Need for the Parallel Role for Psycho-Techno Teacher

K. Nachimuthu, Ph.D.

==========

Abstract

Psycho-education is totally focused on training methods, as structured, or transmitted, in accordance with the psychological and individual learners. Education varies depending on the culture, values, attitudes, social systems, the mentality and all these factors play an important role in the study of education in psychology. This paper explains the Learner- Centered Psychological Principles under the design of American Psychological Association in 1997 and the importance of psychology as well as technology in the classrooms. This paper discusses the different software for teaching psychology principles in the Colleges of education. This paper concluded the technology leads to fear and concluded with the need of the hour to think about the way to bring them into the line of psychology and technology to do extremely well in teaching and learning.

Keywords: Psychology, Technology, Software, Teacher Education

Introduction

Psycho-education is totally focused on training methods, as structured, or transmitted, in accordance with the psychological and individual learners. Education varies depending on the culture, values, attitudes, social systems, the mentality and all these factors play an important role in the study of education in psychology.

Currently, the educational psychology covers a wide range of issues and topics, including the use of technology and its relationship with psychology, teaching methods and instructional design. It also considers the social, cognitive, behavioural aspects of learning, but it would take to make education more personal and individualistic by a special unit with a psychological focus of education, so that individual needs are taken considered.

Learner- Centered Psychological Principles

The need of the following fourteen principles are designed by American Psychological Association in 1997 and these are pertain to all learners and the learning process.

1. The learning of complex subject matter is most effective when it is an intentional process of constructing meaning from information and experience.
2. The successful learner, over time and with support and instructional guidance, can create meaningful, coherent representations of knowledge.
3. The successful learner can link new information with existing knowledge in meaningful ways.
4. The successful learner can create and use a repertoire of thinking and reasoning strategies to achieve complex learning goals.
5. Higher order strategies for selecting and monitoring mental operations facilitate creative and critical thinking.
6. Learning is influenced by environmental factors, including culture, technology, and instructional practices.
7. What and how much is learned is influenced by the learner's motivation. Motivation to learn, in turn, is influenced by the individual's emotional states, beliefs, interests and goals, and habits of thinking.
8. The learner's creativity, higher order thinking, and natural curiosity all contribute to motivation to learn. Intrinsic motivation is stimulated by tasks of optimal novelty and difficulty, relevant to personal interests, and providing for personal choice and control.
9. Acquisition of complex knowledge and skills requires extended learner effort and guided practice. Without learners' motivation to learn, the willingness to exert this effort is unlikely without coercion.
10. As individuals develop, there are different opportunities and constraints for learning. Learning is most effective when differential development within and across physical, intellectual, emotional, and social domains is taken into account.
11. Learning is influenced by social interactions, interpersonal relations, and communication with others.
12. Learners have different strategies, approaches, and capabilities for learning that are a function of prior experience and heredity.

13. Learning is most effective when differences in learners' linguistic, cultural, and social backgrounds are taken into account.
14. Setting appropriately high and challenging standards and assessing the learner as well as learning progress—including diagnostic, process, and outcome assessment—are integral parts of the learning process.

Need for Psychology

A teacher acts as a philosopher and a guide to the students. He must know the growth and development of the child and his requirements at different levels. Educational psychology helps the teacher to study the ability, interests, intelligence, needs and adopt different techniques of teaching for effective communication. The utility of educational psychology for the teachers has been emphasized in both theory and practices of teaching and learning.

The importance of educational psychology for a teacher can be divided into two aspects i.e.: (i) To study teaching and learning situations; and (ii) Application of teaching and learning principles**.** To study teaching and learning situations, the teacher must know the students (a) individual differences; (b) to know the classroom teaching-learning process; (c) awareness of effective methods of teaching; (d) curriculum development; (e) to study mental health of students; (f) guidance to the students; and (g) measuring learning outcomes. For Application of teaching and learning principles the teacher must know the following principles; (a) objectives of education; (b) use of audio-visual aids in teaching; (c) co-curricular activities; (d) preparation of time table and (e) democratic administration.

Importance of Psychology in Classroom

The main importance of educational psychology to teachers is to know, as a teacher, how to deal with our students problems. Psychology is important to teachers in schools because it allows them to better understand the thoughts, emotions, and actions of their pupils. Psychology is the study of the human mind - it is used to analyze behaviour, and to treat people who suffer from psychological disorders. Today, many younger students suffer

from problems that affect their ability to sit still and pay attention in class; disorders such as ADD (attention deficit disorder) and autism are on the rise. The more a teacher knows about these psychological syndromes, the more he or she will be able to do to help the student learn properly. These disorders have certain symptoms that may include withdrawal from social activities, loss (or increase) of appetite, substance abuse, and haughty behaviour.

Sometimes, violence in the classroom, schoolyard, or cafeteria may also occur in schools. Since there is a correlation between certain psychological disorders and violent actions, teacher may need to recognize warning signs - in order to protect other students and staff from high-risk student who may have psychological problems, teachers use psychology to analyze situations according to certain criteria. Of course, unless a teacher is also a trained psychologist, their diagnosis of a troubled student will only be a hunch, or educated guess.

Importance of Technology in Classroom

Education is a life-long process. Therefore anytime anywhere access to it is the need. Information explosion is an ever increasing phenomenon. Therefore there is need to get access to this information. Education should meet the needs of variety of learners and therefore IT is important in meeting this need.

Because technology has increased the intensity and complexity of literate environments, the twenty-first century demands that a literate person possess a wide range of abilities and competencies. These range from reading online newspapers to participating in virtual classrooms. In recent years, the speedy, effective and global communication of knowledge has created a new foundation for co-operation and teamwork, both nationally and internationally. The increasing role played by information technology in the development of society calls for an active reaction to the challenges of the information society.

According to Vijayakumari (2010), technology can also be a catalyst for change in schools. Our children are the builders of tomorrow, so they must be in synchrony with the pace with which our society is transforming itself (Nachimuthu 2011). Technology can

provide that connection between real life and schoolwork. When we focus on the history of technology in education, we find that students, who have basic computer literacy are aware about fundamentals of technology, and they will perform better in the future career.

Although there were some differences in technology utilization between discipline areas, introductory psychology illustrates very well how technology could improve education for developmental students. Approximately 1.5 million students in virtually all colleges and universities in the United States, take it each year (Cush & Buskist, 1997). Although many students find heavy the concept load in a typical introductory psychology course difficult, the subject matter suggests ways for them to remediate deficiencies. In addition to chapters on learning, memory, and motivation, some introductory psychology textbooks include "how to study" sections based on sound psychological principles (Myers, 1995).

However, the computer has not yet led to the dream of a major revolution in the way people learn nor has it yet made much of an impact in higher education. This has certainly been the case for introductory psychology. Although Stoloff and Couch (1992) have published three directories of computer use in psychology and Hornby and Anderson (1996) collected and reviewed 18 computer-assisted packages designed for use in introductory psychology several years ago, there are virtually no reports in the psychology or developmental education literature of psychologists' using them to teach introductory psychology. For example, in the most recent compendium of the best articles published in *Teaching of Psychology* (Ware & Johnson, 1996), only 2 of 16 deal with computers and no others with any form of electronic technology to teach introductory psychology. It is clear, perhaps for the reasons detailed previously, that technology has not had a great impact on the teaching of introductory psychology in any educational environment.

Software Use in Colleges of Education and University Departments of Education in Tamilnadu

Now-a-days, psychology classes in B.Ed. and M.Ed. in Colleges of Education and University departments are taught through using a variety of software. The following table

explains the software utility in Tamilnadu classrooms for teaching of different psychologists and their contributions.

Table.1. Software utility for different psychologist's contributions

Sl.No	Software	Contribution	Psychologist
1.	Dobney	Stimulus/Response Theory	Skinner, B.F
2.	Screensaver v1.0	Events of Instruction	Gagne, R
3.	G8way, Click brick	Zone of Proximal Development	Lev Vygotsky
4.	Carter Center	Democratic Principles in Education	John Dewey
5.	EFL & EAL	Discovery Learning	Jerome Bruner
6.	LCSI	Microworlds	Seymour Papert
7.	CALL	Constructivist Theory	Jean Piaget
8.	Jasper Woodbury	Anchored Instruction	Cognition by Vanderbuilt
9.	Editlib	Cognitive Apprenticeship	Alan Collins, John Seely Brown, and Susan E. Newman

To be effective in helping developmental students become more independent, self-regulating and self-confident learners, technology should function at the level of the student. That is, it should stimulate behaviour change and help students and instructors monitor that change. Technology that makes for a "better" lecture helps the instructor but it is unlikely to change the student. Technology that is "interesting" to students may have only entertainment value unless it systematically advances course learning objectives and helps students see themselves differently. The best way for technology to have a transformational role in developmental education is for it to be effective in transforming students.

Normally a learning style is the method of educating particular to an individual that is presumed to allow that individual to learn best. The idea of learning styles is a somewhat

unfounded deduction of the observation that most people favor particular types of interactions when it comes to learning. Most of the models of learning styles include the following types: (a) Auditory learning occurs through hearing the spoken word; (b) Kinesthetic learning occurs through doing and interacting and (c) Visual learning occurs through looking at images, mind-maps, demonstrations and body language.

Technology Leads to Fear

In today's classroom, teachers are pressed to make every minute count. If the teacher and students are not experienced with technology in the classroom, valuable time is often wasted on technical troubles. In addition, the teacher faces the difficulty of having a class full of students who are all at different skill levels. In many schools, most day scholar students will have a computer and Internet access in their home; but schools that are located in impoverished areas may have fewer computers. Many classroom teachers face is that students often use computers primarily for games. Because of this, many students associate computers and technology with game playing. Today's classroom technology is extremely visual, making it critical for students to maintain excellent eye health. If our child complains of headaches, tired eyes or exhibits decreased concentration, these are all potential symptoms of vision strain (Julie Mahoney, 2010).

The negative impact of technology on students is known universally. Lower class students today know more than anyone about the latest gadgets, cell phones, etc. Children know how to operate the cell phones, play games in it, and get used to them. Video games, PlayStations, i-Phones, i-pads, and Androids are the recreational items. These will distractions of their study and homework activities of day-to-day class works. Today, in most of the schools and colleges, students are supposed to submit college assignments online. As a result, students spend a good hour searching for the best stuff on this platform that has virtually available all information in this world. They are using Control keys combined with 'C, V and S' to do the assignments.

Conclusion

The advent of technology in schools has made the administration process simpler and less ambiguous. School records, attendance and school database maintenance have become very simple, allowing the schooling system to be simpler. Many difficult concepts can be made easy and interesting by the use of audio-visual teaching aids. The knowledge of psychology is necessary to plan and teaching aids appropriately. Special education has become easier after introduction of technology in educational system for candidates who are unable to be taught some subjects due to physical limitations.

Those of us working in developmental education should keep in mind that our basic goal is changing students' behaviour. The question of how technology should be used to teach developmental students should always be answered first with a statement of how it is designed to make students grow and develop as students who are successful because they've taken control of their learning and persist until they are successful. Only then can technology truly help to transform developmental education for our students. Technology can be a powerful tool for teachers to use, if they know how to use it. At the same time, before the technological applications, teachers must identify the level of students, as well as the mental health of the students in the classroom. Lack of application of psychological principles in teaching and learning leads to the arrest of natural development among children. Hence it is the need of the hour to think about the way to give them an understanding of psychology and technology to do extremely well in teaching and learning.

==========

References

APA Work Group,.(1997). Learner-centered psychological principles (Revised Edition), American Psychological Association, November 1997, Washington, D.C.

Cush, D. & Buskist, W. (1997). Future of the introductory psychology textbook: A survey of college publishers. Teaching of Psychology, Vol.24, pp.119-122.

Hornby, P., & Anderson, M.(1996). Putting the student in the driver's seat, Journal of Educational Technology Systems, Vol. 24, pp. 173-179.

Julie Mahoney. (2010). An eye opener: Overcoming to UV rays can lead to eye diseases, Clinical care, American Optometric Association, Alexandria, VA

Myers,D.(1995). Psychology (4th edition.), Worth Publishing, New York. pp.86-92.

Nachimuthu, K. (2011). Utility of LCD Projector Responsibility in Teacher Education of India, International Journal Network and Computer Engineering, Vol 3, No.1., pp. 23-29.

Stoloff, M.& Couch,R.(1992). Computer use in psychology, (3rd edition), American Psychological Association, Washington, DC.

Vijayakumari, G. (2011). Role of Educational Games Improves Meaningful Learning, Educational Technology, I-manager Pub, Vol.08. No.02, pp 08-11.

Ware, M., & Johnson, D.(1996). Hand book of demonstrations and activities in the teaching of psychology. Mawah, Lawrence Erlbaum, New Jersy.

==========

K. Nachimuthu, Ph.D.
Assistant Professor
Department of Education
Periyar University
Salem – 11
Tamilnadu
India
dr_knmuthu@yahoo.com