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Techno-Pedagogical Skills in Teacher Education

Education

KEYWORDS : Techno-pedagogical Skills, Teaching, Learning, Teacher Educators, Training Graduates.

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ABSTRACT

Teacher Education is to learn to teach and teach to learn. Recent evidence indicates that reforms of teacher education creating more tightly integrated programs with coursework on learning and teaching produce more effective and more likely to enter and stay in teaching. An important contribution of teacher education is its development of teacher's abilities to examine teaching from the perspective of learners who bring diverse experiences and frames of reference to the classroom.

It is important to recognize that, Teacher Educators and Training Graduates are becoming more knowledgeable of Information and Communication Technology outcomes (ICTs), they continue to have knowledge or skill with which to integrate those technologies into their teaching practice. This paper discusses and outlined the importance of developing Techno-pedagogical skills in Teacher Education.

INTRODUCTION

"Education is not the filling of a pail,but the lighting of a fire."

Education may be defined as a systematic process of determining the extent in which the objectives are achieved by the public. According to Tagore, "Education is that which does not merely give us information but makes our life in harmony with all existence." As the twenty-first century approaches, the literate citizen is increasingly expected to use computer technology to access and manipulate information. Knowing how to manage electronic information from an ever-widening array of resources and in proliferating formats is essential. The education system was now witnessing a paradigm shift from the traditional chalk-and-board teaching methodology to digitizing the pedagogical approach through technical devices. A transformation would not only increase the capability of the teachers but would also widen the knowledge base of students so as make them competitive in the international arena. Therefore the technology orientation needs to improve in order to equip themselves to face the students belong to the digital era and also to face the challenges in the modern classroom.

TECHNO-PEDAGOGY

Techno-Pedagogy decides whether an Education media product is successful or not. Pedagogy refers 'Science and Arts of teaching'. Techno derived from Latin word 'Texere' means 'weave or construct'. Techno-Pedagogy refers to weaving the techniques of teaching into the learning environment itself. Education Technology provides approximate designing learning situations, holding in view the objectives of the teaching and learning bring the best practices/means of instructions which effect on learning.

Figure 1: Technological Pedagogical Content Knowledge (TPACK).

TECHNO-PEDAGOGICAL SKILLS IMPROVE QUALITY OF EDUCATION

Acquiring techno-pedagogical proficiencies will make teaching and learning a pleasurable exercise as it would lessen the pressure on the teachers and enable the students to delve deeper into domain of knowledge. Technology had made inroads into every sphere of human activity, including the field of education. It had totally transformed the face of didactic teaching and brought about far reaching changes in the way in which knowledge was being shared.

As the Teachers knew the significance of technology as it had made easier for students to understand. When it came to teaching theories, the Teachers should give up the mechanical approach and make it interesting by simulating problems and finding solutions to such imaginary issues.

In such a context, the terms "pleasure and pressure" should not get blurred and the distinction could be kept intact if the teachers with appropriate techno-pedagogical skills make teaching a "pleasurable" experience without feeling much of "pressure."

IMPORTANCE OF TECHNO-PEDAGOGICAL SKILLS FOR TEACHER EDUCATORS AND TRAINING GRADUATES

Teacher Education holds the most crucial position and helps in the success of any educational system. A teacher educator is the topmost academic and professional person in the educational pyramid who shapes the future teachers and the onus of quality of teachers therefore rests on the teacher educators themselves.

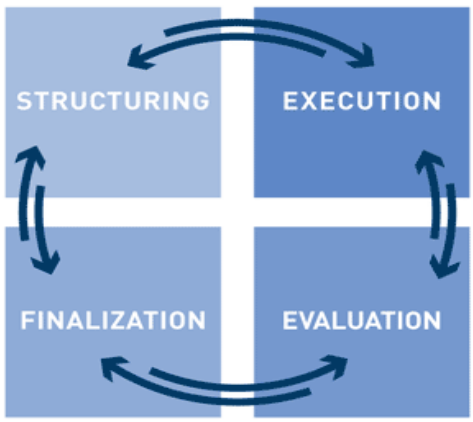
Technology is a broad and constantly changing skill-set required of faculty, and selecting the appropriate techno-pedagogical strategies to effectively engage students in the content is a separate skill-set. Media literacy influences student development, and developing a critical analysis of media consumption is an important skill for students. In understanding how technology and media intersect with learning, consider the compatibility between theories of technology and education, and how that relates to the content.

There is a need for Teacher Educators and Training Graduates, as well as the institutional level, to identify and articulate the occupational realities when technology and competencies intersect, while understanding and communicating how technological resources and strategies can engage students and enhance student learning.

DEVELOPING TECHNO-PEDAGOGICAL SKILLS IN TEACH-

ING-LEARNING PROCESS

Figure 2: The four educational aims of the techno-pedagogical program.



The Technological Pedagogical Content Knowledge is a collaboratively developed framework of scholars and researchers seeking to conceptualize and clarify the competencies that evolve from the intersection between pedagogy and technology. Investments in new and interactive technologies in education require both the technical and pedagogical skills to use them.

Instruction takes place in an innovative online learning environment where teacher educators and training graduates explore technology, learn technical skills, evaluate the appropriateness of various technologies in their subject areas, and devise creative and meaningful approaches to incorporating technology into sound pedagogy. The focus is on developing both the technological skills and the critical and reflective thinking skills necessary to continue using the most up-to-date technologies in the classroom.

Therefore, in order to provide targeted and appropriate professional development and support for faculty, the Center for Teaching Excellence uses the Technology, Pedagogy and Content Knowledge (TPACK) framework for identifying interrelated competencies related to teaching with technology.

New technologies can create new, open learning environment in which the instructional role can be shifted from a teacher-centered to a learner-centered. Teachers move from being the major source of information and deliverers of knowledge to co-learners and collaborators.

TEACHER COMPETENCES AND TRAINING GUIDELINES

Teacher education has centred on questions of how best to help teachers to integrate technologies into their classroom practice. The crucial role of teacher education in developing teachers' awareness of technical and pedagogical affordances of tools and resources, as well as their ability to use them effectively in the classroom. These abilities have been referred to as "techno-pedagogical skills" or "techno-pedagogical competences".

Table 1: Key aspects of teacher competences and training guidelines.

SL. NO.	TEACHER COMPETENCES	TRAINING GUIDELINES
1	Assess the potential and limits of technologies for learning.	Share the techno-pedagogical components throughout training rather than offering a stand-alone module.
2	Carry out a need analysis to introduce technologies in a pedagogical sequence.	Anchor teacher training in a specific setting to develop understanding of institutional constraints.
3	Handle basic tools and applications, and solve simple technical problems.	Focus on the development of competencies that can be transferred to other educational contexts.
4	Design appropriate tasks.	Develop basic technical skills rather than learning a bespoke application that might become obsolete.
5	Design for intersections within and outside the classroom.	Make sure trainees put pedagogical objectives before technological ones.
6	Rethink the contract with learners and colleagues.	Adopt constructivist or socio-constructivist approaches to help trainees conceptualize the use of tools.
7	Manage time and optimize the integration of technologies.	Develop collaboration skills among trainees.

CONCLUSION

Education plays a vital role in enriching the society and human resource. Teacher educators and training graduates can play an effective role only if they are prepared in a creative, resourceful and efficient manner to use techno-pedagogical skills to nurture the students as per the demand of the changing times. Teacher educators and training graduates must also adapt and change and be familiar with using emerging technologies that can encourage student participation. Teaching with use of modern technical facilities enhances student's knowledge and improves the teaching-learning process in this fast changing complex world.

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