



APPLICATION OF INFORMATION COMMUNICATION AND TECHNOLOGY IN EARLY CHILDHOOD CARE AND DEVELOPMENT

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ABSTRACT

Today's learners are growing up in such a world that not only contains but is currently shaped by information communication and technology. Information communication and Technology matters a lot in Early Childhood Care and Development as it influences the environment of the growing children. Not only environment, it directly affects the people who are surrounding the young children. Information Communication and Technology in the development of early childcare doesn't only means enhancing the children to use computer and electronic devices. However, these kinds of technologies can impact the development of the children if they are used as a tool for them. ICT works as a resource for practitioners to draw positive support to empower the children for their development. If ICT is properly and purposefully utilized, then it can develop a lot of skills among children like collaboration, cooperation, discussion and creativity. The objective of the study is to discuss the application of Information Communication and Technology in Early Childhood Care and Development. With this objective, we discuss various online resources with respect to websites, mobile apps that can be beneficial for the development of the children holistically.

Keywords: Information Communications Technology, Early Childhood Care and Development, Mobile Apps, World Wide web

Introduction

Information Communication Technology can be defined as anything that can allow anyone to retrieve information and communicate with others with the help of electronic and digital devices (Bolstad, 2004). Information and Communication Technology can affect one's environment with the help of these devices. With regard to children, technology nowadays is playing a positive role in enhancing development and learning. It can also be said that without information communication and

technology presence, it becomes impossible to come across an educational institution at any level. Today's learners are growing up in such a world that not only contains but is currently shaped by information communication and technology (UNESCO, 2012). Children who went to school often face different kind of problems. Among these problems one of the big problems the children face is to get aware of computers and electronic devices before they join the formal education. And hence are subjected to have influence of ICT on them. Though this influence is not negative at all, but the situation

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proves totally different for them. But after they get familiar with this kind of situation, they always try to retrieve the best from them.

Information communication and Technology matters a lot in Early Childhood Care and Development as it influences the environment of the growing children. Not only environment, it directly affects the people who are surrounding the young children. ICT also provides a lot of opportunities through which the practices being followed for Early Childhood Care and Development can be strengthened. The stakeholders claim for integrating ICT in education for the betterment and development of pedagogy, curriculum and teaching-learning method. ICT can contribute in many ways like transforming the activities, role, and relationships that are being experienced by the children in their educational settings. There is a great importance of practitioners and the adults in Early Childhood Care and Education. Practitioners have enough guidance have the opportunity to become capable and competent enough the potential of ICT and its role in strengthening various aspects and practices of Early Childhood Care and Development.

Early Childhood Care and Development

Early childhood can be defined as a time period which starts at the birth of the child upto eight years. This period of child development is regarded as the intensive period for the development of the brain in a child. This stage works as a base for the children for later success in the life of the children. The brain of the child grows at a speedy rate which ultimately creates a lot of opportunities for children. If this stage of life starts with a good rate, the children have the opportunity to grow in such an environment that can fulfil his/her essential needs. It is much important to address the various needs of the children at this stage holistically otherwise, absence of any one particular need can prove harmful for the children and can lead to the negative development in them. As this time period is much critical, the children need much focus, care and attention. The term Early Childhood Care and Development has

been interpreted by various organizations. The Government of Kenya defines the term as

Early childhood care and development is a “framework that targets all children including the vulnerable and marginalized from conception to eight years of age...and all these children have the same needs which consist of nutrition, health, nurture, protection, stimulation, and training...” (National Early Childhood Development Policy Framework, Republic of Kenya, June 2006).

There are various terminologies that are being used for this sentence. The terminologies are ‘Early Childhood Care and Development (ECCD), Early Childhood Care and Education (ECCE), Early Childhood Care (ECE) and Early Childhood Education (ECE). Each and every child has the basic right with regard to their development. The (Article 6 & 27, UNICEF) highlights the importance of this period as:

The child has “a right to live...and develop healthily” and that every child has “the right to a standard of living that is good enough to meet their physical and mental needs” (UNCRC)

Application of Information Communication and Technology in ECCD

Information Communication and Technology in the development of early childcare doesn't only mean enhancing the children to use computer and electronic devices (Carr, 2006). However, these kinds of technologies can impact the development of the children if they are used as a tool for them. ICT works as a resource for practitioners to draw positive support to empower the children for their development. If ICT is properly and purposefully utilized, then it can develop a lot of skills among children which can be collaboration, cooperation, discussion and creativity.

As Information Communication and Technology always popular for its tools that can directly or indirectly affect the common citizen of the country. While mentioning the application of ICT in ECCD, Here, we are throwing light on some

of the tools that can be helpful for the development of the children in many ways.

1. Imaginative Play

Imaginative play, which is considered as the best tool for the development among children. The video recorder is the best tool to record the imaginative plays by the children. How a child is dressing up can be recorded. After watching the recording scenes, it can play a major role in developing creativity among the children. Here the children can receive inputs on their acts and ultimately can appreciate them for their creativity.

2. Interactive Websites

There are a lot of websites which fosters the development among children nowadays. Among them the first resourceful website is Starfall. Started in September 2010, Starfall is basically is a website that fosters the reading skills among children. Starfall emphasized on phonemic awareness, systematic sequential phonics, and common sight words along with the use of audio-visual interactivity which proved to be effective in teaching enthusiastic readers. The activities that are conducted by Starfall's are research-based. The program provided by the Starfall Education Foundation, a non-profit organization, was conceived by Dr Stephen Schutz.

Apart from Starfall, another web portal that can foster the development among children are 'ABC Ya', 'Cookies' and 'Fuel the Brain'. These web portals feature the age-appropriate educational games for children irrespective of subject areas. With respect to mathematics, we have two more web portals that are 'Maths Magician' and 'XtraMath'. These web portals focus on to improve the mathematics fluency among children with providing support for addition, subtraction, multiplication and division. Apart from this, another web portal is 'Suessville'. It is popular for maintaining children-friendly events and the books of authors and interesting facts about their characters. These web portals require no professional expertise as they are featured for the children. And hence it can be said

that children can run these web portals without the help of any instructor or teacher.

3. Enriching Apps

There are a lot of apps which can be foster development in children with respect to reading and writing. Various resources are available in the market which can foster the development in children. We hereby mention some of them as below:

(I) Montessori Crosswords

Montessori Crosswords is considered as one of the best educational apps which foster the skill of teaching and reading in children. The children get aware of the phonetic components of the reading with the help of this app. It is basically used for teaching the sounds of letters. Not only this but it also helps in crossword puzzles focusing on the cognitive component of the children. The app has inbuilt feature for parents as well.

(II) Teachme Toodle

Teachme Toodle is an app having a major focus on letters, numbers, shapes and colours. These kinds of features can attract the children towards the app. Every child has his own login details through which his progress can be checked. The interface of the app is very much simple which becomes a key factor for providing access to children without any instructor support.

(III) Duck Duck Moose

Duck Duck Moose is an award-winning creator app that supports the creation of educational mobile apps for families. It is a team of engineers, artists, designers, and educators. It was founded in 2008 and till now has created received awards. Duck Duck Moose works under the aegis of Khan Academy.

(IV) Prodigy Math Game

Prodigy is one of the best all-around math practice apps for the students of the elementary stage. One of the best features of this app is that it is free and doesn't charge anything. The app provides a healthy dose of math fact practise as well as all of

the other needed skills. The interface is much adaptivewhere activities are assigned based on the child's strengths and weaknesses. One of the best features of this app is that it contains a good reporting system that will keep the parents and the teachers well informed about the progress of the children and the areas where they are lacking behind. Ultimately the app focuses on the skill development.

4. Digital Story Telling

There are several resources available online which focus on creative imaginations among children with the help of digital stories online. The purpose of digital storytelling is to provide a high-quality learning experience. This type of technology represents an ad onmethod where the technology extends the learning experience beyond but could be accomplished without technology. It helps in developing visual and multimedia literacy among the students. It is helpful in developing the interpretation of the digital media and the application of that interpretation to personal message or story. It allows students to recapture creativity, develop it, intensify it, apply it and extend it. Few of the resources that are available online are

- Story Bird
- Little Bird
- Zimmer Times

Story Bird helps students in visualizing stories with the help of artwork. Another one is **Little bird** tales provides an opportunity to the students for narrating their personal work. **Zimmer Times** is helpful for kids for producing animated tales its function is not only for engaging children's but also encourages abstract thinking (Early Childhood Teacher).

5. eBooks

It is yet another learning experience for the children's, where the teaching can make use of popular kids books online. Examples of these resources are

- Disney Digital Books

- TumbleBooks and
- We Give Books

Instructors or the teachers can make use of it to enhance the listening and reading skill among the kids.

Issues and Challenges of ICT in ECCD

Despite of all this, there are few issues and challenges faced in ECCD, they are as follows: -

- Societal disparities play an important role in ECCD as students from poor families do not get the same privileges as the students of well to do families.
- Lack of knowledge of teachers about ICT is an important and burning issue which acts as a challenge in the path of ECCD.
- Lack of computers and internet connection in schools and a computer lab is another issue in schools for ECCD.
- Use of old versions of software and no upgradations by the schools is another issue for the development of ECC.
- Only theoretical knowledge and no practical application makes the students unaware of ICT.
- Overcrowded classrooms act as a challenge for teachers to provide a quality education through ICT.
- Red tape and corruption have been a challenge as proper funds used for ECCD does not reach the schools for ICT purpose.

Conclusion

ICT works wonders for the ECCD as it helps in the advancement in the field of education and technology and helps in maximum utilization of time and energy and makes education available in just a fingertip with innovative, interesting and easy way. Empowerment of the child is a goal that can be fulfilled by proper utilization of ICT. ECCD is a must as a child shapes up itself for the world outside and ICT is the most convenient and must way of enhancing the skills of the child. Connectivity to the world affairs and knowledge can be brought together through ICT and ECCD is the stage that can be

utilized to the fullest by the child. The teachers should help them explore the excitement to know different things and there urge to questioning can also be handled innovatively through ICT. Imagination and exploration which are the two main components of early childhood can be well handled and explained using ICT.

References

1. Bolstad, R. (2004). *The role and potential of ICT in early childhood education A review of New Zealand and international literature*. Retrieved from <https://www.nzcer.org.nz/system/files/ictinecefinal.pdf>
2. Carr, C., A. (2006). Children and Technology: A tool for child development. *Barnardos' National Children's Resource Centre*. Retrieved from <https://www.barnardos.ie/media/1496/chidren-and-technology.pdf>
3. Early Childhood Teacher. ECE Technology: *Trending Tools for Teachers*. Retrieved from <https://www.earlychildhoodteacher.org/blog/ece-technology-10-trending-tools-for-teachers/>
4. National Early Childhood Development Policy Framework, Republic of Kenya, June 2006. Retrieved from <https://www.crs.org/sites/default/files/crs-files/module-two-resource-guide.pdf>
5. UNESCO (2012). *ICT in Early Childhood Care and Education*. Retrieved from <https://iite.unesco.org/pics/publications/en/files/3214720.pdf>
6. United Nations Convention on the Rights of the Child. Retrieved from <http://www.unicef.org.au/Upload/UNICEF/Media/Our%20work/childfriendlycrc.pdf>

