The difference between school and life

Often times, the very tools that we provide children with, in order to enhance their educational experience, prove to be roadblocks that they must conquer first. American author Tom Bodett once said, " the difference between school and life? In school, you're taught a lesson and then given a test. In life, you're given a test that teaches you a lesson." This is the approach we must use when studying the effeteness of computers of computers on our students. Modern society faces the difficult task of providing the next generation with all of the technological tools necessary to gain a comprehensive education, even while it struggles to master the implements provided. As modern society sees a shift into digital age, schools were not left unaffected. Beginning in the early computers and related technology were place into school settings. The major argument was that computers would provide children with research possibilities that extended beyond the walls of a library or classroom.

The cause of introducing technology into the classroom was spear-headed by, Massachusetts Institute of Technology mathematician, Seymour Papert. Papert sought, at first, to change the problem solving method children used by allowing them to be fully submerged in the experience. His ideas warranted a trail, and led hundreds of classrooms, across the nation to receive computers. As with all initiatives, if not implemented, supported, nurtured, and tested with the utmost care, it will fall far short of expectations; this is precisely the scenario that played out in these hundreds of classrooms across the nation.

Years after the first personal computers were introduced to these havens of knowledge, scholars set out to measure the improvements that were

promised. their findings were less than satisfactory. Yet it was a clear defect in their implementation that led computers to be such a costly failure. With scholars and teachers left dissatisfied; it is important to discover why this failure happened and how to prevent it from happening again. A look into the background and inspiration for introducing such technology to schools will provide at least, a basic hypothesis for why the computers failed to reach its expected improvement results.

In the sixties Seymour Papert was laughed at when he talked about children being able to use computers as learning instruments and enhancement of their creativity. So who is this man, Professor Seymour Papert who said that using computers could help children learn and socialize more amongst each other. Born February 29, 1928 in Pretoria, South Africa, Professor Seymour Papert is an MIT mathematician, computer scientist, and educator. He is also considered one of the pioneers of artificial intelligence, as well as being an inventor of the Logo programming language. Papert worked as a researcher at St. John's College, Cambridge, the Henri Poincare Institute at the University of Paris, the University of Geneva and the National Physical Laboratory in London before he became a research associate at MIT in 1963 where he held this position until 1967, when he then became a professor of applied math and the director of the MIT Artificial Intelligence Laboratory, until 1981; he also served as Cecil & Ida Green professor of education at MIT from 1974-1981. [1] In 1964 Papert was asked to join the faculty at the Massachusetts Institute of Technology where he helped to found the Artificial Intelligence Lab with Marvin Minsky. He then also developed the concept for computer language, LOGO, and several new ideas for computers and

education with the help of major grants from the National Science Foundation. The LOGO language is adopted world-wide and has been adapted for the use of new technologies in Africa, Latin America, Europe and the USA. Along with Alan Kay, Papert pioneered early ideas in the use of computers by children that would lead to the development of the first concept for a laptop computer. In the past few years Papert concentrated heavily on working with educators in Iowa, where he has shown how to adapt the educational use of robotic construction for young children and across gender lines. He became the primary influence in convincing Maine Governor Angus King to boldly establish the state of Maine as the first state in the world to embrace the one-to-one computing with the placement of laptops in all seventh and eight grade classrooms in 2002-2003. [2] With the support of President Clinton, the " Lunch Box to Laptops" provided a great opportunity to place Maine and its young citizens in the position of national leadership. Some believe that it is an essential component of Maine's ongoing efforts to build on a high-tech economy whilst others argued that the benefits of increased technological influence will not only reach children but also their parents.

In the early 1990's President Bill Clinton had proposed a $2 billion program to help increase the access to computers and the Internet in low-income neighborhoods and schools. 2 With that being said, the President's Panel on Educational technology had argued that the federal government should spend at least between $6 billion and $28 billion each year on an ambitious program of computer infrastructure development (for both hardware and software), teacher training, and research. 5 A research was performed on

students who used the computers in the classroom once a week and were then given a test by the National Assessment of Educational Progress (NAEP) to determine if the use of computers in the classroom had both a positive and direct achievement on academics. Now the analysis provided that the students did not achieve a higher score on the NAEP reading test versus those students who did not use the computers in classrooms at all. Now one major consideration was that teachers were not properly trained nor prepared to use the computers, since those students of teachers who are not adequately trained to use them in reading instruction may not perform as well on the NAEP reading test as students whose teachers are adequately trained. Now such spending would help to supplement the $1. 25 billion in federal money that was already spent between two fiscal years (FY) 1997 and FY 2000 on the technology Literacy Challenge Fund, 6 which helps to provide funding for new computers, software, and teacher training. Although it seemed that politicians were quick to call for the government subsidies to increase the number of computers in classrooms, there was previous research on the effectiveness of computers in improving a child's academic achievement which resulted to be inconclusive at best. 7 In other words, it was not clear that spending more and more tax dollars on computers would boost test scores. The use of computers in classrooms may not play a big enough role in explaining reading ability. Thus, dedicating large amounts of federal tax dollars to the purchases of computer hardware, software programs, and countless hours of training for teachers, it could crowd out other worthwhile educational expenditures , for example, new textbooks, the arts and music programs, and vocational education. There have been no reports that do not suggest that there is no place for computers in the

classrooms. It does, however, demonstrate that computers may not have the effect on academic achievement in reading that some might expect, even when they are used by well-trained instructors.

So wasn't Papert's objective carried out to the fullest? Why was the testing not relevant to computer? It is not surprising that people are rooted in a school's concept of how learning should take place resist such restructuring. What is surprising though is the logical distortion they resort to in order to persuade themselves, as well as others, that there are more powerful objective reasons that make the transformation nearly impossible. There are three major issues that were brought by, surprisingly by the schools themselves. What was stated was that the computer was intensive and far too costly to give every child in a classroom, when in reality schools place computers on a small based budget, for example writing utensils. In reality the actual cost of purchasing computers for each child would be between $200 and $500 and they would exceed their estimated lifetime of five years. Secondly, it was stated that teachers would not be capable of providing the proper knowledge when it is needed to the students. Now if you allow students, of all ages, to work together then it would show them a source of knowledge in which if free networked computers basically provide unlimited sources of knowledge. Lastly, it was said that this kind of " work" is contrary to the acceptance that allowing computer use in school would be balked at by both teachers and parents. This is just an assumption that it would be imposed on everyone else the " right way" and it continue to be a problem unless one chooses to accept this new change. Papert's objective is simply misguided and certain groups of people feel it is a waste of time and money

when it shouldn't be looked that way. The computers that will be the pivotal force for change, will be of those outside the control of schools and outside the schools' tendency as to convert new ideas into old ways. We are already hearing stories about the influence in classrooms of children whose access to at-home computers and to a home learning culture has given them a high level of not only computer expertise but also of seeking knowledge and standards in what constitutes a serious intellectual project. The number of these children are expected and will grow exponentially in the next few years.

A nationwide survey of teachers in grades 4 through 12 who are experienced and accomplished at integrating computers into their teaching. Of 1200 teachers who were sent the 16-page questionnaire, only 608 returned the completed surveys. Now the purpose of studying these teachers was to try and discover the ways in which they can use computers in their classrooms, and how they believe their teaching has changed as a result of the use of computers, and the kinds of barriers and incentives that are important to them. Major findings show that these teachers: (1) are comfortable with computer technology, devote their own time to learning how to use computers, and receive local support for using them; (2) work in schools averaging more than twice the number of computers than other schools; (3) use computers for many purposes including demonstrating an idea, instruction, word processing, and promoting student-generated products; and (4) expect more from their students, are able to present more complex materials to their students, and foster more independence in the classroom. You can only conclude that similar accomplishments on a wider scale can be

achieved if ample technology, support, and time for teachers to learn and be trained in the technology is provided to them, and if an academic and cultural structure exists to encourage teachers to take an experimental approach to their work.

According to the federal No Child Left Behind Act, students should be technology literate by the time they complete eighth grade. However not every child has equal access to technology. Often, schools in affluent neighborhoods offer students a richer and better technology experience than schools in poorer districts. Moreover, there is a technology gap that does exist and some say it just continues to grow, mainly between America's middle and lower classes. Many observers and researchers believe that technology can help improve learning but only if it is correctly deployed and thoroughly understood. " Technology in classrooms has to be distinguished from technology in schools," said Howie Schaffer, public outreach director at the Public Education Network, an organization working to reform public schools in low-income communities. For Papert's objective to become effective, technology in schools must move beyond having a computer lab that students only visit a few times weekly for twenty or thirty minutes. A successful, technology-rich school must integrate technology into their curriculum, and teachers should be trained to use the technology to maximize its potential. In 2004 the average American public school teacher only had a shocking total of eight hours of development on things that were determined classified technology. In order for technology to make any difference in the classrooms, is if the computers equipment is functioning properly, the teachers are well trained and it is integrated into the schools or

teachers curriculum. Computer technology is used in math, science, the arts and in physics. The concept is not lost on federal officials. Tim Magner, deputy director for the Office of Educational

Technology at the U. S. Department of Education, understands that a well designed technology plan can improve academic performance. The impact of technology in the classroom depends heavily on its implementation, he said. " Technology, when thoughtfully applied in the context of an overall instructional program, can have some pretty significant effects." Now Microsoft Technologies has agreed to help train teachers at schools that are willing and ready to accept the use of computers in the classroom curriculum, which is a big success even though some may see it as a huge risk but that is not the case. As well as helping educators improve their knowledge of technology and their method of preparing students, technology can engage children in the curriculum when they may otherwise be disinterested.