Parental Perspectives on the Excellence of Computer Learning Media in Early Childhood Education

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**ABSTRACT:** The introduction of basic computer media for early childhood is very important because it is one of the skills that children need in this century. Need to support parents and teachers in developing the implementation of the use of computer technology at home or at school. This study aims to determine and understand the state of learning conducted based on technology. This research uses a qualitative approach with a case study model. This study involved 15 children and 5 parents. Data obtained through interviews (children and parents) and questionnaires for parents. The results showed that children who were introduced to and taught basic computers earlier became more skilled in learning activities. Suggestions for further research to be more in-depth both qualitatively and quantitatively explore the use of the latest technology to prepare future generations who have 21st century skills.

Keywords: Parental Perspective; Computer Learning; Early childhood education

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1 INTRODUCTION

The purpose of preschool education now is to maintain high expectations for all children (Vartuli, Bolz, & Wilson, 2014). Early childhood is a golden period for children in shaping character and talent. Character education for early childhood is important for their future because human quality is determined by his personality. The curriculum is the most important part of the continuity of the education process. Education and current curriculum cannot be separated from the success of learning, because it is interrelated (Yusmawati & Lubis, 2019). Best curriculum is always must updated such as in the pre-school curriculum can be adopted and updated by including basic computer media for learning.

The role of technology in the early language of preschoolers and discussion of literacy and then discussing what we believe is very important to be addressed by any preschool or educational institution of young children today (Paciga, Lisy, & Teale, 2013). Wolfe & Flewitt, (2010) also provide a more complete understanding of the literacy learning process through detailed analysis of how children use various communicative modes when they use literacy in different media. These experiences support metacognitive development and are essential for children's needs for future strategic needs. By using the concept of literacy as a social practice, this study discusses new technologies that have been translated into literacy learning of young children, the implications of which are not yet understood in guidance, training, or early-year work practices.

The process of education and learning of early childhood must be carried out to provide meaning, concepts through real experience (Dhieni, Hartati, & Wulan, 2019). Real experiences allow children to perform activities optimally, curiosity and position educators as facilitators. Teacher's position in early childhood schooling is more directed to guidance, not just to teaching, especially in the field of computer media. Parents also must have positive beliefs about the use of computers, mostly to enhance educational development and technological awareness and influence the relationship between children's computer use and children's self-characteristics (Hadzigianni & Margetts, 2014; Davis, 2014). In European countries, children use more digital technology such as computer, tablet and others gadget (Palaiologou, 2016).

Technological advances that occur in the world today have the potential to create positive and negative side effects, especially in children. The positive side requires increased empathy and acceptance of technological diversity through prosocial behavior modeling, while the negative can be manifested in aggressive behavior and others. These challenges raise particular attention to the rights of protection and care of children in connection with the use of technology. Huda et al., (2017) explores critically how children adapt technology skills and how they respond to media influence. The findings revealed that adaptive technology skills needed sufficient guidance for child protection and careful involvement of digital information. The study of daily use of technology in family homes tends to ignore the role of children and, in particular, young children. Through an ecocultural approach, Plowman, (2015) identifies and develops various methods which illuminate the unique mix of residents, learning opportunities and resources and to investigate parent ethnotheories, or cultural beliefs, which give rise to the complexity of practices, values and attitudes and their intersection with technology and support for learning at home so as to produce a better understanding of the role of technology in the lives of children aged 3 and 4 years.

The phenomenon of the use of computer media in children today, such as research by (Vittrup, Snider, Rose, & Rippy, 2016) which surveyed the attitudes and perceptions of parents about their
children's knowledge and involvement with various media technologies, as well as to explore children's actual knowledge and experience with these tools. The results show large media consumption both among parents and children, and a large number of children, including the youngest, have personal access. Not many parents can accurately identify the technological abilities of their children, and although there are many uses, many children misidentify various media tools. Parents show a positive attitude towards the media for children's development, but many do not understand the recommendations of expert sources regarding age-appropriate screen time.

The heavy use of digital parental technology has been linked to non-optimal parent-child interaction, but there are no studies examining the relationship with children's behavior. McDaniel & Radesky, (2018)'s research shows that technological disturbances are related to children's problem behavior, the use of appropriate technology by parents during the introduction of computers and other technological media in early childhood requires proper parental perspective. Parents' perspectives on the importance of using computers in early childhood, one of which is by integrating Internet-related applications into preschool teaching activities can enable children to develop various aspects of their learning abilities as well as cognitive, affective, and relevant skills. Chen & Tu, (2018)'s revealed that parents view the Internet as an innovative and useful tool that improves their lives and improves their work performance. Their perception of the usefulness and value of practical work related to the Internet positively influences their attitude towards preschool expectations, and recognizes the pedagogical advantages associated with integrating Internet-related applications into teaching to develop children's learning abilities.

In Greece, there is inadequate integration of ICT in early childhood education and also have two factors were extracted: 'playing with ICT as an effective way of learning and developing children's technological competence' and 'using ICT as a free game'. Teachers' confidence influences their classroom practice and children's learning. ICT as a mode of learning that must be embedded in the curriculum is expected to lead to ICT (Nikolopoulou & Gialamas, 2015). A study of K-5 care versus two comparative schools for one academic year showed that teachers advanced one stage in a six-stage technology adoption model as a result of a focused, needs-based education technology integration delivered throughout the school year. Need-based technology integration education has been proven to have a positive and rapid effect on teacher attitudes, such as computer anxiety, perception of the importance of computers, and computer enjoyment. This type of education has been shown to have a positive time lag effect on student attitudes as well (Christensen, 2002). Much of this polemic debate comes from an adult perspective but children are the main users in dizzying technological advances and their views are important elements in understanding the conceptualization of tablet devices as pedagogical tools (Dunn, Gray, Moffett, & Mitchell, 2018).

This study aims to see whether the steps of adults / parents in seeing critical thinking patterns in early childhood? What are the efforts of adults / parents, social environment and early childhood education institutions in establishing criteria for the results of satisfaction with the abilities of children after an early age? What are the efforts to implement computer learning steps in early childhood? What are the expected results from the application of computer learning in early childhood?
2 THEOROTICAL STUDY

2.1 Early Childhood Education and Technology

Early childhood is a phase of development and a critical phase in which, both physically and mentally. All sensors are collected optimally from what they see and feel. The development of this sensory and emotional sensor occurs at the age of 1-4 years. The researchers look at these components from their own experience to observe the development of the childhood world in children who do not have the opportunity to development a computer component used by adults at work. Children is person who want to see and try what adults do. The basic concept associated which is the critical thinking base that every human being possesses when they see, tries and senses all the components present in the environment. To quote the basic understanding of the new century calls for a critical rethinking of learning objectives and means. Then, education must be based on four pillars: learning to know, learning to do, learning to live together (UNESCO, 2015). This understanding has created a learning system for all. The initial understanding of human development with the perfection of all the components that exist in its potential begins.

From the daily vision, children build up thinking to try. Based on the first instinct that responds to children aged 0 to 2 years, ways are found to keep trying and not knowing it before it is done, this is what we recognize as potential for early thinking and development to balance early childhood's ability to begin life. Early recognition in computer media for early childhood, is a form of preparation (Ariputra, 2018). The concept of an inclusive program is set according to the abilities and needs of students for students, become successful and can optimize their potential. A common critical or theoretical foundation for DGBL (Digital Game-Based Learning), they propose a conceptual framework that challenges what they perceive as dimensions of autonomy, play, affinity, and institutionally invalidated space that are important for DGBL (Nolan & McBride, 2014). They argue that these dimensions are ideally located within an inclusive and play-based early learning environment, and that the early years are very important, but neglected, locations for more holistic and inclusive thinking about DGBL.

Need to be prepared in terms of skills and be able to master the field of computer media can be one obstacle, in, but can be overcome by calling a private computer teacher for early childhood. Appropriate scientific competence among age teachers early is needed to increase children's chances of getting certain science-related experiences (Sageide, 2016). The age of 0-2 years is very vulnerable to the things that are fundamental to the development of children. the formation of self-confidence, critical thinking and non-thinking of all the fundamental considerations that he sees is always tried and tried. Researchers see. The development of thinking ability has developed since the child sees and hears at the age of less than 1 year. After all the components are done, the child looks around and begins to crawl, this basic instinct is the basic ability of each person to form the likeness and togetherness in which the optimize the child's potential. In its absence, a number of myths about children's experiences with technology have emerged. We chose seven statements, both for and against the use of children's technology, to represent the positions we met from the media, parents, and educators. Findings from detailed case studies of the daily lives of children three and four years old (Plowman & McPake, 2013).

Preschool teacher beliefs about the use of computer technology are in line with their perceptions of their teaching practices, even though their beliefs and perceptions about their practices are quite
moderate. The results also reveal significant differences between kindergartens that support public kindergartens, and training programs that support trained teachers, whereas there are no differences due to the field of certification. Opinions are quite representative, about the importance of computer learning systems in early childhood in kindergarten (Ihmeideh, 2010). Exploring the attitudes of early childhood teachers towards the use of technology is very important to determine the characteristics of their teaching practices. Negative attitudes can inhibit their use, while positive attitudes increase the effectiveness of using their technology. The aim of this study is to investigate the attitudes of early childhood teachers related to the use of technology in Turkey (Ko, 2014). The researchers thought during the development process and formed thoughts to create equality and similarity with the environment. Lead only for adults and not teach. For understanding researchers' thinking of 1-3 years, the components of the process of implementing the basic development environment is seen in a standing state.

Under crawling in early childhood, we understood the value of emotional bonding between parents and children even in the immediate environment. Stand up. Researchers see that value is a form of enhancing the value of the ability to are all potential early childhood guidance. In this case, in terms of research conducted in terms of relevance shows the same value and process. For the development of children aged 1 to 3 years, the guidance of the citizens of the Council and the environment is essential in order to shape the intelligence and to fully exploit the children's potential. Nurturing patterns that guide and communicate understanding the process of providing information about everything small children do to develop critical thinking in order to build skills and intelligence. Early childhood reaches the age of 3-6 years and builds up all the potential components that are fundamentally beneficial to seeing, hearing, feeling, touching, thinking, understanding, learning, and building skills and intelligence.

Adults more instruction in terms of stamina and sincerity, focusing on specific items. This condition is incorporated into the understanding of early childhood by demonstrating the desire to be the same as adults when it comes to recognizing and understanding computers as a means of activity. Adults need to provide opportunities to understand and understand the attainment of the expected value of early childhood satisfaction in achieving value indicators based on the understanding and ability of critical thinking of these young children. The researchers see values from the results of daily observations and developments, which in principle determine the limits of the performance indicators for each early childhood. The environment is very active in building structured learning to understand and understand the development patterns and performance indicators that each child has. For understanding these basic researchers, there is no clear component in conducting research. Therefore, researchers are generally engaged in applying qualitative attempts to collect information and data on critical thinking indicators of early childhood development related to the use of computer technology and other electronic media.

In developing the character of adult learning mechanisms, the environment and educational institutions must systematically monitor, promote and guide early childhood to build technological understanding as a vehicle for enriching their knowledge and intelligence. Based on the basic application of "Compassion," learning will build intelligent thinking and rapid skills and abilities. The general recognition of the computer deviates from the actual target mechanism, the computer is often needed as a game medium compared to learning. This requires the use of an effective guidance and guidance system in monitoring and guidance.
2.2 Learning Computer for Early Childhood

Learning of computer media from an early age: The purpose of this research is to "focus" on the benefits of introducing computer media from an early age, so that early childhoods get to know more about computer media so that in time, they will understand and understand more about media computer. The author sees that the field of computer learning in early childhood is indeed needed. One of the efforts that can be done to improve the quality of education is by developing curriculum in accordance with the needs of this era.

The feasibility of tablet computers in early education by investigating the ease of preschoolers in adapting to tablet technology and their effectiveness in engaging them to draw. As many as 41 children aged three to six years were recorded when they used tablets. The study found a significant difference in tablet usage rates between sessions, and involvement increased with age. The teacher reports a child's high interest and image as typical of the above expectations. Children quickly develop a stylus for drawing. Despite the technical problems in learning this new technology, children are interested and survive without frustration. What seems important for children's learning is the way teachers choose to apply this technology (Couse & Chen, 2010).

Chinese preschool teachers have an emerging understanding of the social and technological impact on the use of ICT in early childhood education (ECE), but they recognize the value of ICT for children small and limited themselves. This limits the use of active and meaningful children's ICT for early learning and development. We argue that there is a need to develop ICT policies and explicit curriculum guidelines for the ECE system that emphasize the active and creative use of young ICT for early learning and development, and better support teacher learning (Dong & Newman, 2016).

Relationship learning demands external socialization and to acquire new skills on the one hand, and, on the other hand, the prerogative of individuals to build their own identities, to protect their integrity and to direct the course of their own lives. Everyone including early childhood must learn to understand the complex world in which they live. They must be able to collaborate, talk and act for positive change (UNESCO, 2015). High appreciation expressed by researchers by calling these people sustainable citizens. What is meant by the above statement is the generation that is awakened by striving to continue to develop positive attitudes and lifelong learning starting with the development of abilities from early childhood as assets of the next generation of human life in the future, and early childhood education, the most important thing is also how they are excited, in learning computer media, as a basic introduction, so it needs a pleasant room, how children express that children feel, with the environment that contributes (Atkinson & Biegun, 2017).

Computers as learning support tools, which need to be known by early childhood, so they do not stutter technology, but also, we need to pay attention when they use it, maybe there can be an influence on their development. Most researchers focus on the theory pedagogical behind using touch screen devices, but there have not been many empirical studies of how this technology affects student learning processes (Martin et al., 2018). Technological development is inevitable. Computers become a necessity of life in helping humans solve problems and speed up work processes. This basic thing that the researchers, put forth is fundamentally. Technology was created to help humans not become a burden in the implementation process.
Parental Perspective in Early Childhood Computer Learning Media

Natural human development helps humans to form technologies that can help their lives, competence is a human creation, therefore, to understand and understand must be obtained by pursuit. For adult-level understanding, many do not yet understand the function and use of computers optimally, therefore it is necessary to recognize early in building thoughts that raise positive change from an early age on the use and management of appropriate technology. Their theory discusses how guidance and assistance from the teacher or parent learning model in the surrounding environment helps children to advance their positive way of playing.

Computer education for children at an early age is needed, especially the basic introduction of computer media, so that media is not a foreign object, when they will use it, because during the development period children need a balance between education and experience. Children at the stage of fundamental movements must be acquainted with activities including balance, vestibular stimulation, bilateral integration, rhythm and spatial orientation (Waal, 2019). Computer education in children does require teacher skills, because this media needs to be studied in depth such as opinions. Some examples of satisfying computer integration into early childhood education environments are found, however, substantial levels of frustration and disappointment also found in many programs that have computers.

Computer media is a new experience for children, so they are usually more focused with forms that can be entertainment or preferences, so here there needs to be guidance from teachers and parents. Schools must formulate holistic policies to deal with parents' problems responsively and proactively to get support. Schools can enhance parents' pedagogical understanding of the use of computers and the internet (e-learning) in early childhood and overcome parental problems through parent-school communication (Kong, 2018). Therefore, the test and document how teachers use computer technology in their early childhood classrooms, and they become comfortable in their classrooms.

Convincing evidence about improving learning outcomes remains surprisingly difficult to understand, and secondly, the unresolved debate about whether ICT should be understood as supporting the delivery of traditional pedagogical or radically different vision based on soft skills and digital literacy new. The difficulty in establishing traditional benefits, and the uncertainty in pursuing alternative benefits, raises fundamental questions about whether society really wants a technology-transformed and mediated relationship between teacher and student (Livingstone, 2012). In computer education in early childhood, teachers must also have adequate skills so that in teaching until their age children are also more professional. Most teachers get information and their computer skills are all based their experience and stated that the use of computers is suitable for early childhood education (YurtaNilgün & Kalburan, 2011). It was also stated that most teachers use computers to support activities in their daily plans and include computers 1-2 times a week in their curriculum.

Providing computer education in early childhood, is an early introduction and teachers as instructors in schools, of course must better understand and recognize this, such as opinions (Barenthien, Oppermann, Steffensky, & Anders, 2019). Science is an important domain in early childhood education. However, preliminary results indicate that preschool teachers rarely offer science activities, against this background professional development aims to encourage preschool teachers to provide more frequent science activities, so that the basic learning of the Computer is more directed.
3 METHODS

3.1 Participant
This study uses a qualitative approach with a case study model. Authors took a limited scale internally with participants/informants in the environment of children going to school. This study involved 15 early childhood and their parents. Qualitative research is methods for exploring and understanding the meaning and meaning or events that a number of individuals or groups of people are ascribed to social or humanitarian problems (Creswell, 2012). Authors took five parents and their children as participants and went to school. In collecting data, the author makes field observations, and then prepares questions/for interviews, on participants who are willing to be interviewed related to computer media research for the interview time, the writer spends time when parents wait for their children at school. Authors use models Miles & Huberman. The most frequent form of data display for qualitative research data in the post is the narrative text with a combination of conditional techniques (adjusting to conditions), so that this research is more natural and runs according to the reality in the field (in accordance with the rules of qualitative research).

3.2 Instrument and Data Analysis
In analyzing the data the author takes several steps in accordance with the rules of qualitative research, such as coding (data coding), narrative analysis of the results of interviews, conducting an inventory and investigation of data, and making limited questionnaire data (purposive sampling), this must be done to study / research more in, regarding information provided by participants. And the questionnaire was only given to participants who were selected according to the informant's criteria. The results of the interview will be the analysis and discussion results, as the most important part of this research.

4 RESULT AND DISCUSSION

4.1 Results
Data processing and interviews with participants (parents of children) can be illustrated that important the introduction of computer media for the development of children in the present or future. The result according to interviews shows benefits of computer media learning in early childhood.

Name: HT
Age: 36 years old.
Status: Mother / Parent

Reason: 'I introduced my computer to my child, at the age of 4 years, and now, my child has understood enough, with computer media that is increasingly needed' (interview informant I)

Name: JS
Age: 27 years
Status: Mother / Parent

Reason: "I am giving private lessons to my 5-year-old child, for the introduction of computers. So that my child can get to know and understand computers faster, because it is very important
for the future / when he is already at school / working (Interview, from informant II)

Name: NK  
Age: 37 years old  
Status: Mother / Parent.

Reason: "I have a computer at home. My child trained at the age of 5 to get to know the computer media, hold the keyboard and type randomly, good results, my child is more skilled than his friends. And this is useful for him for his future (Interview from informant III)"

Name: YR  
Age: 38 years  
Status: Mother / Parent.

Reason: "I introduced the computer to my 4-year-old child, and the results are good, my child looks smarter, now he can use the keyboard, even though the writing is random. (interview from informant IV)"

Name: PE  
Age: 31 years old.  
Status: Mother / Parent.

Reason: 'I trained my child since he was 3 years old, to get to know computers, because computers are very important for development and for work (Interview from informant V)

4.2 Discussion

From interviews with five participants, they all seemed to be teaching supporting computer media for children, for the sake of their children's future. Teachers do not have a certain understanding of the benefits and advantages of using children's computers (Alkhawaldeh, Hyassat, Al-Zboon, & Ahmad, 2017). However, some of them have some potential advantages for using computers for young children, such as gaining basic computer skills; the provision of new means of escape; improved learning, special in literacy and arithmetic; and enrichment of the school curriculum. Good design of these components should help teachers to integrate ICT into their curriculum in an effective way (Wang, 2008).

The constructivist learning theory, interactivity design and usability understanding provide the theoretical foundation for the construction of this model. Some examples of the application of this model to the design of web-based learning environments, online discussion facilitation and the implementation of ICT tools are presented. Using a socio-cultural approach, we discuss various technologies that children encounter at home, the various forms of learning they take, the role of adults and other children and how family practices support this learning. Many parents believe that they do not teach children how to use technology (Plowman & McPake, 2013). We discuss parents' beliefs that their children 'take' their competencies with technology and identify trial and error, copying and demonstration as typical modes of learning. Parents tend to assume that their children are self-taught and underestimate their own role in supporting learning and the extent to which learning with technology is culturally transmitted in the family.

This is also an obstacle faced by schools, as generated in research in Jordan, about the lack of knowledge about computer media by the teacher, of course this also happens in our country, in research the authors do only to early childhood which have been introduced by the computer
media, by their parents, either through private tutoring or taught by their parents and family. The results of the study show that children who have been introduced/taught in computer media are from the beginning smarter than children who do not know computer media at all, other observations with a greater understanding of the implementation on computer media are intended to facilitate the learning of early childhood. From all components, the participants showed that there is no problem in implementing computer learning in early childhood.

Given the importance of the developmental level of early childhood learning, it is recommended to use developmentally appropriate practices throughout early childhood education (Bredekamp & Copple, 2009) to take into account the level of development. It is important to consider the developmental variability innate between individuals and also different types of development, including cognitive, psychomotor, emotional and social. To further complicate this challenge, types of development can have strong interactions, such as when psychomotor development can influence social and cognitive development, such as: Muscle building that influences language and social engagement. Technology in education is considered in empirical and theoretical literature as beneficial and dangerous for children’s development. In the field of regulation of the early years there is a dilemma whether early childhood or not teachers must use technology as a source of learning and teaching. This paper has a pedagogical focus, discussing the advantages and potential problems of computer practice in children's learning and behavior in the early years arrangements and also suggests teaching methodologies about useful computer practices (Theodotou, 2010).

The second problem concerns the environment and the principles of understanding and understanding of family and the environment. The development of science, discipline and technology is very expensive. Computers are increasingly becoming a part of the lives of preschoolers. Tate, Warschauer, & Kim, (2019) found that earlier computer uses predicted writing skills in early childhood that affected future academic achievement. Therefore, government policies are needed to support the use of computers in the form of facilities for early childhood and support the provision of knowledge to parents in the importance of the introduction of computer use in early childhood.

The basic coaching pattern for producing reliable organizers of activities is defined in the context of education and training in line with the development of early childhood learning. For professionals, the scope of the game strategy is appropriate to consider the level of early childhood development. The understanding of early childhood play strategies should not be underestimated in the context of professional activity implementers. As highlighted in the previous section, a child's age can affect what he/she can understand cognitively, what it can physically achieve and what it is socially interested in. However, the uncertainties and concerns voiced related to the use of technology with early childhood, mobile devices have become an inevitable and valuable part of modern life (McCloskey et al., 2018), many play strategies are not suitable or applicable for early childhood students. It must also be remembered that the game itself, unlike the game, is only applicable after the development of appropriate behavior. "A child can first control his behavior according to the rules of group play and only then can a voluntary self-regulation of behavior emerge as an internal function."

The atmosphere of children's learning in this early childhood between playing computer and computer learning. Explains the dialogue meeting and fun does not occur because of planning directed (Karjalainen,S., Pu, & Maija, 2019). Arguing, they demand that teachers support everyday moments that explode as an important space for creating mutual relations and mutual respect with
children. It seems that there is a gap between children's access to and use of ICT at home and in early years settings, and between state-run and unmanaged sectors (Aubrey & Dahl, 2014). The training implications are marked. The cost of purchasing, maintaining, and replacing age-appropriate digital technology remains a challenge and the development of active pedagogy to maximize the benefits of technological progress must produce imaginative solutions. The obstacles faced by our country also, in addition to a shortage of human resources/teachers who are reliable and skilled in the use of computer media and digital technology, also with a limited and relatively expensive internet network.

This is a challenge for teachers and also the government, in this case the readiness of human resources and the completeness of the media and funding budget in its implementation. The introduction of computer learning in early childhood requires systematic and coordinated monitoring of guidance and guidance between family, environment, and educational institutions. All components are intensively monitored and advised. to direct the function and use of positive use in accordance with the characteristics of critical thinking early childhood, the motivation contest is of limited relevance for younger children. among them children aged 2 and 4 years.

Many researchers do not recommend that children under 3 years use computers. The Digest also notes that many educators use computers with children in ways that are not developmentally appropriate. However, developmentally appropriate ways to use computers with children ages 3 and 4 are different from the way computers are used at kindergarten and elementary school level. Janisse, Li, Bhavnagri, Esposito, & Stanton, (2018)’s research shows children who use computers show much greater improvement in cognitive development than children from not using. Children's access to computers at home and at school is increasingly common. This is actually not a problem if the computer is taught early, but according to the level of thinking ability of children, in this case for example in the pattern of games (educational games) or drawing applications, etc.

The use of ICTs that support basic ICT skills and attitudes occurs more frequently and is related to the level of preschoolers, ICT competencies felt by teachers themselves, and the number of years of experience with ICT in schools (Kerckaert, Vanderlinde, & van Braak, 2015). The use of ICTs that support individual content and learning needs is closely related to the level of preschool children, ICT competencies felt by teachers, ICT professional development, and teacher’s attitudes towards the possibility of ICT for teachers in early childhood education. They were asked about the technology they had, and how it was used. This provides an opportunity to explore whether their use of technology is consistent with their beliefs about teaching and learning. The findings show that technology is seen more than computers and that technology is used to support various activities in line with practitioners' pedagogical beliefs. This study specifically doing for the field of computer media technology, because it is very useful in the intellectual development of early childhood, as evidenced by the results of research the author has done (Jack & Higgins, 2018).

5 CONCLUSION

5.1 Conclusion

All these developments can be successful if the collaboration of environmental parents and educational institutions is realized with all components, processes that complement and evaluate each other's observations in improving children's intelligence and sensomotoric development in early
childhood. The expected achievement of the mechanism for implementing the implementation of
the technique is effective and efficient, it will be appropriate to pay close attention to early child-
hood will lose social ecological control which is the basis of future continuing education in build-
ing future generations that are reliable and quality. Indicators are directed towards explaining
children achieving a greater compilation of skills from parents and teachers that are compatible
with child-centered beliefs, low control, and high support. This means that it can be interpreted
as a kind of computer skills for early childhood, which can educate the brain. Therefore, because
of the importance of computer media being learned and introduced to early childhood, it is nec-
essary to have a kind of curriculum, to guide the teacher as a mentor in learning the computer.

5.2 Suggestion

Early childhood is a golden age that needs to be considered during its development. Indeed, there
is a disagreement among researchers about the teaching of computer media in early childhood,
but from the results of the research that the author did, even early childhood who were given the
introduction and teaching of basic computers turned out to be smarter in understanding the lesson.
Learning computer media in early childhood is not just extracurricular, but it should become a
required field of learning/teaching, in accordance with their age, namely basic introduction, to
computer media, so that they will be ready, more skilled, in the operation of these devices, and
more importantly also, the computer sector is needed in every activity, whether in offices, com-
panies, campus/schools, this certainly makes them ready to become a reliable and skilled work-
force in the future. For further researchers, please comprehensively explore this matter because
this good research is a research that is developing and finding new things (novelty), in the same
field or others, for the benefit of mankind.

6 REFERENCES

Technology in Supporting Children’s Learning in Jordanian Early Years Education. Journal

Ariputra. (2018). Need Assessment of Learning Inclusive Program for Students in Non-

Pedagogical Leadership. Journal of Childhood Studies.

Aubrey, C., & Dahl, S. (2014). The confidence and competence in information and
communication technologies of practitioners, parents and young children in the Early Years

preschools – the contribution of professional development and professional exchange in
https://doi.org/10.1080/1350293X.2019.1651937

Programs Serving Children from Birth through Age 8.


