Role of ICT in Curriculum and Teacher Development

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Abstract: IT is a combination of communication, reservation, processing and multimedia capabilities. The main role that is played by communication networks is called information and communication technology (ICT) or also called information technology and communication. Today, information and communication technology (ICT) is of first rate using in education systems. ICT has an important prominent role in knowledge due to its changeable ability and its capability to making relationship among students. If the curricula (or syllabus) is according to real need or real require of the learner, it increases their interest for incremental learning and IT, because of its verity and being benefited from a great deal of information has a property or characteristic to meet different needs of the learner and caused them interested in contents of the curricula. This research paper looks at the role of ICT in curriculum designing and teacher development. The paper emphasizes computer technology and television media because of their availability in our colleges and their great impact on teaching and learning processes. The objectives of this paper are to discuss the importance of ICT in education and their implication to the world of work and highlight the role of the teacher in the use of ICT in Indian classroom setting.

Key words: Communication, multimedia, technology, curricula, objectives, importance, teaching learning process, highlight, Indian classroom setting.

About ICT and Its Importance

ICT stands for Information and Communication Technologies and defined, for the purposes of this primer, as a “diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information.” These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony.

Now, ICT (Information and Communication Technology) has been used in almost all fields of life, including in education. In education, computer technology has become so essential and used in all levels of education. The utilization of ICT in education has recently started to appeal the potential and significant progress in language learning. It has become a major issue in education world and has been used from schooling through to university that could facilitate students and teacher in teaching and learning process. ICT has been publicized as potentially powerful enabling tools for educational change and reform. The computers play significant role in the learning process especially in learning language.

Role of ICT in Curriculum and Teacher Development

Technological development and the changing competencies required in the present scenario for both students and their teachers, it is necessary to design a state-of-the-art curriculum and appropriate teacher development.

Teachers need to be adequately prepared to implement a state-of-the-art ICT curriculum. Indeed, introducing any new curriculum calls for careful preparation, management, resourcing, and continuing support. In the case of an ICT curriculum, even more concerns have to be considered. Educational research studies show that programmes of professional development for teachers are most effective if directed to the stage of ICT development reached by professional students. The implications of these research findings are that teacher development is best conceived as an ongoing process, with many professional development activities conducted in professional colleges.

In any educational system, the level of available resources places a restriction on the degree to which any new subject can be introduced into the college curriculum, especially where only the most basic facilities have so far been provided. But ICT is of such importance to the future industrial and commercial health of a country that investment in the equipment, teacher education, and support services necessary for the effective delivery of an ICT-based curriculum should rank high in any set of government priorities. The curriculum proposed takes account of these resource issues and specifies minimum requirements for effective delivery in different circumstances. Information and communication technology, or ICT, is defined as the combination of informatics technology with other, related technologies, specifically communication technology.

A Curriculum and Programme of Teacher Development

It will necessarily characterize the ways in which ICT is included into a college curriculum. A setting that is dominated by the teacher as the main provider of subject content is adopting a teacher-centered philosophy. The teacher controls the use of ICT in such a setting as well. A learner centered philosophy, by contrast, describes a setting where content comes from a variety of resources, and where projects are chosen and designed by the students.
ICT tools and resources are selected by students in ways that match the aims of a project best. These contrasting approaches to pedagogy are sometimes referred to as instructivist and constructivist respectively.

1. **Progressive Plans and Policies**

How a college’s vision and teaching methodology are carried out is translated into development plans and policies. In the detailed steps of such plans and policies, goals and objectives are further defined providing interim and long-term targets. Policies are set, a budget is allocated, facilities are determined roles are defined, tasks are delegated, and an evaluation plan is created to define the direction ICT development will take.

2. **Understanding the curriculum**

An understanding of the curriculum affects the progression of ICT in the curriculum. First, is an awareness stage in which students become ICT literate with regard to what technology is available and how it might be used? Second, as students learn basic skills, they begin to apply various ICT tools to their regular learning assignments and projects. Third, as students become more capable and confident with ICT, they begin to integrate and overlap both subject areas and tools. Last, is the applied use of ICT in which students are now enabled to address larger, more complex, real-world professional issues.

3. **Professional development of college staff**

In parallel with the curriculum for students, there must be professional development of the staff within a college. The personal productivity and professional practice of teachers are enhanced with the use of ICT. First, is an awareness stage in which teachers and staff become ICT literate with regard to what technology is available and how it might be used? Second, as teachers and staff learn basic skills, they begin to apply various ICT tools to their regular tasks and projects. Third, as teachers and staff become more capable and confident with ICT, they begin to integrate and overlap both subject areas and tools.

4. **Community involvement**

Community involvement may include parents, families, businesses, industry, government agencies, private foundations, social, religious and professional organizations, as well as other educational institutions such as vocational schools and universities. Community involvement can come in the form of donations of equipment and resources, or may be in human resources provided for training and technical assistance. As a community contributes to a college, so that college can give back in many ways. For example, a college may decide to provide community members with evening access to computer labs, or have students offer training to parents. The use of ICT provides an opportunity for a college and its students to interact with both local and global communities. Interaction may range from building web sites for community organizations, to sharing projects with remote schools.

5. **Assessment**

Assessment includes both assessments of students as well as overall evaluation of a college system, two aspects that are intricately interwoven. An improvement in the one should predicate an improvement in the other. Means of student assessment should reflect choices in learning pedagogy and an understanding of ICT in the curriculum. For example, in the emerging and applying stages of ICT, assessment may be linked to pencil and paper tests, whereas in the infusing and transforming stages project based portfolios may be more appropriate. Each part of a school system needs to be evaluated to determine whether outcomes have been met, and then reviewed and revised accordingly. Budget allocations, policies, and procedures for ICT should match vision, teaching philosophies, and curriculum choices.

**The Role of the Teacher in the Use of ICT**

The effective use of ICT has great impact on teaching and is definitely changing the role of the teacher in the classroom. According to Jenkins (1999) ICT changes teaching and learning through its potential as a source of knowledge, a medium to transmit content, a means of interaction and dialogue. The role played by these technologies in the classroom provides a challenge to teachers because they make them change the way they have been doing things. Teachers are now becoming facilitators of learning and also organizing teamwork and managing classroom activities.

Jenkins highlights some of the changes in the teacher’s role as,

- Change in relationship with students
- Change in the role to facilitators and managers who support learning
Change in the content and scope of teaching

Wheeler (2000) argues that it is no longer sufficient for teachers to merely impart content knowledge. These technologies can actually do this part, and therefore it is crucial that for teachers to encourage critical thinking skills, promote information literacy, and nurture collaborative working practices to prepare children for a new world in which no job is guaranteed for life, and where people switch careers several times. The Internet enables students and teachers to communicate with each other, learn flexibly, and collaborate with others around the world. In other words, geographical distance is no longer a barrier, and 'borderless' provision of education to all can be achieved. Teaching strategies and resources can be shared through communication with other educators and may be integrated across the curriculum.

Conclusion

This study has so far look at a very important, current and concern issue of curriculum development with the use of ICT for the achievement of education for sustainable development. The paper has explored the discussion of importance of ICT in the present scenario and how it will improve the quality of education in designing curriculum to fetch for learners. And even the teacher should know how to use the ICT technology in order to give training in relevance to the field of the students. As I suggested the teacher role according to Jenkins, teacher should change the atmosphere of the classroom to have the friendly relationship with the students and he becomes a facilitator or managers who support learning.

Reference