Towards Excellence in Teacher Education Using ICT

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ABSTRACT
India is changing into a Digital World and the need is being felt for excellence in education to match the pace of the fast track millennium. Educational change can be brought about by teachers trained and prepared to work to provide quality service. The teachers’ role is changing to that of a facilitator or guide as Information Communication Technology (ICT) takes centre stage in teaching and learning. Therefore the purpose of this paper is to discuss the use of ICT by teachers to provide quality teaching. The use of ICT is enormous for teachers. ICT is connected up so it can search the World Wide Web. In teaching, the computer and Internet help the teachers to use multimedia graphics which make learning interesting fun and challenging. Therefore this paper explores some of the e-resources and how they are being used by teachers to provide excellence in teaching. The first section deals with the various types of e-resources in use by teachers for delivering learning. Some of these are the Internet, E-mail, MS Word, World Wide Web and Hot Potatoes.

The second section focuses on teachers’ professional knowledge, skills and attitudes to understand, prepare and deliver excellence in teaching and learning. It looks at ways in which teachers can use e-resources to maximize learning. It is now becoming widely accepted that the best and most secure learning occurs when students are centrally involved in controlling, directing and monitoring their own learning. Whether working individually or in groups, using a computer allows learners a significant degree of independence. In addition to the obvious benefits of providing laptops for individual study, where learners can work in the classroom on differentiated worksheets or undertake self-directed work, many tutors also group learners around one machine to complete a particular task. In this paper we have discussed how teachers can use e-resources to make teaching and learning interesting in order to provide quality in education.

KEYWORDS
E-resources, excellence in teaching

1. INTRODUCTION
Information Communication Technology (ICT) originally is applied to serve as a means of improving efficiency in the educational process (Jones and Knezek, 1993). It has been shown that the use of ICT in education can help improve memory, motivation and generally deepens understanding (Dede, 1998). ICT can also be used to promote collaborative learning, including role playing, group problem solving activities and articulated projects (Forcheri and Molfino, 2000). In the case of an institution’s efforts to meet international standards, this may apply to both the ‘what’ and the ‘how’ of teaching and learning, usually with reference to educational borrowing or lending from international sources.

2. E-RESOURCES
Teachers often create worksheets, crosswords, quizzes, tests and other materials to meet the needs of their learners. They need software to design and produce a range of learning material. Here we examine some of these office applications and how they can be used to generate teaching resources.

2.1 INTERNET
The Internet is a computer network made up of thousands of networks worldwide. No one knows exactly how many computers are connected to the Internet (Bokhari.M.U, S. Kuraishy & Ahmad.M.I 2011:278). It is an internal network that functions like the Internet although users normally have to register and log in to use the world wide network of computers. The terms Internet, or net and world wide web or web are often used interchangeably, although technically the web is a subset of the Internet.

2.2 E-MAIL
This is a way of sending letters, messages and computer. Like a postal address your email address is used to find you on the web. It is important that no one else in the word has the same address.

2.3 MS WORD
Mary Moss and Sue Southernwood have quoted Belinda, Community Education Lewishan (2006: 20) regarding MS Word processing:-
“IT helps with concentration. Students often don’t enjoy writing by hand but with word processing they are more comfortable as they can change things, proofread and do much more. They can look at something they have produced and assess it in a more objective way. It gives them a sense of achievement.”

2.4 MULTIMEDIA
Mainly teachers use ICT, visuals and CDs for teaching.
Here we will discuss only four types of visual aids.

- **Handouts**
  These can be made with the help of modern copiers, which can reproduce pictures and text. The size can be increased or decreased to suit our requirements. Handouts can give information or they can be in the form of a worksheet. We can photocopy from magazines and textbooks and adjust them to our needs but we must be wary of copyright restrictions and acknowledge sources. Then this material can be linked to typed text or neat handwriting for impact. The drawback is using too many handouts and so we should use them only if necessary. In this way we can Go Green. Also overcrowded handouts should be avoided as it makes them unattractive.

- **The Overhead Projector**
  We can present complicated matter with OHT transparencies, which can be used again. It helps prepare a lot of material and saves a great deal of time in class. It helps maintain eye contact and hence it is useful with a difficult group. OHP transparencies can be made by hand, photocopier and computer. The drawback is that OHP will not display a whole A4 sheet all at once. If written with a very thin pen they will show up faintly on the board. They cannot be focused if the projector is far from the screen. One part of the image called the hotspot can be too bright and the outer parts can be dull.

- **Models**
  These can be very useful where the students cannot visualize with a picture. They can have a greater impact than words and pictures, especially if they can be handled. In the classroom they usually excite interest for they can be sectioned, labeled, assembled or dismantled easily. Models can be very effective in teaching role-plays.

- **Information and Communications Technology ICT**
  The computer can be used as a tool for word processing and Power Point, to supplement teaching. Interactive CD ROMs together with interactive whiteboard can make learning interesting. The drawback of the computer is that the programme might crash at the most opportune time. Also it is extremely time consuming. Besides the machine sometimes frightens the learners who do not always enjoy the activities on the computer. The Internet is a useful tool for independent learning as it provides access to a vast library where material is provided free from every corner of the globe. The World Wide Web (‘web’) consists of ‘web sites’, which are pages of text, graphics and pictures which appear on your computer screen, perhaps accompanied with sound. Most web-site pages offer links to other web sites of related interest by just clicking on relevant images or highlighted words (Petty, 2001). The students can download the content for teaching or work online. It helps the teachers to find material for use in class and research. The drawback of the Internet is that we can be overwhelmed by vast quantities of material, which may not be useful. The Moodle or the Virtual Learning Environment is the latest addition to the use of ILT in colleges and universities. As teachers we can use the Moodle to add a topic or weekly format for discussion, upload a resource from a file or website, administer our folders and files, add an event to the calendar and create a forum for discussion. It is a good tool if I can find the time to work on it.

### 2.5 SEARCH ENGINES
Software that searches the World Wide Web and returns a list of websites. Well known search engines are Google and Yahoo. Students can very easily copy text, graphics and pictures from websites, by ‘downloading’. Consequently they can produce very impressive work-processed assignment in minutes on many topics without understanding a word of it! So stress that students must present work in their own words. Most teachers are happy to let students download at least some material, especially visual material, but require this to be acknowledged and its source given. This policy has the bonus that you learn about useful websites, Geoff Petty (2004: 384, 385).

### 2.6 HOT POTATOES
The Hot Potatoes software is a set of six programs, which can be used to create interactive Web-based exercises. Created by the University of Victoria in Canada this software can be used freely by educational institutions, provided that the created quizzes are made freely available on the World Wide Web, Mary Moss and Sue Southwood (2006: 26). The six programs are:
- JBC-Creates multiple choice exercises.
- JQUIZ-Creates short answer exercises.
- JMIX-Creates jumbled sentence exercises.
- JCross-Creates crosswords.
- JMatch-Creates a matching exercise
- JCloze-Creates a fill in the blanks exercise.

To get the software go to the Hot Potatoes homepage at www.halfbackedsoftware.com and download the program from there. The version current as of February 2006 is version 6.0 and is available in both Windows and Macintosh formats. Website: [http://www.questiontools.com] and Quia [http://www.quia.com].

### 3. PROFESSIONAL KNOWLEDGE AND UNDERSTANDING
In order to improve the quality of their practice it is necessary for teachers to acquire professional knowledge, skills and attitudes to understand, prepare and deliver excellence in teaching and learning. As part of their professional practice teachers in Birmingham City University, United Kingdom must know and understand what motivates learners to learn and the importance of learners’ experience and aspirations. They know ways in which learning has the potential to change lives and ways in which learning promotes the emotional, intellectual, social and economic well being of individuals and the population as a whole. They need to demonstrate an
understanding of issues of equality, diversity and inclusion, be well acquainted with the principles, frameworks and theories which underpin good practice in learning and teaching. They must also understand the impact of own practice on individuals and their learning and find ways to reflect, evaluate and use research to develop own practice, and to share good practice with others. Besides understanding the learner and the learning processes the professional teachers must know ways to communicate and collaborate with colleagues and/or others to enhance learners’ experience, the need for confidentiality, respect and trust in communicating with others about learners, relevant statutory requirements and codes of practice and ways to apply relevant statutory requirements and the underpinning principles. These values support and inform all the commitments, knowledge and practice set out in the other domains of teaching and learning such as ICT skills, which are now an essential feature of teacher training. Personal, social and cultural factors influence ICT learning and development. ICT enables users to participate in public life, society and the modern economy. It is important for the teachers to understand the range of learners’ technological and educational backgrounds and the main learning disabilities and difficulties relating to ICT learning and skill development as well as the potential barriers that inhibit ICT skills development.

Therefore to provide excellence in teaching a teacher must possess explicit knowledge about ICT. They should understand the value of communication in making and using decisions about understanding and communicating processes and understandings. In processes they must understand the purposeful use of ICT, essential characteristics of ICT and how learners develop ICT skills (G. Petty, 2004:375-390). To be able to teach using ICT they must have personal ICT Skills to be able to communicate with others with/about ICT in an open and supportive manner, assess own, and other people’s, understanding, express themselves clearly and accurately, communicate about/with ICT in a variety of ways that suit and support the intended audience, and recognise such use by others and be able to use appropriate techniques to reinforce oral communication, check how well the information is received and support understanding of those listening. They should be able to use the processes, find, select and exchange information, develop and present information in meaningful and interesting ways.

To sum up it is important for teachers to understand their role and responsibility as a teacher when they come to class. They should be well informed of the students needs, be able to create the mood for learning by arranging the learning space and by researching and preparing resources in advance. In this way they can enhance the effectiveness of teaching and learning by using e-resources and work towards excellence in teaching.

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