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RESEARCH SKILLS FOR HEALTHCARE



Children's day centres

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Introduction

All over the world, digital technology has made tremendous progress in recent years. Digital technology is still progressing, and it will continue to thrive. Nowadays it is simply impossible to imagine a world without digital technology, without all the advantages it gives us, and with a multitude of obligations imposed on mankind. All these obligations are facilitated and feasible using the envisioned technology which saves time. Reducing the time of completing certain tasks creates space for additional tasks and obligations. The world today confronts with multitasking enabled by digitization.

Healthcare, the healthcare system as well as the approach itself, diagnosis and procedures have reached a high level precisely because of digitization.

RATIONALE

The topic of the research are the children's daily centres and use of digital technology.

What types of children's daily centres are existing, what are the benefits and what are the disadvantages, how day centres used to work and how are they now functioning with digital technology and which technologies are most frequently used?

The following research will contain answers to all these questions with the details described.

OBJECTIVES

The aim of the research is to represent how digital technology has affected children's day centres and how it has changed them through time.

CHILDREN'S DAY CENTRES

In United Kingdom exists various alternatives for childcare – childminders, day nurseries, playgroups, pre-school education. Childcare in UK is inspected by OFSTED.

Children's day centres, commonly termed as day nursery or nursery school, are institutes foreseen for professional supervision of children during the day. The first institution appeared in France in 1840 recognised by government in 1869, and the first day centre in UK was created in 1860.

As written at the beginning, as technology develops it is necessary to keep up with innovation. Technology is used for increasing learning, classroom organization and security in early childhood education. Digitalization has helped a lot in solving existing problems, so efficiency has reached a high level.

Use of biometric technology



The biggest concern is the safety of the youngest. Increasing the number of children in day centres leads to problems tracking check-in or check-out of the child, who brought the child, and whether the person who took the child has authorization for it.

Ofsted's "Early Years: Safe and Sound" (2006) report about accidents includes "a biometric system on entrances and exits ensures that only parents and staff whose fingerprints are registered on the system can gain access to the nursery. Parents registered with the nursery can enter and leave while staff continue to concentrate on caring for the children."

With biometric technology, the problem of escaping from day centres, door opening and unauthorised entry and exit from day centres is almost completely solved.

Surveillance Cameras



Image taken from Google.

The worldwide use of security cameras for surveillance is high. Surveillance cameras can be installed for a variety of reasons, most often because of crime detection.

Surveillance camera roles in children's day centres are numerous. When the cameras are installed, they can record 24 hours, 7 days a week, any activity. Parents who leave their children in the day care centre are often concerned about whether their children are safe, and with this kind of technology they can be calmer because at any moment, they can live-stream their child. Remote viewing can be accomplished by using a day care security camera app on all types of mobile devices. (Li, 2021)

This technological discovery and its use in day centres solves the problem of child abuse, continuous monitoring of children's activities, as well as calming parents knowing that their children are well.

Interactive Whiteboards

An interactive whiteboard (IWB), interactive board or smart board, is a large interactive display board in the form factor of a whiteboard. It can either be a standalone touchscreen computer used independently to perform tasks and various needed operations, or it can be a connectable apparatus used as a touchpad to manage computers from a projector. (The School Run, n.d.)



Image taken from Google.

Interactive Whiteboards are helping children to investigate. The interactive whiteboard is designed to encourage development, focusing, motivation, communication, participation, collaboration etc. In order to achieve the desired effect, it is possible to colour, move objects on the board, and various animations. (Bourbour, 2020) It is easier to learn by seeing, hearing and interacting.

E-readers and tablets



Image taken from Google.

Smartphones, tablets, laptops, e-readers occupy adult life but also the age limit of digital technology users is changing. For example, 10% of six years old own a smartphone and 49% of them says that they can use parents' smartphone. Examining the same age limit, 40% of them own a tablet and 85% can use it in their home. (Ibbetson, 2020) Researching households with Internet access, GOV.UK published percentage of users of Internet in their homes. In 1998, the Internet was used only 9%, in 2000 25%, in 2005 already 55%, in 2009 70%, in 2013 83%, in 2017 90 % and in 2020 96% households are using Internet.



An e-reader is a portable electronic device used for reading electronic contents for example eBooks. Consumption of e-readers is growing, and traditional books are falling into oblivion. eBooks includes multimedia, highlighted text, music, and also narrator can read it out loud, sound effects etc. Highlighted text with narrator reading can help children tracking the written text, and this allows reading or listening without the help of adults. On the other hand, recent research results are showing that many of these eBooks have animations and hotspots that child can press, and are not related to the topic, then there is a distraction and understanding. (Korat O, Segal-Drori O. 2016)

The process of learning in schools and day centres outgrown from learning on blackboards to interactive whiteboards. Nowadays, the tablets replace numerous books, notebooks, and papers. Benefits of using tablets are that they are easy to use, communicating directly with parents or with teachers, learners with disabilities and special needs have personal approach. For example, they can speak into tablet and tablet will transform speech into letters.

iSandBOX



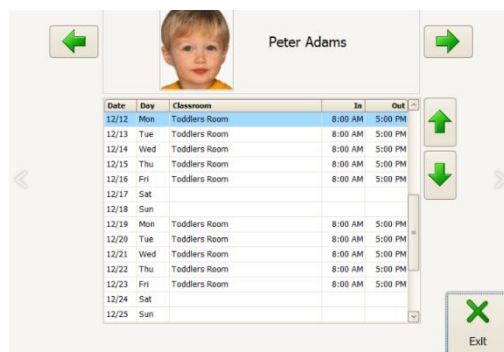
Image taken from Google.

imagination, coordinating, speech and manual dexterity development, and development of emotions. (Tes SEN Show, 2019) It can be used in pre-school educations, with children with special needs, therapy and creative training.

iSandBOX is a new augmented reality technology and represent a large table filled with sand, interactive software, sensors, and projector. All together they can create 3D effects, shapes, objects etc. Augmented technology is when the children form the sand, sensors pick this up and project an image of a mountain, volcano, dragons, oceans etc. There are many advantages and developing areas of it: cognitive processes, stimulates

Attendance Tracking

Teachers and staff can be very confused while checking who dropped off or picked up the child, and that's where we question the safety. To make thus process easier, many childcare centres now are using digital form of attendance tracking.



ProcareTouch - checkin-child-location.jpg

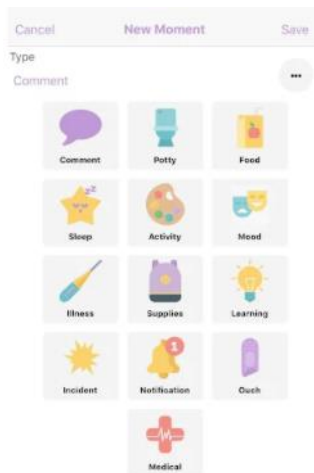


ProcareTouch - check-in-child.jpg

For example, with technology like ProCare Touch Computer, parents can simply press the button on a computer when they are picking them up or dropping off. It is a flat screen computer, and only authorized people can check in or out.

Attendance tracking technology can also show absences, checkouts for doctor's appointments, tuition balances, immunizations, and family members' names. (ProCare Software, n.d.)

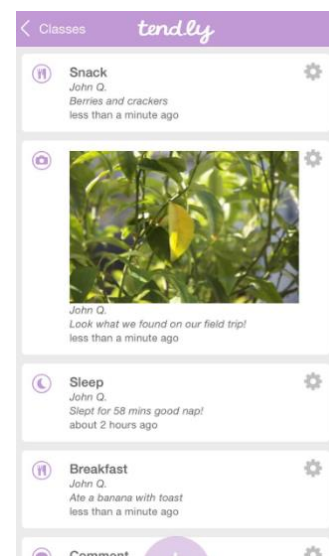
Classroom Organization



Nowadays, it is a real challenge to ensure proper classroom organization and to communicate with parents. At the end of the day, teachers can forget what time child woke up, or what they ate for lunch. With many digital applications, teachers can easily and quickly write important information's for parents or take a photo so parents can see activities of their children. Many applications can also track children's eating habits, sleeping pattern etc. like applications MomentPath or Tend.ly.

MomentPath is the only one childcare management software and it is focused on advancing the early education community. (MomentPath, n.d.)

Tend.ly is platform that has solutions for “Early Childhood Education” and “Senior Care,”. Teachers can share photos or videos, record meals, post announcements or comments, etc. “The platform can also capture data from a variety of systems already in use, including activity trackers and other wearables. Then this data can be seamlessly communicated to the customer so they can be aware of the level of care their loved one is receiving. This communication method allows caregivers to focus less on monotonous paperwork and more on providing excellent care.” (Hunckler M. 2016)

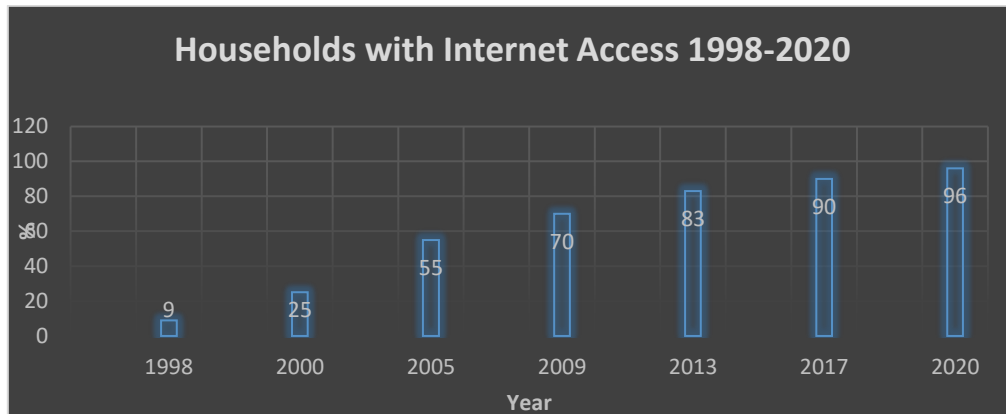


METHODOLOGY

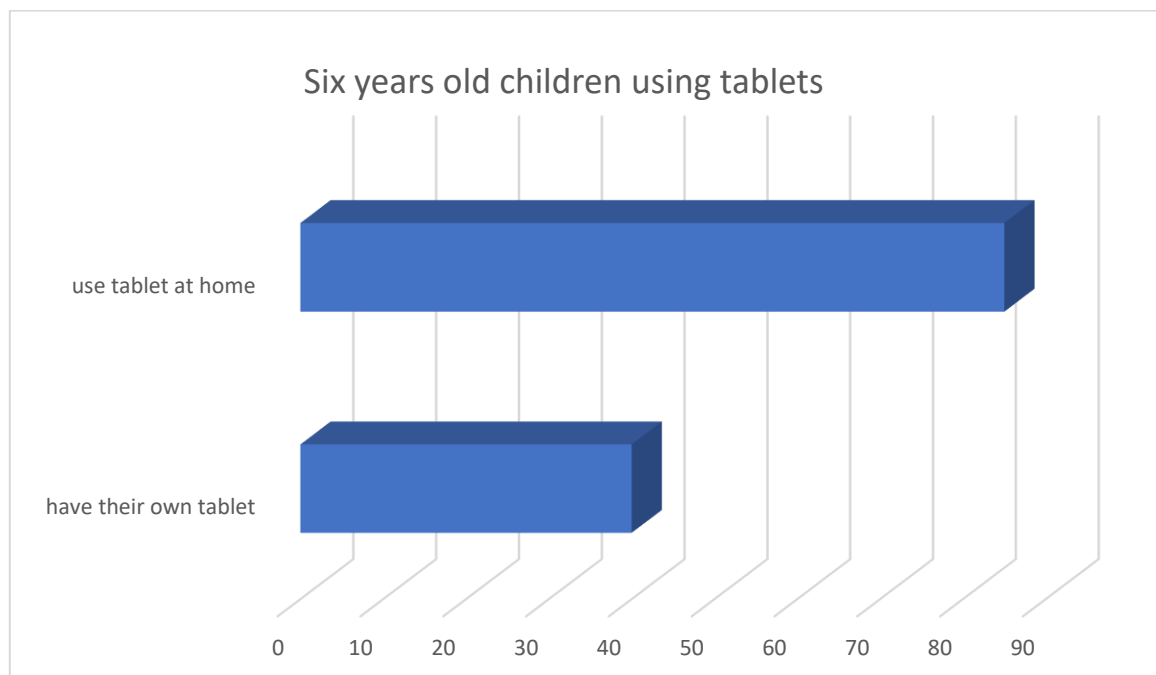
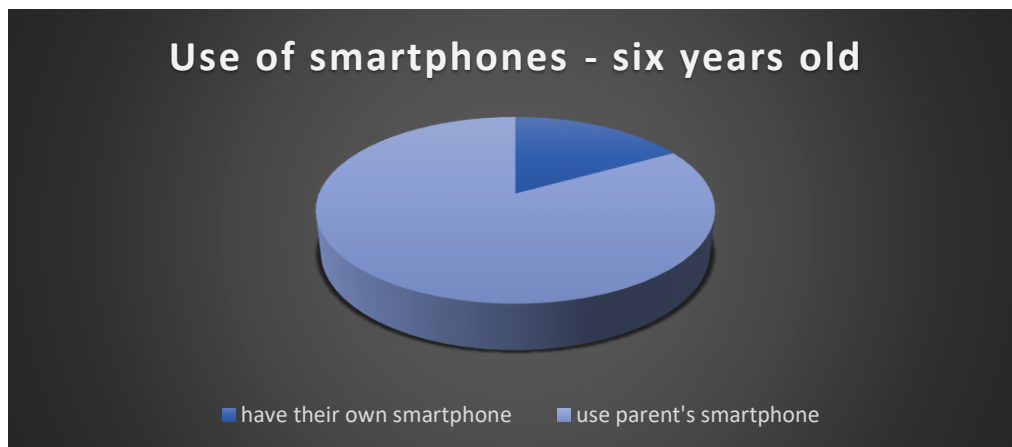
This particular research contains qualitative and quantitative data, secondary collected data, analysing contents – textual data collected from many sources including longitudinal studies gather data at several points in time.

Qualitative data for this type of research will help answering the questions. Quantitative data will be used as a description of the state. With the secondary collected data already existing data will be used. Longitudinal studies will help seeing the differences that are obvious and results from the use of digital technology in children's daily centres.

SECONDARY DATA ANALYSIS



Source: Office for National Statistics GOV.UK



Digital skills and Research Methods

CONCLUSION

According to Digital 2021 Global Overview Report, more than 66% of the global population have cell phones, and almost 60% have Internet access. Unique mobile users have grown by 1.8 percent since January 2020. The total number of mobile connections has increased by 0.9 percent to reach a total of 8.02 billion at the start of 2021, and 4.66 billion people around the world use the internet in January 2021, up by 316 million since this time last year.

From this, it's apparent that the numbers are constantly rising, and digital transformations happen very quickly. Childhood has changed. Priorities have changed. Education has changed. **The world has changed.** Nowadays, a day without using digital technology is almost impossible.

What happened before in children's day care centres without biometric technology? There were unauthorized entries, there were many more disappearances of children from day centres, disorganization etc. The security level has increased. Nowadays, parents are more involved in children's lives. Technology has enabled parents to monitor every progress, difficulty, every step they take when they are staying in day centres. Communication with teachers and staff is much easier. The organization in children's day centres has been improved, a mountain of paper, books and notebooks can be replaced with only one device.

Digital technology has brought many solutions to existing problems. But what problems did she bring? According to Lancet journal, digital technologies have increased the scale of child sexual abuse and exploitation, cyberbullying is a new method for hurting and humiliating. There is also a question how it affects to a child that time spent using technology. How that effect on their physical and mental health. Parents and teachers play a crucial role in teaching children how to use technology properly and how to get proper sources of information.

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