

3rd World Conference on Learning, Teaching and Educational Leadership (WCLTA-2012)

Innovative uses of technology for content development and classroom use

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Abstract

To innovate in education is to create something new which deviates from long established traditional practices; in this case to impart learning at different levels. With the advent of modern instruments such as computers, liquid crystal displays, overhead projectors, slide projectors etc., classroom teaching has seen a phenomenal change towards a better understanding of the course content of various university syllabi. Internet facilities have, to a great extent, given access to the literature related to any topic under the sun, thus enhancing knowledge. A stagnant and unproductive economy may be turned into a productive economy with the help of the above mentioned modern equipment. Scientists, engineers and technocrats are continuously trying to find a viable solution to enrich and empower citizens of the world. One such marvel helping in this process is the computer. Universities have a responsibility to focus on the employability of candidates rather than teach them outdated syllabi. The processes of learning and teaching should facilitate feedback opportunities. In bringing about a change in the educational pattern in this world of ours, care should be taken that the younger generation of students do not spend their time on internet education for hours together, ruining at an early age the physiological functions of their eyes, backbone, wrists, neck etc. Reading books must be made compulsory at all levels of learning. The computer should serve as a supplementary tool or a device, technologically driven, giving new information for the benefit of mankind.

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Selection and peer review under responsibility of Prof. Dr. Ferhan Odabaşı

Keywords: Internet facility, unproductive economy, modern gadgets, horizontal assessment

1. Introduction

To innovate in education is to create something new which deviates from long established traditional practices, imparting learning at different levels. With the advent of modern instruments such as computers, liquid crystal displays, overhead projectors, slide projectors etc, classroom teaching has seen a phenomenal change

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towards a better understanding of course content in various University syllabi. Internet facilities have, to a great extent, given access to the literature related to any topic under the sun, thus enhancing knowledge.

Computers can help to identify how techniques have been applied and developed in the manufacture of various products through history and can also help to assess the effects of this technology...’ Similarly, the course content of a University syllabus is made relevant to society by the choice of proper and relevant topics. Unemployed graduates can be turned into employable candidates by updating their knowledge domains through e-learning and blended learning methods. Using these strategies, the world is likely to get rid of poverty slowly, but steadily. A stagnant and unproductive economy may be turned into a productive economy with the help of the above mentioned modern approaches. The younger generation of students probably worries about the increase in world population. Resources are dwindling, and their apprehension is justified because everybody must be provided for. Scientists, engineers and technocrats are continuously trying to find a viable solution to enrich and empower citizens of the world. One such marvel helping in this process is the computer.

1.1 The role of computers today

Modern day knowledge and skills quickly become obsolete. Whilst preparing and assessing educational materials (syllabi), it is important to remember that we must be concerned with students’ learning rather than with teachers’ teaching. A student has to acquire the adaptability to meet future situations and changes rather than merely acquire factual knowledge

The role of computers in education need not be overemphasized here. Some of the important qualities found in computer education are:

- 1) Computers are good for educational activities that require significant interaction, for example, games, simulations, animations, etc.
- 2) Computers are ideal for providing individual and self-paced instruction.
- 3) The instructional material can be customized to cater for students of diverse backgrounds and abilities.
- 4) They are suited for teaching students problem-solving and decision-making skills.
- 5) Computer-aided learning should be a supplementary tool to classroom teaching.

1.1.1. Emerging challenges today

Many students aspire towards higher education these days. Learning opportunities therefore should become life-long due to rapidly changing job scenarios; employment profiles require candidates to update their knowledge to maintain their competitiveness in the job market. Universities face challenges from alternative providers of education, in particular, e-learning through online education. Universities therefore have a responsibility to focus on the employability of candidates rather than teach them outdated syllabi. If a student’s degree does not lead to a good job, disillusionment is likely. A university system of education is regarded by society as able to take up challenging tasks in designing a curriculum relevant to modern day needs. Universities should be bastions of knowledge and wisdom and should help the nation to march forward towards prosperity. The internet and its related technologies are major driving forces behind the growth of e-learning. Its mobility, ease of access and ability to deliver media-rich content is making learning very attractive. All learning is individual and is achieved through interaction with personal change; learning can be seen as an outcome of this change. The process of learning should produce a change in us, that is, allow us to learn something that we did not know before or teach us to do something we could not do before. Rather than a vertical grading, on the contrary, learning should be assessed horizontally; students’ strengths and weaknesses should be identified without engaging in pass/fail or marking exercises. The processes of learning and teaching should facilitate feedback opportunities. Education systems, whether at school or college level, should provide wholesome education to encourage the younger generation to develop harmonious personalities. A strong leadership quality

is lacking in today's education. Anyone who has taken up the responsibility to lead a team can be successful only by being sufficiently independent and powerful in his or her own right. The first target is to build one's education and skills. Knowledge is a tangible asset and quite often the most important tool in one's work. Knowledge cannot be taken away from anyone. To lead is to engage in continuing education. One should work for the things one believes in (Abdul Kalam, 2012).

1.1.1 Ethical dimensions and innovation

Education also has its ethical dimensions. Ideals of international education for any and all rest upon universal values. In the 21st century, we have seen two tragic events in the USA and in Afghanistan. This has raised awareness that what we truly value is far more important than the things we possess, or have wished to possess. The West has wallowed within the world of 'price' for far too long. It seems that the benefits of globalization are not taken to mean the encouraging of understanding, empathy and sharing of goods and ideas with other parts of the world, but the establishment of price as the only criterion by which everything in the world is to be valued. And so, the culture of perpetual economic growth needs to be questioned. Innovation by using technology should not become a technology-driven bubble that will eventually burst. Innovation is about knowledge; creating new possibilities through combining different knowledge sets. Growth should not be compartmentalized, but holistic. All that educators need to do is to provide students with horizontal exposure and vertical expertise. Students should have a fair knowledge of how the world works. They must be Jacks of all trades and Master of one! Confining them to academia will make growth lop-sided. "Education is what survives when what has been learned has been forgotten" (Abdul Kalam, 2008, p.55).

2. Conclusion

In bringing about a change in the educational pattern in this world of ours, care should be taken that the younger generation of students do not spend their time on internet education for hours together, ruining at an early age the physiological functions of their eyes, backbone, wrists, neck etc. Reading books must be made compulsory at all levels of learning. The computer should serve as a supplementary tool or a device, technologically driven, giving new information for the benefit of mankind. Needless to say, computers and internet facilities should not be misused by the younger generation. Supervision and guidance by parents at home and teachers in the work place become a must for all young and impressionable minds. These young students should have the courage to think differently; the courage to invent; the courage to travel on unexplored paths; and the courage to successfully combat problems. They should not to be carried away by the enormity of information available on the internet, but should choose carefully only that information which is relevant to them.

Acknowledgements

The author wishes to thank Prof. Dr. C.V. Jayakumar, Principal and the college management for the encouragement to participate in international conferences and to present a paper.

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