



DIGITAL TECHNOLOGY AND PARENTAL SUPPORT IN PRE-SCHOOL ENGLISH LANGUAGE ACQUISITION

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Abstract:

This paper presents a study focusing on parental support in pre-school use of digital technology. The context of the study was home-based English language learning. The aim is to contribute to the understanding of the effect of digital technology on English education and family life. The study specifically investigated the scope of the indirect parental support during digital technology use to determine whether pre-school children used digital technology such as tablets and smartphones to learn English independently. The study also aimed to determine parents' attitudes towards the increasing digital technology use by their children. Six parents from Pozega, Pozesko-Slavonska County filled in questionnaires and were interviewed regarding the indirect role in supporting their children's use of smartphones and tablets to learn English. According to previous studies, parents generally considered their support non-existent, however, the findings of these studies indicated that parents provided indirect instructions to their children on how to use digital devices. Present study findings point to significantly less parental support and reinforce the contrary argument - that pre-school children use digital devices and learn English independently.

Keywords: *digital technology, pre-school, English language acquisition, parental support, independent learning*

Introduction

Heavy integration of digital technology into social life is indicative of the increased significant role of some devices such as smartphones and tablets in completing everyday tasks. Parents use digital devices to perform professional and personal tasks, and children use them not only to pass time but to learn. Even young children are keeping pace with digitalisation of our society. Powered by their 'socio-semiotic' instinct to learn about the world around them and communicate (Halliday and Webster, 2004), young children are showing remarkable skills when navigating digital devices. Considering the effects of the digital revolution in the 21st century, tablets and smartphones often replace people in children's immediate environment. Therefore, digital technology not only facilitates the learning process but also creates the need for a child to communicate with their surroundings (Vygotsky, 2011). Through the increasing exposure to English content on digital devices, pre-school children may use digital technology to reach specific objectives such as learning English. Independent use of digital technology by pre-school children in the English language learning context is still under-researched.

This study investigated the type and level of indirect parental support to their pre-school children while using digital devices for learning English. The aim was also to determine parents' attitudes towards the increasing use of digital technology by their children. In this study, six parents of pre-school children from Pozega, Pozesko-Slavonska County, Croatia, were provided with a questionnaire each and were then interviewed.

According to previous studies, learning English often happens without parents' intention. They underestimate their roles in the digital learning process of their children. Parents were surprised by their children's linguistic competence claiming they had not encouraged them to learn English independently. Previous findings suggest that parental support was often indirect, subtle, and easily overlooked. Parents potentially underestimated their role in their children's learning process due to their support not being visible (Plowman, McPake and Stephen, 2008) A study based on a socio-cultural approach involving 'tool-mediated action' (Plowman, McPake and Stephen, 2008) found that the learning process of English can be examined through obscure tools such as dialogue in the family and family practices. During the study, the support was often provided indirectly by people such as parents, siblings, or relatives engaging in their activities. The study indicated that the participating children learned English by watching others make videos or use the Internet for shopping or browsing (Plowman, McPake and Stephen, 2008).

These activities were defined as 'intent participation' (Plowman, McPake and Stephen, 2008). However, it was not determined whether the participants were 'intent' in their learning (Plowman, McPake and Stephen, 2008). Findings also indicated that people indirectly tutored the children through demonstration which might have encouraged independent digital technology use. The researchers stressed that providing an example was important for 'guiding interaction' (Plowman, McPake and Stephen, 2008), however, when providing an example, the parents did not consider this to be a form of teaching.

Sergia, et al. conducted a study with parents and children aged between four and seven years old about their daily use of portable digital technology at home (Sergi et al., 2017). The aim was to capture their daily habits, experiences, and attitudes from different angles. Findings suggest that parents believed digital devices helped their children improve memory, attention, language, reading, and maths skills. Parents also believed digital devices helped their children develop cognitive and language skills via e-books, repeated words, sentences, or email. Finally, parents considered touch screens to help improve children's dexterity. However, parents were concerned about the excessive use of portable digital devices due to free Internet navigation, uncontrollable pop-up advertisements, and unlimited use of entertainment apps (Sergi et al., 2017).

Methodology

The study was conducted in Pozega, Pozesko-Slavonska County. Six non-English speaking parents of pre-school children participated in this study. Pre-school children in Pozega are not generally taught English at home and they do not have access to native English speakers. Therefore, during the study, the only available resource in English was the content via digital technology. As previously mentioned, portable digital devices – tablets and smartphones are becoming heavily integrated into our social lives, including the lives of young children. The most accessible online content is written in English and a large proportion of that content is specifically designed to encourage English language learning. Therefore, pre-school children in Pozega are extremely likely to be exposed to English and encouraged to learn it while using these apps. In order to establish the presence of support on behalf of parents, a quantitative research method was used in a form of a questionnaire. This was followed up by a qualitative method – interviews with parents in order to support the first method and add credibility to the study.

Questionnaires

Questionnaires were used to measure the level of indirect parental support while the children were using smartphones and tablets during the study. In accordance with previous research, all participating parents claimed they had not instructed or provided support (e.g. scaffolding, guided participation) to their children on how to use portable digital devices (The Open University, 2017). The questionnaire comprised of multi-choice questions and closed-ended questions in order to collect as much precise data as possible about the type of support the parents were potentially providing to their children while using digital technology.

The first question was multi-choice and the parents were required to choose an option which best described how frequently they assisted their children with using tablets and mobile phones.

While my child was using digital device, I...					
	never	rarely	sometimes	often	always
assisted with navigation (e.g. switched device on/off, swiped left/right)					

Example:

Questionnaire example 1

The second question was designed to validate answers to the previous question. Parents provided multiple choice answers – ‘yes’, ‘no’ and ‘none of the above’ to the statement ‘*I am always prepared to help my child with using tablets and mobile phones*’.

The fourth question was presented as a chart in order to establish whether the parents used subtle techniques such as indirect demonstrations and guidance to support their children in using tablets and mobile phones. The parents were required to read examples of potential demonstrations and guidance, and circle either ‘yes’ or ‘no’. On this occasion, the parents were required to provide the same information for siblings and other household members.

Example:

My child was observing siblings or other household members while they were:	yes	no
communicating via Zoom/Skype		
browsing websites		
shopping online		
playing online games		
watching YouTube		

Questionnaire –Example 2

In the last question, the parents were asked to mark their gender if they felt comfortable doing so. This information was valuable to the research in terms of accuracy as well as to identify whether gender played a role in the research findings.

Interviews

Interviews with the parents were carried out as a part of the qualitative research method. They were used to complement the answers in the questionnaires due to potential limitations. Each interview was open-ended with a list of questions as a written guide. The parents had an opportunity to provide

the information they considered important for the research. For example, the parents elaborated on potential parental influence such as instruction, guided participation and scaffolding (The Open University, 2017) as well as their concerns regarding excessive use of digital devices.

Example:

Q1 Do you assist your child in using digital devices? If yes, how?

Q2 Tell me about the apps your child is using on tablets or smart phones? Do they need help?

Q3 Do you have any concerns about unlimited access of games and apps on smart phones and tablets? Please explain.

Findings

Parents did not believe they had assisted their children in with digital technology according to previous study. According to parents, children’s English language acquisition while using digital devices was considered a natural process that occurs spontaneously and without any specific instruction (Plowman, McPake and Stephen, 2008).

Previous research findings indicated that parents had underestimated their role in their children’s use of digital technology due to their perception of parental support in this context. The parents did not realise that their support had potentially been indirect (Plowman, McPake and Stephen, 2008). Findings of the present study suggest that the parents’ general perception of their support was marginal and that they did not train their children to use digital devices. The interviews indicated that the parents considered the learning process to occur mainly by trial and error.

The results of the present study suggest that the parental support was minimal while the children used digital devices.

Questionnaire analysis

Table 1: Questionnaire findings

While child was using digital device, parent...	never	rarely	sometimes	often	always
assisted with navigation (e.g. switched device on/off, swiped left/right)	83.3%	16.7%	0%	0%	0%
answered questions regarding apps/games/operating system (e.g. ‘I’m stuck. What do I do now?’, ‘What does this mean?’, etc.)	66.6%	16.7%	16.7%	0%	0%
joined games	100%	0%	0%	0%	0%
demonstrated how to use an app/play a game	100%	0%	0%	0%	0%

According to the questionnaire, 83.3% of the parents claim they never assisted their child with navigating a tablet or smartphone. Only 16.7% of the parents claimed they rarely assisted their children. An equal percentage of the parents stated they never responded if their child asked a question regarding an app, game, or device they were using. In comparison, 16.7% of the parents rarely responded and an equal percentage of the parents sometimes responded if asked. 100% of the parents never joined a game if their child asked them to. Likewise, 100% of the parents never demonstrated to their children how to play a digital game.

Table 2: Questionnaire findings

	yes	no	none of the above
I always help my child with using smartphones and tablets	16.7%	83.3%	0%

All participating parents apart from one, would not be prepared to assist their children if they needed help with using digital technology. This question served as a validity check for the previous four, to ensure the participants did not provide random answers.

Table 4: Questionnaire findings

Child observing parent while:	yes	no
working online	0%	100%
communicating via Zoom/Skype	16.7%	83.3%
browsing websites	0%	100%
shopping online	0%	100%
playing online games	33.3%	66.7%
watching YouTube	16.7%	83.3%
typing in English	0%	100%
typing in Croatian	0%	100%

Table 5: Questionnaire findings

Child observing siblings or other household members while:	yes	no
working online	0%	100%
communicating via Zoom/Skype	0%	100%
browsing websites	0%	100%
shopping online	0%	100%
playing online games	16.7%	83.3%
watching YouTube	16.7%	83.3%
typing in English	0%	100%
typing in Croatian	0%	100%

In comparison, only 16.7% of the parents confirmed the children were observing their communication via Zoom or Skype. Also 16.7 % of the children, according to results, were observing the participating parent, their siblings, or other household members watching YouTube. 100% of the participating parents stated their children were not observing them while they were working online, browsing websites, shopping online, playing online games, typing in English, or typing in Croatian. Equally, the children were not observing their siblings or other household members communicating via Zoom or Skype, browsing websites, playing online games, or watching YouTube. In addition, 100 % of parents confirmed the children were not observing other household members working online, shopping online, or typing in English or Croatian.

According to the questionnaire, 16.7 % of the parents who rarely assisted their children were female. Female parents also stated their children were observing them while they were communicating via Zoom or Skype and watching YouTube. In comparison, 33.3 % of the parents who were observed while playing online games were male. In addition, 16.7 % of these stated their children were also observing their siblings or other household members while playing online games.

Table 6: Questionnaire findings

	FEMALE	MALE	NOT ANSWERED
GENDER	66.7%	33.3%	0%

Interviews with the parents analysis

Interview findings supported results from the questionnaire. According to the findings, only one parent rarely assisted their child in using digital devices. The support was provided in a form of phone charging according to further information provided. The remaining five parents claimed they never assisted their children in using smartphones or tablets. With regards to asking questions about apps, games or devices, only one parent rarely responded, and one parent sometimes responded due to screen freezing. In the follow-up interviews, the parents stated they did not consider charging devices or frozen screens a form of continuous support, highlighting that the assistance was seldom provided. The parents also stressed they did not consider this a form of support in connection with learning English.

Example:

Q1 Do you assist your child in using digital devices? If yes, how?

Parent 3:

No! [laughs] Yesterday she made a sort of animation all by herself. The guidelines were in English. I wouldn't be able to do it.

Q2 Tell me about the apps your child is using on tablets or smart phones? Do they need help?

Parent 5:

He's using a game to build worlds. I can hear instructions in English sometimes, but he never asks for help. He's also watching YouTube videos in English, mostly DIY for kids.

Q3 Do you have any concerns about unlimited access of games and apps on smart phones and tablets?

Parent 6:

Of course. There's too much content on the Internet...I'm concerned about the long term effects. I do think it's fine though. As long as it's limited and controlled. There are many useful learning apps out there.

According to the interview findings, 100% of the parents stated their children have excellent motor skills and navigate devices and operating systems smoothly. The parents stated that the children have no issues following instructions in English when using apps and games. The interview findings also indicated that the children frequently engaged with videos and apps either verbally or nonverbally without asking for assistance from their parents.

33.3 % of the parents expressed concern over the overuse of tablets and smart phones in the interviews, however they stated that limited use is beneficial due to availability of educational content.

Discussion –Parental support in using digital devices

Previous research indicated that parents provided indirect support to their children through observation of Internet browsing, shopping online, video gaming, etc., despite the general perception this support was non-existent. According to Plowman, McPake and Stephen study, this was considered indirect support - guidance and demonstration in the learning process (Plowman, McPake and Stephen, 2008). Generally, parents believe they do not play an important role in supporting their children while using digital devices. Parents consider the use of technology a natural process acquired by trial and error.

According to the present study, only 16,7% of participants rarely assisted their children in navigating tablets or smartphones. The assistance was usually with frozen screens and charging phones, which did not occur frequently according to the interview answers. The participants did not consider non-continuous assistance a form of support. Furthermore, 100% of the parents confirmed their children were not observing them while they were working online, browsing websites, shopping online, and typing in English or Croatian. Only 16.7% of the participants stated their children were observing them or their siblings while they were watching YouTube, and 16.7% while the parents were participating in a Zoom or Skype conference. In addition, 66.6% of participants confirmed they did not demonstrate how to use apps or play games to their children. Parents also did not play digital games with their children. Only 16.7% of participants rarely and 16.7% sometimes resorted to answering questions if asked. This indicates the absence of indirect instruction or demonstration that most parents were unaware of in the previous studies (Plowman, McPake and Stephen, 2008). A female parent assisted her child with charging devices and frozen screens, and stated her child was observing her while watching YouTube. In comparison, a male parent confirmed his child was observing him during Zoom or Skype conferences as well as his siblings while they were playing online games and watching YouTube.

In the interviews, 33.3% of participants expressed concern over the excessive use of tablets and smartphones by their children. The concern was due to potentially uncontrollable content advertisements rather than educational or gaming apps the children were normally using. A previous study indicated similar results over children using a variety of contents (Sergi et al., 2017). However, 66.7% of participants highlighted positive sides of digital technology such as faster vocabulary learning and spelling improvement. Some studies found a positive impact of digital games focusing on literacy skills such as phonemes and high-frequency words (Holmes, 2011). In the Holmes study, digital games received positive feedback from the parents due to improving children's spelling techniques and comprehension skills (Holmes, 2011).

In conclusion, parents generally support their children in using digital technology. The concerns that parents may have arise from the potential inability to control the available content.

Conclusion

The study focused on the role of parents in pre-school use of digital technology in the English language learning context. Previous studies suggested that parents were unaware of the support they were providing to their children in the form of indirect guidance and demonstration. Previous findings also supported the argument that parents were supporting their children's learning process through digital technology in subtle ways and that the parents' perception of that support indicated they were often unaware they were providing support. Additionally, parents were concerned about

the excessive use of portable digital devices due unlimited access to the apps and uncontrollable advertisements. Present study suggests that parents, siblings, and other household members do not provide indirect support to their children through observations of online activities. The results also suggest that parents do not demonstrate how to use digital devices, online content, or apps. In addition, parents generally support their children in using digital technology providing the access to the content is controlled and the time spent using the technology is limited. There is evidence that pre-school children use digital devices independently and that the support provided to them by their parents is minimal, limited to charging devices or fixing frozen screens. Due to a clear discrepancy between the findings in present study and previous study, a large-scale research would be need to be conducted. Parental support in pre-school use of digital technology and the effects of digital technology on pre-school children remain under-researched, so further study involving both parents and pre-school children will be outlined.

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