

Integrating Pedagogical advancement with reference to Educational Technology-An analytical Study

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Abstract

Education is a powerful and tangible vernacular of the society, a mode of new awakening towards essence of life. In fact, Globalization is mounting from every corner in the present scenario of 21st century. The tremendous advancement in educational pedagogy and emerging trend of educational technology has greatly influenced all diversity of education. The influence of education plays an important role in initiating socio-economic progress of the country. India's educational system has intensively undergone a substantial transformation since the independence. The appropriate use and proper implementation of multi-equipped educational aid and computer based techniques enable the teachers and the students to comprehend the nature, prognosis of problem solving tactics and effectiveness of teaching. It endeavours to analyze the impact of technology on the theoretical and hypothetical aspect of teaching and learning. A comprehensive study on pedagogical enhancement encompasses the whole gamut of new techniques and strategies which could be intensively investigated and to draw reasonable inferences about the possible effect to emerge out recent innovation and assessment in the sphere of education. This study is significant in the light of its content, which includes various aspects of Pedagogical implication to usher at the optimal level with reference to the recent trend in emerging Educational Technology.

Key Words: Tangible, vernacular, globalization, educational pedagogy, diversity, substantial transformation, hypothetical, multi-equipped, prognosis.

Introduction

The intensive introspection of this article attempts to analyze the impact of the newest use of the computerized technology through audio-visual aid in the diversity modern educational system and practices of implementing the relevance of organized knowledge and technical expertise to improve and scrutinize effectively the allied issues underlying pedagogical attributes. Integrating Pedagogical advancement with reference to educational technology is a strategy of implementing the basic entities or the major considerations to incorporate set of expectations which are intensively used in an organized spectrum of education to fortify with environment conducive methodologies and to sprout scintillating effect towards teaching – learning procedure. It includes the core concept of the essential needs of strategies, policies, goal accomplishment,

routines, protocols and consequences. The atmosphere of classroom and the artistic blend of pedagogy have a great influence on the overall multisided development of the personality of the students. Effective pedagogical skill of a teacher enhances the leadership trait to perform effectively towards the attainment of the institutional goals (Tripathy, 2009). Management is needed in all dimension of education. Effective pedagogical management paves the way for the teacher to engage the students and motivate them to learn. A facilitator with strong pedagogical management can create consistency of learning habits for his students. The efficacy of teaching methodology has travelled a long way and the outputs have marked its importance and reflect the contemporary society and the modern educational system. Proper accomplishment of pedagogical attribute can help to execute complicated statistics much easier for a teacher to elucidate and makes convenient for the aspirants to comprehend. Besides increasing the clarity and performance of teaching, effective teaching management enables a teacher, as well the students to recall far more information both verbally and visually. Pedagogical management provide a permanent handout of the learning entities and intricate the feature of a particular lesson, text or a chapter to enable a teacher and the students to collect more detail and impressive content of what is being taught in the class (Chandra, 2003).

Interpretation

The significance of education was realized for overall human resource development, the economic growth and prosperity of the country. Since independence, numerous efforts have been made to endow with education to the future citizens of the country. The National Policy on Education (NPE) 1986 and Programme of Action (POA) 1992 stands as a major landmark in the country's journey towards an intervention programme to uplift the standard of Elementary Education. It is said that good teachers have always used visual aids to make their teaching effective. Educational technology, broadly speaking, has passed through five stages (Aggarwal & Gupta, 2010). The first stage of educational technology is linked with the use of audio-visual aid like charts, maps, models, specimens and concrete material of stimulus based composition. The term educational technology was used as a synonym to audio-visual aid. The second stage of Educational Technology is incorporated with the electronic revolution, which means the era of sophisticated hardware and software, the projector, tape recorder, radio and television All had changed the educational scenario. Accordingly, educational technology was taken in terms of these sophisticated instruments and equipments for presenting institutional materials. The third stage of educational technology is associated with the mass media which led to communication revolution for institutional purpose. Computer assisted instruction also became popular. The fourth stage of Educational Technology is marked by the individualised process of instruction. The invention of programme learning and programmed instruction gave a new dimension to educational technology. A system of self learning based on self instructional material and teaching machines. The latest concept of Educational Technology is influenced by the concept of Systems Engineering or System Approach. According to it, Educational Technology is a

systematic way of designing, carrying out and evaluating the total paradigm of teaching and learning in the terms of specific objectives based on research (Aggarwal & Gupta, 2010).

Essential of Pedagogical Consciousness in Educational Policy & a Scientific Study of Pedagogical improvement with reference to computer based techniques

Imparting teaching through Audio-Visual Aid (Teaching and Learning based on Verbal and Visual Stimulus):

The term 'audio-visual' aids' refers to the equipment and gadget which can intensively use for amplifying or supplementing our information/communication. An aid thus enables the communication lucid, vivid, enriching, revitalizing, stimulating and interesting. It assists the communicator to draw the attention of the audience and enable them to draw a pen portrait picture of the given topic. The technology of communication is rapidly becoming more progressive and sophisticated. In specific terms, we are concerned with the following audio-visual aids : Smart board (Electronic board), overhead projector, filmstrip and slide projector, OHP, transparencies and episcopes, movie film projector, video compact disc player, video tape recorder, video cassette player, audio tape recorder, static and working models, charts, graphic aids', stimulus based composition like representation of data's, pictograms, bar charts, tables, bar graphs, pie charts, cartoon animation, pictures, maps, flowcharts and other PDA(Product Detailing Aids') and BBP(Business Blue Prints).The aid is not merely helpful for the audience but also to the speaker. If the speaker or the instructor has planned well his materials then he can sustain the interest of the audience (Narayanan, 2006).

Learning entity behavior and Neo-Dynamics of Advanced learning:

The desirable behaviors related to learner's life skill attitudes, interests, values, co-curricular activities and physical health are described as skills to be acquired in a co-scholastics domain. The process of assessing the student's progress in achieving objectives related to scholastic and co-scholastic domain is known as continuous evaluation of Pedagogical Management. The main objective of such evaluation is to build up the knowledge and experience to design what is taught, it incorporate the learning style and enable the students to decide what and how to learn. It encourages the students to understand the criteria that will be used to judge their work performance (Prasad, 2009). Evaluation and establishment to reduce the stress on the children, it provides space for the teacher for creative teaching, and it facilitates a tool of diagnosis and remedial action. It stimulates the learner with inspirational endeavor and aspiration to learn. *Hillard Jason* has stated the following major objectives of Educational Technology with reference to classroom teaching. Macro level objectives of education are to identify the educational needs and aspirations of the community. The following points are mentioned herein for the accomplishment of such educational goals.

- Determination of the aims of education based on strategy and the structure of education.

- Developing a suitable curriculum with an interaction of arts, Human Values, Cultural Transmission, Ethics and Science (Alavudeen, Rahman & Jayakumaran, 2008)
- Identification of man-material resources and strategies for achieving the desired aims of the education.
- Developing certain models leading to improvement in the process of teaching and learning.
- Identification of major constraints in the environment and the ways and means of tackling them (Madsen, Charles 1968).
- Managing the entire educational system covering planning, organizing, implementing and evaluation phases.

The micro-level objectives of educational pedagogy are listed herein.

- Identification and analyzing the characteristics and educational needs of the students.
- Determining the specific classroom objectives and starting them in behavioral terms (Goodman, 2008).
- Analyzing the contents of instructor and organizing them in proper sequence.
- Identifying the available teaching-learning resources (Eisenman, Gardon, Susan & Cushman, 2015).
- Identifying the nature of instruction of the sub-systems like the interpersonal relationship between teacher and student, teaching-learning material, content of instruction and the methodologies (Wolfgang & Glickman 1986).
- Evaluating the effectiveness of classroom teaching in terms of the student's performance or change in behavior (Tingstrom, Sterlinh & Wilczynski, 2006).
- Providing appropriate feedback to the students as well as teachers to emerge out modification in teaching-learning process. The Basic Entities and Major Considerations of Classroom Management (Barbetta, Bicard & David, 2005).

The teaching skill associated with different stages of the instructional process. The first and integral part of teaching is planning of stage skills. This includes writing of teaching instructional objectives, selecting the content, Organizing the content and selection of audio-visual aids (Advancement in Educational Technology). The second part is the introductory stage skills which includes skills of utilizing of previous expertise and experience, skill of using appropriate devices and techniques for introducing the lesson, maintaining continuity of introduction and observing the code of behavior. The third significant aspect is the presentation stage skill which incorporates questioning skills and teaching strategies (Moskowitz & Hayman 1976). Narrating and elucidating skills, leadership trait skills, pupil participation, recognizing attendance, behavior and effective use of teaching aids and gazettes. The ultimate skill is the closing stage skill which includes art of achieving closure, planning, repetition, systematically execution of the plans, communicating ability and evaluative pupil performance skill.

Discussion

Based on the ideology of modern scientific principles and discoveries, Teaching Technology or Educational Technology is concerned with the mechanism and neo-dynamics of method, material and media. As per as the directive of National Council of Educational Technology (N.C.E.T), UK, “*Educational Technology is the development, application and evaluation of systems, techniques and aids to improve the process of human learning*”. According to Shiv.K.Mitra, “*Educational Technology can be conceived as a science of techniques and methods by which educational goals could be released*”. According to the notion of I.K.Davis, “*Educational Technology is concerned with the problems of education and training and is characterized by discipline and systematic approach to the organization of resources of learning*”. According to the International Dictionary of Education, “*Educational Technology denotes the design and implementation of system of teaching*”. With regard to pedagogical aspect by the innovation and implementation of computer based techniques, we use and adopt the first stage of educational technology which is linked with the use of audio-visual aids (Stimulus Based Learning Resources) like charts, maps, models, specimens, concrete materials, graphic aids like representation of data’s, graphs, bar charts, pie and flow charts, pictograms, computer animated pictures, P.D.A (Product Detailing Aid), cartoons and so on. We also create the construction (infrastructure) of the layout of the content of learning, in the same way we use and adopt the layout of the concerned projects, study material and research proposal through B.B.P (Business Blue Print) which could project a visual display about the concerned project and may be an effective contrivance of displaying about a project, about a product or a service. The second aspect of Educational Technology is marked with the electronic revolution which had brought an era of sophisticated hardware and software. The projector, tape recorder, radio, television CCTV camera and other equipped gazette and sophisticated instruments are widely used for practicing instructional materials. The other significant approach is concerned with the mass media for instructional purpose. It includes computer assisted instructions and for the teacher to cope up with the flexibility of the latest equipments and gazettes. Now, we hereby thoroughly throw light upon about the different computer based equipments and gazettes which are used in the diversity of teaching and learning practice, the aids are shown herein (Aggarwal & Gupta, 2010).

Computers, Epidiascope, Magic lantern, Motion Picture, Overhead Projector, Radio, Record Player, Slide and Film Projector, Still and Motion Projector, Tape Recorder, Teaching board(Smart Board/Electronic Board/Digital Board), Television, Video and of course internet connectivity. In Pedagogical aspect we would bring into play the modes of Communication, Audio, Visual and Audio-Visual aids. With the advancement in the means of communication and that of technology, educators intensively use this methodology. With the vast expansion of programmed learning, computers assisted instructional and imparting pedagogy through educational television brought about drastic change and modernization in the educational domain. Accordingly to Burton,” *Audio Visual aids are those sensory objects or an image which*

initiate or stimulates and reinforce learning". According to James Kinder, "Audio Visual aids are those devices by the use of which communication of ideas between persons and groups in various teachings is helped". Kinder S. James describes, "Audio Visual aids are any device which can be used to make the learning experience more concrete, more realistic and more dynamic". We had already focussed on the central theme that pedagogical management through computer based techniques and its advantage for the educational sector is to fulfil the wants and needs of the aspirants in the educational domain. Although this creating or acquiring technical acumen, competitive advantage assure to an institution only when the potentialities are deployed in the new modernized and innovative concept of imparting teaching or the concerned process. Thus we will focus primarily on the application of knowledge as the central technological change activity. Successful technological change can take place in different ways. Technical blackouts sometimes present in an institution with opportunities to produce (Implement) a new strategy that fulfil the desire or for the accomplishment of the organizational goals. The word innovation appears to have its own origin which means to formulate new combination of the pre-existing knowledge. It is the wholesome progression by means which changes in the strategy of the educational venture are intensively studied and guided towards the pre-determined objectives. It is the comprehensive course of action of recuperating the system approach towards the neo-dynamics of education and articulates with effective implementation. The primary objective is to sprout about improvement in the teaching-learning process so that the learner develops his potentialities to the optimum level, it also bring a scintillating upshot by assisting the learner in their learning, it enables the learning difficulties and stimulates convenient readiness for new learning experiences and after all it assist the faculty in adopting appropriate strategies of teaching and learning outcomes (Berliner, 1988).

There are certain occasions when a professional has to make an oral presentation. In this concern audio-visual aids can greatly enhance its value. The influence which and what we notice and what we hear, profoundly invade in our remembrance. The concept of imparting education through audio-visual aid encompasses to the teaching materials and the equipments which are intensively used for amplifying or supplementing our messages. Encouraging discussion initiates among the children on the basis of continuous and comprehensive evaluation as to enable the children to share experience related to the central theme of each chapter. Through these discussions the mind is enriched and their core concept of oral and written skills is developed. Interpreting and promoting skills with integrated pictures could enrich the children to project and interpret the idea and outline of the story. We should facilitate with the numerous exercises to promote comprehension skill as well as vocabulary building through intensive practice and free expression, conversation ability to pronounce clearly and distinctly in their reading and encourage the children to arrive at the meanings of the new words through the use of contextual and picture clues. There is also enormous scope of extending reading interest and inculcate in children the habit of reading beyond their textbooks by helping them to appreciate the stories, poems and activities in readers. We ought to show that real pleasure and satisfaction can be gained from independent reading. The lively and interesting reading passages provide

adequate and graded vocabulary for the child. There is a wide variety of reading materials i.e. new stories, factual accounts, scientific articles, historical legends, contemporary fiction as well as traditional folk stories which have been written or adapted for the appropriate level. Drama and poetry figure an integral part to facilitate and reinforce the learning process. Intensive exercises provide practice in the activity use of what the children have read and perhaps understood intuitively. The comprehension section includes factual questions that relate directly to the passage and inferential and extrapolative questions that help to develop the child's ability to interpret the text to express original and creative ideas (Chandra 2003). The most significant aspect is the vocabulary building through exercises from variety of activities like word-grids, antonyms and synonyms, collective nouns, one word substitute, homonyms and homophones, idiomatic and figurative expressions, acronyms, brain teasers, puzzles and crosswords that deal with the meaning of contextual words, spellings and sentence-building and also incorporate extension work. The concept of thought and application of grammar is significant in formal areas of language study i.e. parts of speech, determiners, modals, syntax, sentence structures, punctuation and idiomatic usage. The Composition part facilitates to develop the child's functional and creative writing skill. Listening and Speaking directs the pupil to listen to the passage and comprehend, pronounce words correctly, use particular structures and sentence (Carol 2006).

An aid thus makes the communication lucid, vivid, stimulating and inspiring. It helps the speakers to arrest the attention of the audience and enable them to enliven any pedagogical domain. The technology underlying communication is swiftly enhancing more sophisticatedly (Allen, 1986). The immense possibilities of exploiting it sometime so much fascinate the speaker that he pursuit the technology to take over the situation. Visual aids are used in all types of proposals; visual aid can advocate any element of the programme, describing any problem, the solution of the concerned problem, the benefits and outcomes. For instance, *Gantt chart* visually depicts a schedule of implementation; A *Gantt Chart* has an X and Y axis. The horizontal axis displays time period, the vertical axis individual progression, the readers can observe the entire schedule of the project. Many kinds of diagrams such as flow charts block diagram, organizational charts and discussion tree can also enhance a proposal. The use of visual aid in a technical proposal, the writer of the proposal may organize visual aids in his proposal to determine the problem, search for the solution and implement the strategy towards the problem (Marshall, 2001). It also determines the problem with evidence of data, the significance and the cause. The data's are the actual facts that a person can perceive. The significance of the data points out the current difficulties and future opportunities. (Brooks, 1985). The other vital aspect is to know the solution of the emerged out problems and to present an effective solution and explain how it will eliminate the cause, thus by elimination of the cause, the solution can be implemented with regard to the system involved, proposal, the cost, the effect and the schedule for implementing the changes. In a nutshell, effective teaching aspire well planned presentation in order to determine the child's prospect, wants and needs. It enables the teacher to have a picture of the content he is suppose to deliver in the classroom. By having a well planned

presentation, the teachers are able to concentrate on their children's prospects, thoughts and gestures. This facilitates the teacher to develop enormous confidence to perform the duty with greater flexibility and efficiency (Aggarwal & Gupta, 2010).

Conclusion

There have been spectacular current developments in the educational domain. Advancement in pedagogical attributes has influenced almost all the sphere of academia in the millennium of 21st century. The aspects of Educational Technology or Edu-tech, incorporates an ample range of multi-equipped teaching aids, devices and computer based gazettes which are intensively used to resolve educational set-back and to endorse eminence of lives. This includes the systems developed to facilitate the techniques and resources for the appropriate allocation of the procedures and organizational methodology used in the neo-dynamics of Educational Technology. The role of computer based techniques to be one of the recent innovations to eradicate the underlying traditional pedagogy and to comprehend towards the latest and upgraded system. These are intended to improve the desired quality of academic resources through analysis, invasive management, information technology, Educational Information System (EIS) and comply with the protocols of Educational Policy. With this advancement in the versatile technology, Pedagogical facet has endorsed the teachers and academic professionals to maintain track, identify and monitor effectively the miscellaneous and allied issues underlying educational system. This article throw light upon the influence of computer based technology in the sundry field of education and practices of incorporating the synergy of application and technical acumen to evaluate for modernization a with an approach to pedagogical improvement.

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