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COMPUTERS IN EARLY CHILDHOOD EDUCATION: THE WAY FORWARD

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Abstract

This paper sought to find out whether children are supposed to be exposed to computer at the early age. The paper further examined some advantages and disadvantages exposing young children at the tender age of between the ages of three to six years to computers. There are many fallacies pertaining exposing young children to computers and some of them have evolved into full-blown myths and therefore, it is necessary know the right thing to do as suggested by this paper. The position of a teacher I regards the use of computers by children for teaching and learning in this digital age is also discussed and some myths that have direct bearing with the teacher on this issue are x-rayed as well. The paper concluded that, young children should be allowed to use computers when they are given the right software at the right age and they should do so under the proper supervision of the teacher or guidance and proper timing is a necessary.

Key words: Early Childhood; Education and Computers.

Introduction

It is an undeniable fact that computer and its applications is an integral part of our lives, Yes, computer has come to stay. In short, Computer and its applications is part of our immediate environment. Usually, children strive to explore their environment as they grow (Baile, 2000). The exploration of computer and applications by children is not different from any other things within their immediate environment. Children and young adults have embraced new information technologies in large numbers (National Telecommunication and Information Administration

(NTIA, 2002). NTIA(2002) stated that more than any other age group, these younger age groups use computers and the Internet widely for many of their daily activities (<http://www.ntia.doc.gov/>). Somebody may like to know whether exposing children at this tender age to computers is harmful or beneficial. Healy and Schilmoeller (1985) conducted an empirical research and concluded that the overall attitudes towards computers and computer use by young children were positive and optimistic. Moreover, parents whose children used computers in schools had more positive attitudes about computer use by young children than parents whose children were not using computers in school (Healy & Schilmocller, 1985). Hence, many parents believe that the earlier their children begin to use the computer, the better (Edwards, 2013). In a recent national survey funded by the U.S. Department of Education, nearly all principals reported that educational technology will be important for increasing students' performance in the next few years, and a clear majority of teachers reported that the use of technology is essential to their teaching practices (Daniel, Kuntal, & Robert, 2006). On this footing, most parents expose their wards at tender age to computers either at home or in school due to the advantages attached. This paper therefore, highlights the advantages and the disadvantages of computers in early childhood, wise computer usage, and the role of a teacher with regards to computer by young children.

Advantages of Computers in Early Childhood.

The study of Edward (2013), have shown that children who use computers from an early age have several advantages. He observed that, Computer classes are taught in most kindergarten and elementary schools, so preschoolers who are already familiar with the operation of the keyboard and mouse will be ahead of the learning curye. Home computers may increase high school graduation by reducing non-productive activities, such as truancy and crime, among children and in addition to making it easier to complete school assignments (Daniel, Kuntal, and Robert, 2006). They may also have an advantage if they have the opportunity to play with educational programs, as many learn reading and number skills from computer software. Some experts suggest that allowing preschoolers to have time with computers can be beneficial because of the following reasons (Edwards,201 3):

-Introduces educational skills: Some computer applications are designed basically to add knowledge to users. These types of applications are called educational packages. Examples are Microsoft Encarta Encyclopedia, Mavis Beacon Typing Tutor etc.

-Teaches logical skills: Most computer games are logical in nature and as children continue to play the game, they keep acquiring logical knowledge.

-Prepares children for future computer use: when computers and its applications are used as teaching aids to children, these can help them to easily adapt to any new application developed in the future. For example, any child that is used to Microsoft office 2007 can easily understand the Microsoft Office 2010.

-Increase self-esteem and self-confidence: when children are used to playing computer games, invariably they are developing their self-esteem and self-confidence in developing solution to real world computer problems.

-Boosts problem-solving skills: Some computer games have to do with little manipulation of numbers. By playing this type of computer games by children they can boost their problem-solving skills.

-Stimulates language comprehension: Some of these computer games are designed for teaching language grammar. As these children keep playing this game, they improve the grammar as well.

-Improves long-term memory and manual dexterity: Long-term memory of children playing computer games can be improved and manual dexterity can also be improved in terms of manipulation of computer mouse. Controlling computer mouse as a first time can be challenging, hence a child who is used to it can control it with ease.

The greatest benefits, though, occur when children use computers side-by-side or when they work with adults. In these situations, young children develop cooperative problem, solving skills. They also have the opportunity to interact with others, which enhances their overall learning.

Disadvantages of Computers

In spite of the many benefits, experts also point out some drawbacks to preschool computer use. Some express concern for children's physical health. Others cite psychological and developmental concerns. Preschooler's muscles and bones are still developing, but computers and furniture, especially at home, are rarely set up properly for children. Physical problems can

also result from sitting too close to the computer screen. Another difficulty arises when the computer is used as a babysitter, as when parents put in educational games software and believe their children are better off than sitting in front of a Television (TV) (Edwards, 2013). Edwards suggested that reading together, having family discussions, or playing is a much more valuable use of time. These family discussions activities can provide as much educational stimulation as the software will the added benefit of social interaction.

Wise Computer Usage

Parents and teachers should be properly guided by the following tips in exposing their children to computers:

- To make the computer beneficial for you and your preschooler, decide on rules and time limits. Using a timer to signal when your child's time is up helps avoid arguments;

- When purchasing software for your child, look for programs that offer opportunities to try many different solutions. These help stimulate creativity a problem solving;

- Setting up a separate profile for your child is a good precaution. This can prevent him from clicking on things he should not or accidentally deleting important. Rather than leaving your child alone at the computer, stay with him. Use computer time for interaction and togetherness;

- Look for programs that support open-ended, discovery-oriented learning: Go programs that will make the child to discover new things. That is the program should be challenging and up-to-date;

- Adjust the computer and furniture for your child's use: Please make sure you up sitting arrangement for your child properly;

- Adjust the sound and screen size for each use: Make sure the volume is not high because it may damage the child eardrum and lead to hearing problem. The screen size should also be adjusted so that it will fit the child viewing;

- Supervise your child's computer activities: Be sure you supervise your child and time him appropriately: -Turn off all programs but the one your child is using: Turn off other programs to avoid distraction from other programs. Leave only the particular software you need at that point time on;

-Limit the amount of time your child spends on the computer: Limit the time your child spend on the computer to avoid addiction and west pain related issue. Teach your child proper computer use and monitor him to be sure his computer time is constructive and useful; and

-Balance computer time with social interaction and physical exercise: Your child should not spend the whole time on computer, he should also have some time to play with other children and do some physical exercise.

When computers are used wisely, are tools for stimulating preschool learning. But it is important to take precautions for your child's safety and well-being. But most importantly, focus on learning together, both on computer and off.

The Role of a Teacher in Regards Computer Use by Young Children

In every teaching and learning process, a teacher plays a great role. Now what is the position of a teacher in this our digital world where everything seems to be computerised. Many questions have been asked pertaining the appropriateness of use of computers in early childhood education. It is no wonder that early childhood educators are confused ,about the value of using computers in their classrooms (Tsantis, Bewick & Thouvenelle., 2003). Educators, psychologists, technologists, cognitive scientists, and philosophers continue to debate on the advantages and disadvantages of using computers in early childhood education (McCarty, 2000). Conflicting opinions and professional disagreements have produced a multitude of beliefs that have evolved into full-blown myths ((Tsantis, Bewick & Thouvenelle 2003). The following are seven myths as reported by Tsantis, Bewick &Thouvenelle (2003) have generated the most attention and concern:

It is okay if children know more about computer than teachers do;

All software designated for young children is age appropriate and of high quality;

I might do something to break the computer;

Computers can provide solutions to any problem encountered in education;

Computers don't foster pro social interaction, and will overshadow the use of other classroom materials; and Computers are easy to use, As long as children are having fun using the computer that is sufficient reason for Use by three-and four-year-olds.

It is okay if children know more about computer than teachers do.

The common belief that "it is okay if children know more about using the computer than the teacher does little to promote the potential educational benefits of computers to either teachers or children (Tsantis, Bewick & Thouvenelle, 2003). This myth sound so correct and convincing such that it may become subtle obstacles or obvious barriers to using computers in the early childhood arena. Some teachers can even conclude that computers are not natural part of teaching aids in early childhood classroom. These myths contribute to teachers' reluctance to move beyond basic awareness of computers toward integrating computer technology into teaching and learning (Tsantis, Bewick Thouvenelle, 2003). Research conducted by McCarty(2000), confirms that computers are more likely to be valuable instructional tools when teachers are personally comfortable using them. Since the early days of classroom computer use, researchers and staff development specialists have underscored that the teacher is key to effective educational use of technology (Thouvenelle & Bewick, 2003). However it is the teacher's knowledge and skills about how to use the technology that makes the difference, not the technology itself. Another result of this myth is the negative impact on teachers' confidence to master new teaching tools and methods (Wheatley, 2003).

All software designated for young children is age appropriate and of high quality.

It would be terrific if this myth was a fact, but it is one of the most serious fallacies about the use of technology with young children (Tsantis, Bewick & Thouvenelle, 2003) Because teachers are less than confident about their own computer skills, they avoid critically evaluating educational software. Some teachers may believe that they do not have the background to make effective assessments, and are satisfied if children seem to enjoy the software offered. To identify the real value of a software program, teacher need to ask a basic question, Does. this software program help create learning opportunities that did not exist without it?" Some teachers purchase software without asking questions or really understanding the implications of children's interactive use of the program. They fail to examine the educational content or to carefully

consider tilt implicit messages communicated during use of the software. Colorful graphics, cut animation, and musical tunes may distract even highly informed educators from critically reviewing content and underlying objectives (Tsantis, Bewick & Thouvenell 2003). Teachers must apply their professional judgment to software just as they would to other instructional materials.

I might do something to break the computer.

Some teachers are suffering from inferiority complex and ignorance. Recently a teacher shared this overriding concern: "I'm afraid I'll press a key, crash the software, and lose all my important work!" It is true that computers can be unpredictable, and just when you begin to feel comfortable with the computer something happens that threatens your confidence. Every teacher should take his time and learn the rudiment of computing and that fear will naturally go with time and practice.

Computers are easy to use. Why is the belief in this myth of the easy-to-use computer so damaging? Perhaps it is because this perception may make anyone who not experience an immediate success with the computer feels a little incompetent, this can undermine confidence and diminish interest in learning how to use computers (Tsant Bewick & Thouvenelle, 2003). This is particularly unfortunate because, for many people, computer use is not an easy, effort less experience. If computers really were that easy to use, then would not just one training session magically transform any teacher into an effective computer user? Research confirms that computers are more likely to be valuable instructional tools when teachers are personally comfortable using them (McCarty, 2000).

CONCLUSION

In conclusion, because of the increased amount of technology in the world around us and the fact that most preschoolers have access to technology at home, it seems logical that it should be incorporated into their education system. We do have phonics, vocabulary, comprehension, spelling and writing apps on the iPads and androids too that help young children build a better understanding of letters and sounds. There are plenty of fun and educational apps that also provide practice with the essential literacy skills. It is believed that children would not complain with technological fun like that.

Recommendations

Based on the issues raised, the following recommendations were proffered:

1. Young children should be allowed to use computers when necessary checks and guards are observed.
2. Children should be exposed to the correct learning software at every stage of learning.
3. The software that they do not need them at a time should be turned off.
4. Computers should be set-up properly for children in order to avoid health risks associated with wrong sitting posture.
5. Children should be timed when working on the system.

Above all children should work on the system individually, but should be closely guided.

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