



The third eye of the teacher

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Effective teaching in EIT is quiet challenging for curriculum developers to meet the goal of Student-centered pedagogy which was adapted as the National policy. Paucity of funds, inadequate infrastructure, major chunk of staff on contractual basis, large student-teacher ratio- are the few to cite. Moreover, the advent of computers has generated a wealth of knowledge in all fields in recent decades. A great spur in ICT has opened up new vistas in teaching & learning process. Hence there is an urgent need to look into the whole issue of teaching and learning process and the professional development of teachers in a new dimension to overcome the impediments and to realize the National goal.

The challenge of professional development for teachers lies in creating optimal collaborative learning situations in which the best sources of developments/ expertise are linked with the experiences of teachers and the current needs of the society. Until recently, the conventional black board practices were just provided enough elbow room for teachers to do their job without remorse and the only demand was such teachers, apart from the instructor's in-depth knowledge in the core area of the subject, need to have sufficient language background as instructional medium and a basic mathematical interpretation which together were considered to be the two eyes of the teaching professionals (Fig.1).

However, at the advent of computer and the improvement of science and technology instruments, all the core subject areas made a rapid expansion and the lack of concomitant improvement in teaching technique left the teachers in wide gap between such knowledge-explosion and their transmission of the laboratory skill to the student community. The net result is the graduates of conventional educational institutes are unable to find immediate demands in a technology-driven world. It erodes the moral value and social status of the teaching community. Frustration and degradation of self-esteem become increasingly visible among the teachers who are the back-bone of man-making process.

To make education more meaningful, a paradigm shift in the professional development of teachers becomes necessary. A teacher needs to be equipped with the third eye of empowerment i.e., ICT skill to reduce the gap between the knowledge bank and transmission of such knowledge to the learners. ICT-powered eteaching provides teachers with sufficient time left during class room practice so as to dwell on newer ideas and developments. Such a novelty makes the teaching-learning process vivid and more meaningful. The process of developing electronic teaching is to support long-term professional growth. The appropriate blend of subject skill and ICT expertise creates a new class of teacher to confront the water-tight curricular time frame into meaningful practice. The technology-driven teaching provides foundation for powerful professional development.

Computer-based information transfer, storage and retrieval have radically changed the conventional black-board-chalk method. Information transmission from mentor to pupils has achieved new dimensions in the digital era narrow down the impediments in teaching-learning process. The complexity of biological phenomena remains no more a puzzle as a result of virtual class room and simulation models making inroad in teaching.

Since manual representation is laborious and time consuming, very often the conventional black-board trained teacher ends up with providing scarce and primitive information in limited time. Gleaning the vital resource materials and presenting them as gist in attractive digital form is the proven method for successful curriculum implementation. Digital knowledge of ICT-trained teachers is reusable, teaching-learning friendly and most cost effective. Such digital base, capable of breaking the geographical constraint, will be a great boon for allied students, new faculties and can be exchanged among sister institutes.

Digital education (DE) is not only the emerging paradigm to bridge the gap between the information base and the stakeholders; it can also revolutionize the educational system by eliminating the knowledge divide between

the advanced countries and the rest of the world. DE is cost effective, reproducible, suits all students of different learning levels and besides a handy resource for new staff. Hence, the ICT-trained staff can find ample time to glean the recent information and find class room time sufficient. Besides, it saves manpower and gives ample opportunity for teachers seeking in-depth knowledge in core areas and upgrading themselves. E-teaching by ICT-trained staff enables the students to revise, refer and digest the subject easily. It eliminates the redundancy and labour in reproducing the class room knowledge. Thus, with the new class of professional up-gradation among teachers, it becomes easy to comply with the curricular time frame and to achieve the teaching goal. The transmission of knowledge and skill between the mentor and learners is expected to be effective with the third eye (ICT) of the professional development. The computer facilities and network connections (Fig.2) can be expanded further to cater the needs of the professional developments of teachers and up gradation of Graduate resources. In fact, there are virtual universities & laboratories and online courses at increase all round the world. The ICT-proficient teachers are the need of the hour.

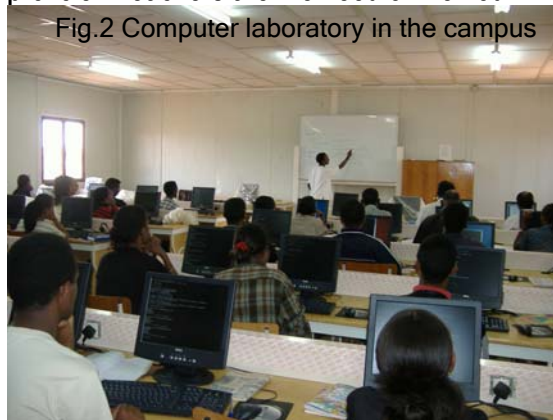


Fig.2 Computer laboratory in the campus

Additional benefits of ICT-in the professional development of teachers:

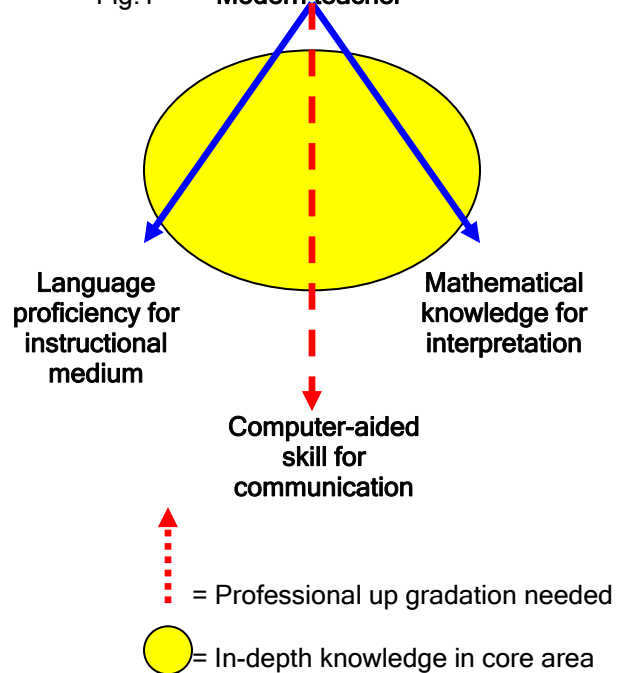
- ✓ Teachers and students become more reflective.
- ✓ Becomes easy to practice student-centered pedagogy.
- ✓ Makes teachers and students co-partners in the class room which helps the professional development of teachers and supports lifelong learning for both partners.
- ✓ ICT-based teaching provides a clear

and consistent assessment processes possible for teachers and thus there is a provision for incorporating the employability skills.

- ✓ Enable teachers to improve the knowledge, skills, and attitudes needed to work effectively with students.
- ✓ The ICT-driven professional development improves content and form of teaching to meet the curricular goal.

In addition to ICT-aided professional improvement among teachers, other changes viz. creating decent working environment, acceptable living wages, opportunity for professional development, involving teaching community in policy making, and room for collective bargaining to uphold the socio-economic status of teaching community are the need of the hour to achieve the real benefit.

Fig.1 Modern teacher



Learn more about 'Techniques of communication' in Jayachandran & Manikandan's article of this issue.