

The capabilities of new technology in education



THE CAPABILITIES OF NEW TECHNOLOGY IN EDUCATION Nowadays, new technology requires educational institutions to be responsive to the needs and demands of the country considering the significant role of Education in its social and economic development. Our country neighbors such as Japan, Singapore, Hongkong, Taiwan, South Korea do give priority to education specifically when it comes to modernization of instrumental technology. They do believe that such advancement is an answer to the emerging global problems which concerns Information Transfer and Cybernization.

The Philippines for sure underscores the same thing as embodied in the 1987 Constitution which manifest that the State shall protect and promote rights of all citizens to quality education at all levels and shall take appropriate steps to make such education accessible to all. The Philippines education upholds two specific national goals: global competitiveness and people empowerment. These are primary reasons why the school whether under the umbrella of CHED or DepEd are aiming at producing quality graduates who can uphold the country of excellence in their performance outputs.

Thus, the college graduates of today are faced to a new kind of organization vehicle where the future will today be different from the past. The world is now confronting the dramatic change which is the emergence of knowledge in which aspects of the future now co-exist with the present, such as the use of the internet, powerful personal computers, real-time video-conferencing, global positioning systems and many other frontiers of science and technology.

The educational community is the entrance of the technological age and all are rushing headlong into computerization and globalization. Moreover, the need for continuing computer literacy is emphasized not only for the students but for the school administrators and the teachers as well. Many colleges and universities, public or private, are in the processing to have more or these new technological facilities with the strong belief that technology is the single most important area which the students must master to succeed in the 21st century. Hence, the educators and everyone in the academe are now confronted with the dilemma of catching up with the advancing technology. These do not only mean throwing computers into labs and expecting users whether teachers or students to integrate technology effectively into the instruction of varying disciplines. How can this new technology be brought into the classroom so that it becomes an integral component of the school's practice development?

What is certainly the role and capability of computers, multimedia and other modern technological devices to justify their use in the educational institutions.? This paper underscores the immediate need and capabilities of such technology in education and therefore attempts to discuss related issues. Some questions in survey have sought for the following: perceptions regarding the use of computers for instructional purposes, factors to make computer-based education program effective and problem that may be encountered in the application of computer technology to the teaching-learning process.

The capability of computers in improving the quality of student learning and the efficiency of teaching has been the target issue in the national survey <https://assignbuster.com/the-capabilities-of-new-technology-in-education/>

conducted by the foundation. Aside from asking questions given to school administrators, analysis from different references and syllabi on educational computing and interview with the pool of experts in the computer education were utilized to come up with the appropriate responses to the problems in the use of computers and to access as well their benefits for instructional purposes.

The respondents of whom 54 percent are users and 46 percent are non-users of computer technology emphasized likewise the need to improve computer facilities to facilitate effectiveness of the programs such as curricular improvement, enhancement of instructions, efficiency in record keeping and delivery of instruction. Although others have indicated lack of funds, lack of trained personnel and high cost of the equipment as their valid reasons not employing computers in their schools, nevertheless, they show optimism of acquiring them eventually to keep pace with the developments.

The school administrators as shown by the same study perceived good effects of the use of computers for instructional purposes whether in varying techniques such as teaching application programs, lesson demonstrations, drills and practice sessions, programming and simulations, examinations and others. Almost all the users in the levels (elementary, secondary, college) believe that computers have the capabilities of increasing the interest and willingness of the students to learn at their own rate, adding in them infinite patience in repetitive task and developing them to be independent or autonomous learners.

Positive effects of the use of computers for instruction are certainly remarkable than the negative ones as indicated by the same survey. It is quite interesting to know that even the non-users of this technology agreed likewise to the items perceived by the users, both in public and private in all level. The major problems that the school may confront now concern not anymore of the high cost and inadequacy of the computers (since the government and other institutions seem to be supportive of these technological changes) but what the schools have to adapt strategically to maximize the use of these devices for instruction.

There is now a need for the development for new and better computer – based instructional materials and provisions of pre and post service training of teachers so that everyone in the academe becomes fully – equipped with this knowledge. This training must be infused in the course offerings of the Higher Education specifically in the “ Teacher Education” where would be potential computer lectures and teachers are developed. Eventually this rebounds to a better and quality training of which the ultimate beneficiaries are the students.

The use of audio-visual devices such as video, television, projectors (film slide, OHP), cameras and other technologies have been considered effective in the delivery of instruction. The suitability of television as medium for bringing a living language to learners is beyond doubt. The dynamic sound and vision brought by these devices speaks of reality into the classrooms. The visual element in teaching such as the video has valuable contribution to the development of professional, social and effective competence of the learners.

However, the video tape once viewed has a limited fast-forward feature that affects facility and inter activity of learning. Its major drawbacks – slowness and linearity – are somewhat hindrances in the execution of true interactivity which requires a dialogue, a two way exchange of both sides to adapt their behavior in the light of the other's response. Thus, linear videotape can never be fully interactive. Multimedia technology is capable of simulating or combining text, sounds and pictures, animation and/or full motion video to present information conditionally and linearly.

Interactive multimedia program may involved the use of microcomputer alone, optical media alone or combine computers and optical media plus the access of networks and other forms of technology in order to entertain, provide information, train and educate, archive, preserve and make collections of audiovisual materials. Through these, learners learn best in their own surroundings at their own pace or even with their local peer group pressure without interruptions. The rapid development of telecommunication systems has popularized multimedia specifically in business and industry.

Since the term is difficult to define to technologies being developed, multimedia is described in general as a vast bulk of high quality information compiled in the node of the network with the links which is characterized by non-linearity. As compared with past media, multimedia has significant features that can synchronize several types of information, characters, numbers, visuals and sounds. The new information technologies integrate several current media such as video recorders, still cameras, CD, LD, and slides.

The appearance of multimedia personal computer coupled with the information and telecommunication system allows the users more flexibility in learning. Compared to the pas personal computer, multimedia personal computers are marked by the features such CS ROM, 540 MB (and even higher), and more memory capacity. This is certainly a unified device that processes, texts, sound mages and develops them into audio-visual instructional materials. As mentioned earlier, multimedia devices have the quality of interactiveness nd being such provides high quality database represented by the Internet (the fastest growing communications medium the world has by now) to enable the user especially researchers to have global access information. Borderless education or the distance learning is made possible by this technology. The volume of electronic mails among faculty and students, the use of bulletin and chat rooms are becoming trends in the school campuses. And, more significantly, the class papers are done through word processors, laser printer, spell checkers and other related media.

Utilizing CD-ROMs for instruction through the multimedia personal computer is relatively an ease to the students in their research work. For one thing, they can explore knowledge without necessarily getting the thick volumes of encyclopedias or other reference books from the library shelves. All they need to do is to avail any multimedia encyclopedia, load it into the CD drive and with the help of the mouse clicks, the disc contents, animated or not can be visualized on screen. The computer's sound blasters, color monitors, some authoring tools and other features will definitely enrich the student's reading experiences.

The use of multimedia in the school is highly motivating and learning takes place very easily with less teacher's efforts. The application of such in the classroom will all the more inspire the students to learn, leave upon them an impression and eventually increase their intellectual desires and capacity to collect and process more information. Almost everyone is now into this latest craze of electronic mailing. The great demand for the ability to transmit messages electronically to avoid postal delays requires us to be technologically updated.

This e-mailing has become an incredibly important part of the Internet where we could talk, chat or conduct conversation with a person just across the street or even to someone on the other side of the world at the same cost. In a few minute's time, we can even get his reply for as long as his e-mail site is active or on-line. Email- may be classified as social or business letters depending on the purpose, occasion, structure, and content of the message. The e-mailer may be formal or informal in his tone, however, his style and format in composing his message are visible factors to classify his written work as social or business.

Undeniably, the recent mergers of giant telephone and television companies, wireless services, information and entertainment industries, new megamedia industries have targeted Education as the major market for their cable and satellite network services. How then could the educational institutions escape from such emerging pressure? These trends indeed affect curricular changes and thus, require greater reliance on technology in the teaching process, in some computer-aided learning resources and multimedia

systems. The technology we have today is just outrageous compared to just 20 or even 10 years ago.

What are your predictions or insights into the future? Are robots/machinery/wireless technologies going to run the show? I. TITLE: “THE CAPABILITIES OF NEW TECHNOLOGY IN EDUCATION” II. OBJECTIVES: A. The need for advancement and modernization in education. 1. Upgrading CHED, TESDA, and DOST with the use of new technology. 2. New technology for global competitiveness. B. Utilization of New Technology in Education. 1. The Perspective of administration in the application of computers. 1. Record Management 2. Communication and Curricular 3. Time-bound Management System C.

Application of Multimedia in all subjects. 1. The computer assisted instruction and its implementation to learners. 1. Audio-video advantage in learning. 2. The effectiveness of CAI in the development of learners competence. 3. The output of learning process.. D. The Philippines must not be left behind when it comes to IT. 1. In global competitions. 2. Exponential Growth III. MAIN FACTS: A. The status of new technology in the Philippines and its application to the educational system. B. A comparison between the past management and the present management of Education using Information Technology.

C. The advantage of interactive learning – human vs. machine. D. The Government should engage and implement Information Technology. 1. In all areas of disciplines 2. Technology update. E. The new technology is significantly needed for instruction. 1. The Philippines is left behind when it comes to the use of New Technology. 2. Government agencies like DepEd,

DOH, DOST, and TESDA promote the use of New Technology as an educational tool to produce quality graduates. 3. There is a growing need of computerization and cybernization to produce globally competitive graduates. 4.

The educators and those involved in the academe are now confronted with the dilemma of catching up with the advancing technology. F. Computer Technology is utilized for instructional purposes. 1. The use of computers in improving the quality of student learning and the efficiency of teaching has been the target issue in the natural survey conducted by the NET foundation. 2. The good effects of the use of computers for instructional purposes are emphasized. 3. There is a need to develop new instructional system to maximize the use of computers. G. The Multimedia Technology is also applied in education. . The use of audio-visual devices has been considered effective in the delivery of instruction. 2. Borderless education of distant learning is made possible with the use of internet. 3. The application of new technologies in teaching inspires students to learn and eventually increase their intellectual desires. IV. CONCLUSION: In conclusion, this controlling roll-out of the new technologies, multimedia, hypermedia and others has caused immense changes in almost everything: roles of the universities, public policies, work and study patterns, thoughts and ideas of man.

However, this technological program, though inevitable, is only a means to an end and what lies ahead as a more challenging endeavor is the manner of handling it to its optimum. What is hoped by everyone is that these capabilities of the modern technology bring forth bountiful success and redound to a more brilliant future of education. DEFINITION OF TERMS:

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ANALOGY - is a particular kind of comparison by which one subject is discussed according to terms which apply to the other. INTERPRETATION - is the art of establishing a meaningful pattern of relationship.