

Risks and Benefits regarding the use of ICT at early years

Dr. Jadal Madhukar Markandeya

K.B.P. Mahavidyalaya, Pandharpur
Dist.:- Solapur (Maharashtra)

Abstract:

Due to the use of ICT in the early years and the cognitive, emotional and social development of young children and their developmental needs can be taken into account. This paper discusses various aspects of the ongoing controversy over the use of ICT in the early years and seeks to answer some of the related questions of the argument in the early introduction of ICT. The risks and benefits involved in its use; And developing the right application for the development of ICT in childhood classes,

Key Words: ICT, Risks , Benefits

Introduction:-

In today's world, ICT is a ubiquitous component of our lives. Most of the things we use include ICT. What is ICT? Simply put, it means information and communication technology. It can be described as "any information that allows us to obtain information, communicate with each other, or influence the environment using electronic or digital devices" (Siraj-Blatchford and Siraj-Blatchford, 2000). Today, ICT and e-learning have become important concepts in primary, secondary and tertiary education. In the context of Early Learning (ECE), ICT can include a wide variety of hardware and software (Bolstad, 2004). ICT includes computers (including desktops, laptops and handheld computers); Digital cameras and digital video cameras; Creativity and communication software and tools; Internet; Telephone, fax machine, mobile telephone, tape recorder; Interactive stories, simulation environments and computer games; Programmable toys and "control" technology; Video conferencing technology and closed circuit television; Data projectors, electronic whiteboards and more.



Signature of ICT in early childhood education

The field of early childhood education includes children, business people and parents or other people related to other childhood settings. There are three reasons why ICT is so important in childhood education. The first reason relates to the broader quality of ICT which has an impact on people (family members, carers and early childhood educators) and the environment (physical and social) surrounding young children's education. Second, ICT technologies offer innovative opportunities to strengthen many aspects of children's educational learning, such as children's learning and learning experiences, professional vocational education and development, and childhood centers, relationships and communication between parents and others. Third, there is global support and interest in the education sector as a whole for the development and integration of ICT education policy, curriculum and practice. Children today live in a communication-rich environment. The models of communication that they have to deal with in their daily lives include ... complete electronic and digital methods of communication ... (Siraj-Blatchford and Siraj-Blatchford 2003). Children's early literacy and play experiences are greatly shaped by electronic media (Luke 1999). Therefore, to enable children and to help them become competent and active participants in their environment, they should be given the opportunity to develop "technology literacy", a new form of literacy that represents the curriculum qualification required to any extent. A broad and balanced curriculum for the 21st century. There is significant support and interest in the field of education today for development and integration into ICT policy, curriculum and practice. Some think that just as everyone has the right to be literate, he or she should enjoy the right to be a skilled user of ICT. Others believe that children should be given the opportunity to experience ICT as a tool with great potential for communication and information retrieval / sharing. The UK Foundation Stage (to years) curriculum states that as part of their early childhood education, children learn about it and Recognize the use of everyday technology and give children the opportunity to use ICT to support their teaching (BETTA 2004).

In most countries, policy and curriculum support for ICT development in early childhood education is weak. However, in some countries, such as the UK, early childhood education shows the way to develop best practices in the use of ICT to



support positive learning experiences for children. Similarly, Scotland has recently developed an ICT Strategy for Early Childhood Education (Learning and Teaching Scotland 2003). The aim is to support early childhood education practitioners to make the right decisions and choices. 1996; Siraj-Blatchford and Siraj-Blatchford 2003) For future development and policy-making guidance, it is necessary to examine the role and potential of ICT in early childhood education. The introduction and use of ICT in this area should take into account the existing knowledge about early childhood learning and development. Technology itself should never drive the process of ICT development in the field of child development education. Instead, all planning for the introduction and use of ICT by children and adults in early childhood education should be based on clear references to the goals, methods and social context of early childhood education (O'Rourke and Harrison 2004).

ICT of the Early Years : Ongoing Debt

Discussions on making ICT an integral part of early childhood education polarized opinion. One group advocates for ICT education and development in the early years of childhood. The second group rejects it on the principle that ICT interferes with it in the early stages.

Risk of ICT use in the early years

Due to the increasing prevalence of ICT, some parents, teachers and children's advocates have questioned the relationship between the cognitive, emotional, social and developmental needs of their young children. Needless to say, the argument focuses on children's use of computers and computer games, and questions are presented on two accounts. Disadvantages of ICT devices in young children * Negative effects on children's social development (such as promoting antisocial behavior such as isolation or aggressive behavior); And * developmental problems (such as computer use can interfere with children's cognitive development). Specific concerns about the potential harm of ICT devices may arise: * Exposure to inappropriate content (such as content of a sexual or violent nature or inappropriate gender, cultural or social norms); And * computer use may displace other important learning and sports activities. Some researchers object to the introduction of ICT in



the early years, arguing that all of these factors impair children's development - physical, cognitive, social and emotional. Most of the research on ICT and its effects on young children has focused on the use of computers. The argument to oppose the introduction of ICT is that as children learn in the body, computers are not developmentally appropriate (Hoagland 2000). As a screen-based medium, computer activities are not skillfully effective in developing perceptions and skills in the early years (Yeland 1999).

Hohmann (1 stated 1998) noted that, except for the coordination of mouse use, computers do not support the development of motor activity or motor skill development. He further said that touch typing is a motor skill that can be learned with the help of computer, it is inappropriate for most children to start it before they are around 7 or are years old. For years, Alkind (1996-1996) has argued that computer proficiency does not mean cognitive development, which requires proof of the development of the underlying concept. It shows the difference between learning how to use the internet and learning something from it. Haley (1998) warned.

The use of computer is detrimental to the development of young children as well as their education. Stating that young children need human support and verbal communication, she concluded that since computers fail to provide enhanced experiences for learning, they are unsuitable as an educational resource for children under 7 years of age. Deducts from important developmental works. Fomichova and Fomichov (2000) add to the controversy by suggesting that children in economically developed countries spend many hours alone in front of a computer, adding that a new nuclear family system of parents, children and computers has emerged. They refer to computers as the educational system, the awareness of children, and the intrusion into the family. Yet others believe that the use of computers can enhance learning in a negative way. For example, playing solitary games on a computer can lead to a child's disengagement from social interaction in learning and playing, or violence in a computer game can encourage aggressive behavior. A common concern expressed by many critics is that ICT may displace other important learning and sports activities. In fact, Cordes & Miller (2000) calls for an immediate postponement of further computer introductions in childhood, with the exception of special cases for students with disabilities. They believe that children's computer use should go hand in hand



with other types of learning and play activities. He argues that computers should be used in the education of young children for the essentials of a healthy childhood. Other concerns surrounding the health and safety issues of computer use for young children, research-based evidence.

There is insufficient about it. For example, there is not enough information about whether radiation emitted by wireless ICT technologies can have harmful health effects for adults and children. There are also concerns about physical side effects, including prolonged exposure to ICT, such as recurrent stress injury, detoxification, and sedentary lifestyles. The BECT (2001) Information Sheet on School Keyboard Skills states that it is extremely dangerous for children who are typing next to children to use the keyboard with index fingers only, especially when playing games on the home computer can increase stress. Furthermore, little is known about the potential for Internet and computer addiction in young children, as the information available so far is limited to older children.

Continued benefits of ICT in the early years

Many pediatricians of childhood criticize and reject the foolish view of gold. Some authors say that the same concern about harmful cognitive, emotional, physical, and social effects on children has led to the emergence of each new technology from the time of the letter print to the spread of movies, television, and video games (Lindroth, Lanz-Anderson, and Lindstrom 2002; Luke 1999). Computers can play a role in children's educational experiences, along with many other types of activities - ICT should not be seen as a way to ignore or displace these types of experiences. For example, the use of ICT should not be at the expense of outdoor or indoor experiences that encourage the development of overall motor skills using running, climbing, jumping, swinging and wheel toys (Siraj-Blatchford and Siraj-Blatchford 2003). Researchers have suggested that the use of computers should not be viewed as a solitary activity, but should be integrated into other planned and spontaneous learning and should be incorporated into play activities in early childhood education. Liang and Johnson (1999-1999) described the ways in which computers could be used in activities such as exploratory drama, functional play, rule games, drama, and creative drama. Using ICT in the early years can enhance the development of communication



skills in young children. Van Scooter & Boss (2002) describes a number of ways in which ICT can contribute to the development of children's literacy in four interrelated areas of speech, listening, reading and writing. For example, they discuss how word processors teach children's experiments to "speak" while playing with language. They highlight that these tools allow children to write and write without mastering the production of letters on their own. They also suggest using computers and printers to help children make signs, banners and other props for games, all of which will increase children's interest in the game and basic literacy skills, and the decision to make them will give children the opportunity to use language. Furthermore this whole exercise of creating and displaying printed products will create an environment for children where print has a direct relevance to their lives. When technology is used Thoughtfully and innovatively can help children express themselves, verbally, visually and emotionally. ICT provides children with a variety of ways to weave words, pictures and sounds together, giving children many ways to communicate their thoughts, ideas and emotions. ICT supports writing as well as reading or pre-reading skills for young children. ICT can monetize children's storytelling skills such as children who are not yet writing can also write words with their pictures or record their voices by telling stories or tapping videos while showing videos. Some studies have shown that the development of social skills is encouraged in the early stages of ICT by providing a platform for collaboration, collaboration and positive learning experiences in children or in children and adults. However, it is important for practitioners to be aware of what kind of teaching interactions are needed in the use of ICT and to adopt appropriate teaching methods to support them. Other studies suggest that the use of ICT facilitates social development in children by enhancing communication, taking turns and solving collaborative problems. However, there are some good, recent studies available to prove this, especially for preschool children. However, using a computer to sit with others, talk, and sometimes enjoy animation is a positive social experience for children. Regarding the effect of ICT on education, Hoagland (1992) provided evidence that children who have experience with computer use developed verbal skills, structural knowledge, long-term memory, manual mastery, verbal skills, problem solving, abstraction and conceptual progress skills. Also, some research using case studies has shown that ICT can be used to support



aspects of education that include language development and mathematical thinking. Levin (2000) explored the effects of speech book software in the UK's primary classes (focusing on children between the ages of 5 and 6) and concluded that electronic books complement teaching in children's classes that have a positive effect on cognitive and emotional outcomes.

Effective application of ICT in early childhood education institutions

In order for ICT to be used effectively in early childhood education, health and safety issues, the quality of the learning environment and the aptitude for the development of ICT need to be addressed.

Health and safety issues

This can be ensured by paying attention to the physical and ergonomic safety of the children; Preventing exposure to inappropriate content (e.g. games or Internet-based content of a violent or sexual nature, or containing undesirable sex or cultural norms) and protection of children's privacy (e.g., information published in an online environment or on the Internet). A careful approach is required and physicians and children need to be well aware of safe and appropriate methods of working with computers. These health and safety issues should be an integral part of early childhood study and policy and "general health awareness related to ICT and computer use should be part of children's education about ICT and part of any setting health and safety policy" (Siraj-Blatchford and Siraj-Blatchford) 2003) They recommend that children's computer use should be in relatively short spells, usually no longer than 10 to 20 minutes for 3-year-olds, no longer than 40 minutes after the age of 8 years.

The quality of the learning environment

Physical and technical arrangements, such as increasing children's access to computers and other ICTs, installing computers in the room, and the types of software available, determine the quality of the learning environment. This means that the educational and social characteristics of the learning environment, such as the quality and quality of children's interactions, and the role of adults in supporting and



encouraging children's ICT use, are also connected with other ICT-related activities and business-wide learning goals. It is also important to carefully choose the software to use with children as only good software can engage children in self-directed exploration and suit their individual needs.

Developmental competence of ICT

The use of ICT in the early stages has the potential to increase educational opportunities for young children. If applied in a developmentally appropriate manner, it can encourage purposeful and exploratory drama, discussion, creativity, problem solving, risk taking, and flexible thinking. The proper use of ICT tools depends not only on the practical skills and knowledge of childhood but also on the “developmental justification” of the technology for the children in question. Developmental justification is a guiding principle in much of the literature on ICT in early childhood education. Two widely cited groups of guidelines emphasize development aptitude: the DATEC (Technology for Early Childhood Development) project in the UK (Siraj-Blatchford and Siraj-Blatchford 2002; Siraj-Blatchford and Whitebread 200 2003); And a statement from the American National Association for the Education of Young Children on the use of technology with children ages 3 to 8 (NAEYC 1996). DATEC offers eight general principles for determining the suitability of ICT applications in the early years: * Keep the child under control; * Be aware of violence or conservatism; Are transparent and intuitive; * Ensure educational purpose; * Encourage collaboration; * Encourage parental educational participation; * And integrate with other aspects of the curriculum.

Conclusion

The controversy over the use of ICT remains unresolved, as a review of Scottish literature on ICT in early childhood education suggests a "lack of good quality research findings on the use of ICT in educational settings for preschool children" (Stephen2 and Plov). In the end, it cannot be said in perfect terms whether the initial introduction of ICT is beneficial or detrimental to young children, 'there are more questions than just what the use of computers, video games and the Internet means for social, intellectual and internet. Children's Physical Development Today



'(Wartella, O'Keefe and Scatlin 2000) However, it is safe to say that ICT can effectively support and enhance children's learning in childhood education by ensuring appropriate safety and development in all places. Demands that "practitioners are properly trained and qualified to use ICT with young children" (Siraj-Blatchford and Whitebread 2003)



REFERENCES

- 1) Alliance for Childhood (2000) *Fool's Gold: A Critical Look at Computers in Childhood*,
www.allianceforchildhood.net/projects/computers/computers_reports.htm
BECTA (2001) Keyboard Skills in Schools (information sheet),
www.becta.org.uk/technology/infosheets/index.html
- 2) BECTA (2004) *Video conferencing in the curriculum. Case study 2: Chalvey Early Years Centre, Slough. E-storytelling*. British Educational Communications and Technology Agency. Retrieved 30 June 2004, from <http://www.ltscotland.org.uk/earlyyears/casestudies.asp>
- 3) Bolstad R. (2004) *The Role and Potential of ICT in Early Childhood Education: A Review of New Zealand and International Literature*. New Zealand Council For Educational Research, Wellington.
- 4) Cordes, C. & Miller, E. (Eds.) (2000) *Fool's Gold: A Critical Look at Computers in Childhood*. Alliance for Childhood, College Park, Maryland. *DATEC Project (Developmentally Appropriate Technology for Early Childhood)* www.ioe.ac.uk/projects/datec
- 5) Elkind, D. (1996) Young children and technology: A cautionary note. *Young Children* 51, 6, 22–23.
- 6) Fomichova, O. & Fomichov, V. (2000) Computers and the thought-producing self of the young child. *British Journal of Educational Technology* 31, 3, 213–220.
- 7) Healey, J. (1998) *Failure to Connect: How Computers Affect Our Children's Minds – for Better or Worse*. Simon and Schuster, New York.
- 8) Hohmann, C. (1998) Evaluating and selecting software for children. *Child Care Information Exchange* 9/98, 60–62.
- 9) Learning and Teaching Scotland (2003) *Early learning, forward thinking: the policy framework for ICT in early years*. Retrieved 25 March 2004, from http://www.ltscotland.org.uk/earlyyears/files/ict_framework.pdf
- 10) Lewin, C. (2000) Exploring the effects of talking books software in UK primary classrooms. *Journal of Research in Reading* 23, 2, 149–157.
- 11) Liang, P-H. & Johnson, J. (1999) Using computers to enhance early literacy through play. *Computers in the Schools* 15, 1, 55–63.
- 12) Linderoth, J., Lantz-Andersson, A. & Lindstrom, B. (2002) Electronic exaggerations and virtual worries: Mapping research of computer games relevant to the understanding of children's game play. *Contemporary Issues in Early Childhood: Technology Special Issue* 3, 2, 226-250. Also available at <http://www.ioe.ac.uk/cdl/CHAT/pdfs/elecexagger.pdf>
- 13) Luke, C. (1999) What next? Toddler netizens, playstation thumb, techno-literacies. *Contemporary Issues in Early Childhood* 1,1, 95-100. Retrieved 30 June 2004, from <http://www.triangle.co.uk/ciec/>
- 14) NAEYC. (1996) *Technology and Young Children: Ages 3 Through 8: A position Statement of the National Association for the Education of Young Children*. Retrieved 15 July 2004, from http://www.ltscotland.org.uk/earlyyears/files/ict_framework.pdf
- 15) O'Rourke, M. & Harrison, C. (2004) The introduction of new technologies: New possibilities for early childhood pedagogy. *Australian Journal of Early*



- Childhood* 29, 2, 11-18. Retrieved 25 August 2004, from http://www.ansn.org.au/uploads/ORourke_Harrison.pdf
- 16) Siraj-Blatchford, I., & Siraj-Blatchford, J. (2003). *More than Computers: Information and Communication Technology in the Early Years*. The British Association for Early Childhood Education, London.
 - 17) Siraj-Blatchford, J., & Whitebread, D. (2003) *Supporting Information and Communications Technology in the Early Years*. Open University Press, Berkshire.
 - 18) Stephen, C., & Plowman, L. (2002) *ICT in Pre-school Settings: A 'benign addition'?: A Review of the Literature on ICT in Pre-school Settings*. Learning and Teaching Scotland, Dundee. Retrieved 30 June 2004, from <http://www.ltscotland.org.uk/earlyyears/BenignAddition.asp>
 - 19) Van Scoter, J. & Boss, S. (2002) *Learners, Language, and Technology: Making Connections that Support Literacy*. Northwest Regional Educational Laboratory. Retrieved 30 June, 2004, from <http://www.netc.org/earlyconnections/pub/index.html>
 - 20) Wartella, E., O'Keefe, B. & Scantlin, R. (2000) *Children and Interactive Media. A Report for the Markle Foundation*. Available from www.markle.org/programs/_programs_children_utexas.stm
 - 21) Yelland, N. (1999) Reconceptualising schooling with technology for the 21st century. *Information Technology in Childhood Education Annual* 39–59.

