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Application of Instructional Technology in Teaching Learning Process: An Indian Perspective

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Abstract:
The instructional technology involves the disciplined application of knowledge for the purpose of improving teaching learning performance. It provides benefits such as organization, efficiency and communication in the teaching and learning process. The Teaching & learning of traditionally run classrooms will need to bust-up the skill and knowledge. The current teaching learning process involves the use of technology continues to hold students back as passive observer of content. This paper will introduce instructional technology, evolution of technology and impact of instructional technology on the teaching and learning process.

Keywords: Instructional, Technology, Education, Learning etc.

Introduction:

India is a developing nation and India has always prioritized education as a pathway from a developing nation to a developed nation. The main reason for this is that education has been given priority since ancient times. Therefore, the historical education was deeply rooted in the Indian religion and Vedic studies covering wide range of subjects like Grammar, Sanskrit, Mathematics, Medicine, Arithmetic, Astrology, Logic, Science, and Commerce and many more areas. Consequently, universities like Takshila and Naldana in the ancient Indian system of education always fascinated people from outside society as major avenues of education. The uniqueness of the Indian education system became prevalent due to the animalization of the use of the modern education policies along with the ancient Indian education system.

The post-independence era is considered to be an important phase for the Indian education system because during this period, there were drastic changes in the education sector happened. It is due the inclusion of technology in the education system, as overall education started to become a technology-based system. Various Commissions and Committees have also been constituted with a view to maintain proper control over the Indian education system so that proper harmony should be struck between the changing social life and national needs and the education system based thereon. Radhakrishnan Commission (1948-49), National Education Commission (Kothari Commission) (1964-66), NCERT (1965), National Education Policy (1986), Revised NEP (1992), NAAC (1994), National Knowledge Commission (2005), NCF (2005), Yash Pal Committee (2009), NCHER Bill (2010), SSA (2010), RUSA (2012), and NEP (2020) are the examples of these milestones. Therefore, education for Indian is not

only to gain academic knowledge but to cope with scientific and technological approaches to make the entire learning teaching process effective, interesting and productive. Therefore, Instructional Technology in Indian education is one of the ways in achieving this goal.

Purpose of the study:

The purpose of this research paper is to examine the application of Instructional Technology in teaching learning process of Indian education system. In order to examine the application of Instructional Technology in Indian Education System, the researcher has adopted analytic method and for this he has analyzed various research, documents and published material related to this. Secondary data is the major tool for gathering information in this research paper.

Instructional Technology:

According to the syllabus of Post-Graduation in 'Child Care and Education' of Alagappa University, Karaikudi, Tamil Nadu, 'this kind of educational technology is meant for helping the instructor and the learner in the desired instructional task for the realization of the stipulated instructional objectives in a particular teaching-learning situation. In simple words, it is a type of technology meant for bringing improvement in the instructional process.' (Sivakumar, 2016)

Instructional Technology is the process of solving instructional or educational problems by systematically analysing learning activities. In the early days it was defined in a traditional way. It involves designing messages for the learning process, including the elements of planning, development, selection, implementation and management. Accordingly, Reiser and Dempsey, 2007, refined instructional technology. According to him, "it deals with the analysis of learning, problems in presentation, design, development, implementation, evaluation, and management in relation to instructional and non-instructional processes and resources."

Aristotle, Thorndike, Sidney considered the cognitive systems approach. But in the period from 1940 to 60 there were several events in which sputniks were released into the sky. These advances have revolutionized the process of instructional development in the education around the world. It was also natural that problems would arise due to numerous developments in the education sector. So B F Skinner introduced the concept of Programmed Instruction to solve educational problems. Robert Glaser introduced the concept of Individual Prescribed Instruction. Ganey and Bloom then added their paradigms to the educational system. Therefore, during the 1970 and 1990, psychologists like Ausubel, Bruner, Merrill, Ganne put forward the idea of how technology can be used to develop strategies, and the concept of 'Student's Need Assessment' emerged.

In 1994, The Association of Education Commissions and Technology defined Instructional Technology, 'the theory and practice of design, development, utilization, management, and evaluation of process and resources for learning.' Considering this definition of instructional technology, this technology must be regarded as a subsystem of educational technology that is purely concerned with the process of imparting instructions to the learner for realizing the stipulated instructional objectives which mostly cognitive in nature. Therefore, most of behaviours of learners are neglected for the utility of instructional technology in the process of better learning.

Instructional Technology in Teaching Learning Process:

Instruction is a higher way of teaching and its main purpose is to transfer knowledge. Instruction is a planned process of achieving goals. It is a deliberate process and is associated with cognitive domain of personal development. It result is the transfer of knowledge and information. Instruction involves the mental process of thinking, reasoning, inferring, and generalizing. Instructional technology is an important part of educational technology and it is expected that the overall development of a person through education. Cognitive, affective, and functional areas are expected to be developed and as the objectives of each of these areas are defined, instructional technology plays an important role in achieving those objectives.

According to Prashant Venpakal, 'from Indian perspective, instructional technology helps learner and instructor to select and make use of appropriate media and methods for carrying out the teaching-learning process.' From this point of view, Sivakumar (2016) states that 'there are varies of media and methods available for imparting instructions.' For him, there is no certain method or media of instruction to decide learning and teaching process. Therefore, a careful and planned resource of instructional technology to be selected and utilized as it has direct impact on this process. Reeti Gupta (2021) on the other hand illustrates that technical evolution in higher education has brought new dimension for the entire teaching learning process. Instructions offered in this technology enable instructors to apply different strategies for sharing knowledge with the learners. Self-learning programmed, auto-instructional procedures in this technology enable teachers to carry different technical mechanisms by means of technology-assisted systems like computer, and other instruments. This makes both learner and teacher to have a scope for personalize system of instructions.

Instructional technology is a system based on psychology and is definitely influence by various methods and paradigms of study proposed by psychologists. Therefore, the hierarchical methods of knowledge acquisition proposed by psychologists like Robert Ganne are also considered in the Indian education system through instructional technology.

The progress of any nation depends on the social, economic, political and cultural conditions of that nation. This socio-economic, political, cultural situation comes in the constitution of that nation. The responsibility of achieving the goals of the nation falls on the education system and the teacher is considered as the most important point in this system. The teacher and the student are considered as two important factors in the interaction of human factors in education system. Interactions between them can only successful as long as both of them use the appropriate reinforces for that interactions. Therefore, the relationship between the teacher's skills and the concept of innovation can be seen only when students acquired knowledge through instruction. In order to meet this need, National Council for Teacher Education (NCTE) in their Teacher Education Program Norms- 2014, adopted policy of technology training among the pre-service teachers and instructional technology became the essential part for training programs. The essentiality of instructional technology for teachers was already carried in Erzincan University where Sema Yalcin and his colleagues conducted research program in 2010-2011. Flick and Bell (2000) also had focused on use of technology by science teachers in the coming time. The coming time for them was tomorrow. This need is considered by the teacher education programs in India and instructional technology is used for accessing more and better technological resources, multimedia stimulation for good teaching practices, and catalyzing collaboration among the teachers of all levels.

Since the spread of constructivism in India, in the Indian education system, students are trying to study using self-knowledge and intuition. In constructivism, the student is expected to discover his own knowledge through the learning environment by making learning a creative, self-directed, goal-oriented and reflective learner. In this constructive situation of knowledge acquisition, the learner is expected to respond intellectually and meet his own educational needs by using instructional technology. Therefore, the effect of various media on learning through instructional technology can also be seen through the medium.

Conclusion:

It can be concluded on the basis of the above analysis that instructional technology is the process of utilizing relevant and appropriate resources to design, develop, and manage and evaluate solution to systematic problems in order to facilitate individual (learner) or an organization (educational institute) for their performance improvement. Based on the psychological as well as scientific foundation, it is used for developing the cognitive domain of learners. Self-instruction, self-finding, remedial teaching, and correspondent programs are the basic elements of this technology. In short, as stated by Kozma, in the various media that are used through instructional technology, students are expected to acquire knowledge interacting and creating a learning environment. Therefore, instructional technology is a part of educational technology itself. It mainly guides the students on how to study. Advances in educational technology have also led to many changes in instructional technology and need to be embraced.

References:

1. Sivakumar, G. (2016). *Educational and Instructional Technology for Young Children.* M. A. Semester IV Syllabus of Alagappa University, Karaikudi, Tamil Nadu, pp. 13.
2. Reiser, R. and Dempsey, J. (2007). *Trends and Issues in Instructional Design and Technology*. Second Ed, New Jersey, Ohio MA: Pearson. pp. 96.
3. AECT (2012). Association of Education Commissions and Technology, AECT Standards, 2012 version. https://www.aect.org/docs/AECTstandards2012.pdf.
4. Venpakal, P. An Introduction to Educational Technology. file:///C:/Users/Ded/Downloads/AN_INTRODUCTION_TO_EDUCATIONAL_TECHNOLOG.pdf.
5. Gupta, R. (2021). Technological Evolution of Indian Higher Education. *Proceeding of NAAC Sponsored Online National Conference on Quality Enhancement in HEIs and Evolution with RAF of NAAC, pp. 52-61.*
6. NCTE norms 2014, Annexure I. https://www.ncte.org.in.
7. Yalcin, Sema., Yalcin Sinan., Sagirli, M., Yalcin, P. and Koc, A. (2011). The Usage of Instructional Technology by Lecturers. *Procedia-Social and Behavioral Sciences, 28 (2011).* Pp. 435-438.
8. Flick, L. and Bell, R. (2000). Preparing Tomorrow's Science Teachers to Use Technology: Guidelines for Science Educators. *Contemporary Issues in Technology and Teacher Education, 2000.*