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REDEFINING TEACHING LEARNING
IN THE TIMES OF SOCIAL DISTANCE

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ISBN No: 978-81-947590-7-2

EDITION: I

Price: 1000/-

Published by

National Press Associates

Admin Office: C-24, Ground Floor, Panchsheel Vihar, Malviya Nagar, New Delhi-110017, India

Registered Office: #79, Guru Angad Dev Nagar, Flower Enclave, Ludhiana (PB), India

Email: npapublishing@gmail.com **Website:** www.npapublishing.in

Printed By

NPA Printing Solutions, #79, Guru Angad Dev Nagar, Flower Enclave, Ludhiana (PB), India

BALANCE BETWEEN TECHNOLOGY AND EDUCATION: NEEDS AND NECESSITIES

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Abstract

Today we are confronting pandemic as the Corona infection (COVID - 19) is clearing its way around the world with its undetectable effect. It has prompted a significant circumstance of worldwide wellbeing crisis. Social separating and phenomenal clinical consideration should be followed during right now. This caused total closure for the entire instructive establishment. However the teaching fraternity has been adopting innovative methods to interact with students and focusing on the curriculum. It may be interesting to explore the concept of paradigm shift in teaching and learning; the role of teacher in handling the problems of classroom situations for effective teaching; and how they can enhance the quality of learning by using ICT's. The teacher can do it by imparting the education through self-learning methods with the appropriate learning styles. It was believed in past that teaching and learning is teacher based/centered. After that it was shifted to child oriented/focused. In present situation, teacher needs to create an environment in teaching to establish link between theory and practice. In this context I am trying to analyze the challenges of ICT Education and its limitations from two categories i.e., One (In Present Context) and the Second (In Traditional Context). This research article emphasizes on the innovative paradigm shift in teaching and learning. Based on the issues and against the backdrop of these challenges, it is found that "Online Education" is not a substitute into the teaching learning process but an addition to classroom teaching and other methodologies. It is a temporary aid during the difficult situation.

Key words: COVID – 19; Child centered learning; Experiential learning; Paradigm Shift; Teacher's competencies and pedagogical uses of ICT

Introduction

Today we are confronting pandemic as the Corona infection (COVID - 19) is clearing its way around the world with its undetectable effect. It very well may be estimated through numerous passing and thousands have been isolated. It has prompted a significant circumstance of worldwide wellbeing crisis. Social separating and phenomenal clinical consideration should be followed during right now. This caused total closure for the entire instructive establishment. The closure of the training organizations has prompted numerous misgivings among the understudies and instructing brotherhood. As notice by, UGC vide its letter no. D.O.No.F.1-1/2020 (Secy) dated 29th April 2020 in its 'Rules on Examinations and Academic Calendar' the HEIs the nation over are encouraged to utilize ICT and other on the web/computerized showing devices for about 25% of the prospectus and 75% of the schedule can be handled through up close and personal educating mode. Anyway the instructing organization has been receiving inventive techniques to communicate with the understudies and zeroing in on the educational plan. Subsequently, the educator can do it by giving the instruction through self-learning techniques with the suitable learning styles. It was trusted in past that instructing and learning is instructor based/focused. After that it was moved to youngster situated/centered. In current circumstance, instructor needs to make a situation in educating to build up connect among hypothesis and practice. It is his duty to fulfill the necessities of the social orders. It can be visualized and easily understand through this image.



Source: <https://digitalsmart.solutions/blog>

Paradigm Shift in Pedagogical Approaches

Indicators	A shift from:	A shift to:
Thinking	Convergent Thinking	Divergent Thinking
Focus	Instructional based paradigm	Learning focused paradigm
Teacher	Primary Source of Information	Facilitators, Collaborator, Co-learner
Student	Passive recipient Solitary activity	Active participant Collaborative activity
Learning Process	Didactic models of teaching Listening, Reading	Constructive models of teaching Experiential learning, Group learning
Curriculum	Unidirectional	Diversified, Flexible, and Dynamic
Evaluation and Assessment	Norm referenced evaluation with assessment used to monitor and measure learning	Criterion referenced evaluation with assessment used to promote, diagnose and empower learning.

Vision behind it to accelerate

- ✓ Self-study by the students with less support of teacher
- ✓ Standardization of e-learning resources
- ✓ Equity, access and affordability
- ✓ Collaborative Learning
- ✓ Technology adoption

Objectives this Chapter

In this context I am trying to analyze the challenges of ICT Education and its limitations from the following two contexts.

Objective One (In Present Context)

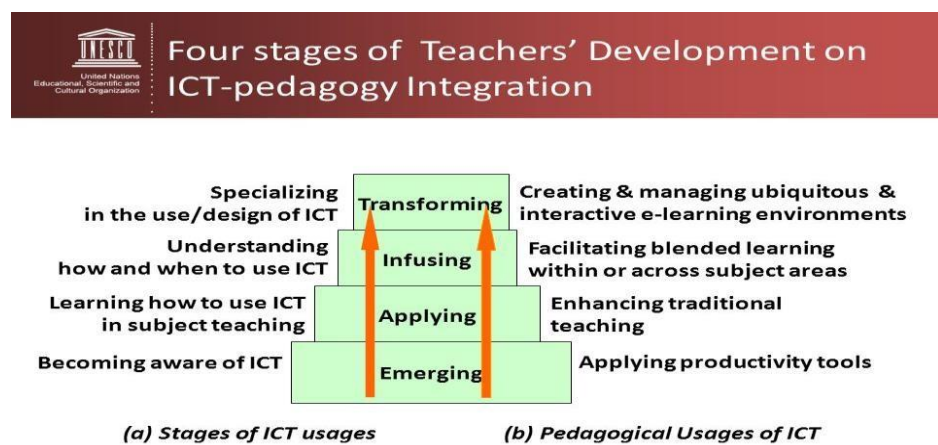
- The first challenge faced is to assess internet connectivity. Especially in rural areas.
- The second challenge is to have good internet connectivity even in urban areas.
- The third challenge is the live streaming focuses only on theory without use of the laboratory, as technical education is more practical based.
- The fourth challenge is use of many e-teaching or e-learning apps such as Google class room, Zoom, and many others have been adopted to reach the students as far as possible. Now the challenge was to select an appropriate apps among the available apps which was not only low data consuming but had better stability during the live streaming.

Objective Two (In Traditional Context)

In the Indian School setup, Children in a class do not normally belong to a very homogeneous age group. A part from differences in the chronological age is related variables; Children usually show individual differences in terms of the following.

- Cognitive competencies which denote their ability to receive, process and use information of various way.
- Interests and inclinations, which are determined largely by their social and cultural backgrounds from which they come.
- Motivations and general orientations in pursuing learning tasks either prescribed learning tasks or individually monitored self regulated learning (SRL).
- Attitudes and values which they bring to bear upon their various behaviors, involvements and pro-active moves.
- Perceptual filters which are attributable to socio-economic factors and variables.

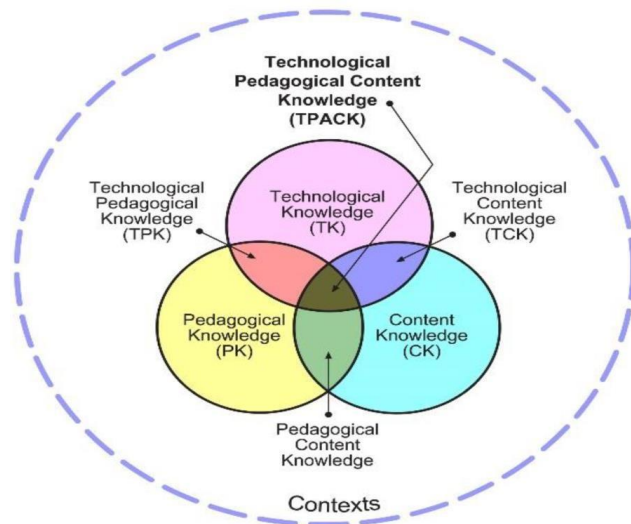
It may be interesting to explore the concept of paradigm shift in learning and the role of teacher in handling the problems of classroom situations for effective teaching and how they can enhance the quality of learning by integrating ICT's and Pedagogy. It may follow the following series of steps, i.e. Emerging, Applying, Infusing, and Transforming.



Source: UNESCO, 2005

Teacher's competencies and pedagogical uses of ICT

At the point when we think instructing with innovation it implies incorporation of three center segment: substance, instructional method, and innovation. This is the (TPACK) structure (Koehler and Mishra, 2008; Mishra and Koehler, 2006). This system clarifies us about how educators comprehend ICTs and how he produces successful instructing with instructive advancements. In this structure, there are three reliant parts of educators' information: Content Knowledge (CK), Pedagogical Knowledge (PK), and Technological Knowledge (TK). Content Knowledge (CK) is instructors' order over topic (to be learned or educated); Pedagogical Knowledge (PK) is educators' profound information about the cycle and practices of instructing and learning (technique); Technological Knowledge (TK) is familiarity, comprehension and authority of Information Technology (Computer Literacy); Technological Pedagogical Knowledge (TPK) is looking forward, imaginative, and receptive towards utilizing innovation not for the wellbeing of own yet for understudy's learning and comprehension; Technological Content Knowledge (TCK) is explicit innovation to address topic in their spaces or change of innovation; Pedagogical Content Knowledge (PCK) is the information on instructional method that is appropriate to the educating of explicit substance of educating, learning, educational plan, evaluation and announcing.



Source: <http://tpack.org>

Instructors must utilize devices, for example, word processor, visual introduction programming, spreadsheet, information base, email and so forth to help their day to day work execution. Appropriation of ICT in the study hall by and large backings instructors in upgrading conventional educating and picking up, performing work, encouraging learning and making imaginative learning situations. The UNESCO Planning Guide (2002) chooses instructional method, alongside content, as the most significant part of injecting innovation in the educational program. Imbuement of ICT starts with educators' authority over the subject substance. With fuse of ICT in educating, educators grow better approaches for getting things done and slowly change the focal point of homeroom exercises from an accentuation on instructing to an accentuation on learning. Improvement of educators' abilities in coordinated effort and systems administration is fundamental for injecting ICT in the educational plan. Through joint effort and systems administration, proficient instructors advance just learning inside the study hall and draw upon ability both locally and internationally.

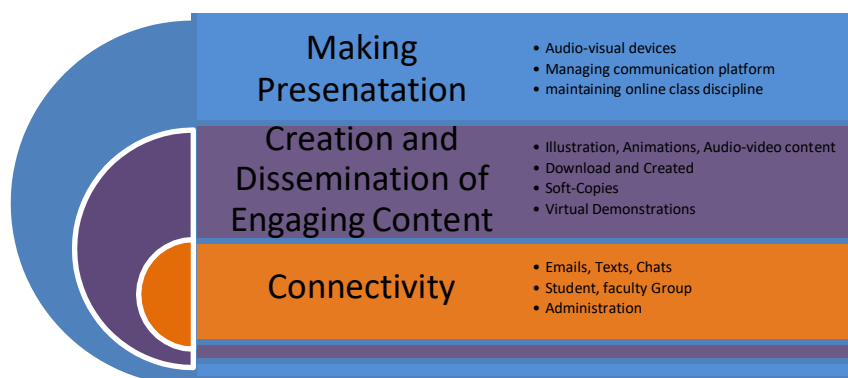
The innovations utilized at present in the study hall over the globe are Web 2.0 devices, blog, interpersonal interaction, Wiki, rich website outline, podcasting, and channels. Web 2.0 is definitely not another adaptation of the web or Windows Explorer that must be downloaded. Rather, this alludes to the manner in which the web will in general work nowadays. Presently, the web, in contrast to web, is where one can peruse and compose pieces and pieces, and different individuals can compose and post their sentiments on a given subject. Blog is short structure for web log. This is an openly accessible online dairy where someone can post short articles (suppositions, data, occasions and so forth.) consistently (every day, week after week, fortnightly, and so on). It is utilized as a homeroom innovation by educators to have his/her own blog that understudies can peruse, and the instructor can post guidance, study tips, schoolwork updates and so forth. For instance, Google applications offer office to make blog for clients. Long range interpersonal communication destinations help clients to associate and chat secretly or openly to other people. Individuals can visit by means of the console, present connections on destinations they suggest, discover individuals with normal interests, etc. Scrumptious, twitter, and face book are a few instances of the fundamental interpersonal interaction locales. Wiki alludes to a site that anyone can alter. Wiki implies, what I know is. It has some solid prerequisites and norms identifying with recognize feelings from realities, unprejudiced composition and supporting references. Rich site rundown (RSS) is a snappy outline of new material that has been added to a site important to the supporters. In the realm of homeroom innovation, a RSS is sent to the supporters (for example understudies) who can see the features of any pamphlets posted on the web. Podcasting is a sound and video cut that can be posted for survey or tuning in on iPods (which resemble the walkman however considerably more complex). Clasps can be dispersed to supporters through RSS. Recognizable bits of homeroom innovation, for example, advanced cameras are utilized to make these. Channel is fundamental for any school PC that has web access. A channel squares bothersome destinations so understudies can't get to them. Despite the fact that it isn't

Cent percent great, on the grounds that at some point it is over blocked and avoided, so instructors needs to remain careful.

There are numerous sorts of PC and non-PC advances utilized at present in conventional study halls. These are PC, class sites, class websites and wiki, remote study hall receivers, cell phones, and savvy board. PC in the homeroom is a resource for any instructor. Educators can exhibit another exercise, present new material, outline how to utilize new projects, and show new sites with a PC in the study hall. Class sites are a page intended for instructors to post schoolwork tasks, understudy work and adages. As of now, youngsters realize how to utilize the PC and explore their way through a site. Class Blogs and wikis are the assortment of Web 2.0 devices, which are being executed in homeroom. Online journals permits understudies to keep up a running exchange on an idea, thought, and task with the goal that understudies get chance to remark and reflect. Wikis are more gathering centered. It permits bunch individuals to alter archive and make new record. A remote study hall mouthpiece encourages understudies to tune in to their educators more clear in boisterous homerooms. Youngsters learn better, when they listen t the educator unmistakably. Cell phones, for example, PDA can be utilized to improve the involvement with the homeroom by giving the likelihood to educators to get criticism. Keen Board (intelligent whiteboard) gives contact control of PC applications. It upgrades the experience of homeroom circumstance by demonstrating information and data that can be on a PC screen. This is definitely not a visual learning, however it is intelligent so understudies can draw, compose, or control pictures on the Smart Board. There are numerous different instruments being used relying upon the neighborhood school board of trustees and accessibility of reserve. These are TV, computerized camera, camcorder, LCD projector, OHP, recording device, CD/DVD player, MP3 player, and so on.

ICT Initiatives for Higher Education in India

- ✓ National Digital Library: Framework of virtual repository of learning resources with a single-window search facility. Houses different types of digital content like e-books, journals, audios and videos.
- ✓ National Academic Depository: Online store house of all academic awards likes' certificates, diplomas, degrees, mark-sheets, etc. duly digitalized and lodged by academic institutions/ boards.



Discussion and Conclusion

Data and correspondence innovation could create and reinforce the limit of instructor just as organization in showing learning measure. Incorporating innovation into study hall practice is probably the greatest test of the 21st century training framework. New advances can be utilized with regards to the way of life, need, and monetary condition inside the nation. Establishments and educators should be furnished with aptitudes and capacities of most recent innovation every now and then for the quality and competency improvement that impact understudy learning. To give a drawn out help of innovation to instruction framework types of gear, programming, and preparing will be given through a fruitful program of execution. We can change the mentality of individuals by teaching them about ICT. This will make a positive impact and lead to a reasonable strategy toward this path and aides in the expert advancement of instructing and learning cycle to obtain the information and ability identified with ICT. Instructors assume a significant part in the current society. They could make model with new instructional methods and devices for learning with the plan to improve the showing learning measure. Furthermore, instructor training establishments and projects must assistance educators to see how the new innovations can best be utilized in this unique situation. For building the limit of establishments and instructors in use of ICT for instruction requires preparing, sharing of information among instructors, associations and coordinated effort among teachers and associations, and backing from chiefs and executives. These elements are basic so as to acquire changes homeroom learning.

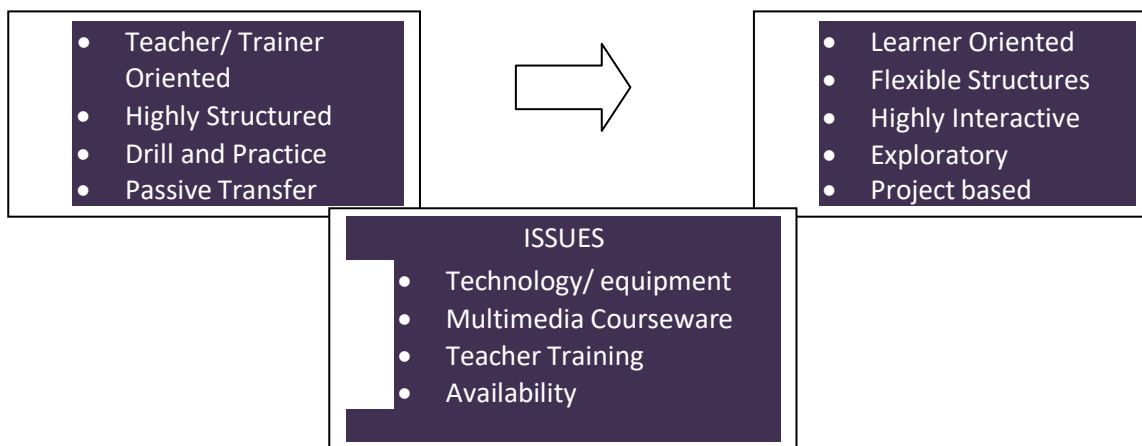
- ✓ Government, NGO, and other private organization should take steps to provide adequate and updated ICT material resources to schools especially situated at rural areas. Government need to emphasize this through appropriate regulation and planning.
- ✓ Steps should be taken by government for funding to schools for the maintenance of ICT.
- ✓ Teacher working in both urban and rural areas were failed to increase confidence in using ICTs and its application both at home and school. So they are recommended to be a regular user of ICT to develop competency and skills over ICT. Training programmes must be organized for institution head with teachers, and office staff (non-teaching) on new techniques and teaching skills related to ICT that develop interest, talent, life skills, leadership quality, confidence and adjustment ability among them.
- ✓ A new strategic direction needs to be set by government for schools and higher education institutions. There needs to be a common understanding of the ways in which ICT should be implemented and to what extend it should be used in these institutions. Teacher should have to aware of the possibilities of ICT use, a clear acceptance of the benefit for it, tested on their skills before allowed to become a teacher. Institutional administration and Government should closely monitor the performance of the teachers in ICT uses, and ensure that appropriate interventions are taken to develop their skills.

Summing up

Balance between Technology and Education: Needs and Necessities

A Paradigm Shift in

Teaching and Learning during COVID -19



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