Drawbacks of e-learning for the toddlers and their possible solutions; a detailed study

Abstract

E-learning in the twenty-first century has transformed the way education for toddlers is perceived. The use of electronic gadgets, including mobiles, tablets and computers, is fast changing the landscape of education and learning. Parents, teachers and caregivers are endowed with the responsibility of inclusion of e-learning in their teaching practices. The drawbacks of certain e-learning practices such as harms of mobile devices, reduce the use of computers, electronic access with internet facility in the case of e-books use, the teachers' attitude, access and understanding towards e-learning and the feelings of being disconnected and isolated during online teaching and learning are discussed. The solutions to the problems form part of the discussion also.

The drawbacks converge at a point where there are no possible alternatives to e-learning except traditional mode of teaching and learning. The electronic knowledge for the age group of toddlers (1-3 years) is mediated with the responses of the parents, teachers and caregivers. Therefore, many factors both internal and external (associated with the use of electronic gadgets, teachers' perception and experience of e-learning, and electronic access and screen time in the case of e-books use) are discussed. The literature review technique with the subsequent sections to discuss the research results and findings aided with discussion is the selected procedure. There are certain drawbacks for the use of e-learning for toddlers, and the possible solutions to the problems indicate that toddlers' education via e-learning is mediated through the interaction of multiple factors.

Introduction

The learning process for the toddlers (age 1-3 years) was always based on homeschooling methods involving the participation of the parents. The modes of learning were based on the children sensuous perception such as listening to poems and songs, watching the cartoon movie, playing

with toys (educational toys). Today, the concept of e-learning has transformed the way parents and teachers approach the subject of toddlers' education (Rimale *et al.*, 2016). Despite that fact that traditional modes of learning are evaded by the recent technological aid for educating preschoolers, there are still some drawbacks observed and discussed in the selected literature.

Kraleva *et al.* (2016) conducted a study on the integration of mobile learning in Bulgarian preschool education. The safety of the children while using mobile devices for learning is the concern raised by the researchers. Mobile learning is about the use of mobile applications installed on mobile devices, including smartphones or tablets (Gasah and Baharum, 2018). Shurukhina *et al.* (2020) placed its research in the context of Russian education facing the digital challenge. Their study presented both sides of the issue as it considered certain advantages of e-learning. It also discussed some drawbacks of the application of remote technologies. The research included specific recommendations of "Research Institute of Hygiene and Health of Children" and "World Health Organization" (WHO). The guidance suggested that the use of computer equipment for educational purposes in the home environment to be limited and minimised.

Additionally, the study by Yükçü *et al*. (2019) considered the use of e-books as of particular advantage because they were low cost and most applications are for free. Still, the disadvantages of picture e-books were electronic access, and the time of the children spent on the screen while reading books had increased. There was another significant drawback of the incorporation of computers in an early childhood education as it requires that teachers must be equipped with the latest technology and their attitude and belief in the validity of the use of computers must be positive (Sak *et al.*, 2016). Furthermore, Wasserman and Migdal (2019) listed some drawbacks of e-learning because a user feel isolated and disconnected in an online course and the inability to use facial expressions or body language with teachers and peers may diminish students' confidence.

Literature Review

The first shortcoming of the use of mobile devices in toddlers learning and education is the safety concern. Tahir and Arif (2015) discussed the parents' attitude towards the use of the mobile phones and tablets for educating their preschoolers. The research included the range of issues associated with the help of technologies for education at homes. The parents were endowed with the contradictory roles of technology providers and technology regulators. It can be established without any doubt that the safety of the toddlers, while they learn on mobile devices and tablets, must be the concern of the parents.

The safety of the children was at risk because of internet access. The social networking sites such as Facebook increased the risk of harm and even games, video and chat sites were also harmful to toddlers use because of the content. The use of camera and video was fun but permeated with the risk of bullying and enable misuse. GPS tracking helped indicate the phone's location and child's but not used carefully. Other people may be able to locate the phone and a child's presence. The risk mentioned is present in the case of toddlers use of mobile phones for learning. The role of parents becomes essential because the children cannot be left alone with mobile devices and therefore, constant vigilance and check are required. The concept of e-learning defined in terms of the use of technology had a drawback that it requires parents' continuous involvement in a child's learning process. Toddlers were very young to detect at their own the harms and potential misuse of the technology. Therefore, their e-learning is strongly mediated by the responses of the parents towards technology use (Kraleva *et al.*, 2016). The possible solution to this problem is only present in parents check. Still, here the use of technology which aids independent and individual help is minimised because of the age of children. The misuse and risks of independent use of mobile

devices for toddlers outweigh the risks involved in the possible harm that can be done to the children.

Shurukhina *et al.* (2020) studied about minimising the use of digital technology in the home environment. Again the issue of digital safety was pertinent here because the preschoolers using video formats (specifical zoom) faced the problem of inclusion of third parties registered at chats and video conferences. Further, learning through technology such as smartphones, tablets, and computers seem to be pressing on the child because of the demand posed on the toddler of involvement in the world of e-learning. The disadvantages of e-learning which calls for limited and minimised use of technology include vivid disputes and discussions accompanying direct communications (Shurukhina *et al.*, 2020).

The requirement of limiting the use of digital literacy and computers at home is valid because at the very early stage of development the continued use of technology may deprive the child of emotional warmth of the people as most of his learning would be through digital tools. The social skills of the toddlers in the process of developing and advancing would be restricted even more if the child reacts to the e-learning idea is positive (Al-Fraihat *et al.* , 2020). The child's acceptance of digital technology is dependent on the parents' views about the use of technology for education and learning. Suppose parents incorporate the use of computers and tablets in toddlers' life for knowledge. In that case, it is decided that they would maintain and keep the check on devices ensuring children safety. The habits of the child are in the process of developing, and inclusion of technology for education may pose certain features not conducive to the natural flow of life. For example: spending time at the front of a computer screen may put a limit on the concentration span of the child, and he will be deprived of the strength of his mental capacity to concentrate for a more extended period.

The period of the preschool in the life of a child is significant because this time is conducive to multiple factors, including both extrinsic and intrinsic. The innate potential of the child is enhanced with the warmth of parents and their encouragement. Further environmental factors contributed a lot to the development of the toddlers. For example, the younger kid of the family may feel attracted to the older sibling's use of technology for his studies. The e-book access at this early stage for the preschooler has its benefits as it is a compiled version of many activities, songs and images providing the experience of stimulus rich environment for children (Gros and García-Peñalvo, 2016). The drawback of e-book learning is that it requires electronic access. Though download is an option still to remain intact with the latest educational material, it is requisite to have internet access all the time. With older downloads, the objective of e-learning becomes stagnant, and it would be same as printed books.

Apart from that, e-book reading demands an increased time spent on screen. It is helpful to understand with the help of the pictures and any idea, not only screen time would be required, but a concentration span must be prolonged. This perspective reveals that toddlers' life will face increased connectivity with digital technology and internet access. The drawback of e-book acquisition is based on the fact that while other children may respond towards physical activity and playing outdoors, e-book reader may feel isolated and alienated. Therefore, it hampers the connection of the preschooler with the outside world (Bozna, 2017). At this stage of his life, the demand for balanced behaviour neatly regulating the daily life tasks is exaggerating, and may spend more time on screen with his e-book irrespective of the consequences.

The possible solution of this problem is present in the role and responsibilities of the parents because it becomes their responsibility to set a daily timetable for their child so that he would have time for outdoor, indoor play and e-learning also. Furthermore, the screen time, in this case, would

be minimised and limited. Another solution for this problem is replacing the e-book with the printed book, but then the aim of integrating e-learning in a toddlers' life would not be accomplished.

As per the study of Sak *et al.* (2016), there are disadvantages of computer use in early childhood education and the discussion in the research includes teacher's perception about incorporating computers for online learning of children. According to the study, four teachers are of the view that it supports permanent education, two of the teachers support the fact use of computer increases self-confidence and support memory development. As reported in the study, e-learning, including age-appropriate games and materials, enhancing children's' self-confidence, and they can achieve various goals (Sak *et al.*, 2016). However, some of the teachers are not responsive to the use of computers as they reported occasional use and one of the teachers used it only five times a year. It is also mentioned in the research that children were not allowed to use the internet.

Therefore, it becomes an integral part of the e-learning that teachers perception and response towards computer-assisted learning must be assessed. In the case of toddlers who spent time in daycare because of the busy schedule of their parents, the caregiver's perception (about computer and internet assisted activities) at the facility becomes an essential cornerstone of the toddler's dependence on digital technology and e-learning. The caregivers, teachers and parents at daycare, school and home respectively must be trained in a way that they respond to the demands of e-learning positively. The study of Wasserman and Migdal, 2019 is about the advantages and disadvantages of online courses for teachers so that purposeful use of technology can be integrated in their teaching practice. The resistance to online classes come in many forms while some teachers try to adapt traditional methods of teaching because they feel isolated and disconnected, others prefer face to face conversation because they feel lack of immediate and effective responses to

questions or tasks. Online courses demand a high level of self-discipline, and the digital text may be challenging to read (Wasserman and Migdal, 2019).

To resolve the issue of digital training of teachers before they initiate an online course with the preschoolers become an essential part of their teaching practice. Many factors are working together for the creation of this gap. While some teachers face internet connectivity issue to be troublesome others consider their sense of identity as blurred because they feel disconnected from their peers. Therefore, a significant obstacle to implement e-learning in schools and homes is associated with the perception of teachers, students and parents. (Yilmaz, 2017)

As per the study of (Ouf *et al.*, 2017), there are methods of electronic teaching to address the active learners needs, and it depends on how well the learner interprets the teaching method. The Figure 1 shows specific modes of education as they align with the students learning activities.
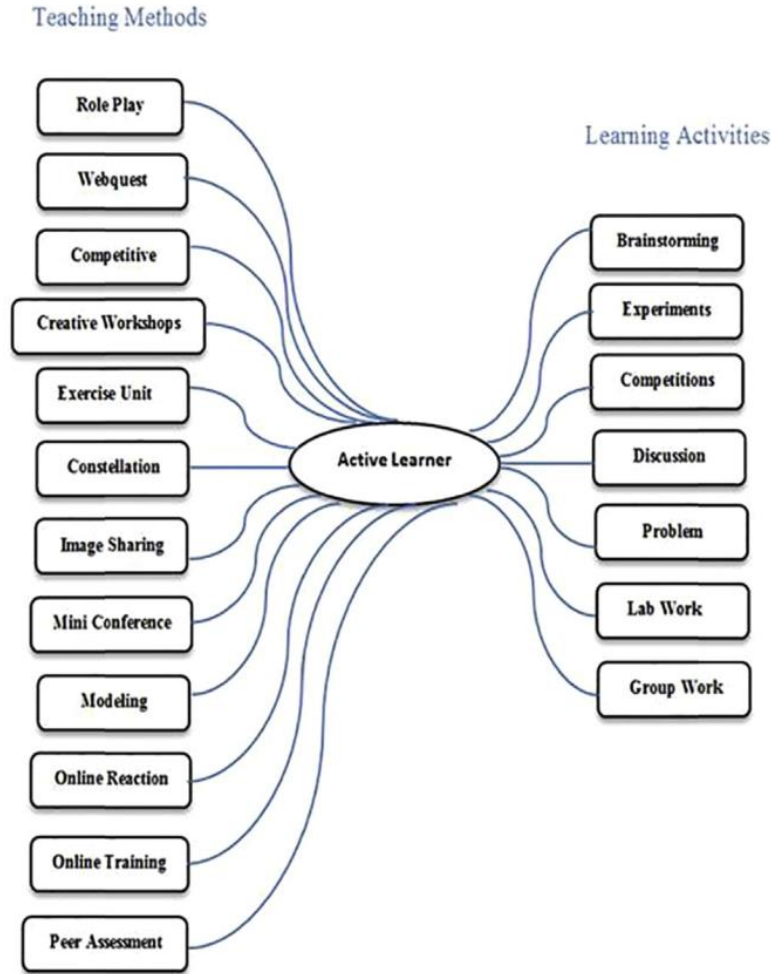
Fig. 1. The suitable teaching methods and learning activities according to preferred learner's learning style.

Methodology

The review of the available literature and published research journals dependent on their relevancy, authenticity, and credibility. The criteria opted for the inclusion of research is that study should address the drawbacks of e-learning for the toddlers and their possible solutions. Further, the research analysed in detail, striving for accurate judgments. The study published in the international authentic journals and databases such as Springer, Google Scholar, etc. is selected.

Among the research available, those discussed in the literature review show the detailed analysis and relevant data.

Findings

The findings of the study by Kraleva, Kralev and Kostadinova, 2016 reveal that improvement in design and quality application for mobile learning becomes an essential part of the software technology future. There are some requirements stated in SER (State Educational Regulations) to implement for preschoolers in Bulgaria are included. The issue related to children safe while they use mobile devices is discussed. There is an identification of the criteria to assess mobile applications for mobile learning of young children. As a result of the study, two conceptual models for mobile learning are proposed.

Furthermore, the study of Shurukhina *et al.*, 2020 concludes that the present situation is evident in the mass transfer to online learning, demonstrating the digital revolution in education. The findings indicate that authors of the report "Global Education Futures" are of the view that student's independence and self-management is an essential condition of becoming integrated in online learning. Furthermore, it should not be established at the expense of the teachers but in coordination with them.

The transference to e-learning with the use of remote technologies is indicative of the fact that digital literacy is not an innate characteristic and cannot be acquired by a person just because he lives in the digitalisation era. The report drafted by the secretariat of OECD reveals that knowledge, skills and attitudes vital for digital society should be deliberate and manageable so that the objective of digitisation that is of increasing people's life quality can be achieved (Bonk, 2016). Yükçü, Tok and Kangal, 2019 considers the central issue of the research is the quality of picture

e-books. The criteria for selection of e-books and the time consumed by the children in front of the screen. The researchers are of the view that picture e-books must be considered as an alternative option as opposed to replacing printed books.

The findings of the study by Sak *et al.*, 2016 indicate that most of the schools had no computers, limited number of computers and no internet connection. The school teachers and participants of the study are of the view that they could use computers in the computer lab. Still, NAEYC integrates the recommendation that computer technology must be physically located in the classroom. It is reported in the research that young children/ preschoolers are not receiving the benefits of the use of computers in their education. The early childhood education teachers opinion are consistent concerning beliefs and practices for the use of a computer. According to them, it is related to children's cognitive, social and physical development. With the aid of technology and training such as FAITH project and increased computer skills training the early education of children will be enhanced.

The findings of the study by Wasserman and Migdal, 2019 conclude that in online training courses, the feeling of personal connection between the instructor and student is present with the atmosphere of listening and openness. The instructor will answer students even though physical presence was compromised in online learning.

Discussion

The increasing demand for incorporation of digital technologies in toddlers' education is an essential factor replacing the traditional mode of teaching and learning. Whether teachers, parents or caregivers, whoever bears the responsibility of toddlers' education must witness the rise in demand for e-learning. The research is an attempt at identifying and assessing five significant

drawbacks of e-learning for toddlers and their possible solutions discussed in the section of literature review. The disadvantages briefly are:

- The use of mobile devices in e-learning and concern for toddlers' safety (Idres *et al.*, no date)

- The use of computers for educational purposes aided with parents' involvement.

- Picture e-books require internet access and length of screen time has increased

- Teachers/ instructor must be equipped with digital technology as opposed to the traditional mode of teaching.

- Instructors feel isolated and disconnectedness from the peers and lack of immediate response, inability to use body language, internet connectivity and sense of identity.

All the mentioned drawbacks are discussed concerning the participation of toddlers, teachers, parents and caregivers in the process of e-learning. The relevant research supported the discussion of the disadvantages of e-learning with possible solutions to the problems.

Conclusion

The education for toddlers in the twenty-first century seeks some alternatives compared with the traditional model of teaching and learning. E-learning is the alternative possibility for the toddlers. The literature selected for the discussion about toddlers' education was thoroughly assessed, and some of the significant points emerged related to e-learning drawbacks for toddlers—the current research aimed at identifying those drawbacks and finding their possible solutions. The studies included a discussion on the use of electronic gadgets such as tablets, smartphones, computers for toddlers' education and learning. The studies indicated the harms of mobile devices for toddlers and the recommendations for limited use of computers at home are discussed.

Additionally, the use of e-books was hampered by electronic access and the increased screen time for toddlers. Another drawback is related to teachers' attitude towards the use of digital technology and their ability or inability to use the latest technology. One of the selected researches considered the drawback to be instructor's feeling of isolation and disconnectedness in an online course. The deficiencies listed are obtained from the research, and detailed evaluation of the shortcomings with their possible solutions form an integral part of the current study. It is hence concluded that e-learning helps facilitate the learning process of toddlers. However, certain drawbacks are present and the research aimed at finding solutions to those problems.

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