



## Global Journal of Engineering Science and Research Management

### PARADIGM OF TECHNOLOGY IN TEACHING TECHNICAL SUBJECT

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DOI: 10.5281/zenodo.1098670

KEYWORDS: Pedagogy.

### ABSTRACT

Technology is amazing in a way it has change people's live. This is seen as an epitome in the field of teaching technical courses. The paper addresses the contribution of technology in creating in student's amusement, excitement and attempt to generate student enthusiasm for technology. This entails that teachers must have pedagogical and taxonomic approach with competency base knowledge of what to teach courses. Putting in mind the assessment and challenge with anticipated goals.

### INTRODUCTION

In virtually all countries of the world, there is an inward look at the use of Technology in schools and colleges because of the critical role education plays in the socio-economic development and growth of a people and nation. A major trend in the development of education today is the effort being made to institute a reform in pedagogy. Limitations in terms of growth, equality and performance are being propelled by the lack of relevant educational system. This has been traced to the quality of teaching and learning methods, materials and machines. According to Jaja (2006) it has been observed that teaching and learning have declined due to ineffective and inefficient teaching and learning resources. Consequently, we must re-examine our strategies to ascertain that they achieve the expected goals in the process of teaching and of learning. Technical subjects extensively fall into this category because of the very complex nature of its literature and mathematics, drawings (design) and executions practical required. Teaching and learning based inequalities in the earlier mentioned areas push the teaching-learning activities and experience into extremes. Then people struggle to figure out and to understand why teachers and students of technical subjects have to work sometimes four times harder than their counterparts in non-technical courses of studies.

### TECHNOLOGY IN TEACHING

Technology refers to a whole range of materials and machines involved in formation acquisition, storage, processing and dissemination. Technology today is simply the driving force in teaching. According to Ajagun (2003) Technology in teaching include Radio, Television, Models, Computers, Sensors, Interface Boxes, e-mail, Satellite Communication, Internet and all the software and materials which are employed in information dissemination, teaching and learning.

According to Anakwe (2008) Technology stimulates and enhances development and change. Technology strengthens the capacities of both teachers and learners of technical subjects to act progressively. It enables them enquire relevant knowledge, useful skills and appropriate attitudes. It is simply for quality assurance process. Over the years, the mode of teaching of technical subjects has been encumbered by so many factors. These factors had hindered the speed and accuracy of delivery, storage and collation of information. Technology is now the reason for a paradigm shift from the chalk-board approach to a holistic quality assurance practice.



## Global Journal of Engineering Science and Research Management

### TEACHING PRINCIPLES AND PRACTICE

Revamping and restricting policies and practices, infrastructures and maintenance cultures become imperative for a successful teaching and learning of technical subjects. Technology if effectively used guarantees quality. Quality assurance becomes catalytic in revolutionizing education delivery, providing the much needed impetus and technical support for meaningful education.

The introduction of Technology into the teaching of technical subjects signals the schools' intention to shift from the traditional system to the holistic approach to quality assurance. According to Osula (2008) this is in order to meet the challenges of the 21st century educational system, over the years it has been seen that teaching and learning technical subjects have declined drastically due to ineffective and inefficient teaching, monitoring and evaluation systems among other factors. We must use available resources responsibility and give support to teachers for greater improvement in their pedagogical skills.

What calls for concern therefore is that, despite the serious transformation education has undergone internationally, a large number of both teachers and learners in developing countries are still in the dark. For some of these teachers the practice of using chalkboard and the demagogy of abstract terminologies and phrases are still in vogue.

### A CASE FOR TECHNOLOGY REFORMS

Technology has consistently played a leading role in education in Nigeria. If prudently run with strong values technology will continue to set new standards in teaching and learning alterations. Studies on the use of technology in teaching in some technical schools in Kaduna, Akwa Ibom and Anambra States, according to Metuh (2007) indicated that its relevance cannot be creative expressions, Provides wider access to learning and participation.

Technology provides information simply and readily as possible in addition to immediate provision of answers to questions on demand. With technology one experiences a full range of amazing service. Accordingly, Wuritka (2003) suggested that for those that can adjust to technological change and their social impacts on rational basis are those who are technologically literate. Therefore it is important to have technological literate population by providing a creation through the use of technology.

In order to build a Pedagogical content knowledge, teachers must know about students learning technology, what facilities are required, their environment and above all experiences that facilitate their knowledge learning.

Knowledge is wisdom information, scholarship and understanding. Knowledge is the key ingredient of our technology recipe. Technology in teaching of technical Courses includes the ability of teachers to have the taxonomic knowledge of this entire technical course in terms of the people, knowledge, creativity and skills.

### ASSESSMENT AND CHALLENGES

The challenges of ten faced in the use of technology in teaching technical subjects are numerous and varied. They include the following:

Being able to ensure that schools use the resources allocated to them responsibly and gives account at each stage, absence of uniform standard inspection guidelines for formal and non-formal institutions.

Fresh day to day challenges arising from rapid turnout of innovations. These innovations have on main feature namely the quest for achieving greater responsibility, accountability and an increased sense of overestimated. The studies showed that terminology immensely helped both teachers and students to be versatile in thinking and in approach to solutions of problems. Technology also brought around changes in behaviors (learning and social behaviors) of the users. Simply, technology enabled them accomplish the following:

- ❖ Access various kinds of research information necessitating new methods of disseminating knowledge.
- ❖ Learn how to optimize creativity.
- ❖ Generating data sets and library resources.
- ❖ Accelerating both teachers and learners skills.



## Global Journal of Engineering Science and Research Management

- ❖ Encouraging independent as well as group study habit.
- ❖ Updating student's academic knowledge and instructional practices.
- ❖ Challenging teachers, students and institutions on new methods of acquiring knowledge through sharing and being technically connected globally.
- ❖ Technology stimulates and technically stretches the mind.
- ❖ Broadens horizons with more opportunities for anticipation and understanding. The challenges according Okonkwo (2009) can be summarized under the following categories:
- ❖ The problems of access and equity.
- ❖ The issues on standard and quality assurance.
- ❖ Training (orientation) to address this dynamic field of modern technology.
- ❖ Inadequate funding.
- ❖ Resource mobilization and utilization.
- ❖ Maintenance culture.

Of course there are also other emergent areas of concern which include the following:

- ❖ The explosive nature of school enrolment virtually at all levels.
- ❖ Inadequate classroom.
- ❖ Shortfall in required academic staff.
- ❖ Gender disparity due to conservative beliefs and values.
- ❖ Poor and uncoordinated transition rate.

### ANTICIPATED GOALS

Primarily the goal of technology in the teaching and learning of Technical subjects is to effectively address the cognitive, affective and psychomotor domain of learning. This move will effectively provide for high performance on the part of the teachers and better achievement on the part of the students. These according to Ema (2010) are further explained under these sub-heads:

- ❖ To enrich and promote curricular integration.
- ❖ To promote meaningful learning.
- ❖ To create fertile opportunities to ventilate progressive ideas for the development of advanced knowledge.
- ❖ To provide avenues for continued improvement of outcomes for learner raising academic standards and learners personal development.
- ❖ To enable effective monitoring and interpreting current attainment data, trends overtime and other performance indicators.
- ❖ Assessing the quality of learner's personal development, through tracking the results of individual learner's progress and attainments.
- ❖ Observing and evaluating teachers' effectiveness.
- ❖ Use for effective monitoring.

### CONCLUSION

Technology has revolutionized virtually every facet of human life, especially in the information, education and entertainment sectors as a result of the speed, accuracy and wealth of information it has made learning every exciting and rich, broad and thought provoking. Technology has virtually turned the world into global village. Technology ensures quality. According to Frank (1996) teaching technical subjects successfully require broad base technology (the multimedia system). Broad based technology includes the methods, management and application of concepts, materials and machines. These support the creation, storage, manipulation and communication of information and skills.

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## Global Journal of Engineering Science and Research Management

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