom and brings realistic outlook based on contextual issues, problems, projects, case studies and providing teachers and students more opportunities for feedback. Teachers are the underpinning strata of any living society facilitating overall development in learner . Without adequate knowledge of technology, one cannot perform his duties completely in this 21<sup>st</sup> century during this period of global covid 19 outbreaks.

## Rationale of The Study.

The success of education depends entirely on teachers. Even the best curriculum cannot be imparted to students successfully without an efficient teacher. The present education scenario has shifted from a teacher dominated classroom to student centric, i.e., from one way communication to two-way communication. Today curriculum designers give much importance to student centered education. So that the teacher needs to adapt to the requirements of fast paced changes in the society. The inclusion of ICT in education helps the students to avail information from multiple sources and it provides multi-sensory appeal to the students also. And for this reason, the attitude, resilience and self-efficacy of a teacher is relevant. It is in this background the study is initiated by the investigator.

## **Objectives.**

- 1. To examine the attitude of higher secondary school teachers towards ICT in education.
- 2. To understand the extent of ICT integration and its impact in education.
- 3. To examine the relationship between gender and usage of technology in education.

# **Hypothesis**

There is no association between gender and usage of technology.

# Methodology.

- 1. **Design.:** For the successful completion of this study, mainly descriptive research design is used.
- 2. Population and sample: The study is mainly concentrated in Thrissur district of Kerala and the higher secondary school teachers of Thrissur district are considered as the population of the study. From this population a sample of 100 was selected by using convenience sampling.
- 3. Method of data analysis: The main method used for the study is percentage analysis, weighted average method and chi-square test.
- 4. Tools for presentation.:\_The main tools used for the presentation of the data are graphs and diagrams.

# **Analysis And Intrepretations**



Fig 1: Attitude of higher secondary school teachers towards integration of ICT in education.

From the above table it is clear that 41% of respondents has a neutral response towards incorporating ICT in education, 34% has positive response towards incorporating ICT and 25% has negative response towards incorporating ICT in education.

Table 2:					
Extend ICT integration in content transaction.					
nd of ICT Integration No. of respondents Percer					

Extend of ICT Integration	No. of respondents	Percentages.
High	32	32
Average	46	46
Lower	22	22
Total	100	100

(Source: Primary data)

Special Issue No.87 Theme of spcial Issue : Teaching and Learning through Technology



Fig 2: Extend ICT integration for content transaction.

According to the above table and diagram it is revealed that about 46% of respondents are integrating ICT for content transaction at the average level, 32% at high level and 22% at lower level.

Table 3:

equency of ICT integration in education.									
Mode of ICT integration	Regular	Percentage	Once in a while	Percentage	Never	Percentage			
Preparation of learning resources	25	25	46	46	29	29			
Better content transaction	5	5	53	53	42	42			
Facilitating Online teaching and learning	52	52	46	46	25	2			
Research purpose	3	3	8	8	89	89			
Developing Educational	23	23	36	36	41	41			

## Fr

videos



(Source: Primary data)

Fig 3:- Frequency of ICT integration in education.

From the above table it is observed that 25% of respondents use ICT for preparation of learning resources on a regular basis, 46% use it once in a while, 29% of respondents never use it. 5% of respondents use ICT regularly for better content transaction 53% once in a while, and 42% never use ICT for better content transaction. 52% of respondents use ICT for facilitating online teaching and learning, 46% use it once in a while and 2% never use it. For research purposes 3%, 8%, 89% as regular, once in a while, and

never respectively. 23% of respondents use educational videos regularly, 36% of respondents use it once in a while and 41% never use ict for educational videos and movies.

# Impact of ICT in education.

The impact of ICT in education may vary from person to person. The table shows the impact of ICT in education among different respondents by using weighted average method. For this the following criteria is used. Strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1)

Impact of ICT.	Strongly	agree	Neutral	Disagree	Strongly	Mean
	agree				disagree	score.
Exploring teaching strategies	18	36	42	3	1	3.73
for content transaction			a la constance			
Honing IT skills.	26	37	25	4	8	3.69
Networking with professionals	12	18	54 0	6	10	3.16
Learning delivery modalities &	23	31	36	5	5	3.62
assessment						
Enhancing student collaboration	31	23	17	18	11	3.45

Table 4:
Impact of ICT in education

(Source: primary data)

From the above data it is clear that the main impact of ICT among respondents is for exploring teaching strategies for content transactions with mean score 3.73.

# Table 5: Relation of gender and technology integration among students.HO: There is no association between gender and usage of technology.

	Gender	using technology	Not using technology	otal
	Male	42	13	
	123			55
	Female	36	9	45
ſ	Total	78	22	100

(Source: Primary data)

# Chi- square Test.

Chi- square test.	Calculated value	Degree of freedom	Table value
N N	0.19	1 000	3.841

Table 6:

Table 6 revealed that the calculated value of chi-square test (0.19) is less than table value (3.841) and hence we accept the null hypothesis. So it can be concluded that the two attributes are independent, which means gender and usage of technology are independent and they are not associated.

# Major findings.

- 1. Majority of respondents have a neutral response towards integration of ICT in education with 41%.
- 2. 46% of respondents use ICT at an average level.
- 3. Majority of respondents use ICT for online teaching and learning.
- 4. The major impact of ICT in education among teachers is for exploring teaching strategies for content transaction with a mean score 3.73.
- 5. Gender and usage of technology is independent.

## **Recommendation.**

- 1. Even though we are passing with technological intervention in education only 46% of respondents are using ICT in education. Majority of teachers are using online teaching but the scope of ICT in a real classroom is more. The blended form of instruction can improve the learner's attention and readiness levels as well as teachers' productivity also.
- 2. Majority of respondents have a neutral response towards integration of ICT; their attitude must be changed to meet the need of the hour.

## Conclusion

This paper is an attempt to know the attitude of teachers towards the ICT in educational process. Teachers play a predominant role in shaping the intellect of learners. Information and communication technology has a key role in today's classrooms. Each teacher should be a master as well as a learner. The time-to-time changes in technology is an unparalleled threat before every teacher. And therefore, a positive attitude towards these changes is essential to thrive in this techno pedagogical content transaction. The findings from the study lead to the conclusion that teachers have a neutral response towards technology even though they are using ICT for online teaching and learning. And the number of teachers using ICT regularly is less which indicates their resistance to change. So, it can be concluded that every difficult situation lies an opportunity. Covid 19 has forced everyone to switch over to the online platform of teaching. If teachers are ready to accept this situation in a positive manner by changing their attitude of integrating technology in education, they can provide a better learning experience to learners. In the real classroom, they effectively integrate the pedagogy with the right blend of technology.

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# 18. A Study of the Impact of School Adjustment, Emotional Stress and Home Environment on Academic Achievement among 9th Standard Students in Davanagere Taluk

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#### Abstract:

Parents and educators around the world want to educate today's students not only on traditional school or college curriculum but also on what is needed to shape future life. Our children need to be educated to adapt to emerging new occupations according to changing social conditions. In this context, numbers of efforts are being made to improve the students all round development. Hence, the present study focuses impact of school adjustment, emotional stress and home environment on academic achievement among high school students. The sample was selected randomly from eight High School in Davangere Taluk. Totally four hundred High School students was selected randomly from the population. For this the standardized tool was considered. In order to get the possible solutions for defined problem, firstly, we selected the suitable variables for depending on the research domain. The descriptive Correlation method was used to observe the inter-relationship between dependent and independent variables. This effort resulted in significant outcomes. The detailed study of all these were described in the present paper.

Key Words: School adjustment, emotional stress, home environment, academic achievement

#### Introduction:

Many lateral forces are inherent in the child. Education is the best way to use those latent powers and create a good environment. Education enables the child to pursue his or her aspirations and objectives in the long term of his life. Plus it takes the man out of the darkness into the light.

The child grows up and goes to school. A child who goes to school has to adapt to the school environment. This adjustment has a direct impact on the child's academic achievement. It is therefore essential that the child should adapt to the school environment.

The three areas that are most important in child adjustment are the Emotional zone, Social Adjustment and Academic Adjustment. It can be said that the child has a high academic achievement in which he or she engages in three areas.

Every child has positive and negative emotions. Namely, love, trust, jealousy, fear, anger. Individuals or the child can make a difference in expressing emotions. Some have emotional stability and maturity, while others have emotional instability and immaturity. In this way emotional differences can be seen in the child or person.

In a challenging world where children live, anger, fear, anxiety and psychological stress often lead to children's cognitive decline. The problem of compatibility can also have a negative impact on physical health. These emotional stress factors confuse the person with many types of confusion. There are many problems in the field of education due to students' emotional stress. By providing the appropriate guidance on such issues lead to educational progress.

The home environment plays a role and influences the child in many ways to evolve the attitude of higher achievement in the child. Low-level home environment does not complement the child's higher achievement. But a good home environment can complement the child's high achievement.

#### **Rational Of The Study:**

Adjustment is also an important aspect of a child's academic life. Adjustment can be said to shape the life of a child. The child's inherent personality is shaped by this adjustment. The best educational achievement can be done when the child adapts to the new environment in the school. This adjustment plays a very important role in developing good skills.

A number of emotional stress factors are found in high school students around the world. Social, economic, psychological and personal life events are due to several factors. These emotional stressors influence students' academic achievement. Eighty percent of the world's students suffer from emotional problems. Remedial measures may be taken for students who are undergoing emotional stress from the present study.

The home environment influences the child in many ways to evolve the child's higher attitudes. Therefore, there is a need to study the relationship between home environment and academic achievement to enhance students' academic achievement.

In this research, high school students compare school adjustment, emotional stress, home environments and academic achievement with rural and urban high school students to help them improve their academic achievement by providing guidance on what problem they are facing. All of them are teenagers and can be a burden to society if they are not guided. The main purpose is to help people to live a better life by avoiding the burden of society and solving their problem.

## Statement Of The Problem

A Study of the Impact of School Adjustment, Emotional Stress and Home Environment on Academic Achievement among 9th Standard Students in Davanagere Taluk.

# Variables Of The <mark>Study</mark>

- 1. Independent Variables;
  - 1. School Adjustment
  - 2. Home Environment
  - 3. Emotional Stress
- 2. Dependent Variables:
  - 1. Academic Achievement
- 3. Moderator Variables:
  - 1. Locality : Urban and Rural
  - 2. Types of School: Government and Private School
  - 3. Gender : Male and Female

## **Objectives of the Study**

- 1. To measure the School Adjustment among high school students.
- 2. To measure the Emotional Stress among high school students.
- 3. To measure the Home Environment among high school students.
- 4. To study the relationship between School Adjustment and Academic Achievement among high school students
- 5. To study the relationship between Emotional Stress and Academic Achievement among high school students.
- 6. To study the relationship between Home Environment and Academic Achievement among high school students.
- 7. To Study the difference in the academic achievement of high school students with good, moderate and low school adjustment problems.
- 8. To Study the difference in the academic achievement of high school students with a good, moderate and low home environment.
- 9. To Study the difference in the academic achievement of high school students with good, moderate and low emotional stress.
- 10. To Study the difference inAcademic Achievement among urban and rural area high school students.
- 11. To Study the difference in School Adjustment among urban and rural area high school students.

- 12. To Study the difference in Emotional Stress among urban and rural area high school students.
- 13. To Study the difference in Home Environment among urban and rural area high school students.
- 14. To Study the difference inAcademic Achievement among high school students with respect to type of school.
- 15. To Study the difference inSchool Adjustment among high school students with respect to type of school.
- 16. To Study the difference inEmotional Stress among high school students with respect to type of school.
- 17. To Study the difference inHome Environment among high school students with respect to type of school.
- 18. To Study the difference inAcademic Achievement among high school students with respect to their Gender.
- 19. To Study the difference inSchool Adjustment among high school students with respect to their Gender.
- 20. To Study the difference in Emotional Stress among high school students with respect to their Gender.
- 21. To Study the difference inHome Environment among high school students with respect to their Gender.

# Hypotheses of the Study

Based on the defined objectives the following hypotheses were formulated.

- 1. There is no significant relationship between School Adjustment problem and Academic Achievement among high school students.
- 2. There is no significant relationship between Emotional Stress and Academic Achievement among high school students.
- 3. There is no significant relationship between Home Environment and Academic Achievement among high school students.
- 4. There is no significant difference in the academic achievement of high school students with good, moderate and low school adjustment problems.
- 5. There is no significant difference in the academic achievement of high school students with a good, moderate and low home environment.
- 6. There is no significant difference in the academic achievement of high school students with good, moderate and low emotional stress.
- 7. There is no significant difference inAcademic Achievement among urban and rural area high school students.
- 8. There is no significant difference in School Adjustment among urban and rural area high school students.
- 9. There is no significant difference in Emotional Stress among urban and rural area high school students.
- 10. There is no significant difference in Home Environment among urban and rural area high school students.
- 11. There is no significant difference inAcademic Achievement among high school students with respect to type of school.
- 12. There is no significant difference inSchool Adjustment among high school students with respect to type of school.
- 13. There is no significant difference inEmotional Stress among high school students with respect to type of school.
- 14. There is no significant difference inHome Environment among high school students with respect to type of school.

# Theme of spcial Issue : Teaching and Learning through Technology

- 15. There is no significant difference inAcademic Achievement among high school students with respect to their Gender.
- 16. There is no significant difference inSchool Adjustment among high school students with respect to their Gender.
- 17. There is no significant difference inEmotional Stress among high school students with respect to their Gender.
- 18. There is no significant difference inHome Environment among high school students with respect to their Gender.

## Methodology:

1. Methodology of the study

In the present study descriptive Correlation method was used.

2. Selection of the sample

Sample was selected randomly from 8 High Schools in Davangere Taluk. Totally 400 High School students were selected randomly from the population.

# **3.** Tools Used For The Collection Of Data

In the present study for the collection of data following tools were used by the researcher.

- 1. School Adjustment Inventory A. K. P. Sinha and R. P. Singh.
- 2. Home Environment Inventory K. S. Mishra.
- 3. Emotional Stress tool Constructed and standardization by researcher.

## 1. Statistical Techniques Used For The Analysis Of Data:

The following statistical techniques were used by the researcher to analyze the data.

- 1. **t-test-** This is used to find out mean difference between two groups.
- 2. Karl Pearson's correlation coefficient- This is used to find out relationship between Independent and Dependent variable.
- 3. One way Analysis of Variance (ANOVA)-This is used to find out interaction effect of independent variables on Dependent variables.

## **Analysis And Intertretation**

Sl.		'r'	ʻt'	'f'	'f'	0.05
No.	HYPOTHESES	Value	Value	Value	Table	Significant
	51 2349	-630		$\wedge$	value	level
1	There is no significant relationship between School	-0.135	2.72			Significant
	Adjustment problem and Academic Achievement					
	among high school students.					
2	There is no significant relationship between Emotional	-0.246	5.06			Significant
	Stress and Academic Achievement among high school					
	students					
3	There is no significant relationship between Home	0.010	0.20			No-
	Environment and Academic Achievement among high					Significant
	school students.					
4	There is no significant difference in the academic			6.43	4.66	Significant
	achievement of high school students with good,					
	moderate and low school adjustment problems.					
5	There is no significant difference in the academic			15.91	4.66	Significant
	achievement of high school students with good,					
	moderate and low emotional stress					
6	There is no significant difference in the academic			0.15	3.02	No-
	achievement of high school students with a good,					Significant

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#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

	moderate and low home environment					
7	There is no significant difference inAcademic Achievement among urban and rural area high school students		0.38			No- Significant
8	There is no significant difference in School Adjustment among urban and rural area high school students		2.81			Significant
9	There is no significant difference inEmotional Stress among urban and rural area high school students		5.06			Significant
10	There is no significant difference in Home Environment among urban and rural area high school students		3.20			Significant
11	There is no significant difference inAcademic Achievement among high school students with respect to type of school.		9.90			Significant
12	There is no significant difference inSchool Adjustment among high school students with respect to type of school.	Cipli	1.06			No- Significant
13	There is no significant difference inEmotional Stress among high school students with respect to type of school		7.27			Significant
14	There is no significant difference inHome Environment among high school students with respect to type of school		0.25	ear		No- Significant
15	There is no significant difference inAcademic Achievement among high school students with respect to their Gender		3.21			Significant
16	There is no significant difference inSchool Adjustment among high school students with respect to their Gender		1.05	110	lin	No- Significant
17	There is no significant difference inEmotional Stress among high school students with respect to their Gender		2.12			Significant
18	There is no significant difference inHome Environment among high school students with respect to their Gender.		0.41	- <del>3</del> -		No- Significant

# **Major Findings:**

- 1. There is a significant relationship between School Adjustment problem and Academic Achievement among high school students.
- 2. There is a significant relationship between Emotional Stress and Academic Achievement among high school students.
- 3. There is no significant relationship between Home Environment and Academic Achievement among high school students.
- 4. There is a significant difference in the academic achievement of high school students with good, moderate and low school adjustment problems.
- 5. There is a significant difference in the academic achievement of high school students with good, moderate and low emotional stress.
- 6. There is a significant difference in the academic achievement of high school students with a good, moderate and low home environment.
- 7. There is no significant difference inAcademic Achievement among urban and rural area high school students.
- 8. There is a significant difference in School Adjustment among urban and rural area high school students.

# 9. There is a significant difference inEmotional Stress among urban and rural area high school students.

- 10. There is a significant difference in Home Environment among urban and rural area high school students.
- 11. There is a significant difference inAcademic Achievement among high school students with respect to type of school.
- 12. There is no significant difference inSchool Adjustment among high school students with respect to type of school.
- 13. There is a significant difference inEmotional Stress among high school students with respect to type of school.
- 14. There is no significant difference inHome Environment among high school students with respect to type of school.
- 15. There is a significant difference inAcademic Achievement among high school students with respect to their Gender.
- 16. There is no significant difference inSchool Adjustment among high school students with respect to their Gender.
- 17. There is a significant difference inEmotional Stress among high school students with respect to their Gender.
- 18. There is no significant difference inHome Environment among high school students with respect to their Gender.

## Recommendations And Conclusion:

There have been many results when in terms of Impact of School Adjustment, Emotional Stress and Home Environment on Academic Achievement among 9th Standard Students in Davanagere Taluk.

There is a negative relationship between high school students' school adjustment and academic achievement, as well as emotional stress and academic achievement. But no significant correlation was found between home environment and academic achievement.

High school students are facing a school adjustment problem, which is known to affect academic achievement. The academic achievement of high school students with high emotional stress was also found to be lower. Also, there was a decrease in academic achievement among students whose home environment was unpleasant.

In conclusion, this study shows that high school students' school adjustment, emotional stress, and home environment have an impact on their academic achievement.

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# 19. ICT And Its Application in Teaching & Learning

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## Introduction

Information and communication technology (ICT) has become, within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy. UNESCO aims to ensure that all countries, both developed and developing, have access to the best educational facilities necessary to prepare young people to play full roles in modern society and to contribute to a knowledge nation. All governments aim to provide the most comprehensive education possible for their citizens within the constraints of available finance.

ICT permeates the business environment, it underpins the success of modern corporations, and it provides governments with an efficient infrastructure. At the same time, ICT adds value to the processes of learning, and in the organization and management of learning institutions. The Internet is a driving force for much development and innovation in both developed and developing countries.

The aim of this paper is to bring out the importance of ICT and its application in learning and teaching. In this paper, the focus is on the technical functions and uses of ICT, and on the need for some knowledge of the impact of ICT as a whole. This approach often involves teachers' own personal use of ICT, such as, familiarity with word processing to prepare worksheets, locating learning resources on CD-ROMs or on the Internet, and communicating with friends and family by email, Even on Covid-19 Pandemic

Ways in which ICT can be integrated into learning and teaching. One key function of ICT in teaching and learning is to enhance the development of student information literacy. An information literate student is able to gather information, process information; publish information and communicate information within a range of contexts across all learning areas.

Teachers can assist students to enhance the development of their information literacy by providing opportunities for them to use a range of information and communication technologies during the inquiry process. Technologies such as the internet, CD-ROMs, audio conferencing, faxes, library catalogues, videos, Zoom, Meeting, Google Meet Cisco Webex, Mooc's, NPTEL, Swayam Platform can be used to gather information. Technologies such as spreadsheets, databases, word processors, video editing, etc can be used to process information. Technologies such as publishing software, drawing programmes, photo editing, etc can be used to publish information. Technologies such as OHPs, videos, multimedia presentations, etc can be used to communicate information. Wherever possible the development of skills in the use of ICT should be undertaken within the context of the classroom programme as opposed to developing these as a 'learning area' in their own right.

Students need to be taught within relevant classroom contexts how to:

- 1. Ask questions to meet their research needs;
- 2. Decide what information is required;
- 3. Select the most appropriate resources and tools;
- 4. Sort, manipulate and interpret the relevant information to meet their
- 5. Learning needs;
- 6. Present and communicate the new information; and
- 7. Reflect on the process and findings for future modification.

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

## **Student Problem Solving Capability**

A second key function of ICT in teaching and learning is to enhance the development of student problem solving capability. A student who is capable-of solving problems can identify potential problems or issues, can conceive of a range of possible solutions, can design the most appropriate solution, and can implement-and evaluate its effectiveness. As with the inquiry process, problem solving can be developed across- all-learning areas, and the core elements of the problem.

As with the inquiry process, teachers can enhance the capability of students to solve problems by providing opportunities for them to use a range of information and communication technologies during the problem solving process. Technologies such as the internet, CD-ROMs, audio conferencing, video, Hypertech, Music, Video and Whitaker (1995) etc can be used to identify problems or issues. Technologies such as databases, mind mapping software, spreadsheets, etc can be used to develop possible solutions to the problems or issues. Depending on the learning area, technologies such as CAD, drawing programmes, publishing software, video recording, etc can be used to design possible solutions. Although various studies support the application of multimedia in classroom, Liu, Jones and Hem Street (1998) point out that the design of multimedia is useful technology. Technologies such as databases, multimedia presentation software, publishing software, etc might be used to implement, evaluate and present a report regarding the effectiveness of a chosen solution. Once again, the focus should not be on teaching students to use various information and communication technologies. The teaching focus should be on facilitating students to develop ICT skills whilst they solve authentic problems within the context of learning across the curriculum.

## **Teaching Tool**

Information and communication technology has a role in the learning and teaching process as a teaching tool. This role is of less significance than the potential of ICT to enhance the inquiry and problem solving processes, and should be transparent to the learner in much the same as the whiteboard or chalk is. Teachers standing behind a lectern (or) by the teacher marking errors on student texts (Blair, 1997) Nevertheless ICT can be a powerful teaching tool. Interactive CD-ROMs, such as the PM range of talking books add another dimension to a classroom's reading programme, while contemporary distance education initiatives would be unfathomable without powerful teaching tools such as audio graphics and-the Internet. These are only some of the many ways in which ICT can be used as a teaching tool.

## **Recording and Analyzing Student Achievement**

ICT can also enhance the administrative functions of learning and teaching, which in turn has a direct impact on pedagogy. One key administrative area in which ICT is becoming more and more important is recording and analyzing student achievement. The process from planning classroom programmes, through to implementation, through to assessment, through to planning again can all be managed effectively with ICT. Colleges can either create their own databases or use commercial software, which allows teachers to plan their classroom programmes, design their assessment tasks and then record student achievement against their chosen criteria. The identification of next learning steps for individual students or cohorts of students then becomes easier and more. Efficient, leading to more effective decision making about individual, class and college wide initiatives.

#### Resourcing

One further key use of ICT at an administrative level is resourcing the learning process. More and more resources are becoming available to teachers through initiatives. Teachers can utilize the Internet to access resources in support of their classroom programmes, such as graphic organizers available through Curriculum Integration Online or a study conducted by has per (1997) illustrate that teaching English using multimedia such as print, Film, Video, Internet to student encourage them to write a critical analysis on assignment, Problem solving activities. Teachers into the future will use the Internet for resource based

learning in the much the same way as they currently use services such as the National Library interloan programme.

## Applying ICT to Teachers' Subject Areas

After teachers have acquired basic ICT skills and knowledge, they-feel confident in using a number of generic and specialized ICT tools that can be applied to the teaching of their subject areas. The opportunity to apply ICT in all of their teaching is often limited by a lack of ready access to ICT facilities and resources, and hence is not fully integrated into all lessons for all students.

Specific examples are provided to illustrate how teachers can apply ICT in their teaching, in languages, natural sciences, mathematics, social sciences, and art:

## Examples of general teacher competencies include the following:

- i. Ability to decide why, when, where; and how ICT tools will contribute to teaching objectives, and how to choose from among a range of ICT tools those that are most appropriate to stimulate pupils' learning, that is: :
  - 1. Choose ICT tools and pedagogy from those recommended for specific subjects;
  - 2. Explain the reasons for choosing particular ICT tools and pedagogy;
  - 3. Emphasize the content of students' productions;
  - 4. Plan a whole lesson sequence, deciding in advance when and how ICT will best be used.

## ii. Ability to manage a class-based learning environment using team work to achieve teaching objectives, that is:

- 1. Be able to describe difficulties- in using ICT to" achieve planned lesson objectives;
- 2. Understand differences between pupils according to their competencies in using ICT;
- 3. Have available strategies to manage such differences in the course of teaching.

## iii. Ability to analyze subject specific multimedia educational software, that is:

- 1. Evaluate CD-ROMs, web sites, video and audio, courseware;
- 2. Assess activities proposed for learners and the contribution of these to lesson objectives;
- 3. Analyze the specific contribution of ICT tools to individual students' learning.
- iv. Ability to assist students to find, compare, and analyze information from the Internet, and from other sources specific to a subject area, that is:
  - 1. Teach students to construct simple searches;
  - 2. Help students to manage, to criticize, to synthesize and to present information using ICT tools.
- v. Ability to select and use appropriate tools to communicate, according to teachers' own objectives, with colleagues or with fellow students, that is:
  - **1.** Assess communication tools to use teaching situations to facilitate collaboration.
- vi. Ability to use ICT more efficiently, choosing training sessions and participating in new developments in order to enhance professional development, that is:
  - 1. Participate and be active in groups working on the use of ICT;
  - **2.** Use ICT tools (Kasper and singer, 1997) (forums, conferencing, bulletin boards, and email) to collaborate in the improvement of teaching and learning and in the management of learning processes.

## Conclusion

Countries must be able to benefit from technological developments. To be able to do so, a cadre of professionals has to be educated with sound ICT backgrounds, independent of specific computer platforms or software environments.

Teachers in the colleges will have to participate in Training courses, seminars Orientation programme/Refresher Course/Online webinar and workshops on specific applications used in their subject areas.

The teachers of the same institution can decide to work together on the implementation of a certain ICT topic in their subject area. They can communicate by means of email online platform but it appears important also to organize face-to-face meetings on a particular goal.

- 1. Emphasis is on the use of generic or specialist tools to improve teaching, in particular subject areas.
- 2. Teachers need to be able to assess the contribution of ICT tools to subject skills and knowledge.
- 3. Teachers need to develop their teaching pedagogy as well as further develop their technical confidence and competence in ICT. terrol Science
- 4. Teachers will still want to control the teaching and learning processes to ensure that lessons are a success: they will only experiment as their confidence with ICT develops.

Teachers who share the same subject area can work together in their school to pool ideas and the learning resources they have prepared.

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# 20. Effect of Yogic Exercises on Flexibility and Agility of College Students

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## Abstract:

The most purpose of the study was to find out the effect of yogic exercises on flexibility and agility of our college students. For the present study the 120 students from Central Sanskrit University, Rajiv Gandhi Campus, Sringeri were selected as subjects for the study at random and their age ranged from 18 to 25 years. The subjects were randomly given to two equal groups of thirty and named them as control group and experimental group. Experimental group was treated with yogic exercises for four weeks, three days per week in alternate days and control group has not undergone with any training. The experimental group was treated with Yogic exercises for four weeks of training. The data was analyzed by applying t-test statistical technique. The level of significance was set at 0.05. The results showed that the yogic exercises had a impact on flexibility and agility among the students of Central Sanskrit University, Rajiv Gandhi Campus, Sringeri. Keywords: Yogasanas, flexibility, agility, T-test.

## Introducation:

Yoga is universal benefiting to all people of all ages. The study of yoga is more interesting to those with a philosophical mind and is defined as the silencing of mind's activities which leads to complete being. Physical fitness is important for all human being irrespective of their age. A given work may not be taken out if the required physical strength is not available. Performing or practicing yoga has been associated with many positive consequences in many aspects of physical performance and well-being. In civilized society, Modernization and urbanization have reduced the physical fitness of human beings and increased the dependence on machines for all the work. Manual labour has been significantly reduced and physical activity is considered to be low in dignity and hence avoided. Therefore, general physical fitness has reduced, and to restore it, human beings will have to revert to the age old habits and practices. Today yoga is most popular in the world. "Yoga" is recognized as one of the most important heritage of India. Traditionally it was said that lord shive is believed to be the originator or inventor of yoga. Our ancestors spent a lot of time in practicing yoga for their health and happiness. The Yogasanas gives benefits of increased flexibility, muscular strength and tone, improved respiration, energy and vitality, maintained a balanced metabolism, body weight, cardio and circulatory health. When one is not physically fit, then there is no use of mentally fit. Practicing of all Yogas make you joyful as well as enthusiastic. Yoga as a complementary therapy is thought to be more therapeutic than traditional gym or exercise because it involves active engagement between mental and physical. Yoga is a commonly practiced, mind-body approach which has major components like meditation, breathing, and activity or postures .Increased muscular strength, flexibility, range of motion, energy, relaxation, and sense of well-being, decreased pain, improved sleep quality.

The present study was undertaken by the researcher to find out the effect of selected yogic practices on flexibility and agility of college students.

## **Procedure:**

The investigator has taken 60 male students and 60 female students belong to Central SanskritUniversity, Rajiv Gandhi Campus, Sringeri were selected as subject on random basis for this study. Subjects were divided into groups of 30 each i.e. experimental group and control group. The experimental group was assigned to Yogasanas. The yogic practices were selected by consulting different yoga experts. The training period was conducted in the morning session of one hour duration from 6:00 A.M. to 7:30 A.M. thrice a week for duration of four weeks. The researcher taught the yoga practices and takes the help of yoga expert in conducting the training session smoothly. Each asana were demonstrated by the researcher himself

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

before the subject and were asked to perform the same. The control group was not given any training. Flexibility and agility of the college students were tested by sit and reach test and boomrang test before and after experiment period. The results of flexibility and Agility of the controlled and experimental group were equated on the basis of respective mean, standard deviation, and t test statistical treatment in order to find out the significance difference if any between pre-test and post-test data of the control and experimental groups on flexibility and agility, pre-test and post test on controlled group and the post data between experimental and controlled group on flexibility and agility of college students. The progression of yogic practices over a period of four weeks is presented in the following table.

TIME SCHEDULE	ASANAS	M0N/WED/FRI
Morning 6-00 to 6-10	Surya namashara	✓
6-10 a.m. to 6-25 a.m.	Standing postures asanas	$\checkmark$
6-25 a.m. to 6-40 a.m.	Sitting Postures asanas	$\checkmark$
6-40 a.m. to 6-55 a.m.	Prone position asanas	$\checkmark$
6-55 a.m. to 7-10 a.m.	Supine position asanas	✓
7-10 a.m. to 7-20 a.m.	Pranayama	$\checkmark$
7-20 a.m. to 7-30 a.m.	Shavasana	$\checkmark$

#### Table-1 EXPERIMENTAL DESIGN

\*After Every Asana 30 seconds to 1 Minute rest will be given.

**Statistical Analysis:** To achieve the aim of the study the collected data before and after training period of four weeks was statistically analyzed with 't' test to find out the significant improvement between pre and post-test. In all cases the criterion for statistical significance was set at 0.05 level of confidence.

## Table 2: Descriptive and comparative statistics of pre test scores of Control and experimental group.

variable	Test	N	Mean	Standard	Std . error	't' value		
	a l			deviation	3			
Flexibility	Control group	30	12.9883	.91507	.16707	.594		
	Ex <mark>p</mark> erimental	30	12.8433	.88071	.16079			
	group				(B)			
Agility	Control group	30	11.9660	1.83557	.33513	.262		
	Experimental	30	11.8767	2.59717	.47418			
	group	Ia		1				
* significance at. 05 level								

The above table indicates the descriptive statistic scores between control and experimental group showed no significant difference in the Flexibility and agility.

# Table 3: Descriptive and comparative statistics of pre and post test of flexibility pertaining to control group

Name of the variables	Test	Ν	Mean	Standard deviation	Std . error	't' value
Flexibility	Pre test	30	12.9883	.91507	.16707	.086
	Post test	30	12.9710	1.03896	.18969	
Agility	Pre test	30	11.9660	1.83557	.33513	.217
	Post test	30	11.9650	1.83872	.33570	

\* significance at. 05 level

The above table shows the descriptive statistic scores of flexibility and agility in pre and post test of control group after four weeks showed no significant difference in Flexibility and agility.

			- 1			
Name of the variables	Test	N	Mean	Standard deviation	Std . error	't' value
Flexibility	Pre test	30	12.8433	.88071	.16079	-3.443
	Post test	30	13.9850	1.67221	.30530	
Agility	Pre test	30	11.8767	2.59717	.47418	3.970
	Post test	30	11.2557	2.09398	.38231	

 Table 4: Descriptive and comparative statistics of pre and posttest of flexibility pertaining to

 experimental group

\* significance at. 05 level

The above table states the descriptive statistic scores of flexibility and agility in pre and post test of experimental group before and after four weeks showed there is a significant difference in the Flexibility and agility after four weeks of yoga practice.

Table 5: Descriptive and comparative statistics of pre and post test of control and experimental group

Name of the variables	Test	Ν	Mean	Standard deviation	Std . error	't' value
Flexibility	Pre test	30	12.9710	1.03896	.18969	-3.451
	Post test	30	13.9850	1.67221	.30530	
Agility	Pre test	30	11.9650	1.83872	.33570	2.304
	Post test	30	N1.25574	2.09398	.38231	

\* significance at. 05 level

The above table exhibits the descriptive statistic scores of flexibility and agility in pre and post test between control and experimental group before and after four weeks showed there is a significant difference in the Flexibility and agility between control and experimental groups after four weeks of yoga practice.

**Statistical Analysis:** The collected data before and after training period of 6 weeks on the above said variables due to the effect of Yogasanas and Burpee exercise training was statistically analyzed with dependent 't' test to find out the significant improvement between pre and post-test. In all cases the criterion for statistical significance was set at 0.05 level of confidence. (P<0.05)

**Discussion on Findings:** The present study experiment the effect of Yogasana practice on fitness parameters of college male students. The result of the study indicated that the Yogasanas practice improved the motor fitness parameters flexibility and agility

The finding of statistical analysis reveals that there is significant improvement in flexibility and agility of experimental group due to 4-week yogasana practice. It may be attributed to the fact that during yogasana practice, it requires to stretch different parts of the body which make muscle or joint relax and

flexible. which indicated that flexibility and agility significantly improved after four week yogasana practice . From the various studies and findings it is confirmed that flexibility and agility significantly improved after yoga training.

Conclusions Findings of this study suggest that the treatment of four week yoga practice showed significant improvement in flexibility and agility level. Thus it may be concluded that the yogic practices undertaken for this study for four weeks duration results in the improvement of flexibility and Agility ofCentral SanskritUniversity, Rajiv Gandhi Campus, Sringeri students.

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# 21. Flaws in on-line coaching

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#### Abstract:

The cutting-edge-day pandemic scenario has delivered us face-to-face to an unthinkable fact: the location we're locked in and we have to alter our life to regulate this crisis. This pandemic has delivered us to the element of the location. We ought to have singular thoughts to precede our life as normally as we're able to. Even so, there are many topics that we genuinely cannot permit by passing and go away in the back of. Training is a need that can't be left out so it becomes determined to supply the college domestic, through online lessons. For the previous 4 months, college students anywhere in the worldwide community were spending pretty a few hours within the front in their laptops to maintain up with the college curriculum simply so they did not fall at the back of. Over the years a few troubles have prevailed over this affiliation as it's far inflicting more damage than benefit. In this paper, problems of online teaching are discussed. There are so many flaws the students are facing for which the solution is given at the end. **Key words** 

Pandemic, Flaws, Online, students, technology, facing, laptop and mobile

#### Introduction

The cutting-edge-day pandemic scenario has delivered us face-to-face to an unthinkable fact: the location we're locked in and we have to alter our life to regulate this crisis. This pandemic has delivered us to the element of the location. We ought to have singular thoughts to precede our life as normally as we're able to. Even so, there are many topics that we genuinely cannot permit by passing and go away in the back of. Training is a need that can't be left out so it becomes determined to supply the college domestic, through online lessons. For the previous 4 months, college students anywhere in the worldwide community were spending pretty a few hours within the front in their laptops to maintain up with the college curriculum simply so they did not fall at the back of. Over the years a few troubles have prevailed over this affiliation as it's far inflicting more damage than benefit. Allows testing the apprehensions it's far causing.

#### **Rationale of the study**

An online classroom replacement system should be found with the intention of safeguarding the mental and physical health of the students. It is not just a face-to-face lesson, it is necessary to find a replacement system in this phase. It's too difficult to consume data from continuous online classes. The lesson should be delivered to all students. A student who does not have a network must make a replacement

#### **Objectives:**

- Focus on students 'mental and physical health
- The article aims to help the underprivileged students
- Making it easier for students to take an online class

#### Hypothesis

The downside to the mental health of online classrooms is the inevitability of finding replacement systems. Because there is no network in all areas and not everyone has an Android phone. There should be a system of delivering lessons manuals or short notes to all students. It reduces students' mental stress and reduces the storage of PDF and downloaded videos, which are too full for the phone. Teachers must teach students to experiment with different disciplines so that they can learn as they learn in the classroom without the stress of online education. This should be the priority and duty of every teacher.

## Methodology

- A Survey of Students
- The kind of students I have noticed from the teaching experience
- from media outcomes

# Analysis and Interpretation

## 1. Greater show time

Due to online instructions, display screen time has stepped forward an entire lot greater than in advance. The younger humans should live on line for the instructions for prolonged hours for studies. Thereafter they watch shows or play online video games for a few enjoyable times. As they cannot move outside, their dependence on digital gadgets has extended manifold.

## 2. The trouble of obesity

As teens cannot go out; they spend all their time at home in front of laptops or cellular presentations. Much less physical hobby is making young people gain weight and plenty have complained of weight problems at an early age.

## 3. Impact on eyes

Longer display time has brought on the weakening of the eyes of the kids. Youngsters' eyes are exposed to unnatural moderation for a prolonged duration. It really is harming their eyesight. Gazing mobile phones and laptops for prolonged hours is affecting the attention muscle tissues

# 4. Virtual international

The younger people are surrounded by using the digital world for the most stages in their day. Unfortunately, it has emerged as their fact. Their international community has gotten smaller as they can't project out and capabilities turn out to be restrained to home and displays. This isn't always a healthy desire but currently; it's far our manner completely ahead.

## 5. Inaccessibility

Now not everyone or poor families could have sufficient money, smart phones or laptops or excessive-speed Wi-Fi networks to facilitate gaining information at home. Such a lot of youths are struggling because of this example.

# 6. Mental health

The inability to wait for regular or digital college and prolonged hours within the front of laptops and mobile telephones has given beginning to intellectual and behavioral troubles in youngsters. At this kind of extra youthful a while, the children have grown to be addicted to gadgets, thereby assisting the emergence of endless intellectual fitness times in children. Online commands are the modern-day reality of our worldwide existence. That is the entire manner we can circulate in advance and now not compromise with the academic calendar in the current situation. Let us desire to lower this dependence on generation by using reopening the faculties quickly

# 7. On-line training number one to strain, eye issues in youngsters, say parents

Health problems are cropping up as show display screen time will boom for College .College students due to faculties being close due to the fact of the covid-19 pandemic

The extended hours children spend on laptop systems and clever phones for on-line commands as faculties continue to be closed due to the covid-19 pandemic is taking off to hassle dad and mom as proceedings of headaches, eye issues and strain floor, it's been learnt. Time spent on indicates not clearly for research however for numerous activities as properly is growing, says a city-based total psychiatrist, who, worryingly, feels it's growing to be "worse than cannabis dependency."

# 8. Technical problems are inevitable

Through technical problems; we don't completely suggest the stability of 1's Wi-Fi or cell information connection at home. We're moreover relating to the gadgets we use for online verbal exchange: headset, pc (or laptop) audio machine, and many others. Once in a while, even when we assume that we're

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

top to move; topics begin to get difficult in the course of the communiqué technique. The wireless signal gets leggy, or there are possibilities whilst our devices really begin to malfunction. On top of that, something can also moreover circulate incorrectly with the web platform getting used to preserve schooling. College e-portals can also undergo below server maintenance, or social media should suddenly glitch and disturb the studying technique. This potential is some of the hassles for assembly closing dates or turning into a member of the crew video name in session. Because the cliché would place it: anticipate the sudden.

## 9. No longer all university college students can go online

This is specifically tough for people who no longer have their non-public set-up: laptops and all. The reality that now not all college students are the same, issues need to be placed on those who no longer have the identical privilege as the ones who've whole requirements for a web consultation. Bear in mind that a few university college students anticipate their restrained information allocation, some entirely borrow their laptop from a family member (or their own family has one main computer). A few university college students may additionally lack one or devices wished for clearer verbal exchange, and others May additionally were counting on their nearby net cafes to kind their papers given a regular faculty day. One way or the alternative, it isn't practical if a few university college students are in a role to meet their professor's requirements actually due to the truth they have got better and complete gadgets — whilst people who lack ideal tools are placed under pressure of the way they will want to fulfill their professor's expectations.

#### 10. There are loads of distractions

If there's one issue we found from the communication class is that communiqué itself may be disrupted through any structure of disturbances. Whether it is a noisy environment, your youthful sibling continuously asking for interest, or the modern meme of moms attempting their children to ease the dishes first — the forms of distraction for web elegance are infinite. Even a surprising loss of sign may additionally need to be imperative to go with the flow of studying. Allow us to no longer move a protracted way, but actually becoming too lazy to do college paintings and choose to play online videogames hits the mark inside the course of one of the most distracting factors in a web class. Anything keeps the university college students faraway from focusing, it truly turns the table from the blessings of being unfastened and manages no longer like in a study room setting the place university students' movements are monitored and disciplined.

## 11. The possibility of now not conforming to remaining dates

Permits admit the fact that there definitely are people who ought to break out with requirements requested through using their professors. If distractions are infinite, then so are the motives college students need to grow virtually to avoid hassle in relation to submission of paperwork and sports activities. What greater than when it's an internet magnificence? Simply through truly saying their Wi-Fi is risky to function documents or ship an email can also want to already supply vagueness at the professor's cease. He/she can't certainly pick that a scholar is mendacity, nor can he/she discover a manner to reveal that the scholar could probably be telling the truth and issues may be made. Worst is whilst the pupil simply would not experience conforming to on-line necessities in any respect, cooking up some excuses masses afterward. Once more, the possibilities on this one are limitless and tough to tell.

## 12. It doesn't enjoy natural

Online commands are virtually held for educational purposes. So heaps so that its motive is for university college students and teachers to retain each and every day's commands (with a chunk of luck to manage up with their time table) except difficulty of falling prey to the virus that has already taken plenty of victims the world over. Alternatively, its nature being 'online', there are masses of what ifs. To mention that it doesn't experience like a regular kind isn't honestly maintaining the apparent, however it's additionally considering the opportunity that this will now not be efficient in any respect. The pupil logs in, listens to the instructor, responds to the sports, but afterwards will spend extra time enjoying video games on-line. Wouldn't this be a possible way of forgetting what they absolutely discovered? There may be a hazard that now not all teachers will agree to an online consultation (what in the case that they furthermore lack gear for

video calls?). In contrast to an ordinary university day, one can be positive that the mastering manners is non-forestall.

## **Major findings**

- Not all students have a network and cannot own android phones
- the online classroom has caused mental and physical stress in students
- there are so many technical issues, distractions and feels unnatural.
- as students or children cannot move outside, their dependence on digital gadgets has extended manifold.

## **Recommendations and Conclusion**

- PDF and PPTs should be reduced. This is because the mobile storage of students is more and more
- PPT and PDF sending should be minimized because of increasing mobile memory which is troubling students
- YouTube uploads video lessons to make it easier for students to use them when needed.
- delivering a lesson manual to students will help poor students and prevent mental problems from seeing online classes more often

In addition to the flaws mentioned above in the online class, there are still many flaws and pros. The differences are great in the physical and online classroom. In the epidemic, online classes are inevitable, but most online classes fail to attract students. Students need some time to adapt to this new practice. So are teachers in the online classroom there is a need to find a different system

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# 22. Online Teaching and its Outcomes

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#### Abstract

An online education is preferred by individuals who may not be able to make it for classes in a traditional brick and mortar kind of college due to various reasons. Below we'll examine some of the benefits this exciting education provides to such students. Effective online teaching combines awareness of course design with strategies for supporting learners. Online education has gained immense popularity among working professionals and students pursuing higher education. These categories of online learners find immense benefit in the autonomy and flexibility that these courses offer. Online courses can be planned around their schedule which may include full-time employment, internships and caring for family. Online learning can also help them take out some quiet time to study. Keywords : Online education, Online teaching and its outcomes

## Introduction

#### **Principals of Online Quality Teaching**

*Effective online teachers are present within their course.* Effective online teachers mindfully cultivate their presence at the course level and one-on-one with students. These interactions foster a relationship based on trust, which is the foundation of a learning community.

#### This principle underscores:

- Evaluating and incorporating digital tools to support the development of a learning community;
- Incorporating tools and activities to support student-to-student interaction and presence;
- Using multiple tools to support instructor-to-student interaction.

Effective online teachers apply equitable methods to promote student access and success while acknowledging institutional obstacles.

- Developing culturally aware course content and assessments, and inclusive pedagogies;
- Supporting students as they navigate institutional expectations while enhancing their digital
- literacy;
- Improving students' sense of belonging and increasing engagement;
- Building capacity for creating equity-minded institutions;
- Aligning online teaching and learning to college success plans

#### Effective online teachers respond to student needs and use data for continuous course improvement.

- Applying student self-assessment to guide learning opportunities;
- Using formative and summative assessment and course analytics to monitor student interaction and learning and responding appropriately;
- Leveraging communication tools to support student success;
- Developing plans for improving courses each time they are taught.

Effective online teachers teach and model ethical online interaction, while helping students develop digital literacy that will poise them for success.

- Developing one's own professional digital presence;
- Using and remixing digital Open Educational Resources (OER) to facilitate active learning;
- Establishing a learning culture that promotes curiosity and critical examination of online resources while fostering digital literacy and media fluency;
- Providing opportunities for students to create content that can be shared outside of a learning management system;
• Fostering a learning environment that encourages students to connect with and learn from a global audience.

Effective online teachers recognize ongoing professional development is a central component of their success.

Within the CCC ecosystem, some ways faculty can meet this principle are by:

- Participating in the CCC community of practice, including, but not limited to, CCC sponsored webinars, blogs, newsletters, and social media;
- Attending conferences focused on online teaching, including the Online Teaching Conference and other in person events;
- Engaging in ongoing professional development for online instructors;
- Sharing in discipline-specific conversations about online teaching.

# The 3 stages of online learning

<u>Online learning</u> is an exciting new opportunity for you to develop your skills and to achieve your personal and professional goals. But it can feel overwhelming if you don't know where to start, or what you need to learn. At Ever path, we think of online learning in 3 stages – exploring, learning, and practicing.

- 1. **Exploring.** This is a great time to figure out your personal goals and how to get there. Are you trying a new programming language for fun, or for a career change? Do you prefer watching videos, or learning through interactive tutorials? It's ok to try several different approaches and see what works best for you. It's easy to give up in this stage because it can feel like you're spinning around in circles. But in reality, you are learning a lot about your goals and online distance learning style. In my case, I learned that to build a scrappy website, I could use quick Ruby on Rails courses instead of university courses that teach the fundamentals of programming (which are typically months long and taught in Java). I also learned that project-based courses are a better fit for me than watching videos.
- 2. Learning. Once you've explored your options and decided on a path, it's time to focus on learning! Find courses that meet your interests and learning style, whether that's based on price, length, or other factors (for more information, see our <u>blog</u> post on <u>how to choose online courses</u>). In my case, I paired One Month Rails with the Ruby on Rails Tutorial.
- 3. **Practicing.** Depending on your goals, you could practice using online exercises (Learn Street has great options for Ruby, Python, and JavaScript), or dive into your own project. Since I knew I wanted to build Everpath, I started with the easiest steps that I learned from tutorials, and slowly layered on more functionality.

# Impact of online learning on school education

Online education has gained immense popularity among working professionals and students pursuing higher education. These categories of online learners find immense benefit in the autonomy and flexibility that these courses offer. Online courses can be planned around their schedule which may include full-time employment, internships and caring for family. Online learning can also help them take out some quiet time to study.

Distance learning has been around for a long time, even before technology made it extremely accessible. Traditional schooling is now seeing an increased proliferation of virtual training materials and online courses. Even in a world of tried and tested schooling systems and curricula, the most successful schools are the ones who adapt to the changing times, as well as to the expectations of students, parents and the society. If online education is here to stay, then what are its implications for traditional learning? Instead of focusing on pros and cons, the conversation we should be having today is about leveraging online education to make our education systems more conducive to learning.

Online courses call for a greater amount motivation and self-discipline than a classroom-based course. A classroom has one or more instructors and peers, who can hold a student accountable for their course-work. In contrast, online courses involve setting our own goals, tracking progress and meeting deadlines. One does not learn effectively in isolation so online courses do offer discussion forums, email and one-on-one support. Technology also adds on to the visual experience by incorporating animations that can be used interactively for effective learning and communication.

## The classroom advantage

A school provides structure, support, and a system of rewards and penalties to groom its students. Traditional classroom education offers the benefit of face-to-face interactions with peers which are typically moderated by a teacher. It provides children, especially those in their early developmental years, with a stable environment for social interactions, helping them develop skills like boundary setting, empathy and cooperation. It also allows plenty of room for spontaneity, unlike a virtual learning setup.

# Online education in the context of schooling

As students progress to higher classes in school, they seek more autonomy and intellectual freedom. Online learning can help them pursue highly individualised learning programmes, possibly even college level courses. These, combined with hands-on exercises, real world exploration, and thorough assessments, can be highly beneficial to their learning progress. They can explore their options by trying out introductory topics from different fields, before committing to a specialisation. Online learning platforms can help these students become more independent learners, before they make their way into college. I believe that we must not hold back students from pursuing an online course but instead provide them guidance as they navigate through it.

Mobile apps that provide enhanced learning opportunities for school children have become quite popular as of late. Since mobile phones have already found their way into their hands, these apps are being used to supplement classroom learning. Teachers and parents need to act as anchors and mentors, curating the kind of educational content students are exposed to, during this tricky phase of exploring the right career to pursue.

Virtual public schools, that offer full fledged K-12 education have already sprung up in some parts of the world. They even offer a combination of the traditional system with online education. There are programmes that provide support to families that wish to home-school their children in the form of online course material. These programmes bring parents and teachers into the fold, by involving them in their child's education from the get go. However, their effectiveness in the long term needs to be studied.

Online learning programmes will also open up opportunities for children from the weaker socioeconomic communities who have limited access to learning resources i.e. teachers, text books and infrastructure. It will connect them to a global network of online learners, exposing them to new perspectives. The ideas that they receive will not be limited by the number of heads in one classroom.

# **Online education for educators**

Online education can also be designed to accommodate a variety of learning styles among students. As educators, it is likely that we will have to put in additional efforts to incorporate online learning programmes into the curriculum in the most suitable manner.

Online training programmes are helping teachers/educators advance their skills in curriculum implementation, policy, education systems and leadership, both independently and with the support of their institutions. It lets them collaborate with their peers and learn new instructional skills that are relevant to their career. These programmes can help them develop new skills and capabilities in their students with the help of technology and interdisciplinary approaches.

As the overlap of the traditional and online modes of education is becoming more and more inevitable, we owe it to our students to make their education relevant to their future through ingenuity, passion and careful planning.

# Seven Reasons Why Students Should Be Part Of Online Classes During Lockdown

The corona virus pandemic has resulted in the closure of schools and colleges across the country. Education has changed dramatically over the last two months, with a considerable rise of e-learning, whereby teaching is executed remotely and on digital platforms.

Tens of thousands of students are glued to computers and Smartphone screens as teachers and students enter a new world of virtual lectures, tutorials, and assessments. Though e-learning poses a challenge to both students and teachers over technology and access, it is keeping everyone busy with lectures, worksheets and assignments.

Even before the COVID-19 outbreak, e-learning was growing at an unprecedented pace. According to the 2019 Global Learning Technology Investment Patterns report, EdTech companies around the world pulled an investment of \$18.66 billion in 2019. It will be interesting to see if the changes coronavirus has caused in the education system stay forever. Let us explore other benefits of online classes.

### 1.Online Competency-Based Learning

Competency-based learning allows a student to attain transferable skills and competencies. Such teaching is learner-focused and not dependent on any other factor. The important aspect that every student has a different learning style and level of engagement usually go unaddressed in regular offline classes where many students hesitate in interacting with the teacher due to peer competition or domineering students in the class. The online classes offer flexibility and the ability for students to drive the learning of a competency. The major focus is on skills, knowledge, and/or behaviour, tied with strategic objectives.

# 2. Creating High Calibre Learning Pathways for Future

Skill development and enhancement is key to career growth in competitive times we live in. Various online education platforms have made it easy for students to develop new skills while continuing with a regular course at a college/university. Online education is the key and perhaps the best path to upskilling. It is common to see an MBA student with a specialization in HR doing an online course in data analytics to expand his skills and likewise. Adapting to an online learning environment will make students familiar with the future of work and required competencies.

## 3.Improved Attendance

Since the virus outbreak forced the educational institutes to adopt online classes, there is a considerable improvement in the attendance of students. While there is no need to travel long distances for classes, today's tech-savvy and pro-digital generation are loving the concept of online classes. There is a significant improvement in participation and interaction.

#### 4.Trackable Learning

The performance and learning ability of students is easily trackable in online classes. In online mode, data of every student is individually stored and digitally trackable. While digital tools enable teachers to easily track students with online learning, the same cannot be done with face-to-face learning. The analytic tools provide detailed reports about every student's performance and progress. This helps the teachers to create online classes according to the learning patterns of students.

#### 5.High Engagement

Online learning materials are visually stimulating, concise, and more interactive combined with features like surveys or polls, quizzes, etc. As a result, online classes increase student engagement. The classes with multimedia content are easily accessible on any device and give control to students over how they take in the material.

## 6.Reduced Distractions

Another great thing about online classes is that assessment is an ongoing process. There is increased student engagement as there is no peer distraction. Away from the competition and dominant students, there is increased involvement of students in asking doubts and initiating an interaction.

Moreover, some concepts are better taught online. For instance, there are various tools and techniques in engineering which, with the support of visual effects are being taught better than before.

## 7.Quick Assessment

Online classes have enabled the teachers to quickly assess the learning of students as and when they teach. Unlike in the traditional classrooms, tech-enabled classes allow the teachers to post a quiz of 2-3 questions after every 10 minutes or after every concept or conduct a fact-finding poll. Shy students may actively participate in answering these questions as chat does away with the fear of 'What if I am wrong?.

# Summing It All Up

Online learning, which came as a panacea for the crisis, is increasingly seen as a new paradigm in education. Major world-changing events are often an inflection point for rapid innovation such as the rise of e-commerce post-SARS. While it may be too early to predict, it is very likely that e-learning is going to majorly impact education and herald the arrival of a new normal.

# **Benefits Of Online Education**

An online education is preferred by individuals who may not be able to make it for classes in a traditional brick and mortar kind of college due to various reasons. Below we'll examine some of the benefits this exciting education provides to such students.

# 1. Flexibility

Students have the freedom to juggle their careers and school because they aren't tied down to a fixed schedule. In a traditional classroom setting, class meeting times are set, and the student has no power over this, forcing them to work their schedules around these dates. Most people who choose online learning tend to have other commitments, and prefer this mode of learning as it gives them power over how they will delegate their time towards their different projects.

# 2. Reduced Costs

Online education can cost less due to a variety of reasons. For example, there is no cost for commuting. Assorted costs that are related to transport, such as fuel, parking, car maintenance, and public transportation costs don't affect the online student.

## 3. Networking Opportunities

Online education also provides students with the chance to network with peers across nations or even different continents. This often leads to other opportunities in terms of collaboration with other individuals in the implementation of a project. At the same time, it makes them culturally sensitive and able to fit into other environments easily given their exposure to other cultures.

## 4. Documentation

All the information that you will need will be safely stored in an online database. This includes things like live discussion documents, training materials and emails. This means that if there's ever anything that needs to be clarified, the student will be able to access these documents fast, saving valuable time. This is especially useful for individuals that need to carry out research for a project and submit their findings to a panel.

# 5. Increased Instructor - Student Time

Students in traditional classrooms may not get the personalized attention they need to have concepts clarified. Although class sizes are small at CCA, most colleges have classes of students that number in the hundreds. This is not a problem for this type of education because online guided discussions and personal talk time with their professors and lecturers is a hallmark of online classes. This increases the chances of a student performing well due to the time their instructors give them. This also enhances their problem-solving and communication skills, as well as knowing how to defend their arguments to superiors if needed.

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

#### 6. Access to Expertise

An online college education might give students access to specialized degree courses that may not be available in an easily accessible or local institution of learning. Online classes allow the sharing of expertise that helps more people have access to education that is not readily available in certain geographic locations.

This type of education has grown over the last few years and has experienced mainstream acceptance. With an online class, you get to control your learning environment, which ultimately helps you develop a deeper understanding of your degree course. New models of learning are always springing up in the market, providing students with varied opportunities to fashion their education into something that fits them, not the other way round. It also provides individuals an opportunity to finish a degree they might have started and were unable to continue with for one reason or another. The future of online degree education looks promising, and opens up education to a larger section of the population than ever before.

### Conclusion

The coronavirus pandemic has resulted in the closure of schools and colleges across the country. Education has changed dramatically over the last two months, with a considerable rise of e-learning, whereby teaching is executed remotely and on digital platforms. Online education benefits i)

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# 23. . Higher Education: The Online Teaching and Learning Experience

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#### Abstract

Globally, higher education, utilizes online teaching to ensure that a wide array of learning opportunities is available for students in a highly competitive technological arena. The most significant influence in education in recent years is the increase and recognition of private for-profit adult distance and online education programs as legitimate institutions for quality learning. Online learning focuses on a wide range of technological based learning platforms, delivery methods, and the integration of educational technology components into the learning environment. The emergence of modern technology has allowed students at all levels, young and mature, the opportunity to participate in advancing their education in an environment that is diversified, rich in best practices, yet progressive enough to allow students to proceed in a self-paced manner. This article will address online education, its strengths, limitations, online teaching tools, professional development, best practices, and an evaluation of a personal online experience.

#### Introduction

Today's students are exposed to a technological era in which they are engulfed with an array of mobile technology and learning tools to include, iPad, computers, iPhone, interactive audio or videoconferencing, webcasts, instructional videos via CD-ROMs or DVDs and computer-based systems transmitted through the Internet (The National Centre for Education Statistics, 2011). Mobile devices provide education to students by allowing them to download necessary materials, immediately, to help fulfil requirements for issues they are confronted with daily (Bonk, 2009).

Digital learning tools such as webcams, electronic books, and audio devices for recording lectures, to be used by students at their convenience, are effective tools offered by educational institutions to increase students' success rate with course requirements. Electronic books can reduce the cost of and ensure use of most current reading materials, and a larger variety of sources. The growth of these devices has provided instructors new and innovative tools to promote teaching and learning for students with varied educational needs. Not only are technology devices necessary for success in the online environment, but the design of the online program, including the instructor, the curriculum, and student support services accompanied by a strong sense of community and connectedness within the program, are significant as well.

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#### The Online Learning Experience

The online learning environment is characterized by several terms. According to Kearsley and Moore (2012), distance learning implies a distant and reciprocal interaction between student and teacher. Online learning and e-learning are other terms used in describing distance education. Both terms represent a two-sided relationship between student and teacher which embraces the deliberate goal of helping students to learn through use of the Internet. The online learning experience, comprised of students, instructors, and the course curriculum, require the use of technological tools for accessing the online environment (Ally, 2008). The online learning environment provides autonomy, yet requires self-directed learning, and self-discipline which may influence the success or failure of online learners.

Learning institutions, offering online programs, are provided the unique opportunity to approach the learning process from an eclectic perspective; one that is diverse in nature, as its population of students is in their experiences. Incorporating the use of a variety of technological modalities, self-paced learning practices, and diversified learners may enrich the learning environment. The quality and design of an online program are crucial. The quality standardsbased curriculum should be designed to include the following components: course procedures and guidelines, measurable learning objectives, assessment and evaluation,

methodologies that address learning outcomes, interactive learning opportunities, resources and materials, learner support services, and accessibility to all students.

Online education may not work for every student. Some students may experience isolation and a sense of disconnectedness during the learning experience. The reduced sense of community may increase dissatisfaction and discontentment and increase the dropout rates. Instructors can help reduce isolation in the online environment by teaching face-to face in a traditional classroom, record the collaboration among students, and incorporate the audio/video into online courses. Students that have a continual need to communicate with peers and the instructor can schedule chat sessions and online group discussions to participate and respond to questions, assignments, problems, and projects. The four interacting components of a sense of community within the online learning environment are connectedness, interdependency, socialization, and common goals.

# **Strengths of Online Learning**

Online learning offers the convenience of time and space, capability of reaching a greater student population, and draws the attention of a new group of digital learners. Rovai (2002) proposed that instructors, who embrace supportive methodologies, may help students feel connected through a strong sense of community, leading to a productive and successful online experience. Online students view teacher feedback as key dimension of the teacher-student interaction process. Wong (2005) advocated that student view quantity and quality of feedback on assignments as an accurate measurement of the instructor's concern and interest in them. Higher education has begun to follow completion rates, rather than just enrolment of students in online courses; this represents cost effectiveness for colleges and universities in the long run. Communication by way of the discussion tools can also help increase student achievement. In lieu of bricks-and-mortar related expenses, some less-developed countries see the online experience as a costeffective option.

Research offered by (Allen & Seaman, 2006) clearly demonstrated that online learning continues to become more prevalent in the majority of higher education program offerings, provided instructors are given the necessary tools for implementation of online education programs.

## Limitations of Online Learning

As with any learning medium, the use of the Internet in distance and online learning has limitations, as well as strengths. Isolation is a crucial factor to consider when designing an online program, especially considering the social perspective which some academia shows little appreciation. Social interactions within the online environment are influenced by communication approaches designed within an online program. Research suggests that college students in online learning programs spend more time developing cognitive and critical thinking skills (Barr & Tagg, 1995) and less time in the social domain for growth and development creating a sense of isolation, not because of distance, but from the instructor and fellow

learners. Another difficult part in building an online environment is that there is limited opportunity for establishing trust. Developing a deep level of sharing may sometimes be problematic. Ethical practices such as honesty, integrity and reliability may not always be present in student practices. The belief that there are more opportunities for cheating, creating falsehoods, and producing dishonest work perpetuates this view. Institutions have put in place policies and guidelines to help mitigate plagiarism and other dishonest practices. Technical problems and solutions for technical support may also hinder the effectiveness of online learning. Learner support should be in place with policies and services ready to assist students, including those technologies for students who need help with assistive devices including visual and audio elements.

Online education has its critics that perpetuate a bad reputation, for this type of program, as a result of some for-profit organizations' dishonourable approaches to getting federal financial aid. Some organizations received funds for student loans even when they did not qualify. Critics view online programs, offered by

for-profit organizations in higher education negatively, with the belief that the quality of education is less than that of other educational institutions

## **Professional Development**

The readiness of faculty is another factor that must be addressed and resolved. Teachers' attitudes and dispositions must be considered as well as development of technology and online proficiency skills through continuous professional development.

Higher education institutions expanding to include online programs, many instructors are still dubious regarding the effectiveness of the online environment, particularly, the diminished academic support, and the incentives used to encourage participation The growth of online courses and programs calls for more qualified faculty to teach online (Allen & Seaman, 2009). Some instructors in traditional learning environments experience trepidation of online dynamics such as course methodology and course management germane to the online environment. Others find it challenging to adjust new pedagogical form from a traditional structured educational environment.

Institutions of higher learning, especially within the discipline of education, are constantly concerned with preparing teachers to cultivate best practices for addressing the progressing educational needs of their students. Digital technology allows teachers to connect with one another, learn from each other enabling them to be more effective in the teaching and learning environment.

# Best practices for Online Teaching

Effective instruction in any learning environment includes the creation of a positive learning environment by cultivating self-efficacy, providing meaningful and active engagement, and inclusivity. Instructors of online learning programs must:

- 1. Establish a nurturing and supportive environment that reduces stress associated with academic difficulties and peer conflicts. Brain research has confirmed a link between cognitive and affective learning domains. When students feel threatened, stress hormones are released that interfere with the processing of information. Memory and learning are impaired (Jensen, 1998)
- 2. Ensure that communication between faculty and student must be constant and effective to include e-mail, webbased conferencing (webinar), course room postings, online discussions and phone contacts. FaceTime and Skype should be included for those students who need the personal approach.
- 3. Provide cooperative learning opportunities to facilitate critical thinking, brainstorming/problem solving, study groups and the use of dyads and peer assessment activities.
- 4. Provide experiential and active learning activities, utilizing Bloom's Taxonomy to activate areas of the brain responsible for higher order thinking that address the construction of knowledge through analysis, synthesis and evaluation. These activities require students to make decisions, conduct experiments, and explore ways to solve real-world problems, case studies, role-playing, and scenarios to promote a higher level of achievement.
- 5. Give punctual feedback regarding students' posts, within course room, through e-mail, course room assignment postings, or whatever is agreed upon by teacher and students Structure opportunities for practice and establish peer tutoring when necessary.
- 6. Express high expectations of students by continually motivating, commending successes, and providing stimulating activities to support active learning.
- 7. Embrace cultural diversity and different learning styles by incorporating Gardner's Multiple Intelligences (1983) to address varied learning styles and engaging students' academic strengths.
- 8. Provide differentiated instruction, by channelling in, personally, to all students' needs, so that all learners can be reached and developed to their fullest potential.
- 9. Discuss and define course policies, teacher expectations and plagiarism early in course. Differentiate intentional and non-intentional plagiarism. Implement contractual documentations, if necessary.
- 10. Ensure accommodation of learners needing special assistance and assistive technologies.

## **Strategies for the Online Learner**

Learners in higher education, characteristic of autonomous and self-directed learning, can control the level and pace of their learning. Online learning programs impose deadlines for course room postings,

just as bricks-and-mortar programs engage deadlines for submitting assignments. Both programs are similar in content, except in pace and quantity of content; online programs engage enormous content; and demand rapid progress. For this article, self-paced progression refers to movement "through" courses, rather than, movement "within" courses.

- 1. Avoid procrastination.
- 2. Plan & organize weekly coursework
- 3. Set goals and manage time effectively.
- 4. Develop and engage good study habits, then practice them.
- 5. Keep up with assignments and post in a timely manner.
- 6. Allocate time in work schedule for rest, exercise, proper nutrition, and social interaction.
- 7. Participate in online discussions and check into course room based on course requirements.
- 8. Communicate with professors, as often as necessary.
- 9. Take keyboarding class (before beginning online class) if typing and computer skills are not proficient.
- 10. Take notes while reading and practice becoming a good note taker and developing outlines.

# An Evaluation of a Personal Online Experience

The following is a response to an evaluation of an online program from a learner

- How does student/teacher relationships online compare to traditional classrooms? When learners do not meet with professors face-to-face somewhere at any time during the course experience, especially during the writing of the master's thesis and dissertation, there can become a distrustful atmosphere for the learner/student. This in turn may lead professors to unnecessarily over-saturate learner production to help ensure the credibility of the learner's work.
- 2. Did your online course experience provide an appropriate environment for learning? The online environment was fine but did not provide opportunities for appropriate reinforcement of concepts because of its fast-paced nature. The lack of multisensory stimulation and presentation in the course room leaves little for engaging the different learning styles. The environment was appropriate but less effective in meeting the individual needs of each learner/student.
- 3. How is online teaching incorporated into the curriculum of your organization? At my university, several departments have incorporated online courses with their curriculum offerings. These online courses did not replace any existing courses, but expanded offerings through the online medium.
- 4. What are the advantages/disadvantages of online courses? The advantages of online learning are: Learning in safe and familiar environment; moving at personal pace; free of travel time and expense; convenience. The disadvantages of online learning are: Too costly; little opportunity for personal contact; encountering geographical biases (some professors and students from other areas of the country or world cannot accept that learners from a particular location are educated and are capable of performing well and/or excelling academically).
- 5. How does online coursework help students achieve greater academic success? Online learning may help students achieve greater success, but not necessarily academic success. The online experience can cause one to excel technologically, and become better equipped for today's job market since technology is fundamental to everything. Online learning is not for everyone. Those students who are self-motivated, independent and self-disciplined may benefit from an online program.
- 6. How does teacher preparation impact online teaching? I do not know how teacher preparation can impact online learning. But I think that online learning can impact teacher preparation. Because of online learning, teacher populations can be reached far and near with a computer and just the click of a button, cost effectively for professional development, short term workshops, mini conferences, tutorial learning, online conferences, etc. Sky's the limit.
- 7. How cost effective is online coursework?

Online coursework is not cost effective for learners in degree programs who maintain an extended stay. Online learning is convenient, but too expensive.

Evaluation of an online program at degree completion is an effective means of collecting information to enhance student learning and provide improvement in the overall program. The data collected from student evaluations can also provide educational institutions and faculty with valuable information for faculty improvement. Evaluations should focus on improving the quality of teaching and help to ensure that instructors have the necessary resources and learning opportunities they need to be most effective in the online environment.

### Conclusion

Design and delivery of online courses that embrace community, curriculum, and assessment, as well as actively engage students in the learning process are significant for sustaining and building the online program. Effectiveness in the online environment points out the importance of being supportive and contribute to a sense of togetherness for development of relationships and overall success of coursework. Students' interest in a course and relevance of the content influences their work performance for achievement of goals for the course. Professional development can play a crucial role in preparing teachers to integrate technology and learning into an educational environment that encourages interaction, meaningful involvement and a connectedness to other learners, as well as the international community.

An efficient online learning environment demonstrates technology-rich, research-based instructional and learning strategies that facilitate learning, and classroom management within the course room experience. The electronic movement has evolved into a science which engages best practices; some from bricks and mortar institutions, and others which emerged from a highly diversified cultural, academic, and geographical cohort of learners. The online learning environment, once devoid of personal communication, is now inundated with approaches that help students feel a sense of community and partnership while meeting their learning needs. In online programs, learners experience a paradigm shift from literal involvement in academic pursuits, to both virtual and tangible realms of scholastic pursuits within a virtual community of learners with a common goal of meeting their educational needs while networking with others.

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# 24. ICT For Effective Teaching and Learning Management

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#### Abstract:

Research is a disciplinary effort of the researcher. It is the task of the researcher to identify the problems of the literature in search of knowledge and to try to find solutions to the nature of the research. Information and Communication Technologies' is a broader term for Information Technology, which refers to all communication technologies including.

# Introduction:

In today's ever-changing era, researchers and instructors can use several tools in teaching and make quality teaching. Research is an intellectual process through which innovative knowledge is augmented. Information Technology (ICT) tools can be used systematically in research areas. The use of innovative technologies is essential for quality education and research. Teaching technology is broader than it includes equipment for personal teaching. Various types of teaching technology studies, experience, skills, development and so on. Learning is promoted by the visual, auditory, and technology media. 'Experts claim that the classroom without visual aids is like a windowless room. Nothing is an experience for children when they are seen by the eye. Our education process rests on these three pillars - the goals, the goal-setting activities, and the transformation of student behavior. Different techniques and techniques must be adopted to make teaching effective. People on social networking sites such as Facebook, Twitter, WhatsApp, Hike, Telegram, etc., have their daily lives exchanged. Nowadays, students are more skilled in technology use than teachers. There is a need to use credit and communication technologies to teach with the help of computer. Digital education has taken on a new dimension with the smartphone boom. E-learning is essential for deeper study of complementary topics in the text.

The research methodology includes BL Rice, Plate, D L Narasimhacharya Dr B R Hiremath, Dr M M Kalburgi, Dr.M. Chidananda Murthy practiced in various bases. With his scholarly experience and trained researchers, he emphasized on things not known by what is known. Philosophical Research Applied Research Descriptive Research Analytical research. Historical research discusses all of these. **Key words:** 

Various techniques and techniques have to be adopted to make teaching effective.

#### **Types of objective :**

1) Audio Media: Audio, audio, gramophone record, voice coil, v oice recorder, spereo record, radio, ztelephone conversation, voice distribution devices are in use. emphasizes that employees cooperate and function as a whole and the company strives to be a working environment where rigid organizational beliefs do not exist. Cooperation and mutual respect are keywords. The departments include the editorial. In 1985, <u>Privat Computer</u> was added to the line of magazines. At the time, the magazine was called <u>COMputer</u> and was a Commodore-related magazine. After several years with focus on, among others Amiga, the magazine moved its focus area to the PC and was renamed <u>Privat Computer</u>. In early 2006, the magazine merged with <u>Alt om DATA</u>, which was relaunched. In 1997, the publisher sold High Fidelity to the two editors. At the same time the work began building websites to meet the growing interest in the new media.

2) Visual Media: Textbooks, Supplements, Encyclopedia, Regular Learning, Newspaper, Documents, Writing, Messages, Scrolling Panel, Horizontal Images, Drawings, Cartoons, Picture Stories, Samples, Maps, World Maps, Objects, Puppets, slippers, filma, microfilms. " is a colloquial expression used to designate things like TV, movies, photography, painting and so on. But it is highly inexact and misleading. All the so called visual media turn out, on closer inspection, to involve the other senses (especially touch and hearing.) In today's extremely cluttered digital environment, online marketers have no option but to use visual media to stand out from the crowd. Visuals are highly effective and you can construe their effectiveness from the fact that adding a photo

#### Special Issue No.87 <u>Theme of spcial Issue</u>: Teaching and Learning through Technology

3) **The Internet**: It is used by scientists, scholars, businessmen and so on. The Net is called the "Internet". Is a network of computers. It is very dear to people. The Internet is known as the "cyber world" to the world. Good teachers make a good lecture using the Internet. started in the 1960s as a way for government researchers to share information. Computers in the '60s were large and immobile and in order to make use of information stored in any one computer, one had to either travel to the site of the computer or have magnetic computer tapes sent through the conventional postal system.

Another catalyst in the formation of the Internet was the heating up of the Cold War. The Soviet Union's launch of the Sputnik satellite spurred the U.S. Defense Department to consider ways information could still be disseminated even after a nuclear attack. This eventually led to the formation of the ARPANET (Advanced Research Projects Agency Network), the network that ultimately evolved into what we now know as the Internet. ARPANET was a great success but membership was limited to certain academic and research organizations who had contracts with the Defense Department. In response to this, other networks were created to provide information sharing.

4) **Eye-hearing media**: There are many social networking sites including movie, audio, television, TV, video cassette. These are include: A computer is the name for a computer that calculates or counts. It was invented in 1822 by Chalmers Babbage. Equipped with inward dispatch, processing and external dispatching equipment. A device that can process information supplied by inbound devices and store data using external transmission devices. It can store pictures, e-books, movies. It is a visual instrument that can inform students of innovative learning situations.

**5) Head projector** over head projecter is a large lamp that is positioned on a metal bar, such as a mirror slide camera. It can be used like a blackboard works on the same principle as a slide projector, in which a focusing lens projects light from an illuminated slide onto a projection screen where a real image is formed. However some differences are necessitated by the much larger size of the transparencies used (generally the size of a printed page), and the requirement that the transparency be placed face up (and readable to the presenter). For the latter purpose, the projector includes a mirror just before or after the focusing lens to fold the optical system toward the horizontal. That mirror also accomplishes a reversal of the image in order that the image projected onto the screen corresponds to that of the slide as seen by the presenter looking down at it, rather than a mirror image thereof. Therefore, the transparency is placed face up (toward the mirror and focusing lens), in contrast with a 35mm slide projector or film projector (which lack such a mirror) where the slide's image is non-reversed on the side opposite the focusing lens.

6) Slippery Images (Slides) This is a simple tool for viewing images or projecting them on the screen. In this, the words that come up in grammar and language teaching can be adequately shown to children. Has played an important role in student and teacher relationships.

7) E-mail: Teachers send notes they have made to students' e-mails to help them pass on text. E-mail is the name "Electronic". The e-mail we sent can be viewed anytime. It is useful for every people. E-mail, in full electronic mail, messages transmitted and received by digital computers through a network. An e-mail system allows computer users on a network to send text, graphics, sounds, and animated images to other users. On most networks, data can be simultaneously sent to a universe of users or to a select group or individual. Network users typically have an electronic mailbox that receives, stores, and manages their correspondence. Recipients can elect to view, print, save, edit, answer, forward, or otherwise react to communications. Many e-mail systems have advanced features that alert users to incoming messages or permit them to employ special privacy features. Large corporations and institutions use e-mail systems as an important communication link between employees and other people allowed on their networks. E-mail is also available on major public online and bulletin board systems, many of which maintain free or low-cost global communication networks.

8) **YouTube**: YouTube is a video sharing website. It includes a number of their own research writing, story, poetry and competition reports. It was founded on 14/02/2005 by Javed Karim, Chad Hurley and Steve Chen. Google has more than one billion YouTube accounts, which is the most used app by Google. YouTube videos are posted by people from all over the world, from all types of backgrounds. Therefore, there is a wide range of videos available on YouTube. Some examples include amateur films, homemade music videos, sports bloopers, and other funny events caught on video. People also use YouTube to post instructional videos, such as step-by-step computer help, do-it-yourself guides, and other how-to videos. Since Google offers revenue sharing for <u>advertisement clicks</u> generated on video pages, some users have been able to turn YouTube into a profitable enterprise.

While YouTube can serve a business platform, most people simply visit YouTube for fun. Since so many people carry digital cameras or cell phones with video recording capability, more events are now

#### Special Issue No.87 <u>Theme of spcial Issue</u> : Teaching and Learning through Technology

captured on video than ever before. While this has created an abundant collection of entertaining videos, it also means that people should be aware that whatever they do in public might be caught on video. And if something is recorded on video, it just might end up on YouTube for the whole world to see

9) **facebook**: facebook is a social networking site that is a privately owned company. This includes their self-record. They can also do direct interviews with their distant friends and relatives and even comment. The most popular social networking site, which allows anyone to share photos, comments and videos online. Founded in 2004 by Mark Zuckerberg, the site is free to members and derives its revenue from ads. The Facebook name came from the paper document with names and faces issued to college freshmen to help them get acquainted with each other. Using the built-in search, members can locate other Facebook (see Faceslam). Facebook offers instant messaging and photo sharing, and Facebook's email is the only messaging system many students ever use. Timeline/Wall, News Feed and TickerThe Timeline (new format) or Wall (old format) is the area on Facebook where members post comments and their current status and location as well as upload photos and videos. The News Feed shows the activity of the people and organizations members follow, while very active members see updates in real-time on their Ticker.

10) **Titter:** Messages with a limit of 280 characters can be placed on these tweets. It is an Internet SMS Coda. The app, which is popular worldwide, handles over 1.6 billion search queries every day. Twitter was designed as a social network to keep friends and colleagues informed throughout the day. However, it became widely used for commercial and political purposes to keep customers, voters and fans up-to-date as well as to encourage feedback.

After establishing a Twitter account at www.twitter.com, individuals can import their email addresses as well as use the Twitter search to locate and invite people. Tweets can be made public and sent to anyone requesting the feed, or they can be sent only to pre-approved followers.

11) WhatsApp Messenger: Individuals can speak with ease from any corner of the world. It can be used in many languages. In today's age, young and young children are involved. It was invented in 2003 by Brian Acton and John Kaum. This app is the foundation for students' future by sending pictures and videos directly to students. An ad-free instant messaging service for all major smartphones from WhatsApp Inc., wholly owned by Facebook. Founded in 2009 by Brian Acton and Jan Koum, WhatsApp uses the Internet as an alternative to the SMS text messaging system. Via Wi-Fi, subscribers pay nothing for WhatsApp messages the first year and 99 cents per year thereafter. If Wi-Fi is unavailable, and people use their cellular data plans for WhatsApp messages, thousands can be sent for a fraction of total usage because text takes up very few bytes (characters).

also provides voice calling from one WhatsApp user to the other, as well as voice recording, which lets users record and send audio messages instead of typing.

12) **Internet of Things / Internet Conference**: Global changes have occurred in the aftermath of Covid, including technology change and adoption. When the people come home from the pandemic, the prescribed task. A new concept of managing work from home has emerged for managing activities. Internet conference, performance. The role of lesson management and dramatization, management benefits, interviewing, field trips, teaching machines. Many modern techniques can be used for teaching. In this we can identify several new strategies.

13) **Google Classroom**: This is very useful for lecturer and students. Assignment notes can be discussed in other aspects of the exam. Teachers, parents and students use it. Google Classroom Anyone!is included as a free service for anyone with a personal Google account. It's also free for organizations using Google Workspace for Education or Google Workspace for nonprofits. In most cases, teachers and students can access Google Classroom using a Google account provided by their school. While teachers and students in schools are the primary users of Google Classroom, there are also features that administrators, families, clubs, after-school programs, and homeschoolers can use.

**14) Google Meet:** Some of them aren't so familiar, though. There's Skype, but it's not exactly in style, and Zoom, but it has a whole hoard of <u>security issues</u>. There's another major platform called Google Meet (previously called Google Hangouts Meet), which basically didn't exist before the outbreak, except as a corporate video conferencing tool for companies using Google's paid suite of software. In a confusing twist, this is not Google's first video app. It also offers <u>Duo</u>, which is more analogous to a Facetime call than a

Zoom meeting. Still, it's not always clear when you should jump to using Google Meet, rather than Duo you'll definitely need Meet for calls with multiple people (it supports calls with two to 250 people), but you could use either for a one-on-one cocktail hour.

**15**) **Teachmint app** The online applications for academic purposes are called online learning app. Such applications make use of an internet connection. An Online learning app can be accessed from a smartphone. It is a technology-based study tool that enables information sharing. It is commonly known as mobile apps for learning.

Online learning app is a great learning tool for students who do not have access to a physical classroom. It is useful for students who are working professionals and wish to improve. It allows students living in remote areas to attend classes. This method of learning has many benefits like ease of education. An Online learning app is installed on the smartphone and can be used anytime. It gives access to both live sessions and pre-recorded classes to students. Trainers use audio-visual mode for teaching. Students engage in the online classroom and interact with other students very easily.

There are many online learning apps offering millions of courses. Teachmint is a widely used online teaching app. Many schools and colleges also t give students the benefit of attending classes online in admissions. These allow students to choose subjects of their interest. There are both paid and free courses available to choose from. Students even get a certificate of completion when they finish a course.

16) **Zoom App:** In the fear of spreading coronavirus, the university has instructed students to teach the rest of the text via zoom app. This is a technology that teaches and teaches a hundred students. This app is not limited to students but is used by millions of employees who work from home. The National Information Center has also organized government video conferences through this app. Now senior officials have said the use of the zoom app is dangerous. A third party has also claimed that the information could be hacked.

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