



University of
**Southern
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PARENTS' PERCEPTIONS ABOUT THE VALUES AND BENEFITS OF ELECTRONIC GAMES ON YOUNG CHILDREN IN JORDAN: A CASE STUDY

A Thesis submitted by

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ABSTRACT

The popularity of electronic games among young children is increasing in both Western and Arab countries. The COVID-19 epidemic escalated the use of electronic games for both fun and educational purposes. For families with young children aged 18 months to 4.5 years, parents are recognised as gatekeepers for children's use of electronic games; however, with this comes their conflicting perspectives on the values and benefits of electronic games. Much of the existing literature on the use of electronic games has focused on Western contexts, neglecting to explore the influence of culture on parental perceptions and subsequent decisions regarding electronic game use. This study explored this phenomenon within the specific context of Jordanian families, with the intent to better understand their perspectives on this phenomenon. Moreover, the study sought to reveal the extent to which Jordanian culture influenced their perspectives and decision-making towards children's access to electronic games. The data consisted of semi-structured interviews, photo documentation and naturalistic contextual observations. These approaches were applied to a purposeful sample of parents with small children, with a total of 10 participant families ($N = 12$). Thematic analysis was employed for the process of analysing the data. Findings highlight a strong correlation between culture, religion, and the decision-making process of parents regarding children's use of electronic games. However, several extraordinary factors, such as the COVID-19 pandemic and the developmental level and age of children, at times overrode other priority areas. This study contributes to the body of literature and research related to parental values and decision-making in young children's use of electronic games by broadening key insights into this phenomenon to Jordanian contexts and young families.

CERTIFICATION OF THESIS

I, Halah Mahmoud Al Ghwairy, declare that the Thesis entitled *Parents' perceptions about the values and benefits of electronic games on young children in Jordan: A case study*, is not more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes.

The thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Date: May 14, 2024

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DEDICATION

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CHAPTER 1: INTRODUCTION

1.1. Introduction

The use of electronic games by young children is on the rise in both Western and Arab countries. The COVID-19 pandemic has heightened the use of devices and electronic games for entertainment and educational purposes (Egan & Beatty, 2021). However, there are conflicting perceptions by parents regarding the benefits and value of electronic games, especially in relation to young children, including those aged 18 months to 4.5 years (Neumann et al., 2020).

Although there are several research studies such as Al-Hileh and Ibrahim (2018) and AlNatour and Hijazi (2018) on the use of children's electronic games by children from an Eastern perspective, particularly in Jordan, to date there is limited research focused on the impact of culture on parental perspectives and subsequent decisions about the use of electronic games. In addition, existing research on electronic game use has been predominantly focused on Western contexts (Coyne et al., 2018; Mao, 2021; Prot et al., 2014).

This study will focus on parents' perceptions of the use of electronic games by young children. For the purpose of this thesis, *young children* are defined as infants, toddlers, and preschoolers aged 18 months to 4.5 years (Holloway et al., 2013). The reason for focusing on parents of young children is based on the understanding that parents are key gatekeepers of children's use of electronic games, and young children are highly influenced by the content in electronic games and behaviours impacted by electronic games due to their early development (F. Ihmeideh & Alkhawaldeh, 2017). Furthermore, technology and digital media have become integral components of children's everyday routines (Alelaimat et al., 2020).

In the literature, there are many definitions and interpretations of the term *electronic games*. However, for this study, *electronic games* are screen games that use images that are displayed on an electronic screen or device, such as smartphones, computers, iPads or tablets, and played via the Internet, or downloaded onto a device (Hamizul & Rahimi, 2015). However, electronic games contain several criteria or elements including clarity of objectives (this means meaningful and achievable); the fantasy to attract children to play; involving an interactive function; providing a feedback response to the child's action; and challenging a child in terms of a particular task, learning or skill (Hamizul & Rahimi,

2015). Therefore, *educational electronic games*, according to Demirbilek (2010), are rule-based, participated in by one or more individuals and aim to simultaneously educate and entertain the learner.

Children's increased access to and use of screens and electronic devices have become ubiquitous with their daily lives, and with this their access to and appetite for electronic games. Taylor et al. (2018) mentioned that these devices included owning a video game player or a handheld video game player. Further, using young children's touch-screen tablets for playing games is popular (Oliemat et al., 2018). There is also a strong relationship between parental use of digital screens and children's use of screens and, by association, electronic games (Panjeti-Madan & Ranganathan, 2023).

Children's increased use of electronic devices and, by association, of electronic games, has increased exponentially, with time spent on screens nearly doubling over the last few decades (Madigan et al., 2020). This is consistent with international statistics and reports from Western countries such as the United Kingdom, United States of America, and Australia. In fact, according to McClain (2022), there were substantial increases from 16% in 2020 to 29% in 2021 in the percentage of parents of children younger than 5 years old during the COVID-19 pandemic who used game consoles or portable gaming devices. Further, parents indicated that the average time spent using screen media by their children increased from 2.48 hours before the COVID-19 pandemic to 3.32 hours after the pandemic per day (Eales et al., 2021).

At the same time, the age of the child exposed to electronic devices has changed. In 1970, young children's screen technology exposure and engagement with electronic devices were approximately 4 years old. However, the age of exposure has now shifted to 4 months in the present day (C. Adams et al., 2023; Guellai et al., 2022; Taylor et al., 2018). In this context, Pempek and McDaniel (2016) suggested that 46% of children in the United States of America, aged 12–48 months, use a tablet daily for several activities, to access electronic games. Taylor et al. also found that 49% of young children in the United Kingdom, aged 6–36 months, were exposed to and/or engaged with mobile touch screen devices daily for numerous activities, including electronic games. This is also consistent with the statistics presented by Neumann (2018a), who noted that 84% of young children in Australia aged 3.5 years used tablets in the home to play electronic games. Hence, it

is evident that current children are being exposed to electronic devices at a young age.

There are also clear indications of children's increased use of electronic devices in Arab societies. For example, Meziane-Fourati (2017) indicated that 34.6% of young children in Tunisia used a handheld digital device daily. At the same time, a study by Sharara-Chami et al. (2019) reported that 25% of Lebanese children aged 2 years used devices such as tablets and smartphones for entertainment purposes, such as electronic games. Further, a study of Kuwaiti families conducted by Aldhafeeri et al. (2016) reported that young children aged 3–6 years had their own touch-screen digital devices, with most Kuwaiti young children owning their own personal computer, laptop or iPad at home. This is consistent with other Arab nations; for example, in Jordan, children's engagement with and playing of smart screen games in the home is increasing (Oliemat et al., 2018). Oliemat et al. suggested that this may be due to a range of factors, including multimodal features, ease of use, and accessibility because of the affordability of screens. Thus, in Arabian countries, like other countries, young children increased their use and ownership of electronic devices at a young age.

1.2. Background and context

Children engage with and use technology for a range of purposes. In the United Kingdom, United States of America, and Australia, electronic games are popularly used by young children for both entertainment as well as educational purposes (Neumann, 2018a; Taylor et al., 2018; Vittrup et al., 2016). According to Ersoy (2019), technology is used to communicate as well as for socialisation and the sharing of ideas. Further, Oliemat et al. (2018) indicated that other purposes for engaging with technology include entertainment and education. Others, such as Rudis and Poštić (2017) agreed, noting that children may play video games as an educational and entertainment tool called *edutainment*. What these studies suggest is that there are multiple reasons for children playing electronic games, including as an education or entertainment tool.

Using technology for educational purposes is well researched (Amorim et al., 2020; Bai, 2019; Mao, 2021; Papadakis et al., 2020) and closely aligned with children's increased appetite for electronic games (Oliemat et al., 2018). What was identified was that factors impacting children's high engagement in electronic games

include colourful graphics, images, and sensory aspects such as sounds and displays, which motivate children to interact with the games (Neumann, 2018b). However, there are several other key factors that impact children's screen time and their appetite for electronic games, including the home environment and the role of parents.

1.2.1. The home environment and the role of parents

The home environment plays an important role in the prevalence and types of exposure of children to screens, electronic devices and, by association, electronic games (Lin & Li, 2018; Neumann, 2018a). Within the home context, parents are recognised as significant gatekeepers in terms of allowing young children's access to the screen and electronic games. In this context, Dias et al. (2016) argued that parents' perspectives of the effectiveness of digital devices as essential forms of entertainment and learning tools directly impact the types of technology that are made available in the home and accessible to the child. Therefore, parents, as gatekeepers, are considered the main influence on children's home environment through facilitating or restricting children's use of electronic devices.

There are a range of factors related to influencing the level of gatekeeping that parents exhibit in relation to children's exposure to screens and, more specifically, electronic games. For example, Määttä et al. (2017) identified several of these factors, including a parent's education level, where there was an association between parents with a higher educational level and less screen time among children. These insights are also supported by Nagata et al. (2022), who added ethnicity as a significant factor. The results of Nagata et al.'s research indicated that Black children exhibited higher levels of total screen time usage compared to White children, whereas Asian children showed lower levels of total screen time usage. Furthermore, Nagata et al. suggested that there was a correlation between boys exhibiting more total screen time usage compared to girls. Hence, it is evident that the educational background and ethnicity of parents greatly impact children's exposure to screens.

1.2.2. *Jordanian children's context and usage of electronic games within the home*

Within the Jordanian context, children's play and engagement in electronic games have also increased, as is evidenced by Oliemat et al. (2018), who argued that the adoption of touch-screen tablets including electronic games as new media devices has rapidly expanded in Jordanian households. There is consistency with trends from across the globe in relation to children's use of smart screens increasing significantly since the beginning of 2020, primarily due to the COVID-19 pandemic (Eales et al., 2021; McClain, 2022). For many children, engagement with screens and use of technology during these times helped them complete their classes due to lockdown (Egan & Beatty, 2021).

During the COVID-19 pandemic, the Jordanian government responded to students in lockdown by establishing an educational platform called Darsak (which included two dedicated television channels that integrated online courses) (<https://darsak.gov.jo/>). These resources provided comprehensive coverage of the fundamental topics of Arabic, English, mathematics, and science for students in Grades 1 to 12 (Audah et al., 2020).

The introduction of Darsak meant that all Jordanian families were required to have access to electronic devices at home. Therefore, students defaulted to using smart screens as an educational tool (Thiab et al., 2022). At the same time, generally, many younger children (from birth to age 5) moved within and were immersed in the same environment as their older siblings when engaged in interacting with and using technology for learning (Egan & Beatty, 2021; Koran et al., 2022). Children tended to imitate and play with these smart tools (Koran et al., 2022). Thus, contextually within the same environment that older siblings and adults within the home were immersed in using screens and electronic devices, younger Jordanian children were also using smart screens as a learning and entertainment tool (Oliemat et al., 2018). Thus, it is evident that distance learning increased young children's access to and use of electronic games.

There are a range of reasons for children's choice of screens and, more particularly, their engagement in electronic games. According to Oliemat et al.'s (2018) study of 40 children in Jordan aged between 4 and 7, the most common use of smart screens was for gaming, followed by watching movies and cartoons on YouTube and listening to music on YouTube. Oliemat et al. hypothesised that this

happened because parents thought smart screens were a fun tool that was primarily used for entertainment and occupying children's interest as a leisure activity. In addition, it was common practice that when children received a smart screen from their parents, they would download as many games as possible (Oliemat et al., 2018). Hence, it is obvious that the primary motive behind Jordanian children's use of screens is to engage in electronic games.

This type of usage and attraction to screens and electronic games is evidenced for similar reasons in other Arab societies. For example, Aldhafeeri et al. (2016) indicated that Kuwaiti children used technological devices for fun and play. Another study in Kuwait conducted by Dashti and Yateem (2018) highlighted that children used smart screens to play games, watch videos, look at pictures, colour and draw pictures, and read books. Meziane-Fourati (2017) reported that Tunisian children used smart screens for entertainment, play and fun, as well as for educational purposes.

Within the Jordanian context, children use multiple types of electronic game applications on smart screens. Oliemat et al. (2018) reported that most young children in Jordan use gaming applications (such as Disney Princesses and Barbie games) and amusement games (such as Subway and Plants vs. Zombies), as well as wrestling and war games. However, Oliemat et al. stated that some children preferred to use educational applications as their main form of engagement with screens, including Word Games and Alphabet Train. It is clear that Jordanian children use several applications for both fun and learning purposes.

1.2.3. Parental perceptions of the value of screens and electronic games

In Arab countries, parents have conflicting perceptions regarding the value of smart screens and electronic games. For instance, in Lebanon, a study of 71 children aged between 2 months and 2 years explored the exposure, prevalence of use of electronic screens, and parents' perceptions (Sharara-Chami et al., 2019). Sharara-Chami et al. indicated that most parents thought that use of smart screens (such as tablets, smartphones, gaming systems, and PlayStations) had a negative effect on their children. These concerns included issues in relation to vision problems, developmental delays and exposure to inappropriate content. In contrast, several parents in that study believed that the smart screens had a positive effect on their children, causing them to become quieter and more reserved, learn more

vocabulary, gain new concepts, enhance their speech and increase their social sharing when using the screens.

Current studies and literature on young children's use of screens, particularly electronic games, have revealed that key findings and insights are based on studies conducted in Western contexts and countries (Barandiarán et al., 2019; Barr & Copeland-Stewart, 2022; Elsayed, 2021). However, at this point, there is limited research related to both children's use of electronic games as well as the impact of Arab culture and its influence on parents' valuing or their decision-making regarding children's use of electronic games

1.3. Statement of the research problem

Parents are currently presented with mixed and conflicting messages in terms of the appropriateness and value of these electronic games. For example, there are numerous studies and papers that discuss findings related to both the negative and positive outcomes of children's engagement in them (Kaya, 2020; Meziane-Fourati, 2017; Neumann et al., 2020). Other studies have reported more specifically on the advantages for young children in using electronic games (Amorim et al., 2020; Papanastasiou et al., 2017).

There is messaging presented to parents that reinforce the benefits of electronic games for young children. For example, a systematic review of 19 studies by Herodotou (2018) explored parents' perceptions of the value of smart screens for young children aged 2–5 years old, where parents stated that smart screens had a positive effect on developing knowledge of digital print, letter sounds, name writing skills, print awareness, print knowledge and sound knowledge. According to Herodotou, electronic games improved vocabulary skills, reading, and writing skills, math and science knowledge and skills, problem-solving skills, and overall literacy, numeracy and social interaction, as well as children's confidence. Others, such as Almohtadi et al. (2019), reinforced the value of electronic games in promoting early numeracy concepts for kindergarten children in Jordan.

In contrast, other messaging to parents highlights the drawbacks of electronic games. For example, Islam et al. (2020) indicated that children's use of electronic games over long periods of time has a negative effect on their academic performance. Other research, such as that by Loton et al. (2016), noted that electronic game addiction increases anxiety, stress, and depression levels, while

Islam et al. (2020) recommended parental monitoring or limiting time in electronic gaming to reduce the effects of electronic games on academic achievement.

What has emerged from existing studies is that, to date, most of them and the associated literature have explored both the benefits and concerns regarding young children's use of electronic games from a Western or European perspective (Bentley et al., 2016; Dardanou et al., 2020). However, one of only a few limited studies in the Jordanian context is a study conducted by Al-Hileh and Ibrahim (2018). Their quantitative study used a questionnaire to investigate mothers' and kindergarten teachers' points of view on the advantages and disadvantages of electronic games, presented as brief responses. For example, according to Al-Hileh and Ibrahim, three of the highest ranked disadvantages that mothers identified for electronic games were children's addiction when participating in them, a negative effect on their visual abilities and a negative effect on their physical fitness. These responses provide insight for appreciating the value that parents perceive in these types of experiences for young children.

In addition, AlNatour and Hijazi (2018) explored the impact of electronic games, particularly on English vocabulary, but they did not explore parents' perspectives about the value and benefits of electronic games on children's learning and development in general. Moreover, Oliemat et al. (2018) focused on Jordanian children's use of touch screen tablets but did not focus on their use of electronic games. In another study, Al Harbat and Al Saqarat (2017) investigated the effect of religious organisations, electronic games, literature, and instructional stories on the cultural development of children, but without contextual details. This is of concern because until there are data regarding current understandings related to a specific context, such as that of a Jordanian perspective, it is difficult to provide recommendations, including to Jordanian parents to inform their decision-making.

According to Alsharif et al. (2019), the United Nations Development Program defines the *Arab World* context as "22 countries that share a common language, Arabic, in addition to a common Semitic heritage, history, and culture" (p. 620); however, the literature currently does not mention many of these countries and contexts as evidence (see Figure 1.1).

Figure 1.1

The Arab world (Chelghoum, 2017, p. 37)



There have been several studies conducted on children's use of screens and digital technology that focused on an Arab context but not on electronic games, such as those by Aldhafeeri et al. (2016), Meziane-Fourati (2017) and Sharara-Chami et al. (2019). Furthermore, others of the existing Arab studies have employed pre-test and post-test design methods and data collection tools to explore the effect of electronic games on children's English vocabulary, such as AlShaiji (2015) and the use of such games to promote children's self-concepts (Moawad, 2017). What has emerged from those studies is that the data offered insights on children's use of screens and digital media or explored parents' perceptions of the value of digital technology rather than explore parents' perspectives about the use of children's electronic games in specific, particularly in relation to the idiosyncratic nature of the lived experiences in particular Arab countries such as Jordan.

Further, research within the Arab context has yet to explore the impact of culture on parents' perceptions about the values and benefits of games on their decision-making regarding the use of children's electronic games. Exploring the nuances that exist within the family environment and the influence of culture would

help provide a finer-grained understanding of these contexts in relation to this phenomenon. Within the framework of the Arab region, Dashti and Yateem (2018) revealed that culture plays an important role in parents' decision-making, which also affected children's access to and engagement with mobile devices, including the playing of electronic games. Similarly, in the Jordanian context, F. Ihmeideh and Alkhawaldeh (2017) concentrated on the role of technology and digital media in shaping a child's culture but did not investigate the impact of culture on parents' attitudes towards electronic games. What is missing from the existing literature and studies is research related to the impact of Arab culture (and more specifically Jordanian culture) and how culture influences parental decision-making on electronic games. Further, there is a gap in the existing literature in relation to the impact of culture on the perceived value of children's engagement in electronic games. This gap or current paucity in the literature was a significant motivation underpinning the intent of the current study and the goal of exploring parents' perceptions of the values and benefits of electronic games on young children in the Jordanian context and the impact of Arab culture and influence on parents' valuation of young children's use of these games.

1.4. Parents' concerns in relation to children's use of electronic games

As already highlighted, parents are the gatekeepers of children's use of electronic games and technology; however, they are also seen as the *first teachers* of young children (Dias et al., 2016; Lundtofte, 2020). According to F. Ihmeideh and Alkhawaldeh (2017), the first process of educating children occurs in the Jordanian home. The aforementioned studies suggest that parents influence their children's use of electronic games by encouraging or discouraging their use.

Parents, as first teachers, not only influence the behaviour of their young children but also make a range of decisions on an hourly or daily basis about how children spend their time. This includes children's use of screens and engagement in electronic games (Oliemat et al., 2018). Sharara-Chami et al. (2019) stated that parents' decision-making about restricting screen time was important and noted that Lebanese parents regulated the time children aged 2 years and younger spent on electronic devices to on average an hour or less. In the same study, other parents mentioned that they felt the need to regulate the type of content their children

engaged in through portal media. As a result, most parents closely monitored their children's media use.

Most Jordanian parents restrict their children's access to electronic games. Oliemat et al. (2018) noted that children in Jordan stated that their parents put rules on their use of tablets, such as limiting the times for use. Moreover, most parents prevented their children from using some applications or websites, such as Facebook, Instagram, horror movies, and fighting and war electronic games (Oliemat et al., 2018). Consequently, Jordanian parents' decision-making influences their children's use of electronic games.

Parents' decision-making regarding electronic game use plays a significant role in children's use of electronic games in the Western context. Kostyrka-Allchorne et al. (2017) proposed that parents should monitor the content of screens during the time period their children are exposed to them. Moreover, according to Barandiarán et al. (2019) and Koran et al. (2022), parents feel the need to limit their children's use of electronic games to reduce their negative impacts. Thus, it is evident that parents in Western countries are committed to establishing limitations on their children's involvement with electronic games.

In the Arab context, parents' decision-making influences children's use of electronic games. Taufik et al. (2019) suggested that parents should promote the implementation of computer learning in early childhood. Meziane-Fourati (2017) noted that some mothers did not allow their children to use a smartphone or tablet without adult supervision. Some Arab studies have also highlighted parents' decision-making on screen time and electronic game use (Meziane-Fourati, 2017; Oliemat et al., 2018), but at this point there is limited understanding among parents of the value of screens.

The mixed messages related to young children's use of electronic games have left parents unsure of their value and benefits. For instance, according to Barandiarán et al. (2019), parents believe that electronic games have a detrimental effect on children due to mature content and the potential for addiction. On the other hand, others have claimed that electronic games enhance access to knowledge, facilitate learning and promote socialisation and communication. Therefore, parents are confused about how to balance the negative and positive views. Thus, this

reflects on their personal decision-making in relation to using children's electronic games.

1.5. Research goals and questions

As indicated, most of the existing literature related to parents' perceptions and value of electronic games is from a Western or European perspective. There is currently a gap or scarcity of research on parents' perceptions and value of electronic games in the Jordanian context. Given this, goal 1 sought to *explore the Jordanian context in terms of parents' perceptions and values of young children's use of electronic games*.

Contemporary literature reveals that culture plays an important role in parents' decision-making, including their support for screen time and appreciation of the value of children's use of screens (Barroso et al., 2020; Bjelland et al., 2015). This may also potentially be the case in relation to the impact of culture on parents' support for and the value attributed to young children's engagement in electronic games. However, at this point, there is limited research related to the impact of Arab culture, and more specifically, Jordanian culture, and the role that culture plays in influencing decision-making and the perceived value of electronic games. Given this, goal 2 sought to investigate the distinctive nature of Jordanian context to *reveal the impact of Jordanian culture on the parents' decision-making regarding young children's use of electronic games*.

This study employed a qualitative approach as it aligns with the research's goals of obtaining a deep understanding and exploration of Jordanian parents' perceptions. Accordingly, various data collection methods have been employed to enhance comprehension of the Jordanian context, which includes semi-structured interviews, photo documentation and naturalistic contextual observations to capture participants' perspectives.

The following research questions were constructed to support the achievement of the goals identified.

1.5.1. Research questions

- (1) What are Jordanian parents' perceptions of young children's use of electronic games?

- (2) How does Jordanian culture impact or influence parents' decision-making regarding the use of their young children's electronic games?

1.6. Significance of the study

This study will contribute to the existing literature and knowledge by advancing information and theory regarding parents' perspectives of the values and benefits of electronic games in the Jordanian context to assist parents in establishing an appropriate balance for their children's engagement with electronic games. In addition, this study will collect information about the influence of Jordanian culture and its impact on parents' perceptions, as well as the impact of culture on parents' decision-making in relation to the use of children's electronic games. Furthermore, there may be practical value in terms of helping Jordanian parents make informed cultural decisions about their children's electronic game use. Thus, these decisions have a good effect on children. In addition, there may be societal significance in terms of parents recognising the value of culture in their decision-making; as a result, they may focus on certain aspects of culture while disregarding others because they believe these characteristics are not relevant to decision-making.

1.7. Personal significance

This research will allow me to gain further knowledge regarding parents' perceptions of the value and benefits of electronic games in the Jordanian context. As a mother of three children who play electronic games daily, I wonder about the values and benefits of these games. As a mother, a parent, and at the same time an academic specialising in early childhood education, I am very keen to learn about and then share the Jordanian context in terms of parents' perceptions and values of the influence of electronic games on young children.

As a kindergarten teacher in the Ministry of Education in Jordan, dealing with parents has different perspectives, including religion, beliefs, parenting style and traditional customs. I hear different feedback from parents about the value of electronic games and the effect of culture on children playing electronic games. Through periodic meetings held by the school, mothers ask questions about the values of electronic games or questions related to the impact of culture on their children playing electronic games. These types of questions and the ability to provide insights and recommendations for parents were also the motivation for this study.

1.8. Summary of the chapter

With electronic devices and young children's exposure to screens becoming increasingly pervasive, including within the home environment, young children's access to and engagement in electronic games continues to escalate. This chapter offered background context on this topic, which included noting the paucity of research that sought to investigate this phenomenon in Arab countries, including parents' perceptions and the use of electronic games by children in Jordanian homes. Details were also shared about the complications of conflicting messages to parents about the values and concerns regarding children's use of electronic games. This included a review of the associated literature, including literature related to parents' roles as first teachers of their children, the restriction of electronic games and parents' inconsistent positions.

The goals and intent of the study were outlined. Finally, the personal significance of the study was shared, including the significance of this study for the researcher as a mother and as a kindergarten teacher. This inspired the researcher to further investigate parents' viewpoints on the utilisation of children's electronic games to provide valuable insights and recommendations to her community.

The next chapter presents a critical review of the literature, starting with studies related to parental valuing and perceptions of electronic games. This is followed by various interpretations and classifications of electronic games. Literature related to the impact of value and culture is then explored, as well as considerations for the impact of religion on decision-making. Because of the rapidly evolving nature of games and their use with children, this review focuses on literature published in the last seven years. An exception was made for literature that discussed culture and values, as these remain historically significant over time.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The rise of electronic games worldwide, especially due to factors such as their escalation in use during COVID-19 (Elsayed, 2021; Koran et al., 2022; Mesce et al.'s, 2022), as well as other factors, such as an increase in working and studying from home, has raised questions about parental perceptions of their value and benefits (Al-Hileh & Ibrahim, 2018; Genç & Fidan, 2017; Vittrup et al., 2016). Electronic games have been in existence as early as the 1970s with the introduction of the home computer (Prensky, 2003). Their use by adults and children has increased significantly since then (Vittrup et al., 2016).

Several literature reviews, such as those by Meziane-Fourati (2017), Dardanou et al. (2020) and Neumann et al. (2020), have provided useful insights for understanding the values and benefits of electronic games and parents' perspectives about their children's use of such games. Additionally, Aldhafeeri et al. (2016), Dardanou et al. (2020), Lundtofte (2020) and Crescenzi-Lanna (2022) have provided significant insights into the impact of values and culture on parents' perspectives of young children's playing of electronic games. These types of studies have also offered an initial understanding of the research into parental perspectives on the use of electronic games and particularly by young children.

This chapter seeks to present an in-depth critical review of the existing literature related to parental perceptions of the values and benefits of electronic games for young children aged 18 months to 4.5 years. This literature review is divided into five sections. The first section explores the literature related to the categorisation and classification of electronic games. The second section provides an overview of the literature related to the value, benefits, and concerns as a result of the use of children's electronic games. In addition, it addresses the literature related to expert advice and research about dissonance perspectives and opinions about electronic games. The third section of this chapter presents parents' perspectives on using their children's electronic games and how it affects their decision-making process. Furthermore, it includes their perspectives regarding the use of their children's digital media. Moreover, it addresses the use of electronic games in relation to children's development. The fourth section reveals research and associated literature related to insights regarding the impact of values and culture on

parental decision-making in terms of their use and value. In addition, it explores key findings related to parents' perspectives about the value of electronic games. The final section of the literature review presents an overview of Jordanian culture and religion and how Jordanian culture and religion influence parents' values. Further, this section focuses on key aspects of Arab and Jordanian culture that impact present decision-making by parents. Finally, it explores the influence of Jordanian values and culture on parent decision-making regarding children's use of electronic games.

2.2. Types of electronic games and classification

The broader literature mentions multiple classifications and terms for electronic games. Hiasat (2014) and Doherty et al. (2018), for instance, have outlined the classification of electronic games. This classification pertains to electronic game settings. Although Hiasat categorised them into two classes: finite electronic games (the game ends) and infinite electronic games (the game either stays the same or loops forever), Doherty et al. (classified electronic games into four classes: interaction frequency, a game's error tolerance level, mobility constancy, movement control. Although Doherty et al. and Hiasat classified electronic games based on the game's settings, other classifications have emphasised different criteria in their categorisations.

Furthermore, there are classifications for educational electronic games, for example. Gocheva et al. (2020) and Samokhin et al. (2020). According to Gocheva et al., there are two types of educational electronic games: educational computer games (children play these games on computers) and educational mobile games (children play these games on mobile electronic devices). However, Samokhin et al. classified educational electronic games according to their purpose into educational electronic games for learning and non-educational electronic games for entertainment. Although Gocheva et al. focused on the devices that children used for electronic games, Samokhin et al. classified educational electronic games according to their purpose into educational electronic games for learning and non-educational electronic games for entertainment. Their study took a holistic approach by considering electronic games, independent of their educational or other categories and regardless of the devices used by children.

Previous classifications of electronic games were created by researchers to organise and facilitate access to them (see Appendix A for the categorisation of researchers for electronic games). Currently, based on thorough research and the researcher's knowledge, there is no classification system for electronic games specifically designed by parents (see Appendix B for categorisation of electronic games based on parents' perspectives).

2.3. Positive and negative impacts and views of electronic games

In many studies, including Kovess-Masfety et al. (2016), Healey et al. (2019) and Mao (2021), there is evidence of a dissonance of viewpoints in relation to the benefits and value of electronic games. Some relate to key areas of concern in children's use of electronic games, including risks to health and wellbeing, exposure to mature content, social implications and behavioural implications. Although other research, such as that by Bowman et al. (2015) and Behnamnia et al. (2020), pointed to the benefits or value of electronic games, which include increased skills, creativity, cognition, and cultural considerations, this section of Chapter 2 synthesises the literature to demonstrate the conflicting viewpoints on the benefit and value of electronic games for young children, as well as how this influences parents' perceptions of electronic game use.

There has been an increase in the use of electronic games, which has impacted the health and wellbeing of young children (Healey et al., 2019; Koivisto et al., 2019). According to Alelaimat et al. (2020), technology and digital media now occupy a large space in a child's life and have an important influence on children's development and learning. One area of conflict is in relation to augmented reality (AR) games. Researchers such as Koivisto et al. have suggested that playing location-based AR games may improve mental, social and physical health. However, Das et al. (2017) cautioned that there are several risks in immersion with AR for children, such as being exposed to incidents because of increased inattentiveness, increased physical harm and possibly cyberbullying.

Although AR was one classification of electronic games, it is evident that electronic games, regardless of classification, were seen as having negative effects on children. For instance, Healey et al. (2019) stated that electronic games affect children in relation to decreased physical activity and increased aggressive behaviour. The negative effect of electronic games on children has been recognised

in part by the World Health Organization (2020), which reported health risks associated with excessive time playing them, such as reduced physical activity and sleep problems, malnutrition, headaches and neck pain.

As a result of these negative effects of electronic games, there are calls to limit their exposure to reduce the impact on health and wellbeing. For example, the World Health Organization (2020) recommended that parents limit their children's exposure to them and mentioned other options for entertainment, such as reading, board games, arts and crafts, dancing and exercising. In addition, the World Health Organization suggested setting rules about playing electronic games, including the length of time and when, how, and where children can play games. Moreover, according to Guerrero et al. (2019), academics and experts have advised parents to establish restrictions regarding their children's use of electronic games.

The above studies, therefore, confirm that there is agreement about the risks of using electronic games for children's health and wellbeing from researchers' perspectives. This agreement of messages from researchers contribute to shaping parents' perspectives on their children's use of electronic games, which in turn affects their decision-making process regarding their children's usage.

Research related to the effects of electronic games has contributed to developing an understanding of the social influences of them on players' behaviour (Quwaider et al., 2019). According to Qiu et al. (2018), these insights point to both positive effects and several concerns. *Social influences* refer to the effects that others have on an individual's ideas, feelings, and behaviours, eventually influencing their decision to act (Qiu et al., 2018). Thus, players' behaviours can be understood through knowledge of the social influences of electronic games.

Prosocial electronic games may influence children's behaviour positively. For example, Harrington and O'Connell (2016) claimed that there was a positive association between playing children's prosocial electronic games and cooperation, sharing, and empathy. This positive association was also supported by Granic et al. (2014), who argued that electronic games with prosocial content (non-violent content) develop children's prosocial behaviour. *Prosocial behaviour* was defined by Coyne et al. (2018) as "any voluntary behaviour that is intended to help or benefit another individual or group (e.g., sharing, complimenting, helping)" (p. 1870). In this context, Li and Zhang (2023) stated that engaging children in prosocial electronic games enhanced their prosocial attitudes and behaviours. These types of findings

align with Granic et al. (2014) and Harrington and O'Connell (2016), who argued that exposure to electronic games was required if the social content was meant to foster cooperation, effective relationships and empathy. What these studies suggest is that the type of content influences the value of electronic games for children.

Although the aforesaid studies propose a positive effect of electronic games on children's social development, other research points to contradictory positions regarding children's use of electronic games. There was concern raised by Zhang et al. (2021) around electronic games being seen as violent and addictive. Zhang et al. reported that children exposed to violent electronic games demonstrated increased aggressive cognitive and physical behaviour, and those violent electronic games fuelled the accessibility of aggressive cognitive and aggressive behaviour. This understanding was also evident in research conducted by Coyne et al. (2018), who argued that early exposure to violent electronic games led to lower levels of prosocial behaviour. The negative effect of violent electronic games aligns with the findings of research by Chang and Bushman (2019), who argued that exposure of children to violent electronic games heightens their risky behaviour with firearms. Hence, the inconsistent messages from researchers about the influence of electronic games on children's social development have a role in influencing parents' viewpoints on their children's engagement with electronic games, subsequently impacting their decision-making process over their children's usage. However, other researchers focused on another issue related to the detrimental impact of electronic games on children, such as addiction to electronic games.

Another conflicting message in relation to children's social development is the connection between electronic games and gaming addiction. According to Dresch-Langley (2020), children's social development is negatively impacted by electronic gaming addiction. The impact of addiction to electronic games on social development was supported by Loton et al. (2016), who claimed that addiction to electronic games increases anxiety, stress, and depression levels. Further, Farchakh et al. (2020) claimed that there is an association between addiction to electronic games and a decrease in memory and attention, as well as negative impact on cognition and academic abilities. However, Farchakh et al. focused on electronic gaming addiction and its association with children aged 9–13, rather than the young children who are the focus of this study. Therefore, this study aims to shed light on the effects of electronic games on young children, specifically from the perspective of

Eastern, particularly Jordanian, parents, to help them make informed decisions about their children's use of these games.

There is a continuous pattern of positive and concerning effects in the argument regarding the use of children's electronic games on their behaviours. Previous studies, such as Li and Zhang (2023) and Zhang et al. (2021), showed conflicting perspectives regarding the advantages of electronic games for children, as well as concerns about the adverse impacts of these games and their impact on children's social development. The researchers in the above studies concentrated on the Western context and did not consider the perspectives of parents regarding the values and benefits of electronic games on children's behaviours.

In contrast, it is also widely agreed that electronic games can help develop children's skills, creativity and knowledge. For instance, Behnamnia et al. (2020) indicated that educational electronic games develop creativity skills through promoting critical thinking, knowledge transfer and the acquisition of skills on digital devices. Developing creativity by using electronic games was supported by Granic et al. (2014), who noted that there is a correlation between electronic gaming and increased creativity because using any type of electronic game might increase children's creative abilities. Moreover, Bowman et al. (2015) stated that electronic games develop creativity and creative thinking through several games, such as Minecraft, where players are free to play in any way they select, whether by checking the environment, creating content within the game (e.g., building structures), or communicating with others within the space. Further, Bowman et al. put forward SimCity as an electronic game that allows players to solve real problems in a creative manner. SimCity is a game in which players take on the role of a civil engineer with no real-world consequences, and players can easily retry the challenge. It is evident that electronic games develop children's skills and creativity, according to researchers' perspectives.

There is consensus that educational electronic games can be valuable to support the educational process and develop children's learning. For example, Gahwaji (2016) argued that electronic games support young children's literacy skills. Developing skills aligns with the research conducted by Anderson and Subrahmanyam (2017), who stated that educational electronic games develop cognitive skills. Additionally, Liu et al. (2021) suggested that educational digital gaming apps may enhance attention development in young children through

providing training on using such games. Thus, it is clear that educational electronic games are regarded as a beneficial educational means for young children.

The use of electronic games by children enhances their English vocabulary. For instance, AlNatour and Hijazi (2018) and AlShaiji (2015) reported that there are positive effects of using electronic games in developing English vocabulary. This result correlated with Rudis and Poštić's (2017) research, which proposed that electronic games promote vocabulary learning by providing a motivating environment for learning the English language. The aforementioned studies argued that electronic games are educational tools that can effectively support the English language.

Some electronic games, such as AR, can have a beneficial influence on children's learning. In this context, Safar et al. (2016) stated that AR technology allows us to combine real and virtual experiences and use appropriate information from the external environment with the digital world to achieve specific goals. For instance, Redondo et al. (2020) conducted a study of 102 young children aged 3–5 years in Spain. Their study was divided into an experimental group and a control group. The results showed the positive effect of electronic games in that children in the AR group increased their motivation for English classes and developed their learning skills. This finding about the advantages of AR technology on children's learning is supported by the research conducted by Das et al. (2017), who pointed out that AR electronic games could potentially increase students' motivation in classroom learning and collaborative learning interactions and therefore be considered powerful educational tools. Further, Safar et al. found that young children who studied English alphabet lessons with AR apps performed better and had more positive interactions than children who studied the traditional way. As a result of the effectiveness of AR technology for children's learning, Safar et al. suggested several recommendations about implementing AR technology in young children's classes to develop their learning.

In conclusion, the above studies support the idea that there is agreement about the benefits of using electronic games as an educational tool. This agreement about the educational benefits influences parents' perspectives about their children's use, which in turn affects parental decision-making over this usage. Furthermore, based on the above studies, there is limited literature around electronic gaming for children aged 18 months to 4.5 years, perhaps because children at this stage are unable to engage with, understand, and respond to electronic games correctly.

2.4. Parents' perspectives of electronic games use and influences on these views

While parents understand the values and benefits, they still express concerns about electronic games especially in relation to mature content. For example, Barandiarán et al. (2019) reported that while parents stated that electronic games have positive effects on their children, such as access to information, learning, and education, and children's development and socialisation communication, they were worried about the early age at which children start playing electronic games and the mature and potentially inappropriate content that may be included. In this context, Genç and Fidan (2017) defined *mature content* in electronic games as games that cover adverse verbal, visual, and audio material, such as dangerous actions, antisocial conduct and aggression. In this study, the researcher identified mature content as games that include inappropriate words, images, messages and behaviours that conflict with the cultural and religious norms of Jordan.

Researchers and parents have conflicting perspectives about the value and benefits of using children's electronic games, particularly those with mature content. In earlier research, Kutner et al. (2008) found that while parents mentioned that electronic games promote fun, excitement, fantasy and creative expression, they also highlighted concerns about the mature content of electronic games, such as violence, nudity, and sexual acts. More recently, Lim (2019) suggested that, as a result of parents' concerns about the violence, sexual expressions, and language in electronic games, several parents set rules related to electronic games. This aligns with research conducted by Guerrero et al. (2019), which showed that increased duration of playing electronic games with mature content was linked to higher levels of physical discomfort, aggressive behaviour and a decreased amount of sleep. In the Jordanian context, there are limited studies about the mature concepts of electronic games and their impact on culture. One of the few studies that does refer to these issues, by Al-Batineh (2021), indicated that some electronic games have been blocked in Jordan due to conflicts between these games and Jordanian culture and religion. However, Al-Batineh explored mature content as a cultural obstacle that emerges throughout the process of translating electronic games from several languages to Arabic. The current study focused on mature content that is included in electronic games played by young children. According to Ni and Yu (2015), children in the early years have a limited ability to understand other people's perspectives

and mostly see the world from their own point of view. As a result, they find it difficult to understand the mature content in electronic games, which lessens their impact. This is also reinforced by Crescenzi-Lanna (2022), who noted the inadequacy of the current age rating system for choosing developmentally appropriate games for children.

Although literature has introduced mature content as a concern in relation to the use of children's electronic games, it has not managed to address several issues related to such content. Previous studies, such as Barandiarán et al. (2019) and Lim (2019), confirmed the existence of conflicting perspectives regarding the benefits and value of electronic games for children and the exposure of children to mature content. While the current body of literature, such as Lim (2019) and Kutner et al. (2008), is limited to mature content-related concerns, these studies ignored the need to address this in relation to children's learning and development, including contradictory messages about culture or religion.

Studies conducted on parents' perspectives regarding the social impacts of electronic games, reveal conflicting positions. For instance, Gözümlü and Kandır (2021) found that parents noted that electronic games can have positive effects on their children's development; however, at the same time, such games can have violent content that has detrimental consequences. Additional research confirmed the contrasting perspectives of parents, such as Bentley et al. (2016), who found that some mothers in the United Kingdom believed electronic games were useful for learning, while others were worried about the potential detrimental impact of violence. In addition, Genç and Fidan (2017) also found that parents perceive electronic games positively as an educational tool but express concerns about potential negative effects such as antisocial behaviour, addiction and exposure to mature content. According to the research by Bentley et al. and Genç and Fidan, parents hold opposing perspectives on the social advantages and value of electronic games for children; as a result, parents implement strategies such as establishing rules and limiting their children's access to electronic games.

Nevertheless, parents have been found to agree about the value of electronic games in developing children's learning. For instance, Nikolopoulou (2020) found that parents assert that electronic games are a beneficial educational tool, especially for developing skills and foreign language proficiency. However, they also voiced concerns about the negative impact on communication and exposure to unsuitable

content. Developing skills was supported by Genç and Fidan (2017), who stated that parents claimed that certain electronic games enhance hand-eye coordination skills; however, they are concerned about bad content on the Internet, where children are able to find and download electronic games and may be exposed to other content at the same time. Thus, Genç and Fidan's research explored parents' perspectives about their children using tablets to access and play games, where they had direct access to the games online.

Parents also have general agreement about using their children's electronic games and developing their creativity. According to Sălceanu (2014), parents identified that the biggest advantages of electronic games are thinking development, observation capacity and creativity. However, they also stated that the biggest disadvantages are the lack of physical movement, vision problems, and unrest. This argument about developing children's creativity aligns with the findings of research conducted by Stošić and Stošić (2014), who indicated that engaging children in electronic gaming activities boosts creativity. What these studies suggest is that parents make an association between using children's electronic games and developing children's creativity.

In relation to Arab parents, in particular Jordanian parents, they have been found to have conflicting perceptions regarding the value of electronic games. Al-Hileh and Ibrahim's (2018) research, one of the few studies on this phenomenon, reported that after completing questionnaires but without providing details about the Jordanian context, Jordanian mothers had inconsistent opinions about the positive and negative effects of electronic games. However, following the researcher's extensive search, it was concluded that there is limited research about children's use of electronic games and parents' perspectives on their children's playing of them in Arab countries and in the Jordanian context too. Further, Meziane-Fourati (2017) conducted a study with 52 Tunisian mothers who have children between the ages of 18 months and 5 years old. Based on a questionnaire and a partially organised interview, 14.3% of mothers stated that digital media has a positive impact on the development of early literacy and numeracy skills, yet they also believed that digital media may boost children's creative skills.

Parents play a vital part in managing their children's use of electronic games. For example, Dashti and Yateem (2018) focused on the responsibility of parents to monitor their children while they use mobile devices, including playing games.

Further, Oliemat et al. (2018) found that parents establish restrictions around their children's use of tablets. However, Oliemat et al. and Dashti and Yateem confirmed the importance of the role of parents in helping their children play electronic games; they investigated the use of electronic games from children's perspectives rather than from electronic games and parents' perspectives, which are the focus of this study.

Based on the aforementioned studies, there is dissonance in the arguments of parents' perspectives and opinions about the benefits of electronic games on the development and learning of children, as well as about the negative effect. This dissonance leads to confusion in parents' understanding of the value of electronic games; therefore, these understanding impacts parents' decision-making regarding electronic games, so parents either support their children's playing electronic games to gain the benefits or they limit their play to reduce their risks, as they believe. Some studies have investigated parents' perspectives of the benefits and drawbacks of electronic games on children in Western countries, such as Genç and Fidan (2017) and Vittrup et al. (2016). In the Jordanian context, at this point, to the best of the author's knowledge, there is no research investigating parents' perspectives within the context in any detail, and they did not explore the impact of culture on parental decision-making. This study sought to consider the parents' perspective on games to determine how they balance the negative and positive views and manage this in their household.

2.4.1. Parents' perspectives about their children's use of screen-based media

During their early years, young children interact with digital screens and technology; as a result, they use several media skills. While media skills, as defined by Venkatesan (2023), refer to the ability to acquire, analyse, review, and produce media content, in this study, media skills are defined as several abilities that children use while engaging with electronic games, including the ability to interact with the screen by touching, clicking and swiping in reaction to static or moving elements.

Children develop various media skills during their interactions with technological devices. According to Neumann et al. (2020), mothers reported that their young children have proficiency in media skills during their use of tablets, such as swiping with their fingers, pressing buttons, scrolling, turning the tables on

independently, and returning to the main menu using the “Home” button. Similarly, in the Jordanian context, Oliemat et al. (2018) stated that young children have demonstrated mastery in using tablets, where they can scroll across pages by scrolling with their finger, open and close the device, recognise common icons, launch programs and adhere to the rules of the game they are playing. However, the previously mentioned studies specifically focused on the development of children’s media skills through the use of tablets rather than the acquisition of media skills through the use of several technological devices for playing electronic games. Nevertheless, the aforementioned studies suggested that children develop media skills through their engagement in playing electronic games by using digital devices, which in turn affects parents’ perspectives and then their decision-making regarding their use of electronic games.

Despite concerns about children’s exposure to digital media (Gastaud et al., 2023), some researchers have linked these concerns to the child’s age and their comprehension of media content. In this regard, Ziemer and Snyder (2016) stated that the process of transferring knowledge from 2D to 3D settings has a slow process of growth in early childhood; young children may not always have the ability to fully understand what they observe on their screens. This finding about the lack of young children’s understanding of the content of screen media is supported by Radesky and Christakis (2016) and Nikken and Schols (2015), who indicated that young children lack the ability to perceive videos as applicable to real-life situations and are unable to gain new information from screens without appropriate mediation. However, the aforesaid studies addressed the child’s age as a factor in decreasing concerns about engaging children in media, and this has an influence on parental decision-making regarding the use of electronic games.

2.4.2. Use of electronic games and young children’s development

There are several experts who have a keen interest in the development of children, including Piaget and Vygotsky (Khadidja, 2020). Although Piaget noted the fundamental theory of intellectual development, Vygotsky emphasised the significant role of social and cultural influences in the cognitive development of individuals. Thus, Piaget’s and Vygotsky’s theories are based on their views of individuals’ cognitive development.

Piaget's definition of cognitive development is based upon the child's interaction with the environment. According to Sanghvi (2020), Piaget suggested that the human intellect evolved through four unique and universally applicable sequences of phases: the first, sensorimotor from birth to 2 years old; the second, preoperational stage, primarily targets children aged 2 to 7; the third, concrete operations often focus on children between the ages of 7 and 12; fourth, formal operations typically occur from the age of 11 to adulthood. In order to understand the impact of electronic games on the development of young children, this study focuses on children in their early years; therefore, the focus of this section will be on Piaget's preoperational phase (Ni & Yu, 2015).

Children in the preoperational phase exhibit a number of characteristics. According to Sanghvi (2020), in this phase, children will start to acquire proficiency in language, but they are still incapable of carrying out cognitive processes. During this stage, children exhibit a sense of self-worth; they perceive the world solely from their own perspective and are incapable of considering another person's viewpoint (Ni & Yu, 2015). Therefore, they find it difficult to understand the concepts in electronic games, which in turn lessens their potential negative impact. As a result, this influences parents' decisions about using their children's electronic games. At this stage, they start to acquire the theory of mind, which is the capacity to deduce the intentions of others. In relation to the purpose of this study, at this stage, children begin to understand their parents' perspectives regarding their use of electronic games. In this context, Huang (2021) stated that children become capable of comprehending the reasons behind someone's actions and how the emotions, perspectives, and thoughts of others might influence their behavior. Therefore, children's capacity to understand their parents' predictions and perspectives regarding the use of a certain electronic game, as determined by their parents, is increasing. Thus, children understand the basis of their parents' decision-making about the use of specific games.

However, Vygotsky argued that the majority of children's learning stems from their cultural environment, such as media, including electronic games (Huang, 2021). According to Khadidja (2020), Vygotsky suggested that language plays a crucial role in social development because it serves as the foundation for cognitive processes. As a child matures, language becomes the main tool for acquiring knowledge and skills (Khadidja, 2020). The principles underpinning Vygotsky's theory, such as

scaffolding, include giving the children prompts or cues to facilitate their strategy for solving the problem. Furthermore, Huang indicated that Vygotsky also acknowledged the significance of cultural tools such as media and television in cognitive processes. Therefore, various resources, such as media and electronic games for problem-solving and learning, can be relevant to learning at this time. Thus, parents' perspectives and decision-making play a significant role in their children's access to and use of electronic games and, consequently, help their children to improve their cognitive development.

Children's involvement with the applications significantly depends on their developmental suitability. In this regard, Crescenzi-Lanna (2022) stated that the developmental appropriateness of the applications significantly affects the duration of play and the level of satisfaction reported by children during the playing session. Using age-appropriate content in digital games for young children was supported by Behnamnia et al. (2020), who indicated that the use of spatial design, unique colours, and age-appropriate characters in electronic games can enhance their attractiveness and potentially lead to quicker interaction and learning. However, children under 5 years face several issues during their use of electronic games, such as the use of spoken language to interact, which is a main problem regarding young children's use of digital media, regardless of their short-term memory development (Dix et al., 2003). Consequently, it is crucial for parents to choose electronic game content that is appropriate for each child's age and requirements (Livingstone et al., 2017). Parents should select the multi-touch interactive mode of electronic games for preschool children, which closely mimics daily life activities such as clicking or dragging, with various visual and visible impacts (Ni & Yu, 2015). Parents' understanding of how to use their children's electronic games and the influence of these games on their development significantly shape their perspectives on their children's use of such games, which ultimately affects their decision-making process.

In conclusion, based on Piaget's theory, a child's age influences her or his understanding of the content of electronic games, which in turn affects parents' decision-making. Further, according to Vygotsky's theory, it has been concluded that parental scaffolding of their children's learning during their play to acquire the learning purposes is very important at this time. Furthermore, parents can employ cultural tools, such as electronic games, to facilitate their children's learning and mediate the situation (Veresov & Veraksa, 2023).

2.5. Impact of culture, religion and parenting styles on parental decision-making

Culture is considered a significant factor that influences individuals' decision-making (Podrug, 2011). However, limited studies have investigated the impact of culture on parental decision-making regarding the use of children's electronic games. For instance, Al-Hileh and Ibrahim (2018) conducted a study in a Jordanian context about parents' perceptions of the benefits and drawbacks of electronic games for young children. Further, their study was quantitative in nature and took the form of surveys and large questionnaires rather than findings related to developing an understanding of the lived experiences and norms of various cultures and contexts (e.g., Jordanian parents). At this moment, in the Jordanian context, to the best of the author's knowledge, there is no research investigating the influence of culture on parents' decision-making regarding the use of children's electronic games.

Culture has a significant impact on parental beliefs regarding electronic games (Dashti & Yateem, 2018). In one of the limited studies in the Arab context that investigated the impact of culture on parents' decision-making and values about playing their children with electronic games, Dashti and Yateem (2018) found that culture can influence the use of mobile devices, including electronic games, by children. What their study suggested is that there is a great impact of value and culture on parent decision-making regarding the use and value of electronic games. Although there are several studies investigating the effect of electronic games on Jordanian children, such as AlNatour and Hijazi (2018), Quwaider et al. (2019), and Oliemat et al. (2018), they have not investigated the cultural impact.

2.5.1. *Jordanian culture and religion*

As outlined in Chapter 1, in exploring the literature on children's use of electronic games, most studies and research in relation to the benefits and concerns regarding young children's use of electronic games are from a Western or European perspective. Given this, the current study sought to explore Jordanian parents' perspectives regarding this phenomenon. As such, this section of Chapter 2 starts by identifying and highlighting key aspects of Jordanian religion (primarily Islam) and then elaborates on Jordanian culture. Culture and religion are then explored in terms of how these factors influence parental decision-making.

The Hashemite Kingdom of Jordan is considered an Islamic country. According to the Office of International Religious Freedom of the United States Department of State (2021), Muslims, the vast majority of whom are Sunni, constitute 97.1% of the population, whereas Christians account for 2.1%. Generally, in Jordan, parenting is governed by Islamic doctrine and communal custom. Similar to other Arab countries, Jordanian society cites Islam as the basis of its values (Takash & Al-Hassan, 2014). Social connections in Islam are based on the rights and responsibilities of every individual, whether in a husband-and-wife or parent-child relationship (Takash & Al-Hassan, 2014). In a parent-child relationship, the rights of the parents are the responsibilities of the children, and the rights of the children are the responsibilities of the parents (Takash & Al-Hassan, 2014). In light of this, parents regard proper childcare as a matter of their children's rights; hence, they relocate their children away from any potential dangers. As a result, this has implications for parents' concerns regarding the content and/or educational value of electronic games.

Parents in Islam are family leaders who are responsible for fostering family wellbeing, and family wellbeing is highly dependent on the manner of nurturing, rearing, and administering the family (Zur Raffar et al., 2021). In this context, Manap and Baba (2016) are interested in the perspective of Imam Al-Ghazali, a Muslim scholar, on parenting. Manap and Baba showed that, according to Al-Ghazali's perspective, parenting skills attribute to relationships with Allah, with children and with other people. Regarding the relationship between parents and children, parents must secure the development of holistic ties with their children. It encompasses encouraging parents to use their legal income to provide their children with food, drink and clothing; displaying love and affection, which is necessary for optimal development of emotions; treating each child equally as they have their own distinctive personality and attitude; not treating children collectively; satisfying their requirements and needs; and developing their potential and creativities (Manap & Baba, 2016). Thus, it is clear that parents in Islam depend on Islamic teaching in rearing their children.

Islam has offered standards and guidelines that Muslim men and women should obey in relation to clothing issues. The concept of *awra* relates to the Islamic comprehension of nakedness and clothing. *Awra* is defined as areas of an individual's body that should be hidden from other people (Al-Absi, 2018). Men's and

women's awras differ. According to Al-Qaradawi (2013), the awra for men extends from the abdomen to the knee (or the middle of the knee in some rulings). For women, their awra is significantly more extensive. With the exception of her face and hands, a woman's awra encompasses every part of her with regard to males outside her *mahrem* (their relatives and those permanently ineligible to marry her). There are 12 types of mahrem, such as women's husbands, fathers and sons, and these individuals can see a woman's hair, head, arms and legs. Other areas of her body, including her back, abdomen, thighs and two personal areas, are not to be uncovered in front of anyone, male or female, with the exception of her husband (Al-Qaradawi, 2013). Al-Qaradawi defined the regions of awra as navel to knee for males and women's entire body, excluding her face and hands, for women. Given this, the clothing of the Muslim, through the lens of Islam, must cover awra for men and women; otherwise, it is considered inappropriate clothing. Thus, this aspect of Jordanians' religious obligations is clearly important in justifying concerns about the content of electronic games, such as inappropriate images potentially undermining religious or cultural practices.

Islam prohibits several foods for Muslims. One of these foods is pork. Consequently, a number of scientific studies explored the prudence of this prohibition. Recent medical research has demonstrated that eating pork is harmful in all climates, but especially in warm ones. Further scientific research indicates that pork contains a potentially fatal parasite (trichina) (Al-Qaradawi, 2013). Consequently, this aspect of Islam is plainly related to concerns regarding the content of electronic games, which may confuse children about what is prohibited and allowed in relation to their food.

The Hashemite Kingdom of Jordan was established in 1921 as an Arab kingdom in the Middle East. According to the Department of Statistics (2022), Jordan has a population of 11,302,000 people; 42% of them live in Amman, which is the capital and largest city of Jordan. According to the United Nations High Commissioner for Refugees (2021), there are 66,760 Iraqi refugees and 664,414 Syrian refugees who have fled to Jordan to escape violence, and there have been a large number of Palestinian refugees since 1948. Further, the Jordanian populace is considered to be youthful, with 11.5% of the population between the ages of 0 and 4, 12.3% between the ages of 5 and 9, and 3.7% aged 65 and older (Department of Statistics, 2022).

Like many Arab societies, Jordan adheres to the patrilineal Bedouin tradition, which recognises names based on the father's ancestry and relatives (Hasna, 2003). Jordanian people are divided into two categories based on their lifestyle: firstly, Bedouin, who are conservative and more adherent to traditions, although to a more moderate level; secondly, urban and city residents, who follow more liberal lifestyles (Takash & Al-Hassan, 2014). Consequently, parents' categories and their lifestyles may influence children's use of electronic games. So, it may be that parents in cities are more open and allow their young children to use electronic games more than Bedouin people; thus, there is a need to be aware that there may be cultural differences within the main culture.

In addition, Jordanian families have changed to include nuclear families, although the extended family model is still popular, in which many individuals engage in child rearing (Hasna, 2003; Oweis et al., 2012; Takash & Al-Hassan, 2014). The shift away from the extended family is primarily due to changes in family lifestyles: the hurried nature of life, an increase in working mothers, higher education levels (S. M. Al-Hassan & Rothenberg, 2021) and the presence of domestic servants (Oweis et al., 2012). Subsequently, it is evident that a variety of factors may influence parental decisions regarding the use of electronic games by children.

Culturally, there are several roles for parents when it comes to parenting in Jordan. Although fathers are regarded as the key figures of leadership and those who make decisions within the family (Al-Hassan, 2024), mothers typically supervise internal family affairs and manage the day-to-day activities of the household (S. M. Al-Hassan & Rothenberg, 2021). However, both parents influence their children's attitude and decisions, conveying cultural principles and instructing them on the significance of adhering to societal conventions, as well as striving to achieve an appropriate balance by promoting adherence to societal norms while also fostering the growth of their children's individual identities (S. M. Al-Hassan, 2024). As children grow up, they are progressively granted greater freedom to make decisions within the limits established by their families and cultural norms (Takash & Al-Hassan, 2014). Hence, it is clear from the literature review that parents, regardless of their role, influence their children's behaviours and decisions.

One of the values that Jordanian families place a high value on is education, and they encourage their children to gain an education and send them to schools

and universities (S. Al-Hassan, 2019). Given their limited resources, Jordanian children are highly regarded and considered to be the country's most important and valued investment (S. M. Al-Hassan & Rothenberg, 2021). In this context, Al-Alwan (2014) explained the relationship between parental involvement, school involvement, and academic achievement for 671 Jordanian students in Grades 9 and 10. The findings suggested that parental involvement indirectly impacts students' academic success by influencing school engagement. According to Al-Alwan, parents' values and attitudes may not have a direct impact on academic outcomes, but they would improve school achievement by fostering children's motivation and increasing their capacity to engage in more difficult tasks related to learning. This aligns with the Islamic perspective on education, as Islam places a premium on education and the pursuit of knowledge (Takash & Al-Hassan, 2014). According to Al-Nawawi (2001), the prophet Mohammad stated that "Allah makes the way to Jannah easy for him who treads the path in search of knowledge" (p. 388). Therefore, parents prompt their children to go to the mosque because it is the mosque's responsibility to educate children about the teachings of Islam, particularly to attend Friday and Eid prayers, which include special sermons, at the mosque (Takash & Al-Hassan, 2014). Given parents' values, which seek to develop their children's learning and an Islamic perspective on education, parents may encourage their children to use electronic games to achieve their desired educational aims.

The acquisition of the English language by students is considered a highly significant objective in the Jordanian context (Alhabahba et al., 2016). In Jordan, there is one summative examination called *tawjihi* that is administered at the conclusion of the secondary cycle (Year 12). This exam covers all school courses, including English (Ministry of Education, 2018). As a result, the Jordanian curriculum includes a rigorous standard of learning English that enables students to become proactive and proficient communicators who have a range of skills, including reading, writing, listening, and speaking, from kindergarten to Year 12 (National Center for Curriculum Development, 2020). Parental support is the primary factor influencing the development of motivation, the desire to learn English and students' behaviour towards learning English (Daniel et al., 2018). Therefore, Al Zoubi (2018) encouraged Jordanian parents to promote their children's acquisition of the English language by regularly exposing them to it and employing various approaches, such

as electronic games. Thus, children learn the English language by playing electronic games (Al Zoubi, 2018).

In summary, it is clear that Jordanian parents' culture is influenced by the Islamic context, which is centred on literary and moral standards derived from the Quranic texts. Therefore, Jordanian culture and religion reflect on parents' behaviours and values, as is noted in the next section.

2.5.2. *Jordanian culture and religion and their impact on parental values*

It is well established that culture influences individuals' beliefs of right and wrong and, therefore, affects their perception and attitude and ultimately their decision-making (Quarmout, 2019). For example, in relation to family planning, Hasna (2003) indicated that Jordanian families had conflicting opinions about this because they were concerned about the admissibility of it in Islam. However, Al-Sheyab et al. (2021) proposed that culture, social norms, and husbands play an important role in women's decision-making regarding seeking family planning services. Al-Sheyab et al. stated that according to a midwife, *family planning* is a method that allows women to take control of their health and wellbeing. Although Al-Sheyab et al. (2021) focused on cultural factors as important factors influencing parental decision-making regarding family planning, Hasna (2003) emphasised that Islam was the main factor influencing parental decision-making in this phenomenon. Therefore, these studies suggest that there are several factors that affect parents' decision-making, such as Islam, culture and social norms. Thus, similarly, these factors may impact parental decision-making about their children's use of electronic games.

What these studies suggest is that there is dissonance in the arguments about parental values and the importance of parents' values, beliefs and culture in their decision-making. As Quarmout (2019) indicated, there is an association between religion and values and behaviour, which in turn affects behaviour, and in the Arab culture, individuals learn certain behaviours and basic attitudes in this way. Thus, parents seek to develop their young children's cultural and religious values, knowledge and behaviours in their parenting to support those consistent with the existing cultural form and norms (Quarmout, 2019). Additionally, Hasna (2003) confirmed that Islam plays a significant role in parents' decision-making; however, Al-Sheyab et al. (2021) has noted that husbands, and both cultural and social norms,

also have an effect on women's decision-making. The present study sought to explore these issues in its research into Jordanian culture and values and their impact on parental decision-making about the use of electronic games.

2.5.3. Key aspects of Arab and Jordanian culture that impact on parent decision-making

Parenting styles are different across Arab societies, whereby parenting styles influence playing children with electronic games. This was evident in Tulviste and Ahtonen (2007), who indicated that child-rearing values vary with cultural context. In this context, Dwairy et al. (2006) conducted a study of eight Arab societies (Egypt, Algeria, Lebanon, Jordan, Palestine, Saudi Arabia, Yemen, and Palestinians in Israel) with a particular focus on their parenting styles. Besides the results showing differences in parenting styles across these Arab societies, the study revealed three specific approaches: Firstly, the controlling-oriented parenting style is a blend of authoritarian and authoritative methods. Secondly, the flexible parenting style combines authoritative and permissive approaches. Thirdly, inconsistent parenting patterns blend permissive and authoritarian approaches (Dwairy et al., 2006). According to Dwairy et al., Palestinians in Israel, for example, and Yemeni society have inconsistent styles. Three mixed parenting patterns exist in Egyptian, Saudi Arabian and Palestinian societies. Jordan, Lebanon and Algeria have a flexible mixed pattern. Thus, overall, despite the common cultural and religious background, this research shows some variation in parenting styles, ranging between authoritarian and permissive.

There are several parenting styles acknowledged in the literature in the Jordanian context, including authoritative, permissive, and neglectful in relation to Internet use. According to Dwairy et al.'s (2006) study, which was supported by F. M. Ihmeideh and Shawareb (2014), the most popular type of Jordanian parenting style practised by parents was the authoritative Internet parenting style, followed by a permissive and authoritarian Internet parenting style, and the least popular was a neglectful Internet parenting style. In this context, Baumrind (1991) described the authoritative parenting style as those who are both demanding of their children and sensitive towards their children's needs, as well as those parents who offer their children instruction in a logical and rational manner regarding issues. Also, Baumrind defined permissive parenting style as refers to those parents who exhibit a high level

of attentiveness and sensitivity towards their children's needs while also maintaining low expectations and requirements from them, and they exhibit positive behaviour towards their children. Furthermore, according to MacCoby and Martin (1983), neglectful parenting style refers to uncaring parents who are unresponsive to their children and undemanding of them; those parents neglect to promote or support their child's ability to regulate themselves and frequently neglect to oversee or supervise the child's actions. F. M. Ihmeideh and Shawareb (2014) found that parents who use an authoritative Internet parenting style establish Internet usage rules and discuss appropriate Internet usage with their children. In contrast to the permissive parenting style, parents in this style give their children complete freedom to use the Internet (F. M. Ihmeideh & Shawareb, 2014). Furthermore, parents who practise neglectful parenting do not interfere with their children while they use the Internet (F. M. Ihmeideh & Shawareb, 2014). Therefore, parenting style plays an important role in providing for or limiting a child's Internet use (F. M. Ihmeideh & Shawareb, 2014). Therefore, it is evident that parenting style plays a crucial role in shaping parents' decision-making and control over their children's electronic games.

However, Jordanian culture affects parents' beliefs, values, and attitudes regarding their children's use of the Internet. F. M. Ihmeideh and Shawareb (2014) suggested that parents who use an authoritative Internet parenting style believe that the Internet increases children's learning. Although parents who use a permissive parenting style believe that the Internet is safe for their children or may install software tools to filter sites, parents who use a neglectful parenting style exhibit a lack of involvement in their children's online activities and fail to take any action over their children's use of the Internet. As a result, parents' perspectives and culture influence their decision-making regarding their children's use of electronic games.

As already identified, there is no one parenting style in relation to the use of the Internet in Jordanian society. Dwairy et al. (2006) suggested that Jordanians have a mixed use of Internet parenting styles because Jordanian society has been influenced by Palestinian families coming from Kuwait, which in turn influenced Jordanian parenting styles and decision-making. This finding about mixed parenting style is supported by F. M. Ihmeideh and Shawareb (2014), who indicated that the most popular type of Jordanian parenting style practised by parents was the authoritative Internet parenting style because parents had positive perspectives about their children's Internet use and therefore supported their children's Internet

use, followed by a permissive and authoritarian Internet parenting style. This result relates to the research of F. M. Ihmeideh and Shawareb (2014), which suggested that Jordanian parents have flexible parenting styles that combine authoritative and permissive patterns.

Furthermore, Islam and Arab traditions and values affect understanding Jordanian parents' parenting. A qualitative study was conducted by Oweis et al. (2012) to investigate parenting from a Jordanian perspective. Oweis et al. confirmed that there are three aspects that reflect Jordanian parents' understanding of parenting: First, there is parenting as embraced by Islam; that is, parents adopt the *Qur'an*, "the holy book of Muslims, progeny is a gift from the Almighty Allah to his faithful servants" (Oweis et al., 2012, p. 246). Second, there is the transfer of cultural values and traditions. Third, there is parenting as a challenge amidst the present socioeconomic transformation, globalisation and rapid technological advancements. When raising their children, parents follow Islamic teachings. They also believe that passing down existing cultural values and norms from generation to generation is critical to maintaining continuity of cultural experiences; additionally, parents believe that raising children is one of the most difficult and challenging tasks (Oweis et al., 2012). Therefore, it is clear that Islam and culture have a significant role in influencing parenting in Jordan. Thus, this in turn may affect their decision-making regarding the use of children's electronic games.

There are several dissonances in the arguments about parenting styles in Arab societies. This was backed by Dwairy et al. (2006), who argued that parenting styles differ across Arab societies. Although F. M. Ihmeideh and Shawareb (2014, found that parents' attitudes play an important role in their children's Internet use, Oweis et al. (2012) emphasised that Islam and Arab traditions and values have an impact on understanding parenting. However, there are other factors that influence parenting, such as rapid changes and globalisation (Oweis et al., 2012). These studies suggest that there is cognitive dissonance in parental style arguments, which differ between Arab societies due to cultural differences and the importance of the parenting role in parent decision-making. Therefore, this study sought to explore Jordanian culture and its impact on parental decision-making related to playing electronic games.

2.5.4. The impact of Jordanian values and culture on parent decision-making on the use of electronic games

There are many definitions of the term *culture*. According to Brinkmann (2017), culture can be defined as the collective combination of internal beliefs and values that are expressed through outside actions and symbols. These elements have an inverse effect on one other and come from an epistemic source. Brinkmann also identified cultural elements, which are external such as symbols and behaviours, along with values, beliefs, and mentors, such as parents, media and religion, which all contribute to internal culture (Brinkmann, 2017).

In Jordan, there have been few studies on child-rearing values and parenting styles. Among these studies is one by O. M. Al-Hassan et al. (2021), who proposed that the values that a mother desires to instil in their children in Jordan are “proper demeanour” (e.g., politeness and good manners), decency (e.g., honesty and charity), lovingness (e.g., respecting others) and self-maximisation (e.g., diligence and diligence). Further, O. M. Al-Hassan et al. demonstrated that honesty is the most important value that mothers want to instil in their children. They suggested that mothers seek to instil these values because of Islam’s influence on them, where honesty is among the most valuable values in Islam. They also argued that mothers want to instil these values because they want their children’s behaviour to conform to socially acceptable and desirable norms. Therefore, culture plays an important role in child rearing, values, and parenting.

Culture and societal norms also influence a child’s upbringing (S. Al-Hassan, 2019), and parents in Jordan are conscious of this and are pressured by them and thus feel obligated to be involved in their children’s education, regardless of their socioeconomic status (S. Al-Hassan, 2019). This finding about parents’ behaviour that is related to culture is supported by Mahasneh (2014), who targeted investigating the relationship between goal orientation and parenting styles among 650 university students aged 18–22. Mahasneh adopted Ames’s (1992) definition of *goal orientation* as related to an integrated pattern of beliefs, attributions, and affects that produces behavioural intentions and responds to an achievement-type activity.

Of note is that Mahasneh (2014) revealed a significant link between learning goal orientation and all three parenting styles (authoritative, authoritarian, and permissive). Students were also found to be influenced by their parents’ attitudes, personalities and behaviours. It was also found that to avoid feeling stupid, students

tended to adopt a performance-avoidance orientation. Both Mahasneh and S. Al-Hassan (2019) suggested that parenting behaviour and its effectiveness are related to the strong interaction of Islamic teachings, sociocultural values and traditions. In addition, their decision-making processes were seen as relying on cultural background, and decision-making styles dependent on the values and beliefs of the people (Podrug, 2011). Thus, it is concluded that sociocultural issues, societal norms and societal traditions have strong influences on parental decision-making. Therefore, this study sought to explore Jordanian culture and its impact on parental decision-making regarding the use of their children's electronic games.

2.6. Summary of the chapter

This chapter provided a thorough and comprehensive overview of the current literature concerning parents' perspectives about the values and benefits of electronic games. Firstly, this chapter included details about how researchers categorised and classified electronic games. Secondly, a review of the literature concerned the value, benefits, and issues arising from the use of children's electronic games from researchers' and experts' perspectives, followed by literature in relation to parents' perceptions about use the children of electronic games.

Thirdly, this chapter portion explored the perspectives of parents regarding the use of their children's electronic games and its impact on their decision-making process. Additionally, it covered their perspectives on the use of their children's digital media. Furthermore, it examined the use of electronic games in relation to children's development, including Piaget and Vygotsky's theories and their views about children's development. This was followed by a look into studies and literature concerning the influence of religion, values and culture on parental decision-making around the use and value of electronic games. Finally, this chapter provided a summary of Jordanian culture and religion and how they impact parents' values, as well as detail into crucial elements of Arab and Jordanian culture that influence current parental decision-making and how Jordanian values and culture affect parents' decision-making when it comes to using electronic games.

CHAPTER 3: METHODOLOGY

3.1. Introduction

Chapter 1 outlined the background on electronic games and revealed that electronic games have become more popular in both Western and Eastern countries, including Jordan. It was noted that parents receive mixed and contradictory messages from a range of sources, including through the media, about the appropriateness and value of these electronic games for children. A key concern was the differing viewpoints regarding the benefits of electronic games for young children and that, currently, there is limited insight into how values and culture impact parental decisions within this context. Given this, this research sought to investigate the factors that influence parental understandings, valuing and decision-making regarding children's use of and engagement with electronic games.

Chapter 2 presented a detailed and extensive review of the existing on parents' viewpoints regarding the benefits and drawbacks of electronic games, as well as details about how the researchers classified electronic games, and investigated studies on how values and culture impact parental decision-making regarding electronic games, with a focus on the specific aspects of Arab and Jordanian culture that influence these decisions. This chapter presents the methodology used for this research conducted between 25 March 2021, and 2 May 2021. The research includes the theoretical assumptions underpinning the methodological procedures, the methods, data collection tools and analysis strategies. A rationale is presented for the choice of these tools and employing techniques such as semi-structured interviews to explore parents' perspectives about the values and benefits of electronic games for young children, in addition to embracing naturalistic contextual observation and photo documentation to gain an appreciation of the home environment and the idiosyncratic context. The strategic combination of these methods enables parents' voices and their lived experiences to be heard while eliciting information about the places, spaces and electronic games in which children are engaged.

3.2. Research methodology

Outlining the research methodology requires consideration of the researcher's views, beliefs, values and assumptions about research. According to Queirós et al. (2017),

research methodology is determined by considering the philosophical assumptions and position that a researcher adopts. These assumptions and positions relate to the researcher's paradigm, which considers their ontological perspective, how the researcher views the nature of reality—as well as an epistemological perspective—how the researcher views knowledge and makes sense of the world and informs their methodological decision-making (Creswell & Poth, 2017). Research methodology, therefore, is defined by the principles underpinning the inspiration and motivation of the investigation, as well as the positionality of the researcher (Denzin & Lincoln, 2011).

3.2.1. Research paradigm

Researchers adopt different ontological and epistemological positions, which are reflected in their choice of methodology and approach. These theoretical assumptions and positions not only frame the way a researcher sees the world but also inform “the choice of methodology and resultant method” (Collins & Stockton, 2018, p. 6). Henderson (2015) defined the *research paradigm* as the philosophy of an individual's research. Merriam and Tisdell (2015) argued that the research paradigms we work within define the methods and techniques we gravitate towards for data collection and analysis. Denzin and Lincoln (2011) noted that the researcher is situated in a world framed by their ontology (a set of ideas in a theory) and driven by their epistemology (the questions they wish to explore). This section of Chapter 3 will now consider the assumptions and positions of the researcher, the combination of which frames the organisation, choice of methodology and resultant method.

A first step in considering a researcher's paradigm is to investigate their ontological perspective, as it reveals the researcher's perceptions and understandings of the world. An *ontology* is defined by Ritchie et al. (2013) as those perspectives “concerned with the nature of the social world and what can be known about it” (p. 22). Given this, the first assumption of the researcher is related to knowledge, reality, and the belief that human behaviour and meaning-making are integrally embedded in context. This includes the belief that our own and others' realities are created and situated in context. Given this, the researcher sees her perspective on knowledge, reality, and understanding of the world as inseparable from her situatedness and positionality.

Therefore, in seeking to better understand human behaviour and the phenomenon investigated in this study, the researcher recognised that participants, their lived experiences, their values, and perceptions are inextricably embedded in real-life contexts, as well as the social and cultural milieu. This belief has influenced all aspects of this study, from the choice of research questions that drove the study to the methods employed, all of which sought to shed light on details about the storied lives of participants and the social and cultural contexts in which they are embedded, as well as the ways in which participants understand and make meaning of their world (Denzin & Lincoln, 2011; Merriam & Tisdell, 2015). For this study, these questions and methods enabled a deeper understanding of parents' beliefs and perspectives about young children's engagement in electronic games within their home context.

This ontological perspective is further extended by her epistemological view. Creswell and Poth (2017) stated that *epistemology* is the method by which the researcher obtains and acquires knowledge. In other words, epistemology refers to knowledge's nature, study and acquisition. The researcher believes human experiences and attitudes are integrally connected and cannot be separated by their values and culture. The researcher also believes that values and culture influence attitudes, behaviour, perceptions and decision-making, all of which are situated within context.

Given this, the choice of methods the researcher has employed supports a rich and authentic investigation of factors that influence people's interpretation of experiences, including the influence of culture. The researcher sees culture in this study as a part of context, understood to be a complex term that includes people's values, beliefs, religion, ideas and perspectives, which influence individuals' decision-making and behaviours (Brinkmann, 2017). Therefore, the methods and tools chosen for this study support the goal of investigating parental perspectives on electronic games and the influence that culture, attitudes and values have on their decision-making. The researcher considers culture an important factor in influencing people's interpretation of experiences.

The researcher embraces the concept of multiple realities. These are understood to mean the various interpretations of knowledge that individuals embrace and present (R. E. Stake, 2010). The researcher sees one's perspectives as being subjective and influenced by their lived experiences (Merriam & Tisdell,

2015; R. Stake, 2005). Given this, the researcher recognises that parents' perceptions and values of electronic games are influenced by the way they see the world and their culture, the combination of which influences their decision-making for supporting or limiting their children's playing of electronic games. As a result, the researcher's goals for this study included seeking to understand parents' culture, beliefs and values by immersing herself and the investigation of this phenomenon within the spaces and environments in which they live, recognising that behaviours and interactions (whether acted, spoken, or written) are best understood in real-world contexts (Ritchie et al., 2013). Through labouring in close proximity to the activity, the issues, the expectations, the ambiguities and the inconsistencies, and sometimes being submerged in them, the researcher was able to immerse herself in the context of others (R. Stake, 2005).

Although ontological and epistemological perspectives provide insight into a researcher's view of the world and how they construct knowledge, the axiological perspective is interested in the importance of the researcher's values in research (Ponterotto, 2005). Creswell and Poth (2017) argued that axiology refers to the social and cultural values and norms that the researcher embraces and that influence his or her research. In this study, the researcher embraced two key values. Firstly, she recognises and values the role of parents and their determination to provide their children with a better life (Mannion & Walker, 2015). The researcher recognised the value and insights of parents and the important role they have as the *first teachers* of their young children. Brown (2019) defines this value as one of embracing a "strengths-based perspective" (p. 54). The researcher embraces a strengths-based approach, and in doing so, she believes it is important that her work and research with others are framed within a positive paradigm that values their rights, dignity and capacity.

Secondly, the researcher values the perspectives and lived experiences of others (in this case, parents of young children) and the richness and insights they must share in relation to a particular phenomenon (Kivunja & Kuyini, 2017). From an axiological perspective, the researcher values the importance of creating dialogic opportunities with others that afford parents the opportunity to share insights about their context (Brown, 2019). The researcher believes framing others, in this case, research participants, within this lens helped create environments for participants to feel comfortable and where the sharing of their stories would be appreciated (Fenton

et al., 2015). The researcher recognises that her values were influenced by both herself as a researcher and her professional role as a kindergarten teacher. As a result of her long-term role as a kindergarten teacher and the many years of interactions with parents, the researcher very much values the importance of parent-child dialogue as well as the importance of respecting parents' values, beliefs and positions. This had an impact on her relationship and communication with parents in the past, as well as the way in which the researcher approached and valued parents as participants in this study (Kivunja & Kuyini, 2017).

The researcher acknowledges that her ontological, epistemological and axiological positions contributed to and influenced the choice of methodology and approaches adopted. This included her belief that the world is constructed, interpreted and experienced by people through their interactions with each other and with a wider social system, and that every culture and language have an implicit worldview (R. K. Gupta & Awasthy, 2015). The researcher believes that by exploring parents' expressions of their lived experiences, the researcher would gain further insights into the impact that parents' perspectives, beliefs, attitudes and culture have on their support and decision-making for young children's engagement in electronic games, particularly in relation to Jordanian culture and context.

The research orientation outlined above reflects and aligns with an interpretive qualitative orientation, due to the intent of investigating a phenomenon within a natural setting (in context) (Merriam & Tisdell, 2015). Merriam and Tisdell defined *orientation* as a researcher's viewpoint on the nature of the world, the aim of conducting research and the type of information created by these efforts. As for an interpretive orientation, Creswell and Poth (2017) stated that researchers cannot be neutral about what they are observing and writing. The term *paradigm* is also defined by Maxwell et al. (2018) as a fundamental set of philosophical assumptions and beliefs that guide the researcher's study. In this study, the research design was framed by interrelated assumptions that influenced the way that the study was organised (Gelo et al., 2008; Ponterotto, 2005). The first concept was to frame the study within an interpretivist paradigm. This view recognises the idea that the world is created, tested and interpreted by people in their relationships with one another and with larger social frameworks. The choice of adopting an interpretivist paradigm was appropriate for this study as it enabled a choice of methods that would help gain

an in-depth perspective from parents about the values and benefits of electronic games for young children (R. K. Gupta & Awasthy, 2015).

Second, a qualitative approach was understood to be appropriate for several reasons (Creswell & Poth, 2017; Ritchie et al., 2013). The approach afforded data collection within a natural context; in this study, the interview context was the home of families with young children aged 18 months to 4.5 years. A qualitative approach supported an investigation that sought to explore how people understand their world and how they experience events (Willig, 2013). Using qualitative methods allowed for an investigation into the perceptions of a homogeneous and diverse group of people and the ability to unpack their differing perspectives within a community, including a qualitative approach to cultural assessment (in a Jordanian context) (Henderson, 2015). This allowed the researcher to probe for values, beliefs and assumptions in relation to specific insights into the phenomenon of parents' perceptions and value of their children's use of electronic games (Choy, 2014; R. K. Gupta & Awasthy, 2015; Merriam & Tisdell, 2015; Henderson, 2015; Queirós et al., 2017).

The methods used in this study allowed for observations and interpretations of social interactions and behaviours, as well as tools for uncovering layers of meaning in context (Denzin & Lincoln, 2011). The qualitative data collection methods that were employed for this study were semi-structured interviews, naturalistic observation and photo documentation. Further details of each of these will be expanded later in this chapter. This study also used qualitative research methods to give marginalised and culturally diverse families and family members a voice and an opportunity to express their unique stories (Ganong & Coleman, 2014).

This research adopted an interpretive qualitative research approach based on the key advantages this approach offered in addressing the goals for this study, where the focus was on the exploring, interpreting and understanding of people's perceptions and values. As will be explained later, the choice of methodology and approach was influenced and informed by the researcher's ontology (which identified the researcher's position about reality's nature), epistemology (which identified the nature of knowledge) and axiology (which identified the researcher's values that influenced the research). The next section of the chapter will now explore the importance placed on unfolding the stories and lived experiences of others to achieve the study's goals.

3.3. Unfolding the stories and *lived* experiences of others

Methods that allow for insights into young families' lived experiences and contexts are a powerful approach to researching with, about, or about young families (Brown, 2019; McHale et al., 2013). Brown stated that according to Van Manen (1990), *lived experiences* are defined as the approach in which the person explains and describes events that occur in specific contexts of their daily lives. Van Manen (2017) stated that "we do not think about, or phenomenologically reflect on, our experiences while we live them" (p. 811). Given this, it was important that this study afforded parents an opportunity to more deeply reflect as well as share their lived experiences through the vehicle of semi-structured interviews. In doing so, parent responses provided the researcher with insights and a deeper appreciation of their perceptions related to the phenomenon, as well as a closer inspection of the impact Jordanian culture had on parental decision-making and the valuing of children's electronic game use (Kiser et al., 2010).

3.3.1. Working within an interpretivist paradigm

In the previous section, the idea of an interpretivist paradigm was highlighted. According to Merriam and Tisdell (2015), interpretive research assumes that knowledge is community-based and that a single event can have multiple interpretations and be socially constructed through language and shared meanings. *Interpretation* is defined by Nordqvist et al. (2009) as efforts to "detect, decipher, or translate something's actual and real meaning" (p. 299). This means that as an interpretivist researcher, the researcher is a social actor who appreciates differences within individuals. Appreciating an investigation depends on observers defining and redefining the meaning of what they see and hear (R. Stake, 2005). This case focused on exploring and understanding people's perspectives embedded in context (Ritchie et al., 2013).

Existing research and contemporary literature related to electronic games and young children, such as studies by Rudis and Poštić (2017) as well as by Zhang et al. (2021), have focused on investigating *the effect* that electronic games have on children, particularly older children aged 7–15 years old. In addition, the literature review revealed that there are limited studies about the effect of Jordanian culture on children's electronic games, such as that by Al-Hileh and Ibrahim (2018). However, at this point, limited studies have explored parents' perspectives of electronic games,

or their perceived values and benefits, particularly from a cultural perspective, such as with Arabs. This study sought to close a knowledge gap by examining the unique context of Jordanian parents' perspectives and thoughts on the value and advantages they saw in their young children's use of and engagement with electronic games, as well as whether these decisions and perceptions were nuanced by the culture of parents. Given this, an interpretive approach was considered the best fit given the intent of seeking to understand people's perspectives in relation to the contexts, conditions and circumstances of their lives (Alase, 2017; Ritchie et al., 2013).

3.3.2. *An interpretivist paradigm with a naturalistic perspective*

The *family home* is considered a naturalistic context for young children, as they spend a significant amount of their time there and are heavily influenced by key adults within this space. Given this, the family home was deemed an important environment to investigate for this study. Further, family studies in different cultures may uncover innovative family traditions and behaviours that are common in one culture but uncommon in another (McHale et al., 2013). Therefore, an interpretive perspective focused on the home environment made sense to afford the researcher an opportunity for members of families to express their lived experiences, values and perspectives (Brown, 2019).

This study adopted naturalistic design principles to examine a phenomenon intertwined within the minutia of human experience, perceived interpretations and the context in which individuals were situated (Lincoln & Guba, 1985; McInnes et al., 2017). This meant focusing the investigation within participants' homes, which not only helped place them *at ease* but at the same time afforded parents' a comfortable and authentic setting to share their stories (Brown, 2019), with limited manipulation or intervention (Lincoln & Guba, 1985; R. Stake, 2005). Adopting a naturalistic focus for this inquiry was effective, as it enabled the researcher to explore the Jordanian context and gain insights from parents regarding their values and beliefs about electronic games, as well as the impact of culture on their values regarding playing children's electronic games.

3.3.3. Methods to support an investigation of the lives and experiences of parents

A range of literature reinforces the value of adopting qualitative research methods for engaging in research with families (Brown, 2019; Ganong & Coleman, 2014; Gilgun, 2012). Qualitative research methods are ideal for scholars who are fascinated by how and why families behave the way they do, as well as gaining insights into the multiple interpretations and sense-making in relation to a phenomenon located in context (Ganong & Coleman, 2014). Others, such as Merriam and Tisdell (2015), built on this rationale, arguing that qualitative research methods help in the process of meaning-making and the efforts of researchers to describe how people interpret what they experience. Brown (2019) supported this thinking, pointing out that “it is important that the tools researchers choose to employ for inquiry effectively enable the co-construction of meaning-making with family members” (pp. 183–184).

Qualitative approaches are considered an important method for examining family dynamics, family relationships and family perspectives (Ganong & Coleman, 2014). This is consistent with Merriam and Tisdell’s (2015) definition of qualitative research as an enquiry process that takes place in a natural setting, attempting to understand how people make sense of their lives and worlds or interpret phenomena in terms of the meanings people bring to them in order to uncover and interpret the meaning. Qualitative research tries to investigate individuals’ viewpoints and perspectives and to provide an understanding of people’s experiences and the significance they attribute to those experiences (Willig, 2019).

Engaging in qualitative research within family relationships requires researchers to immerse themselves in data (Ganong & Coleman, 2014). This immersion is achieved through reading data cautiously and diligently to gather credible and insightful findings (Korstjens & Moser, 2018). Immersion is regarded as an important feature of qualitative research in the family setting to study a phenomenon from an insight using multiple data collection tools and sustained participation in the setting (Gilgun, 2012; R. K. Gupta & Awasthy, 2015; Merriam & Tisdell, 2015). In the next section, the researcher will discuss the methods adopted in this research, the rationale behind the choice of each and how each was used.

3.4. Case study

A *case study* is defined by Yin (2003) as an approach that enables the investigation of a phenomenon within natural settings, particularly when we cannot separate the phenomenon from the context. A case study allows researchers to conduct in-depth investigations to gain a better understanding of the phenomenon and the complexities of real-world authentic situations (Yin, 2003). This is supported by Merriam and Tisdell (2015), who argued that a case study supports the efforts of those searching for meaning and understanding related to a phenomenon, particularly “what is going on” in a specific situation (Willig, 2013, p. 78). The case study method permits in-depth, multidimensional examinations of complicated subjects in their actual contexts (Crowe et al., 2011).

A case study approach was adopted for this study, as it was ideal in framing the study in a way that enabled the researcher to gain a thorough understanding of the phenomenon, in this case, an understanding of Jordanian parents’ perspectives on the values and benefits of children’s use of electronic games and the impact of culture on parental decision-making (Ritchie et al., 2013). Further, a case study enabled the researcher to employ research methods within a determined case, where the intent was to explore the lived experiences of parents within a particular micro-environment (the family home); thus, there are multiple factors, including culture, religion, values and beliefs, that impact their perceptions, perspectives and decision-making. The *micro-environment*, as defined by Brown (2012), is where an ecological niche is defined by a specific location or physical boundary within which a person is most heavily impacted or spends significant time. Therefore, in the following section, the researcher will describe the type of case study utilised in this investigation.

3.4.1. The type of case study

There are a range of case study approaches that can be applied to qualitative research. R. E. Stake (1995), for example, distinguished three types of case studies: intrinsic, instrumental and collective. An intrinsic case study is used to get insight into a unique occurrence (Crowe et al., 2011). Instrumental case studies, on the other hand, use a specific case to gain a deeper understanding of a topic or phenomenon of interest (Crowe et al., 2011). The collective case study entails investigating multiple cases simultaneously or consecutively to develop a more comprehensive

understanding of a specific issue (Crowe et al., 2011). Within these approaches, case studies can be interpretative and evaluative (McDonough & McDonough, 1997, as cited in Chetty (2013). An interpretive case study is one in which the researcher seeks to interpret the data by developing theoretical classifications to support or refute the findings. In evaluative case studies, the researcher adds their own evaluation to the data-supported phenomena.

An interpretive case study was determined to be most suitable for this study as it supported this inquiry, where efforts focused on investigating *how* and *why* questions (Yin, 2003). This study focused on exploring how Jordanian culture impacted or influenced parent perspectives of young children's use of electronic games. From this point, the researcher selected an interpretive case study approach because it afforded an opportunity to gain deeper insights into parents' perspectives regarding the play of children's electronic games and reveal the influence of Jordanian culture on parental values and decision-making (Andrade, 2009; Chetty, 2013).

The time and place boundaries of a case study must be defined (Creswell & Poth, 2017). Given this, the researcher identified the boundaries of this study, which are represented in the home environment. This included parents with at least one young child, aged 18 months to 4.5 years, who plays electronic games. These families live in Zarqa Governorate, which is considered Jordan's middle governorate, and the city of Rusaiifa, the largest city in Zarqa. These data will be presented in greater detail in the sections that follow.

3.5. Research design

A strong research design is one that aligns closely with the focus of the study, including the goals and research questions, with the intent of gaining trustworthy information (Ritchie et al., 2013; Willig, 2013). Research may be exploratory, descriptive, explanatory, or experimental (Akhtar & Islamia, 2016). In the current study, descriptive research was identified as most suitable due to the focus on describing parents' perspectives on using children's electronic games and revealing the influence of Jordanian culture on parents' decision-making.

As well, researchers may adopt quantitative or qualitative approaches in their research (Merriam & Tisdell, 2015; Ritchie et al., 2013). In the current study, the researcher adopted a qualitative approach because it allows the researcher to elicit

values, perceptions and hypotheses about specific perspectives (Choy, 2014) into the phenomenon, in this case, the parents' perceptions and values about their children's use of electronic games. Therefore, a qualitative approach is considered the most appropriate to achieve the study's objectives.

3.5.1. Selection of participants and process for gaining consent

Purposive sampling involves selecting a sample that represents what the researcher intends to discover thus uncovering insights about the phenomenon (Merriam & Tisdell, 2015). Through purposive sampling, the researcher gains a deep understanding and ensures that all the variables relevant to the study are covered (Ritchie et al., 2013). Given this, the researcher's design uses purposive sampling for data collection, whereby participants are selected based on criteria related to the researcher's questions and objectives (Merriam & Tisdell, 2015; Willig, 2013). Another benefit of using purposeful sampling for this study is that it limited the range of differences in the sample and focused on people who were in a wide variety of similar situations (Palinkas et al., 2015). Participants in this case were all parents of young children aged 18 months to 4.5 years, and all families were Jordanian. All 10 families were also located in Zarqa Governorate and the city of Rusaifa. Both of them are north-east of Jordan's capital city of Amman.

A snowball effect also occurred as part of identifying participants. This was afforded through suggestions of potential participants by professional colleagues and networks, as well as suggestions and recommendations from several participants in the study in relation to contacts and friends they had who met the criteria for the study (Ritchie et al., 2013). Another snowball effect was gained through a referral from one early learning centre that the researcher approached, which recommended another early learning centre for prospective participants.

Initially, the researcher was approached by a childcare centre in the governorate of Zarqa, with whom the researcher has a professional relationship due to her prior employment. The researcher initially sent an email to the director outlining the topic and requesting her assistance in promoting her research. The care centre agreed to send a dedicated information form developed by them to their parents with information about the study and an invitation for those interested to contact the researcher. Interested participants were provided with a detailed

information sheet either through email (if they had access) or as a PDF through WhatsApp via smartphone.

An informal information session was held via Zoom with each family prior to the interview to assist the researcher in developing rapport and trust with the participants. The researcher reached out to both parents to set up a group meeting with multiple parents, but some of the women informed the researcher that their husbands do not permit them to engage with other husbands due to Jordanian tradition; therefore, the interview was limited to mothers. This brief one-on-one session (about 20 minutes) was used to develop a rapport with the interviewee and get to know each other through light conversation, plus the exchange of a small amount of research information. This also provided an opportunity for parents to ask questions regarding the research process. In addition, the researcher suggested that parents take photographs (with their smartphones, for example) of the places, venues and electronic games in which their children participate. This session was also used to plan a follow-up interview visit.

3.6. Sources of evidence

The focus of this study was to investigate parents' perspectives and reveal their culture in the context of their children's electronic game play. As a result, several data collection techniques, such as semi-structured interviews, naturalistic contextual observation and photo documentation, were employed to provide insights into the microenvironment and the phenomenon under investigation, increase the trustworthiness of the data and provide rich insights into this phenomenon.

3.6.1. Semi-structured interviews

The researcher can gain a thorough picture of the issue by interviewing parents about their children's use of electronic games. Structured, unstructured and semi-structured interviews are described by Denzin and Lincoln (2011) and Merriam and Tisdell (2015). This investigation used semi-structured interviews (Moriarty, 2011).

A *semi-structured interview* is defined by Merriam and Tisdell (2015) as one in which "all of the questions are more flexibly worded, or the interview is a mix of more and less structured questions" (p. 110). Flexible questions were used during the interviews. Interview questions were led by several questions. These questions were

a mixture of more and less formal inquiries. In addition, this allows the researcher to respond to the problem based on the parents' answers and fresh ideas about the occurrence (DeJonckheere & Vaughn, 2019; Merriam & Tisdell, 2015). Thus, the researcher was able to get further thoughts and insights regarding the phenomenon.

For this study, semi-structured interviews were advantageous in several ways. This methodology enables the researcher to collect data to investigate participants' thoughts, feelings and attitudes around the usage of electronic games by their children (DeJonckheere & Vaughn, 2019; Willig, 2013). It is believed that the semi-structured interview approach is beneficial for data collection since it elicits parents' perspectives about the values and advantages of electronic games for young children, as well as Jordanian culture and its influence on the usage of electronic games. Therefore, rather than forcing or presenting ideas for them, the most effective approach is to let them speak in order to obtain a thorough grasp of their understanding, consideration and opinions (DeJonckheere & Vaughn, 2019).

There were three components to the interview process: an orientation and welcome Zoom session, a phone call and the interviews themselves. Prior to participant interviews, the initial step was an orientation and ice-breaking session with participants to enable the researcher to create trust and collaboration with the participants (Archibald et al., 2019). This method entailed sending a Zoom link to individuals who volunteered for the study. After clicking on it, participants were able to enjoy the Zoom session. The second component was the telephone call; the researcher called participants to schedule a time for the interviewer's visit (W. C. Adams, 2015). Finally, the interviews were conducted; the researcher arrived on time at the participant's residence for the interview.

There were three distinct interview portions (see Appendix C). The initial portion of the interview was devoted to gathering demographic information about the parents, such as age, gender, level of education, their religious and cultural backgrounds, employment, number of children and weekly hours spent playing children's electronic games, as well as the families' socioeconomic status, such as their income in addition to type of technology or device that easier facilitates using electronic games. The second portion of the interview focused on exploring the viewpoints of parents regarding the advantages and merits of electronic games: How do you perceive the advantages of electronic games? What worries do you have about electronic games? The final portion of the interview focused on questions

pertaining to culture and the influence of culture on parental values, viewpoints and decision-making in regard to children playing electronic games: What factors do you consider when deciding whether to allow your child to play computer games? How do your values and beliefs influence your decision-making? It was noted that these questions about the influence of culture and religion on parents' decision-making were sensitive for parents.

The interviews were conducted at the interviewees' homes to enhance their comfort and exclude extraneous influences. The interview schedule was developed based on the study's central questions, pertinent literature, conversations with and ideas from the researcher's supervisors and questions that occurred during interviews to talk about all the issues that parents have about the benefits and values of electronic games and their selection for young children.

The researcher was extremely adaptable and scheduled semi-structured interviews with each participant at times agreed upon beforehand. The researcher, who is bilingual in Arabic and English, spoke Arabic during these meetings. In addition, it was decided that if a participant felt uneasy at any point throughout the interview, they would be allowed to seek a brief pause or end the session. The researcher deployed a variety of trust and rapport-building techniques, such as easy banter and light discussion, to establish the tone for the interview, put the interviewees at ease and provide gifts for their children (help them feel comfortable and relaxed). Other research activities (observations and picture documentation) were flexible and occurred during the interview period (1 hour); however, the researcher was mindful of participant comfort levels and supported their preferences regarding the locations and areas that could be explored (Brown, 2019). The researcher interviewed the parents who were available. The interview was optional for couples (see Table 3.1). At no point were children left alone with the researcher.

These data were stored in accordance with Australia's legal obligations for data retention and storage (National Health and Medical Research Council, 2018). Three data storage solutions were utilised with all data being digitally recorded on the researcher's university U drive. A second copy was stored on the hard drive of her password-protected primary machine. An external hard disc was used to hold the final backup copy. Only researchers working in this study had access to these data, which were housed in password-protected folders on the work computers of Halah Al Ghwairy (the researcher and principal investigator).

Table 3.1*Family identification code and participant parents' names (pseudonyms)*

Family code	Father	Mother
F1	0	Rawan
F2	0	Razan
F3	0	Jory
F4	0	Tasneem
F5	Mazen	Kinda
F6	0	Laian
F7	0	Leen
F8	0	Noor
F9	Saif	Hadeel
F10	0	Salma
10 families	2 fathers	10 mothers

3.6.2. Naturalistic contextual observation (including photo documentation)

Naturalistic observation plays an important role in helping researchers accumulate rich and valuable data. As Ganong and Coleman (2014) stated, “observing family interactions in homes and other settings can also yield rich data about family processes” (p. 454). Thus, it is argued that the study of the social phenomenon of parental decision-making in relation to their choice of children’s video games through naturalistic observation is appropriate for the present study (Brown, 2019). Such observations were intended to offer context or event-based behavioural information to the researcher (Merriam & Tisdell, 2015). Moreover, according to Brown (2019), they provide a number of benefits, including a greater capacity for comprehension and the ability to see family rituals and behaviour in action. In addition, observation permits the recording and evaluation of behaviour and interactions (Ritchie et al., 2013). As a result, and in accordance with the interpretative case study, naturalistic contextual observations were chosen as the main method of data collection. These techniques enabled the researcher to obtain context-specific meanings of human affairs as perceived from various perspectives (R. Stake, 2005). So, the researcher planned to live in the same environment as the participants to learn more about how parents felt about their children playing video games.

Additionally, it is important to consider the role of the researcher in the research as there are different types of observation. Merriam and Tisdell (2015) identified four: The researcher, as a complete participant in this type, hides their role as an observer within the group to prevent interference with its natural activities. In the participant-observer type, the researcher's observations, which are shared with the group, are secondary to her participation. In the researcher as an observer as a participant in this type of group, the group publicly acknowledges the researcher's observational activities, which primarily aim to gather information rather than actively participate in the group. In the complete observer type, the researcher's function is limited to observing participant behaviours from a distance. The complete observer method was the most appropriate method for this research since the observer attempts to integrate into the examined environment by adopting the individual's way of life, customs and even view of reality. Therefore, this strategy assists the researcher in gaining a comprehensive understanding of the population under study (Ciesielska et al., 2018). As a result, the researcher takes notes after each observation and a tape recorder can be placed near the observation site to assist (Denzin & Lincoln, 2011; Merriam & Tisdell, 2015). Thus, the researcher directly observed the setting, the participants, their activities and interactions, as well as the discourse (Merriam & Tisdell, 2015).

Given that the study was situated in the setting of the home environment, it was intended to conduct naturalistic observations alongside participant interviews in the participants' homes. This procedure also involved the observation of the environment, context, resources and behaviours that impact electronic game participation (Merriam & Tisdell, 2015). One method for facilitating this process is to invite parents to give the researcher a *tour* of their home before, during, or after the official interview. It was also recognised that this method may also make it possible to supplement the prepared interview questions with impromptu enquiries about additional relevant variables and issues. It is also noted that during the interview, no notes were taken as the interviews were captured digitally. This approach allowed the researcher to actively engage in the interviews without the restriction of taking notes. Thus, after the interview and house visit, all naturalistic observations were written down as soon as possible (Denzin & Lincoln, 2011; Merriam & Tisdell, 2015; Willig, 2013).

Consistent with the interpretivist approach of this study, the researcher recognises that photo documentation is also an effective data gathering tool as it is vital for capturing images of individuals, spaces and places applicable to the research data collection. Thus, photography is well recognised as an increasingly valuable tool for social scientists who want to investigate social issues (Fairclough, 2018). *Photo documentation* is defined by Brown (2019) as “a visual research method” (p. 163) that can be an effective prompt for extending conversations on a range of interview topics. In addition, it is seen as an effective data-gathering technique that focuses on the context of meaning and can stimulate dialogue, and in the present research, encourage parents to contribute their views and opinions (Brown, 2019). Prior to her visit, the researcher asked that participants take a number of photos with their smartphones, which they could then share with her so that she could obtain a deeper understanding of the phenomena and to unearth and record the context and connected significance of the people, places and things.

Thus, photo documentation has been used as an efficient data-gathering method to capture and document visual details of research spaces, locations and resources associated with a phenomenon, and in this instance, the electronic games that parents had approved from their children’s use (Cleland & MacLeod, 2021). It was explained to the participants that the researcher was keen to view the photos and discuss them as part of their visit and semi-structured interview. The participants were asked to give the researcher permission to retain a copy of the photographs for research purposes (see the research consent form in Appendix D). It was made clear to them that none of the photographs contained any identifying information or personal data about their children. This data collection ensured that any photographs of family members or children were anonymised (e.g., taken from behind a participant or of just their hands on a keyboard). It was also made clear that sharing the research through such images was an optional process.

3.7. Ethical considerations

The Human Ethics and Research Committee at the University of Southern Queensland granted ethical approval for the project (No. H22REA096). Details of the application included a summary of the researcher’s objective, methodology and procedures, followed by information about the participants’ informed consent, the guaranteeing of their anonymity and their right to withdraw from the study at any time

and subsequent deletion of their data (Merriam & Tisdell, 2015; Ritchie et al., 2013; R. Stake, 2005).

A specific participant information sheet (PIS) was provided to participants that explained the goal and scope of the study, as well as the voluntary nature of and terms of participation mentioned above (see Appendix E). In addition, the researcher guaranteed that all data would be used exclusively for the study's intended purpose. Thus, at the beginning of each interview, the researcher stated the objectives of the study, and participants were asked verbally if they wanted to participate before signing to confirm their consent. (Note that this information was provided in both the ethics application and the PIS form.)

Besides participants being assured that their anonymity would be maintained and that their data would be handled confidentially, they were informed that it would be retained for a period of time prior to its deletion in keeping with the Australian National Statement on Ethical Conduct in Human Research (National Health Medical Research Council et al., 2023). When the researcher saved participants' data, pseudonyms were used to protect their identity (Merriam & Tisdell, 2015; Ritchie et al., 2013). In addition, as well as being able to withdraw at any moment, the participants were informed that they were free to decline to answer any questions they did not wish to answer. (As noted earlier this information was also provided in both the ethics application and the PIS form.) In addition, the researcher reiterated the guarantee of confidentiality of their information and data. Participants were also provided a file containing the transcription of their interview and were asked to confirm its authenticity and correctness or give feedback. Participants were also told via the PIS form that a third-party translator would transcribe their transcripts to aid in the triangulation of their data. This was explained via the following wording contained in the PIS sheet: "This is to inform you that a translator will have access to your data for triangulation purposes and that these data will be in the form of deidentified data for the interview transcripts".

3.8. Analysing the data: a reading of different domestic spaces

The researcher adopted thematic analysis in this study. *Thematic analysis* is defined by Braun and Clarke (2012) as "a method for systematically identifying, organizing, and offering insight into patterns of meaning (themes) across a data set" (p. 57). In qualitative research, data analysis is a key step that helps answer

research questions. It involves preparing and organising the data, then reducing the data to themes by coding (Merriam & Tisdell, 2015).

Thematic analysis enabled the researcher to comprehend and methodically characterise participant data (Ritchie et al., 2013). According to Braun and Clarke (2006), the merits of theme analysis include its adaptability, ease of learning and implementation, typically accessible results and the potential to provide unexpected insights. As Braun and Clarke (2012) stated, “This method, then, is a way of identifying what is common to the way a topic is talked or written about and of making sense of those commonalities” (p. 57). The identification of a number of sorting categories or themes typically emerge in the process applied by Braun and Clarke (2012). These categories help the researcher form a structure for the analysis of data (see Appendix F for details on the data analysis process). Their use in this study is described as follows:

- **Phase 1: Familiarising yourself with the data**

The first phase in Braun and Clarke (2012), theme analysis involves becoming familiarised with the data. This process included the researcher fully engaging with the material and developing a deep familiarity with it by repeatedly reading the data transcripts. During this phase of the project, all interviews, photographic data and naturalistic contextual observation data were transcribed. Subsequently, the tapes were thoroughly reviewed multiple times to confirm the accurateness of the transcripts. During this phase, the researcher formulated an appropriate framework, such as recording observations in a notebook to emphasise potentially captivating aspects. The purpose of this step is to gain a comprehensive comprehension of the data’s content and to begin identifying any elements that may be relevant to the research question (Braun & Clarke, 2012).

- **Phase 2: Generating initial codes**

The second phase involved allocating initial codes. In this phase, the researcher wrote down a code and highlighted the text associated with it, thus repeating the process as expanded upon below. *Coding* is defined by R. Stake (2005) as “sorting all data sets according to topics, themes and issues important to the study” (p. 151). These codes may reflect the language and concepts of the

participants and therefore are relevant to answering the research questions (Braun & Clarke, 2012).

In this study, coding included transcript text to distinguish ideas that formed repeated patterns with the data (Merriam & Tisdell, 2015). This is accomplished by repeatedly reading the data and identifying the pertinent passages. The researcher coded hard-copy data, explicitly labelling the code name and marking the related text piece. The codes were then reviewed once more to determine whether they might be merged or expanded. For instance, the codes *culture and religion* and *parents' decision-making about culture and religion* were merged into *culture and religion*. Codes with comparable meanings were grouped together to assist the researcher in developing themes.

- **Phase 3: Searching for themes**

The third phase was searching for themes. A *theme* is defined by Braun and Clarke (2006) as a fundamental aspect of the data that aligns with the study questions and covers frequent trends or implications within the data set. During this stage, the researcher moves from the process of assigning codes to the identification of general themes. The codes were filtered and arranged using tables and themed maps. To ensure the reliability and constant flow of data, the prospective topics were separated into smaller categories known as subthemes (Braun & Clarke, 2012).

The codes that were identified followed a screening process and were categorised according to their associated meanings and characteristics in order to produce these subthemes. The process involved reading every section of text and condensing the idea stated in the interview transcripts into a single word or phrase. These codes were established, and each one was allocated a certain colour. Subsequently, the researcher proceeded to analyse the transcript by creating a system of codes and colours and then applied them to the relevant sections of the text. The codes served as the foundation for analysing subthemes.

For each subtheme, all pertinent data extracts were collated together. To analyse bigger meanings and significant themes, suitable labels were assigned to subthemes, and they were consolidated based on the same meaning. Each grouping was a possible theme. However, as the data continued to be analysed, additional themes emerged, such as COVID-19. The researcher generated the effect of

electronic games as a theme through paired codes with similar meanings and characteristics, such as impact or effect, wellbeing and health, game classification and parental decision-making regarding previous codes. See Table 3.2 and Figure 3.1, which show participants' frequency of references to themes and chart for additional details. The researcher and her supervisors collaborated to add an extra lens to the data analysis.

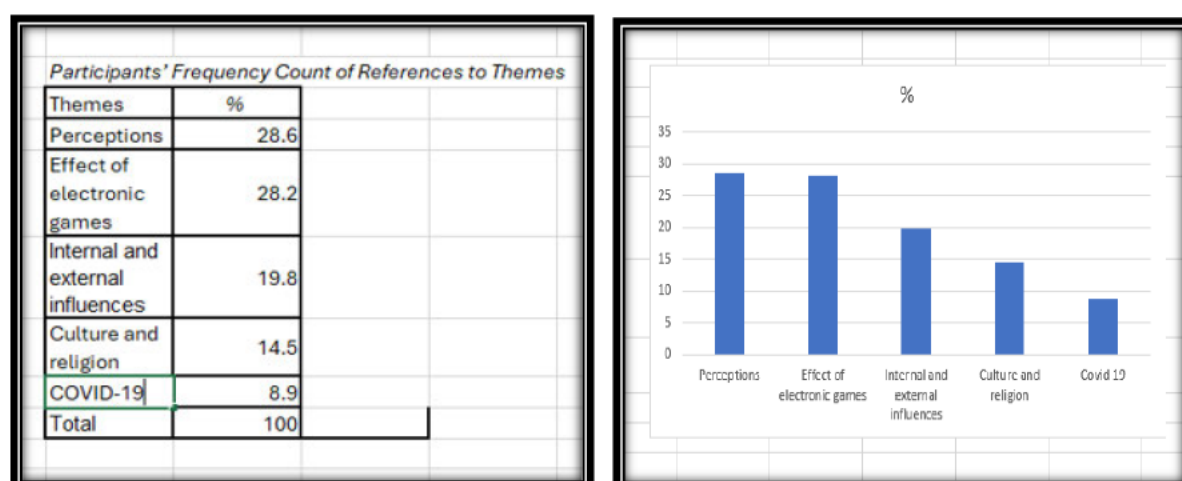
Table 3.2

Codes and themes that emerged from the research data

Codes	Themes
- Culture and religion.	- Culture and religion
- Parents' decision-making about culture and religion.	
- Behavioural effects.	- Effect of electronic games
- Wellbeing and health effects.	
- Developing skills	
- Game classification.	
- Parents' decision-making about effect.	
- Parents' emotions and perceptions.	- Perceptions
- Educational electronic games	
- Parents' decision-making about perceptions.	
- COVID-19	- COVID-19
- Community communication.	
- Exposure to technological devices.	- Internal and external influences
- Usefulness.	
- Influences of others.	
- Children's decision-making.	
- Parents' decision-making about internal and external influences.	

Figure 3.1

Participants' frequency account of references to themes and their chart



- **Phase 4: Reviewing potential themes**

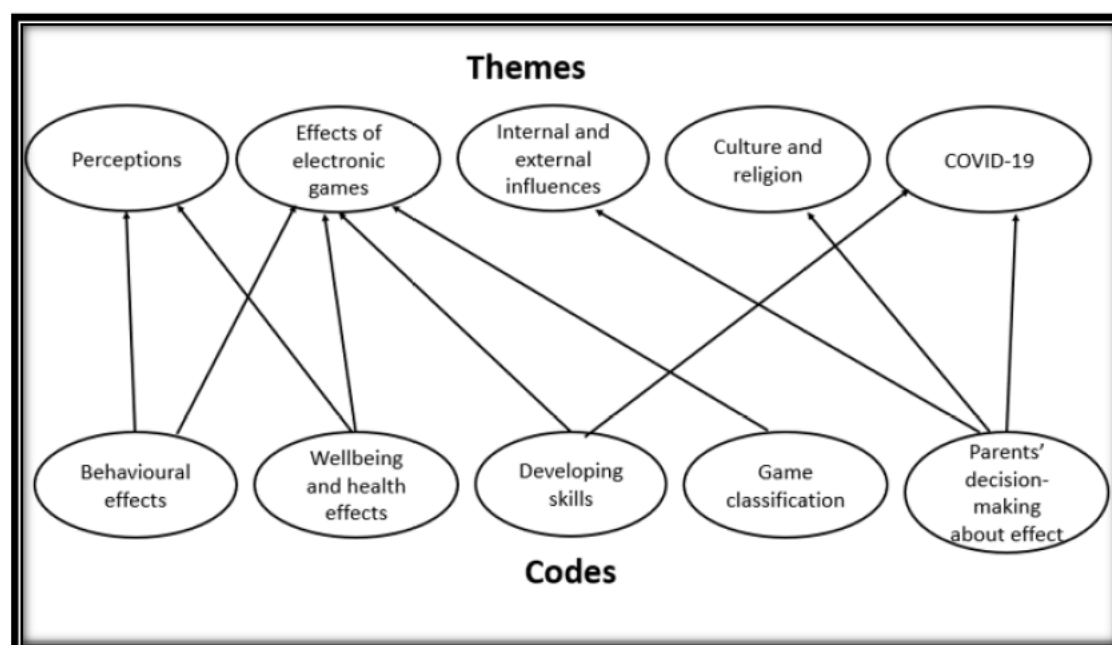
The fourth phase involves a recursive (re-reading and re-checking) examination of the developing themes in connection to the coded data and the overall data set. The first step was to examine the compatibility of the themes with the data by comparing them to the data extracts. In the second phase of the assessment, the themes were compared to the entire data set. In this step, the subthemes, possible themes and identified codes were analysed by thoroughly reviewing the entire data set and reevaluating relevant sections and extracts. Codes were merged with others to avoid duplication and guarantee consistency. The researcher ensured that the themes effectively captured the significant data through further revision.

- **Phase 5: Defining and naming themes**

The fifth phase involves identifying and naming topics. This step comprises an examination of arranged themes, subthemes and codes. This step involves an analysis of organised themes, subthemes and codes. Several codes received reclassification to enhance their logical and consistent nature. The researcher should acknowledge that these codes are interconnected but do not overlap, hence avoiding duplication. Although they may build upon preceding themes, they directly address the research question. The researcher sometimes placed the same code under multiple codes, such as parents' decision-making under the theme of culture and religion and the effect of electronic games as well as the perceptions' theme, in order to address parents' decision-making in different themes (see Figure 3.2).

Figure 3.2

Interconnection between codes and multiple themes



- **Phase 6: Producing the report**

The final phase based on Braun and Clarke's (2012) process of thematic analysis is presenting the results in a report. The objective of the report was to present a compelling narrative derived from the analysis of the data, with a focus on ensuring the coherence and persuasiveness of the story.

3.9. Rigour and trustworthiness as rigour measures

As humans are the primary source of data and analysis, it is well recognised that researchers are likely to have biases that may impact their research and analysis of their study. However, at the same time they strive diligently to limit their biases (Merriam & Tisdell, 2015; R. Stake, 2005) to help assure the credibility of their findings. To achieve this researchers make well informed *research decisions* such as employing a careful study design based on well-developed understandings based on appropriate literature (Creswell & Poth, 2017; Merriam & Tisdell, 2015). Denzin and Lincoln (2011) stated that, according to Guba and Lincoln (1985), in qualitative research, the categories of credibility, transferability, dependability and conformability are employed to characterise various facets of trustworthiness. Thus, in this qualitative study, these four criteria were applied to test and argue the rigour

of the research (McInnes et al., 2017; Merriam & Tisdell, 2015). Each one is considered in the next subsections.

3.9.1. Credibility

The first criterion for assessing trustworthiness is credibility. *Credibility* is defined by Merriam and Tisdell (2015) as the degree to which study results correspond to real facts. Researchers are interested in robustness and credibility because they indicate the quality of research (Ritchie et al., 2013). The credibility of a qualitative research study depends on the researcher's training, experience and intellectual rigour (Merriam & Tisdell, 2015). In the current study, triangulation was employed where data were collected from more than one source; thus, using multiple methods contributed to the credibility of the research (Merriam & Tisdell, 2015; R. Stake, 2005). Moreover, from an interpretivist-constructivist perspective, triangulation is an effective strategy for increasing the credibility of research (Creswell & Poth, 2017; Merriam & Tisdell, 2015; Ritchie et al., 2013). An additional strategy to increase credibility was through member checking (Merriam & Tisdell, 2015; R. Stake, 2005), where participants were sent their full interview transcripts and were asked to review, emphasise and comment on the information contained therein. Thus, they were able to assess the account's reliability and credibility (Creswell & Poth, 2017) and make changes as necessary.

In the coding of the data, the researcher's supervisors and specialists in the same study field reviewed the coding, subcode categories and pertinent extracts to assess and help guarantee their consistency. Thus, the credibility of the analysis was further strengthened through their discussions and consensus. In addition, the codes were translated by an external translator. Also, to protect the anonymity of the data, questions and excerpts submitted to experts were anonymised. As noted earlier, the participants were told via the PIS form that a third-party translator would transcribe the transcripts to aid in the accuracy and triangulation of the data.

In addition, to increase credibility, questions from interviews were sent to the researcher's supervisors, who provided important guidelines for modification (Creswell & Poth, 2017; Ritchie et al., 2013). Thus, the validity and relevance of the data to the research questions and objectives were also verified using a peer review strategy (Merriam & Tisdell, 2015). Then, the tools were authorised, and the interviews were translated from English into Arabic. The English and Arabic versions

were given to a qualified bilingual translator to check, and the researcher told the translator what the words were supposed to mean and how they fitted into the Arabic context so that the meaning would not be lost (see Appendix G for certification for translations of interviews). (Note that this information was provided in both the ethics application and the PIS form.)

Moreover, after the interviews, a process of translation was undertaken to convert the content of the database from Arabic to English. The English and Arabic versions were sent to a proficient bilingual translator for verification. This translator is the same person who translated the interviews in the previous stage. The researcher provided the translator with instructions regarding the intended meanings of the words and their contextual relevance in Arabic, ensuring the preservation of meaning throughout the translation process.

3.9.2. *Transferability*

Transferability is the second criterion for assessing trustworthiness. Transferability refers to the applicability of the results to various settings and circumstances other than those of the research study (DeJonckheere & Vaughn, 2019). This can be accomplished by presenting a rich, thick description of the phenomenon so that others are able to judge the relevance to their contexts (McInnes et al., 2017; Merriam & Tisdell, 2015; Ritchie et al., 2013), thus providing the opportunity for the reader to transfer results to a similar environment outside of Jordan. In Chapter 2 of this study, the sociocultural environment of the study population in Jordan was discussed in depth, thus providing a precise context description to enable researchers to evaluate the degree of resemblance or congruence between it and their settings (Ritchie et al., 2013). This is assisted by Chapter 3's description of the selection of participants and their characteristics, the methods of data collection, development and application procedures and data analysis.

3.9.3. *Dependability and conformability*

The third factor for assessing trustworthiness is dependability and conformability. Conformability relates to whether the research results are affected by the researcher, while dependability refers to whether the results are consistent and durable (DeJonckheere & Vaughn, 2019). If the findings of a study match the

available information, it is deemed trustworthy (Merriam & Tisdell, 2015). Thus, the researcher must assess if the analytic procedure complies with the appropriate requirements for a particular design and assure the intersubjectivity of the data (Korstjens & Moser, 2018).

In this research, the researcher used an audit trail to ensure dependability and confirmability (Denzin & Lincoln, 2011). Also, throughout the examination and analysis of the data, the researcher discussed in detail how data were obtained, how classifications were formed, and judgements were reached. In addition, the researcher provided a comprehensive account of how the research was conducted and the data were processed (Merriam & Tisdell, 2015). As well, data in this study were collected within a reasonable timeframe, to achieve consistency. Further, all participants were asked the same questions to maintain consistency (Ritchie et al., 2013). In addition, all interviews were conducted and transcribed by the researcher, ensuring that she had the chance to familiarise herself with the material and get a thorough understanding of it (Lishner, 2015).

3.10. The researcher's role as an insider (reflexivity)

Reflection is essential for assuring the precision and calibre of study design (Korstjens & Moser, 2018). Reflexivity is seen as crucial for acquiring impartiality and honesty (Ritchie et al., 2013). The researcher's reflexivity is connected to his or her presuppositions, worldview, biases and relationships to the study, all of which may affect the study (Merriam & Tisdell, 2015). As a result, the researcher was required to describe her biases, opinions and preconceptions regarding the research study (Merriam & Tisdell, 2015). She examined several sources on qualitative research methodologies before collecting data for this study. To obtain a comprehensive grasp of the usage of children's electronic games and parents' perspectives on that use, the researcher also examined a variety of relevant literature. In addition, the researcher's academic and professional experience prompted her to firmly believe in the significance of parents' viewpoints on their children playing electronic games. Working as a kindergarten teacher for the Ministry of Education and hearing parents' concerns about the detrimental effects of computer games on children prompted her choice to conduct this research. In addition, as the mother of three children who spend most of their time playing electronic games, the researcher recognised the importance of examining Jordanian parents' perceptions and their culture regarding

children and electronic games, as well as the increasing amount of time children spend playing electronic games.

In addition, the researcher spoke the same language as the participants, which facilitated their comprehension of interviews and encouraged them to express themselves freely. However, the background and beliefs of the researcher may be crucial to participants' replies (Ritchie et al., 2013) because the researcher has the same participants' culture and beliefs. The researcher ensured the confidentiality and anonymity of participant data to encourage individuals to express themselves freely. At the start of each interview, the researcher made *small talk* with the people being interviewed to give them a chance to talk freely about their thoughts and establish rapport.

The interviews were performed within the sociocultural framework of the study, which allowed the researcher to gain a comprehensive understanding of the participants' viewpoints, reactions, values and attitudes (Asenahabi, 2019). Whereas the researcher appreciates participants' personality roles and makes different assumptions about themselves and others culturally and socially (Brown, 2019). Throughout the length of the study, her attitude was to be honest and polite towards participants in order to foster an open and trustworthy connection between researcher and participant and to minimise the possibility of power relationships influencing participant replies.

3.11. Summary of the chapter

This chapter presented an explanation of, and rationale for, the research methodology undertaken in this qualitative research. As part of this, the development, credibility and implementation of the research instruments employed in this research (interview and naturalistic observation, including photo documentation) were outlined and justified. Further, the chapter presented the method of data collection and participant selection. Lastly, the chapter discussed the research credibility, dependability, confirmability and transferability, reflexivity and ethical consideration as issues related to the rigour of qualitative research.

CHAPTER 4: DATA ANALYSIS

4.1. Introduction

In Chapter 1, it was identified that parents often receive contradictory messages from a variety of sources regarding the appropriateness and value of electronic games for children. This leads to contradictory parents' perspectives regarding the use of their children's electronic games. Moreover, there is a lack of comprehensive understanding of the influence of values and culture on parental decision-making in this particular scenario. Therefore, Chapter 1 highlighted the aim of this study to focus on exploring the Jordanian context in terms of parents' perceptions and values in relation to their young children's use of electronic games. It noted, as well, the intent to reveal the impact of Jordanian culture and influence on their valuing and approval of their children's use of such games.

Chapter 2 provided a comprehensive discussion of the current literature on parents' perspectives on the advantages and disadvantages of electronic games, along with details about how researchers have categorised electronic games. In addition, this chapter reviewed research and academic articles on the role of values and culture on parental decision-making about electronic games, specifically examining the unique factors of Arab and Jordanian culture that might shape these decisions. It was also shown that there is limited literature exploring the impact of culture on parental perspectives in this regard and their subsequent decision-making around their children's use of electronic games.

Chapter 3 outlined the researcher's theoretical assumptions related to the paradigms, ontological position and epistemological perception and reinforced that the combination of these influenced how this study was framed, particularly the choices and interpretation, methodological judgement, decision-making, as well as data analysis. In addition, the chapter outlined the rationale for the chosen methodology, substantiating how such qualitative research was appropriate for an interpretive case study, since it facilitated gathering more details about the phenomenon. As well, the chapter provided a rationale for the chosen data collection tools and analysis processes used in this study.

This chapter, Chapter 4, focuses attention on the results of the research and the findings gleaned from interviews with parents on their perspectives regarding their young children's use of, and engagement with, electronic games and their value

and perceived benefits, as well as their concerns. It also considers the way their culture and religion may have potentially influenced their decision-making. This chapter begins by introducing the Jordanian families who participated in the research, thus providing an in-depth picture of the sociocultural context underpinning their decision-making regarding electronic games. This in-depth picture outlines the demographic data regarding the families, which contextualises the research in terms of the cultural, religious, socioeconomic and educational background of the participants.

Chapter 4 is divided into four emergent themes. The first theme relates to parents' perception of how culture and religion influenced their decision-making regarding their children's use of electronic games. The second theme considers parent perceptions of the effects of electronic gaming upon their children in general including children's usage. The third theme pertains to the COVID-19 pandemic and its impact on children's use of electronic games. The final theme relates to the internal and external factors parents identified as impacting their decision-making in relation to their children's use of electronic games.

4.2. Introducing the participating Jordanian families

Before presenting the participants' views regarding children's use of electronic games, this first section, starts by introducing the 10 Jordanian families and background information. A variety of data is included, encompassing demographic information, parenting style, number of children, income and the types of electronic devices used within the home (see Appendix H: Jordanian parent and child details). The following images, 4.1 to 4.10, provide insights into the participating families depicting the children at play and each is accompanied by a vignette that gives details of family members, their religion, parents' education levels, occupations, as well as the children's interests and their access to electronic devices appropriate for playing games.

Within this study, the participant families are recognised as the heart of this research and their voices, experiences and context are shared and situated front and centre in this study. However, to align with ethical requirements, pseudonyms are used when referring to children and parents (as noted in Table 3.2 in Chapter 3).



Image 4.1

Rawan's children, Deema and Ward, in front of their home

Family 1 consists of a mother, father and five children. Rawan, the mother, is 42 years old and holds a bachelor's degree in management information systems. She is a stay-at-home mum who loves to play with her children in their backyard. Ahmad, her husband, is 47 years old, holds a bachelor's degree in accounting and works for the government. They are a Muslim family, and they have a car and laptop. They own their house in Zarqa. They have twin 4-year-old children, a boy (Ward) and a girl (Deema) (see Image 4.1) who love to play with their toys, such as dolls and cars. They use electronic games on their parents' smartphones and laptops and enjoy playing Jigsaw and Subway games.



Image 4.2

Razan's child, Rashed, plays electronic games

Family 2 consists of a mother, father and two children. Razan, the mother, is 28 years old and holds a master's degree in psychological counselling. She is a stay-at-home mum who is interested in reading stories for her children or drawing with them. Ali, her husband, is 33 years old, has completed secondary school (Year 12) and works as a policeman. They are a Muslim family who live in a house in Zarqa. They have a 4-year-old child, Rashed (see Image 4.2) who plays soccer with his friends in their neighbourhood or he plays with his swing. Rashed prefers to play PUBG, Free Fire, Fortnite and Subway on his mother's smartphone or his PlayStation.

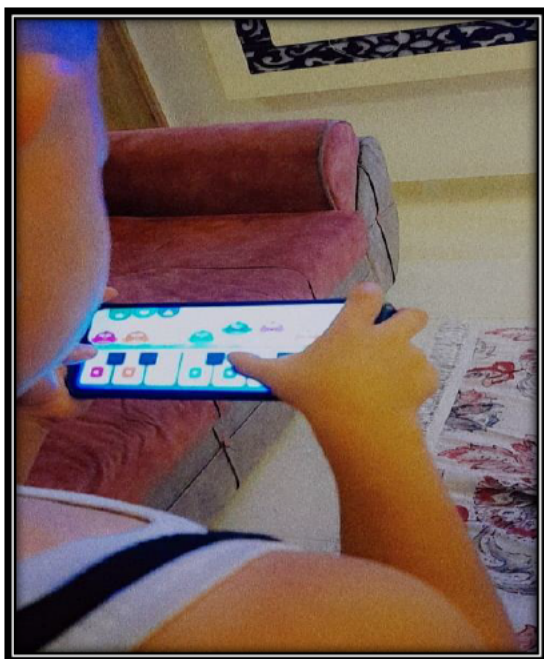


Image 4.3

Jory's son, Omar, playing electronic games

Family 3 is made up of a mother, father and three children. Jory, the mother, is 32 years old and holds a bachelor's degree in education. She is a stay-at-home mum who prefers to watch cartoons with her children. Essam, her husband, holds a bachelor's degree in economics and has a shop for electronic devices. They are a Muslim family, and they have a car and a laptop.

They live in an apartment in Zarqa. They have a 4.5-year-old son, Omar (see Image 4.3) who loves to play soccer and with Lego blocks. Omar enjoys playing Free Fire, Fortnite, PUBG and Minecraft on his mother's smartphone or his PlayStation.



Image 4.4

Tasneem's child, Mahmoud, in their backyard

Family 4 is made up of a mother, father and three children. Tasneem, the mother, is 41-year-old and has been educated to a secondary school level (Year 12). She is a stay-at-home mum who is interested in caring for plants in their backyard with her

children. Hesham, her husband, is 42 years old, has been educated to secondary school level (Year 12) and works as a property manager. They are a Muslim family, and they have a car. They live in a house in Rusaifa. Mahmoud, their 4-year-old child (see Image 4.4), prefers playing soccer and biking. He loves playing Free Fire, Fortnite and Minecraft games on his tablet.



Image 4.5

Mazen and Kinda's daughter, Tala, in their neighbourhood park

Family 5 is made up of a mother, father and two children. Mazen, the father, is 35 years old and holds a master's degree in industrial engineering. He is an employee of a private company. Kinda, the mother, is 30 years old, holds a bachelor's degree in civil engineering

and is a stay-at-home mum who loves to draw and paint with her children. They are a Muslim family and have a car and laptop. They live in an apartment in Rusaifa. Tala, their 3-year-old child (see Image 4.5), finds entertainment in drawing and playing with her dolls. She plays electronic games such as Subway and Colour and Paint games on her mother's smartphone only.



Image 4.6

Laian's daughter, Eman, in front of their home

Family 6 is made up of a mother, father and five children. Laian, the mother, is 39 years old, holds a bachelor's degree in childhood education and is a teacher. She prefers to play puzzle games with her children. Akram, her husband, is 42 years old, holds a diploma

degree in economics and is a policeman. They are a Muslim family, and they have a car and laptop. They live in a house in Zarqa. They have a 3.5-year-old child, Eman (see Image 4.6), who loves to play with her toys, such as kitchen tools and dolls. Eman enjoys playing Roblox, Jigsaw and Dress up games on her mother's smartphone, her tablet and her PlayStation.



Image 4.7

Leen's daughter, Marah, playing electronic games on her mother's smartphone

Family 7 is made up of a mother, father and three children. Leen is 38 years old, holds a bachelor's degree in business management and is also a teacher. She enjoys doing crafts with her children. Rayan, her husband, is 49 years old, holds a bachelor's degree in accounting and works as a teacher too. They are a Christian family, and they have a car and a laptop. They live in their own house in Zarqa. They have a 4-year-old child, Marah (see Image 4.7), who loves to play with the swing in their backyard. Marah prefers to play Roblox, Pictoword and Writing Letters games on her mother's smartphone.



Image 4.8

Noor's daughter, Safa, in her bedroom

Family 8 is made up of a mother, father and four children. Noor, the mother is 32 years old and holds a diploma degree in nursing. She is a stay-at-home mum who prefers to do several activities with her children, such as making a cake or exercising. Abdallah, her husband, is 36 years old, holds a bachelor's degree in computer science and works as a policeman. They are a Muslim family, and they have a car. They live in their own house in Zarqa. They have a 4-year-old child, Safa (see Image 4.8), who enjoys role-playing with her friends in the kitchen and with doctor's tools. Safa enjoys playing learning numbers, simple line drawing games and dress-up games on her mother's smartphone.



Image 4.9

Saif and Hadeel's children, Adam and Aya, playing electronic games

Family 9 is made up of a mother, father and four children. Saif, the father, is 48 years old and holds a bachelor's degree in political science. He is a government employee.

Hadeel, his wife, is 40 years old and

holds a bachelor's degree in education. She is a government employee who prefers going with her children to the neighbourhood park. They are a Muslim family, and they have a car and laptop. They live in an apartment in Rusaifa. They have a 2- and 4-year-old (see Image 4.9), who enjoy playing with their toys, such as bicycles, cars and dolls. They enjoy playing Subway or Colour and Paint games on their mother's smartphone.



Image 4.10

Salma's child, Ruba, playing electronic games

Family 10 is made up of a mother, father and five children. Salma, the mother, is 46 years old and holds a diploma's degree in clothing design. She is a stay-at-home mum who prefers to read stories to her children. Assem, her husband, is 48 years old, holds a diploma degree in marketing

and is a government employee. They are a Muslim family, and they live in an apartment in Zarqa. They have a 4-year-old, Ruba (see Image 4.10), who enjoys playing with blocks or pop-it toys. Ruba loves to play Match It, Jigsaw and Dress up games on her mother's smartphone and her tablet.

4.2.1. Demographic data of families

A total of 12 participants were interviewed for the research from 10 families, consisting of 11 Muslim parents and one Catholic parent. As identified in Table 4.1, these families from Jordan used a variety of technological devices to enable their children to use electronic games. The frequent use of smartphones was not surprising since the Department of Statistics (2021) reported that the proportion of Jordanian families who use smartphones is 92.8%, compared with tablets' lesser usage at 15.5%. Thus, the sample of families in the study all had smartphones with the Internet, a tablet, or a laptop and/or tablet and a PlayStation. These devices in a child's environment may facilitate access to electronic games for children.

Table 4.1

Family identification code, participant parents' names (pseudonyms) and number of interviews

Family code	Father	Mother	Interviews (n)	Religion	Electronic devices
F1	0	Rawan – P1-M	1	Islam	Smartphone and laptop
F2	0	Razan – P2-M	1	Islam	Smartphone and PlayStation
F3	0	Jory – P3-M	1	Islam	Smartphone and PlayStation
F4	0	Tasneem – P4-M	1	Islam	Tablet
F5	Mazen – P5-F	Kinda – P5-M	1	Islam	Smartphone
F6	0	Laian – P6-M	1	Islam	Smartphone, PlayStation and tablet
F7	0	Leen – P7-M	1	Christianity	Smartphone
F8	0	Noor – P8-M	1	Islam	Smartphone
F9	Saif - P9-F	Hadeel – P9-M	1	Islam	Smartphone
F10	0	Salma – P10-M	1	Islam	Smartphone and tablet
10 families	2 fathers	10 mothers	10 interviews		

Data were also collected on the families' socioeconomic status, showing a relatively lucrative income relative to Jordanian statistics, where the average monthly wage reported by the Department of Statistics (2021) in 2021 was 534 Jordanian dinars. The average monthly wage for the employees in this sample was 546 dinars, which classifies the families as middle class. Additionally, 51.7% of Jordanian households are known to own a private car, and 31.4% to own at least one laptop or

computer (Department of Statistics, 2021). Thus, out of the ten families interviewed, 80% of them own cars, while 60% possess laptops. Hence, it is evident that the households involved in this study have the means to give their children technology and devices for engaging in electronic games.

Further, it is noted that in Jordan the proportion of females in the overall economy participation rate aged 15 years and over is approximately a fifth (15%). Therefore, it is not surprising that most mothers, as in the present study, did not have paid jobs. In addition, this is not surprising as almost a quarter (21.4%) of Jordanians are unemployed, with the unemployment rate among female being 30% and males 19% (Department of Statistics, 2023). Therefore, of the mothers who participated in this study, most of them ($n = 7$) did not work, and their families had only one income because of unemployment. This was supported by the findings of Kaasolu et al. (2019), who stated that females in Jordan who are university graduates and above face joblessness due to high unemployment rates.

Participants in this study were considered highly educated. Of the 12 parents, 9 have completed a bachelor's degree or above, 2 parents have a diploma, and one parent had completed a secondary level education (Year 12). Statistics show that only 18.6% of the Jordanian population have achieved a bachelor's degree or higher, and 7.7% have gained a diploma-level degree (Department of Statistics, 2021). With 45% of parents holding a bachelor's degree or above, and 10% of parents holding a diploma, it is evident that the households involved in this study are above the national average in relation to qualifications.

Naturalistic observations of households showed that parents in this study provide their children with direction and guidance about the use of electronic games. For instance, parents permit their children to play electronic games that are in line with Jordanian culture and religion. However, if the games contradict Jordanian culture and religion, parents use this opportunity to educate their children about the cultural and religious differences. With regards to parenting style, most parents in Jordan are *authoritative* parenting style and take the lead in their decision-making about their children's activities (F. M. Ihmeideh & Shawareb, 2014). According to F. M. Ihmeideh and Shawareb, such parenting with regards to children's Internet usage would involve setting clear guidelines and discussing the activity with their children. The present research, through its naturalistic observation tool, was able to confirm that the parents in this study were no different from the norm. They were able to be

considered to have an authoritative parenting style because they established rules for and discussed the use of the electronic games with their children.

Demographic data also showed the participants represented the Jordanian population in terms of their religious affiliation. The religion that is most common in Jordan is Islam, whereas Christianity is in the minority (Quarmout, 2019). According to the Office of International Religious Freedom of the United States Department of State (2021), the vast majority of Jordanians (97.1%) are Muslims, of whom the majority are Sunnis, whereas Christians constitute only 2.1% of the population. In this study, all but one Catholic family and one parent were not Muslim. Importantly for this research, it is acknowledged that the Muslim families had strong cultural and religious values in keeping with Arab and Islamic cultural contexts, which are focused on standards of morality obtained from Muslim texts of the Holy Quran that are applicable to all Muslims (Bani-Khalid & Kouhy, 2017).

4.3. Culture and religion

One of the key themes that emerged from the Jordanian parents' comments was the strong influence of culture and religion in their decision-making regarding children's use of electronic games. In this theme, parents ($n = 12$) indicated several perspectives about the influence of their culture and religion on their decision-making; for instance, a third of parents ($n = 4$) stated that their religion is the most important source and influence on their decision-making in relation to children's electronic games. A quarter of parents ($n = 3$)—2 Muslim parents and 1 Catholic parent—believed that their culture influenced their decision-making in relation to the use of children's electronic games. A third of parents ($n = 5$) believed that the interrelation between their culture and religion was the primary source of decision-making in relation to the use of children's electronic games.

The data indicated that almost a third of Muslim parents ($n = 4$) considered their religion and associated beliefs related to religion to be the most important factor influencing their decision-making regarding which electronic games their child would interact with:

We embrace the Islamic faith, so when my daughter wants to play a specific game, I evaluate it: Does it fit our Islamic values? before allowing her to play that game. (P6-M)

This shows the importance parents placed on checking electronic games religiously to make sure they were compatible with their parents' religion. According to S. Al-Hassan and Takash (2011), Islam parents are obligated to ensure their child's physical, intellectual, emotional and spiritual development and progress. Further, Oweis et al. (2012) suggested that parents' checking of electronic games aligns with the objective of parenting in Islam, which is to protect children from harm, assist them throughout their growth stages and provide moral guidance (Oweis et al., 2012). As a result, parents consider that it is their responsibility to systematically supervise their children in all aspects, including watching them play electronic games through an *Islamic lens*. Through this lens, parents evaluated whether electronic games were compatible with Islam. For example, Islam allows children to play all electronic games unless they are in conflict with Islamic teachings, such as if electronic games include inappropriate words and images (Islamweb, 2018).

There were several examples where parents ($n = 4$) made a decision on whether to support electronic games based on their religious beliefs before other practices:

The factor influencing relevant decisions on electronic games is the religious factor, followed by the cultural, traditions, and customs. (P1-M)

This is a significant point because it shows the importance of religion, regardless of other cultural aspects, in parental decision-making. This data is supported by Takash and Al-Hassan (2014), who stated that the Jordanian community is like other Arab nations, where Islam is the main source of the Jordanian community's values. Nevertheless, the present study revealed that Islam serves as the primary foundation for parents to make well-informed decisions regarding their children's use of electronic games.

Almost a third of parents ($n = 4$) expressed their concerns about a variety of unsuitable behaviours evidenced in electronic games that were perceived to be in conflict with Islam. Jory expressed her concerns:

In the Minecraft game, there is an idea that eating pork, which is a food that does not fit with our Islamic faith and is considered forbidden, and I told him that pork is forbidden, in Islam. (P3-M)

In this case, Jory embraced this opportunity and situation to explain to their child what was acceptable and unacceptable in Jordanian culture and religion. Although the practice of eating pork is acceptable in many other religions, it is unacceptable in Islam. Another parent's concerns regarding inappropriate images and behaviours that conflict with Islam was raised by Razan in the following extract:

Some mothers mentioned that in one of the electronic game stages in the PUBG game, the player must prostrate to an idol in order to win, which is inappropriate with our Islamic belief. We are Muslims; we only prostrate to Allah. (P2-M)

It is clear from the present study that conflicting behaviours with Islam are considered concerns for parents. Hence, the recognition of parents' efforts in explaining cultural differences is crucial for resolving cognitive conflict.

A quarter of parents ($n = 3$)—two Muslim parents and one Catholic parent—stated that it was more the Jordanian culture that influenced their decision-making. In this case, *culturally appropriate* meant making decisions consistent with Jordanian ideals and ways of life, such as supporting the use of electronic games, which exemplified modest dress and respectful language, as evidenced by the following extract:

The parents have to evaluate the game from a cultural point of view, whether it fits with our culture and traditions or not. (P5-M)

Similarly, the Catholic parent believed that cultural considerations influenced her decisions:

As parents, we evaluate electronic games for our children based on our Jordanian culture. (P7-M)

To clarify what parents mean by culturally inappropriate electronic games, Tasneem described it in the following extract:

Electronic games like Free Fire or Fortnite, for instance, have female fighters dressed in indecent clothes. This allows children to view inappropriate images. (P4-M)

As clearly identified above from parents, the viewing of inappropriate images is problematic in Islam and Jordanian culture; this was also evidenced in Al-Qaradawi (2013) and Al-Batineh (2021). Therefore, games expose children to inappropriate images, and parents consider that this exposure is a concern (see Appendix I for details on electronic games and Appendix B for parents' categorisation). Further, another parent (Laian) focused on the incompatibility of electronic games with Jordanian culture. Notable were concerns about how electronic games conflicted with Jordanian ideals and ways of life:

Electronic games are not appropriate with our culture as Muslims. They have had a great influence on girls' clothes. Became immodest, as they were before. (P6-M)

Likewise, Leen, who is a Catholic parent, supported this idea in the following extract:

Aside from religion, our children, as Arabs, are imitating other societies through electronic games and imitating immodest clothing. (P7-M)

As identified, electronic games have a negative impact on girls participants, leading to dissatisfaction with their bodies, as evidenced in Slater et al. (2017). Nevertheless, based on Laian's statement, the present study adds to this knowledge that girls seek to mimic the clothing of electronic game characters, which is a concern for parents, particularly Leen, who links the selection of girls' clothing with their culture. Girls began to imitate electronic game characters when they chose their clothes, which is considered a significant part of their culture, and therefore their clothes became culturally inappropriate, which in turn affected parents' decision-making regarding the use of such games by their girls. Thus, according to Leen's statement, this study highlights the importance of cultural considerations in the

Jordanian context, regardless of religion. Additionally, it reveals that parents may have distinct decision-making processes for girls compared to boys.

The distinction between parents' decision-making based on their children's gender supports the research findings of Tungodden and Willén (2023) because parents made distinct decisions about their girls' mimicking immodest clothes compared to boys. However, Tungodden and Willén established a connection between parental decision-making concerning their children's gender and variations in competitiveness. In this study, parents made an informed decision about their daughters' use of electronic games, particularly those that involve a display of immodest clothing, which differs from their sons' decisions.

Almost half of the Muslim parents ($n = 5$), on the other hand, perceived the connection between their culture and religion as the main influence on their decisions about children's use of electronic games. However, there are some electronic games that are incompatible with Jordanian culture, which is why parents did not allow their children to play them. These concerns are captured in the following comments:

As a parent, I give my children the opportunity to play electronic games that are compatible with our Islamic faith and our Jordanian culture, but when my son plays in some electronic games, such as Free Fire, where the girls who play wear immodest clothes, I advise them that this is forbidden in our Islamic belief and Jordanian culture. (P9-F)

Religious and cultural factors influence my decision regarding electronic games. I never agree to my son participating in an electronic game in which girls wear immodest clothes, it is forbidden. (P4-M)

These comments support the Jordanian research of Oweis et al. (2012), as parents indicated that the efficacy of parenting behaviour is closely linked to the interaction of Islamic principles and sociocultural ideals and norms. It also aligns with the work of Podrug (2011) because parents showed that styles of decision-making are influenced by the values and beliefs of individuals. However, the current study suggests that the entanglement between culture and religion is evident when parents make their decisions regarding the use of their children's electronic games. This

study highlights the significance of culture and religion in Arab contexts, particularly in Jordan, in parental decision-making regarding the use children's electronic games.

Also of interest is that although culture and religion played a significant role in the decision-making process mentioned by parents, one parent held distinctive perspectives on her decisions, as described below:

I have the responsibility of raising my children, and what influences my decision to allow my children to participate in electronic games is not only the religious and cultural factors but also our personal values. (P3-M)

This extract shows that parents' values and perspectives play a vital role in parents' decision-making process regarding the use of children's electronic games. This extract also demonstrates the parents' acknowledgement of their responsibility regarding their children's use of electronic games.

A quarter of parents ($n = 3$) identified the fact that the games not designed in Jordan or in another Islamic society was a major reason for their lack of compatibility with Jordanian culture and religion/Islam. As noted in Appendix I, details on electronic games, such as the Fortnite game, are published in the USA. The games available to Jordanian parents were developed outside of the Middle East, as evidenced by the following extract from Saif:

Electronic games are not compatible with Jordanian culture because the manufacturers of electronic games are outside of the Middle East. (P9-F)

It is clear that the present study reviews factors pertaining to the origin of electronic games as a key factor in the conflict between the culture of these games and Jordanian culture and religion. Therefore, parents make real attempts to align electronic games with their cultural and religious beliefs, aiming to achieve a harmonious balance between them to decrease the potential negative impact on their children.

In conclusion, the theme of culture and religion highlights several key findings. For instance, a third of parents ($n = 4$) stated that their religion was the primary

source of decision-making regarding the choice of children's electronic games, while a quarter of parents ($n = 3$) believed that their culture influenced their decision-making regarding this, and close to half of parents ($n = 5$) believed that the interaction between their culture and religion was the primary source of decision-making in relation to the use of children's electronic games. Thus, these findings indicate that parents seek compatibility between electronic games and their culture and religion, in keeping with Jordanian culture and Islamic teachings, to decrease the potential harm of electronic games.

4.3.1. Parental decision-making regarding electronic games

Parental decision-making plays a significant role in children's use of electronic games (Dias et al., 2016; Lundtofte, 2020). Within this study, Jordanian parents related key strategies that they adopted to inform their decision-making regarding children's use of electronic games. All parents ($n = 12$) identified that they have supervised their child's engagement in their play of electronic games:

I am participating with my daughter in electronic games at all game stages; if I notice that the game will have a negative effect on her, I delete it. (P8-M)

I am reading about electronic games and comments that relate to them through social media, and sometimes I try them, which helped me find out what is the suitable game for every age stage. (P4-M)

I collect information related to electronic games through the summary below the game, as this information contains the age group, as well as comments that rate the games, and that information is my reference. (P9-M)

Interestingly, not only did parents employ the strategy of supervising their children during their electronic game play, but also one parent, whose area of expertise is engineering design, did his own research:

I have researched studies and read some reports that showed that playing electronic games for a long time causes some back diseases. (P4-M)

Parents' supervision of their children's use of electronic games supports the research findings of Khasawneh and Al-Awidi (2008) because parents stated that they emphasised their obligation to supervise their children when they use electronic games. However, the current study demonstrates that Jordanian parents exhibit progressive behaviours in their supervision of their children during the use of electronic games, such as reading some studies or reading comments on Facebook and Instagram.

Moreover, three-quarters of parents ($n = 9$) during interviews indicated the types of electronic games and their effects on parents' decision-making, as evident in the following extracts:

Electronic games are either positive, such as educational electronic games, or negative, such as shooting games, and this reflects on my child positively or negatively. (P9-F)

I support my son if he plays educational electronic games, but I limit his playing if he plays fighting electronic games. (P3-M)

The classification of games aligns to the research by Samokhin et al. (2020), who classified electronic games according to their purpose. Nevertheless, this study explored how parents specifically classified electronic games based on their effects on children by considering their content and purpose, aiming to determine if the effects were beneficial or detrimental. Thus, parents' classification influences their decision-making regarding the use their children's electronic games.

To conclude, the parents in the present research exerted substantial effort to determine the suitability and appropriateness of electronic games. Findings highlight that parents are taking their responsibility to make their own personal decisions with progressive behaviour regarding their children's use of electronic games by employing a range of strategies, such as supervising their children while they are actually playing the electronic games, trying out children's electronic games themselves, reviewing comments on social media and conducting their own research, before permitting their children to play them. Furthermore, parents' efforts extended beyond the supervision of electronic games to the classification of them to

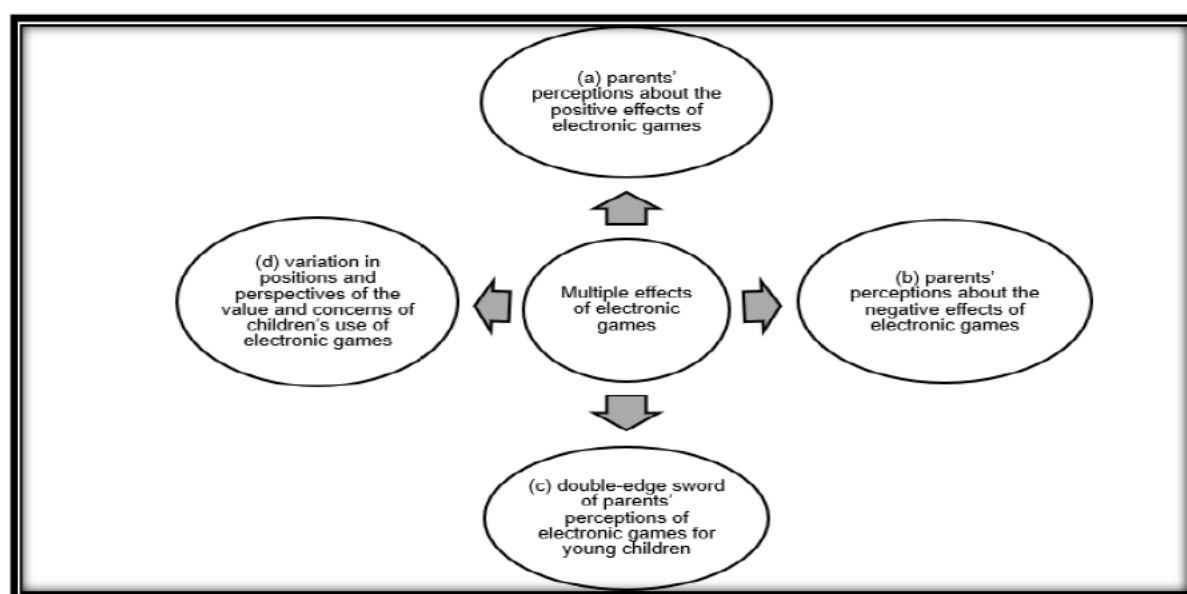
identify their effects. Which in turn affects their decision-making regarding the use of children's electronic games.

4.4. Multiple effects of electronic games

A second major theme emerged from the data that relates to parents' perceptions about the effects of their children's use of electronic games and those that influenced their decision-making regarding children's use of electronic games. This theme comprises four subthemes: (a) parents' perceptions about the positive effects of electronic games; (b) parents' perceptions about the negative effects; and (c) parents' perceptions of the fact that electronic games have both beneficial and harmful effects, which is explained through the metaphor of the *double-edged sword*. The last subtheme (d) highlights parents' variation in perspectives on the value and concerns of children's use of electronic games, particularly focusing on parents' perspectives on the impact of electronic games on children's beliefs and their (parents') perspectives on restricting access to these games. Figure 4.1 below illustrates the subthemes of the overarching theme of the multiple effects of electronic games.

Figure 4.1

Subthemes of the theme of the overarching theme of multiple effects of electronic games



4.4.1. Positive effects of electronic games

The first subtheme derived from the data was parents' perceptions about the positive effects of electronic games. The impact of electronic games on children's behaviour was found to vary, ranging from promoting imagination, role-playing and creativity to providing entertainment and educational benefits. Other parents pointed out that electronic games enhanced both fine and gross motor skills, as well as typing skills.

It was also notable that electronic games were seen as valuable by a third of parents ($n = 4$) in enhancing children's imagination, use of role-playing and creativity, as evident in the following extracts:

Electronic games such as Free Fire participate in developing role-playing skills. The child imitates the character of the hero of the game; for example, he uses the remote control as a smart phone and starts talking to himself, repeating some phrases like come here, go there, and other phrases that he sees and hears in the game. (P2-M)

Electronic games contribute of enhancing imagination factor in painting skills. My daughter imagines shapes and paints them. (P10-M)

One of the most useful electronic games is the Minecraft game, as it enhances composition and analysis skills, concentration, imagination, and creativity. (P4-M)

This evidence concurs with the research findings of Bowman et al. (2015). However, Razan described how electronic games also developed her child's role-playing skills based on her experiences, since the child mimicked the behaviour of the characters in the game (e.g., Free Fire game).

Another positive of electronic games perceived by almost half of the parents ($n = 5$) was in relation to the fact that they were a low-cost form of entertainment. In this regard, Rawan explained in the following extract:

Electronic games consider low-cost entertainment tool, the child enables play for long hours through his mother's smart phone. (P1-M)

However, despite comments on the use of electronic games for entertainment, the reasons for this decision-making varied across families:

During my visit to my parents' home, I allow my children to use my smart phone while they are playing. This thing makes them keep their cool, and I enjoy it with my father and my mother. (P1-M)

I allow my daughter to play electronic games in order to complete my housework. (P10-M)

Moreover, Mazen and Kinda, both postgraduate students, expressed their reasons that influenced their decision-making regarding using their child's electronic games in the following extract:

We allow our daughters to use electronic games to give ourselves the opportunity to study during the day. (P5-F)

This evidence aligns to the research findings of Genç and Fidan (2017), because almost half the parents ($n = 5$) held the perspective that electronic games are entertaining. Nevertheless, it was evident that half of parents ($n = 6$) stated that even though a positive perception was held, limitations were still required, as stated in the following extract:

Electronic games are considered entertainment tools, but they must be controlled and played for a limited time in order to avoid a child's addiction to them. (P9-F)

This finding about parents' restrictions on their children's use of electronic games corresponds with the study of Barandiarán et al. (2019), because half the parents ($n = 6$) supported the importance of parents' restrictions on their children's use of electronic games. It also conforms to the suggestion of the World Health Organization (2020) about managing children's use of electronic games by establishing rules regarding their play, including restrictions on the amount of time spent playing. However, the present study demonstrates that parents, like all

parents, were challenged by their children's addiction to playing the games, so they believed that they should restrict their children's use of electronic games, but it was made more difficult because the games were created in the west with western content.

Three-quarters of parents ($n = 9$) also perceived electronic games as positive due to the educational purpose of some games. According to Demirbilek (2010), *educational electronic* games are defined as electronic games in which one or more participants engage in rule-governed competition for educational purposes (see Appendix B for parents' categories). In this context, Salma mentioned the benefits of educational electronic games, as stated in the following extract:

Electronic games have had a positive effect on my daughter. I noticed that she learned the vocabulary of colours in the Arabic and English languages through the game 'Draw and Colour'. She learned the Arabic language's eternity through the educational electronic game 'Writing Letters', and she also learned the English alphabet through 'Matching Game'. (P10-M)

Interestingly, both Leen and Laian, who were English and kindergarten teachers respectively, clearly articulated the value of educational electronic games. Leen focused on electronic games such as the Pictoword game:

Electronic games have had a positive effect on my daughter; she learned the vocabulary of some words, such as the names of colours in Arabic and English, in addition to linking syllables of words to create complex words, such as butter + fly = butterfly. (P7-M)

Laian noted the value of electronic games such as Roblox:

Some useful electronic games, such as the Roblox game, encourages children to jump, trains muscles, and the child acquires some mathematical concepts such as a straight or curved line. (P6-M)

The influence of these parents' professions as teachers was clear in the value, they placed on the type of electronic games they permitted in their

households. This evidence suggests that educational electronic games are perceived as potential learning tools, as Salma demonstrated in the following extract:

Puzzle games such as jigsaw puzzles develop the child's logical thinking, observation, problem-solving, and discrimination skills by placing the scattered pieces in their places. (P10-M)

Further, another example demonstrating the benefits of electronic games for children's learning is seen with Tasneem, who indicated that:

Some useful electronic games enhance the child's writing skill on the keyboard, such as the Type Sprint game, where the idea of the game revolves around encouraging the child to type all the letters that appear on the screen in the presence of other players, thus enhancing the child's competitive factor. Therefore, my child started writing on his own the name of the game, such as the word Minecraft and the word Free Fire. (P4-M)

Interestingly, these perceived positive consequences of children's use of electronic games not only align with several researchers' work, for example, Gahwaji (2016), because parents in this study indicated that electronic games have the potential to improve children's literacy skills, but this evidence also supports the work of Ibrahim et al. (2020), because parents in the current study believed that electronic games improve image reading techniques. Furthermore, since parents in the present study believed that electronic games improved their children's English, the value of electronic games found in the present research reinforces the findings of AlShaiji (2015), Rudis and Poštić (2017) and AlNatour and Hijazi (2018). Nevertheless, the parents in the present study show a higher tendency towards prioritising educational value over the enhancement of other skills, such as imagination and role-play.

As a result of positive perceptions about the use of children's educational electronic games, three quarters of parents ($n = 9$) reported they encouraged their children to play such games to achieve educational learning outcomes in several ways. Laian, for instance, explained:

I encourage electronic games as I download them, explain them to my daughter, and involve her in playing, as these games achieve educational goals. (P6-M)

This proof about parents employing strategies to encourage their children to use educational electronic games is consistent with the findings of Genç and Fidan (2017), because parents in this study not only hold the perspective that educational electronic games are beneficial for their children but also download such games. The current study indicates that parents make additional efforts, such as explaining and participating in educational electronic games that promote their learning, particularly English learning.

In summary, these findings revealed that, although they indicated that electronic games have positive effects on children's behaviour, including the development of their imagination, role-play and creativity, and are considered an entertainment and educational tool, parents believed in the importance of restricting such games. However, the findings suggest that parents noted a range of positive reasons for their choice to allow children's use of and value of electronic games. The most common reason was education, as they valued electronic games as an effective tool for developing children's learning and skills. In addition, they viewed electronic games as the ideal form of entertainment to keep children occupied while their parents were busy.

4.4.2. Negative effects of electronic games

Although there were significant comments shared by parents regarding the positive value of children's use and engagement in electronic games, there were other points and references to concerns that parents have: parents' perspectives about the negative effects of children's use of electronic games. Their concerns varied from those related to the impact that games had on their children's behaviour, such as issues of access involving *bargaining* to play them more, isolating themselves during play and telling lies in order to use electronic games for extended periods of time, to those related their children being exposed to inappropriate images and words and concerns about their to children's health and wellbeing, as well as the ineffectiveness of electronic games as an educational tool.

In relation to the negative impact associated with children using a bargaining strategy, being isolated and telling lies, of the 12 parents interviewed, over half ($n = 7$) raised this issue. In this study, *bargaining* was identified as a negative behavioural effect of electronic games when children promised their parents that they would behave in a positive way on the condition that they were given time to use electronic games. Thus, accessing electronic games was used as a reward for good behaviour. For example, Kinda voiced her concerns in the following extract:

Electronic games have negatively affected my daughter. She has become bargaining-minded. She does not eat unless you allow her to play. She also lies. When I ask her to go to sleep, I find her playing. (P5-M)

Likewise, these parents ($n = 7$) identified an additional negative behavioural influence in their children seemingly being addicted to electronic games. For instance, in this context, Tasneem indicated:

Electronic games have negatively affected my son. He is addicted to it. He has become isolated and likes to be alone, playing alone, and not wanting to visit anyone, not even his grandfather's home. If I encourage him to play with his friends, I feel that he is tense. (P4-M)

More examples of negative effects were forthcoming from two-thirds of parents ($n = 8$), who identified increased violence and aggression. In this regard, Razan voiced her concerns as follows:

In my opinion, some electronic games encourage violence, such as Free Fire or PUBG. I noticed that my son has become aggressive and violent when he plays with his brothers. He is aggressive and hits them. (P2-M)

However, Noor expressed another negative behavioural influence, as follows:

Electronic games such as the Monster Egg game have negatively affected my daughter. I noticed that my daughter wakes up screaming and has disturbing dreams, and when I checked the matter, it became clear to me that the frightening images contained in games affect her mentally. (P8-M)

Also, this group of parents ($n = 8$) indicated that there were difficult tensions and emotions between the children and their parents as a result of the children's eagerness to play the games and the parents desire to prevent their over involvement. This was evident in the following extracts:

Electronic games contribute to creating conflicts between parents and their children on a daily basis. (P5-M)

My daughter and I are at conflicts over controlling the use of electronic games. We hide the phone, and I occasionally make a call on the same phone that my daughter uses to play. (P9-M)

Other concerns perceived by over 80% of parents ($n = 10$) about the negative effects of playing electronic games were their children's exposure to inappropriate words and images. Inappropriate words, such as children insulting one another during collaborative electronic games such as Fortnite, and images such as immodest clothes. This is evidenced in Leen's comment, who was the Christian mother, in the following excerpt:

In the Fortnite game, which includes inappropriate clothing, the female warriors wear clothes that expose their bodies, and children use bad language while playing. as well as when my daughter plays online, inappropriate advertisements have been exposed to her, such as kissing. (P7-M)

It is obvious that parents, regardless of their faith (be it Muslim or Christian), perceive inappropriate images and words to be cultural and religious concerns.

Indeed, a third of parents ($n = 4$) were even more concerned as they explained that interactive games in particular gave children ample opportunity to converse with strange players whose language use may be inappropriate. For example, children may be exposed to abusive words, including swear words (you freaking monkey), as noted in the following extracts:

The child may be exposed to inappropriate images and words that are not acceptable in Jordanian culture, especially in participatory games such as Free Fire or PUBG, so you will find the players uttering inappropriate words. (P2-M)

One day, I realised my son was talking to strangers while playing PUBG. I stopped him from playing with strangers because he would be exposed to bad language, and the stranger would hear us through the microphone. (P3-M)

The evidence presented on parents' concerns regarding their children's interaction with strangers through electronic games is consistent with the statement of Barandiarán et al. (2019), as the parents in this study expressed similar concerns. However, this study found a correlation between children's use of electronic games during interactions with strangers and their exposure to inappropriate language. This leads to an increase parents' concerns about the use of their children's electronic games, which in turn affects their decision-making regarding their children's use of electronic games.

Upon examination of these games, it is clear that during electronic gameplay, especially in participatory shooting games like Free Fire, BUPG, and Fortnite, children provoke each other to use inappropriate words as they seek success. Interestingly, children at an early age may have ample chances to engage in conversations with strangers whose cultures and religions vary. Therefore, engaging children with these games is regarded as an issue for parents.

The responses of parents show that they are increasingly concerned about the behaviourally harmful effects of their children's use of electronic games, such as noted earlier: being isolated from family, reducing time for interacting with family and being exposed to inappropriate words and images. This evidence aligns with some previous literature, for instance, Genç and Fidan (2017), because parents were concerned about the use of electronic games by their children since they believe these games promote antisocial behaviour, addiction and the exposure to mature content. However, the present research adds to this knowledge linking mature content with images and words that are unsuitable in the Islamic culture and contrary to the participants' religion, as in Razan's comments. Also, besides being consistent

with the research of Bentley et al. (2016) and Lim (2019) in highlighting parents' concerns about the negative effects of electronic games on their children, including stress and violent behaviour, the present study's documenting of the actual games in use was able to explore how the broader context of the games origins (e.g., in Western society) was a major factor in their critique as the analysis showed them to vary in their educative applicability and to not necessarily meet Islamic cultural and religious norms.

Another concern about electronic games perceived by two-thirds of parents ($n = 8$) was in relation to their children's health and wellbeing. These concerns are evident in the following extracts:

Electronic games have negatively affected my son, so he does not go to the bathroom for long periods of time, which causes him to have a urinary tract infection. In addition, he deprives himself of food for long periods of time because he doesn't want to leave the game. (P2-M)

Electronic games cause stress, tension, and lack of sleep due to the emotions that the child exerts while playing some aggressive games, such as Free fire and this enhances his aggressive behaviour. In addition to that, my daughter suffers from a problem in her eyes and pain in the neck, and the doctor explained to us the reason for this because he sits for long periods on a screen while playing. (P5-M)

The concerns raised in parents' interviews support the research findings of Loton et al. (2016) in identifying children's addiction to electronic games and their increased anxiety and tension. Also, this evidence supports the work of Healey et al. (2019) and Zhang et al. (2021) in parents' belief that children exposed to violent electronic games exhibit more aggressive cognition and aggressive behaviour. In addition, Kinda's statement supports the report of the World Health Organization (2020), by indicating that use of electronic games leads to several risks related to difficulty sleeping, malnutrition, migraines and neck pain.

In contrast, the present study raised the issue of possible risks related to the technology. For instance, Rawan expressed different concerns, as simplified in the following extract:

The concern is not with the electronic game itself, but with the charges emitted from smartphones, as they affect vision. Some studies have confirmed that it depletes and kill the cells in the tips of the fingers, and they are connected in the brain. (P1-M)

In this context, some researchers have investigated the effects of smartphones on users. For example, İNal et al. (2015) indicated that overuse of smartphones causes thumb pain (e.g. text messaging) and reduces gripping strength and function of the hand. Further, these findings align with the work of Baabdullah et al. (2020), who suggested that there is an association between smartphone addiction and hand pain. These studies focused on the influence of smartphones on users' fingers but did not confirm Rawan's statement as to whether the charges of smartphones kill the cells in the fingertips that connect with the brain or not. Thus, more research needs to be conducted in this area.

In considering the major issue of the educational value of electronic games, the study's administration during COVID-19 was at a time when parents were looking for educational resources for preschool aged children to positively occupy their time. Nevertheless, parents' overall responses in interviews showed a general dissatisfaction with the games available for this purpose. Twenty-five percent of parents ($n = 3$) directly stated that electronic games had some shortcomings or issues in terms of their educational value. For example, Leen, as a teacher herself, expressed her concerns in relation to learning to write:

I think that teaching the child the method of holding a pen is preferable to the method of teaching writing through electronic games because the child feels distracted when using a smart phone. The child may use other apps, games, or videos during his or her learning. (P7-M)

Interestingly, Rawan also had distinct concerns in relation to games that claim to develop children's English language and how they also influence their Arabic language, as stated in the following extract:

My children have used electronic games in the English language. I felt happy because their English language has developed, but unfortunately, this has

caused a gap as my children cannot communicate with other children because they do not understand Arabic. (P1-M)

In summary, this subtheme revealed that over half of parents believed the electronic games in use had adverse consequences for their children's behaviour and learning. Specifically, the children were highly motivated to play the games, which were seen as addictive, to the extent that the children engaged in *bargaining* with their parents to negotiate more playing time. Parents also associated their children's eagerness to play with becoming stressed, isolated and unsociable. Moreover, the motivation to play was seen as causing some children to not keep their promises in exchange for game access and to even tell lies.

It was also found that the content and interactive capacity of the games in use typically exposed children to unsuitable images and vocabulary, as well as violence. and aggressive behaviour and language, which children showed the capacity to adopt. Finally, concerns associated with the health and wellbeing of children, such as the negative effects on children's health, vision, tension and lack of sleep, were raised, including the danger of electronic device emissions.

4.4.3. Double-edged sword of parents' perceptions of electronic games for young children

The third subtheme that emerged from the data in relation to parents' perceptions about the effects of electronic games on children was what came to be referred to in this study as a double-edged sword. The metaphor of *double-edged sword* was used to describe when parents made mention in one statement of the positive effects of electronic games for young children, and in the next statement, they voiced their negative concerns. These opposing examples regularly occur as part of parent responses, particularly when reference is made to the content and purpose of such games and their influence on their children.

Almost half of the parents ($n = 5$) indicated they found electronic games to be like a double-edged sword because of their contrasting attributes. This exemplified in the following statements:

Electronic games are a double-edged sword that has pros and cons, according to the content that parents must evaluate in them. This is done by

determining if the game is culturally and religiously appropriate and is allowed to be played with, and if otherwise, by playing with the child or by installing an application for parental control on the device used. (P1-M)

Electronic games are a double-edged sword; if their content is positive, it will reflect on my child positively, such as puzzle games with scattered pieces that develop thinking skills; if the content is negative, it will reflect on my child negatively, such as aggression, as in the Free Fire game. Parents are responsible for choosing the appropriate electronic game for their children. (P10-M)

This statement by Salma highlights how the parents in the study were taking their responsibility to decide which electronic games they supported for their children's use very seriously, which aligns with the research of Dias et al. (2016) and Lundtofte (2020). In addition, Rawan identified some strategies for parents' use to evaluate the games appropriateness, for instance, by either trialling them with the child or downloading a parental control application. Thus, some parents were acquiring technological knowledge to address their concerns as well.

Another example of this was shared by Jory, who expressed:

There are positive and negative effects of electronic games. Positive games develop the child's abilities by adapting to the environment around him and using electronics and technology. Negative games, such as fighting games reflect negatively on the child, increasing tension and aggression in children. According to the nature and content of the game, If the content is positive, it will be positive. If the content is negative, then the electronic games will be negative. (P3-M)

The value of electronic games in helping children acquire digital device abilities aligns with the research of Behnamnia et al. (2020). However, some parents, like Jory, argued that such games increased children's aggressive behaviour, while others, like Leen, linked the effects of electronic games to each game's purposes, thus highlighting an additional strategy for her decision-making along with

highlighting the need to be aware of games that allow children to meet and interact with older children. She alludes to this in the following extract:

Electronic games can be positive if their goal is positive, such as educational games like Match It and Pictoword, and they can be negative if their goal is killing and aggression, such as PUBG and Free Fire, which are violent and aggressive, and they include audio participation for other children of different age groups. (P7-M)

In conclusion, the data indicates that almost half of the interviewed parents ($n = 5$) reported that electronic games had benefits as well as drawbacks, depending on the content and purpose of the games. It also shows that these parents were formulating criteria to help address the double-edged sword impacting their decision-making. Although these findings support previous research where parents have shared both the dangers and benefits of electronic games (Barandiarán et al., 2019; Bentley et al., 2016; Healey et al., 2019; Sălceanu, 2014) and emphasised their duty of care to supervise and monitor children's usage (Dashti & Yateem, 2018; Khasawneh & Al-Awidi, 2008). Salma's comment in the current study suggests that parents should not only be limited to supervising their children but also should be engaged in selecting suitable electronic games for them, particularly for young children.

4.4.4. Variation in positions and perspectives of the value and concerns of children's use of electronic games

The final subtheme, regarding the multiple effects of electronic games, is the variation of parents' perspectives on the value and concerns of children's usage. This section reports on parents' perspectives about the influence of electronic games on children's beliefs and highlighted their views about whether they should be restricted or not.

Two-thirds of the parents ($n = 8$) indicated that their children's beliefs and values were unaffected by electronic games, as indicated by the following extracts:

Electronic games had no effect on my daughter's faith because she is still a child. (P8-M)

Electronic games do not affect the beliefs and morals of my daughter because she is still young and parents are in control, especially in terms of the content of the games. (P10-M)

Parents appear to lack concerns regarding their children's use of electronic games and their associated beliefs, as they hold the belief that these games do not exert any harmful influence on their children's beliefs. This evidence supports the research of Al-Hileh and Ibrahim (2018) because, in their research, parents also believed that electronic games did not negatively affect young children's beliefs and values. However, Salma's statement explained the reason behind the lack of concern, which was because of the child's age and the parents' ability to control the content of the games.

Likewise, Leen, who is a Christian mother, stated in the extract below:

Electronic games had no effect on my daughter's faith because she is still a child. My child converts to Christianity, goes to church to pray, and is not affected by electronic games. (P7-M)

It is clear that the Christian mother also noted the lack of effect of electronic games on her daughter's beliefs, like Muslim parents, because their children are young.

However, Jory was explicit in sharing her concerns about the influence of electronic games on children's beliefs. She made the following observation in reference to her son:

Possibly in the future, as he grows older, it may affect him morally and religiously, because the older the child becomes, the less supervision you have over him, and he will definitely be affected (P3-M)

Interestingly, half of parents ($n = 6$) did not seriously restrict their children's use of electronic games. Leen explained:

Frankly, I am not trying to restrict my child's play because I am convinced that when she goes to kindergarten and then to school, she will not find time to play electronic games and will automatically reduce play. (P7-M)

This evidence from the current study regarding parents' restrictions on their children's use of electronic games does not support the research findings of Barandiarán et al. (2019) and Nikken and Jansz (2006), because parents restrict their children's use of electronic games. Leen explained that the reason for parents' lack of concern was because their children were young and in kindergarten, so they had less opportunity to spend a lot of time playing games. Consequently, their use of electronic games was automatically reduced because of a lack of leisure time.

In conclusion, these data indicate that two-thirds of the parents ($n = 8$) were not concerned about the influence of electronic games on their children's beliefs, whether Islamic or Christian, due to the age of the child and the parents' ability to control their use of electronic games. Nevertheless, they were concerned about the potential impact of electronic games on their children's beliefs in the future. Thus, the data also revealed that half of parents ($n = 6$) did not seriously restrict their children's use of electronic games.

4.5. COVID-19

Another significant theme that developed from the data gained through interviews was the COVID-19 pandemic during which the research took place. This emerged as a result of discussions with parents about the factors that affected children's use of electronic games. Parents' responses ranged from an increase in children's use of electronic games and electronic devices to the role of parents during the COVID-19 pandemic regarding children's use of this activity and their perspectives on the value of this activity.

In this context, all parents interviewed ($n = 12$) considered COVID-19 to have increased children's use of electronic games. Parents shared their view as follows:

Corona disease has enhanced the opportunity to use electronic games because children spend long hours at home. (P9-F)

Corona also increased children's demand to buy electronic devices to use in playing games during the Corona period. (P6-M)

This evidence supports a recent study by Koran et al. (2022), which also found parents indicated their children increased their use of electronic games during COVID-19. Children were also found to increase their demand for their own electronic device to play them. However, in the present research, parents expressed that during COVID-19, they felt there were no other options to continually entertain their children:

Due to the conditions imposed by the Corona pandemic, parents cannot prevent their children from playing because there is no other means of entertainment, especially during the lockdown period. (P3-M)

During the Corona pandemic, electronic games were the only entertainment aspect for children. (P6-M)

Although other researchers such as Barr and Copeland-Stewart (2022) reported this and noted electronic games played a crucial role in providing entertainment and enhancing mental wellbeing for children, the present research illuminates the power of electronic games in a specific cultural context where religious considerations also strongly impact parents' personal decision-making in relation to young children.

This subtheme also illuminates how parents also saw their children's ongoing intensive engagement with electronic games during the COVID-19 pandemic due to the lack of opportunity for the typical daily communicative interactions and also outdoor activities and play. As a result, parents believed that the COVID-19 period made it more difficult to keep their children away from electronic games, so they allowed them to use electronic games. They considered such games an entertainment and outlet tool for children to unwind, particularly during the lockdown period.

4.6. Internal and external influences

Another important theme that emerged from the study was the importance of both internal and external influences impacting the situation. These two influences comprise emerged as two subthemes: the influence of internal factors that affected the children's use of electronic games, which considered several internal factors in children's home environments. The second subtheme related to factors external to children's homes that influenced their use of electronic games.

4.6.1. Internal influences that affect children's use of electronic games

The first subtheme that was derived from the data was internal influences on the use of children's electronic games. Parental responses ranged from the exposure of children to technology and devices to parenting style. Others highlighted the children's decisions with regard to the use of electronic games and the lack of control by parents over children in relation to their use of them.

In this context, the majority of parents ($n = 11$) highlighted that children's exposure to electronic devices, particularly during and after the COVID-19 pandemic, was one of the factors that helped introduce and motivate them to play. This evident in Rawan's response, as follows:

Currently, we are in the electronics era, especially in the Corona period, so electronics have become in all fields of work, study, and housework. Only where there is no IT can it be dispensed with, and therefore, this encouraged children to use electronic games. (P1-M)

In another comment, among responses from 85% of parents ($n = 10$), it was noted that the dependency on the electronic environment was seen as prompting young children to play games, as evidenced by the following extract:

It is difficult to separate the Internet from the home, especially in the Corona period, due to distance learning and the presence of brothers who study, so Wi-Fi is constantly turned on. Thus, our young children are automatically exposed to electronic devices and games. (P10-M)

It is evident that people and children were learning by distance online, which engaged the whole family in the use of the Internet and electronic devices. Consequently, the reliance on the technology environment was observed as encouraging children to engage in electronic games. Although this experience is in keeping with Mesce et al.'s (2022) findings regarding increased use of electronic devices and games during COVID-19, the present research explored this in greater depth in terms of parents' decision-making, where they needed to take account of their cultural and religious commitments. The impact on parents in terms of their accommodation of change is reflected in Jory's story, which describes that in the following way:

I used to participate with my husband in the PUBG game during the early days of Corona, when my child was young. After that, his father and I left it, but his father downloaded the game on the phone so that my son could play with it, then he downloaded it and started playing it on the PlayStation. (P3-M)

It is evident that parenting style within their home is considered a significant factor that influences children's use of electronic games.

Just over half of the parents ($n = 7$) noted that children's decision-making is another factor that influences their children's use of electronic games. This is illuminated in the following extract:

As parents, we delete inappropriate games and download suitable ones, but my daughter then downloads the electronic games she prefers because the search has become easy by voice. (P5-F)

Therefore, it is obvious that parents' decision-making was also found to take account of their children's views.

In summary, this subtheme raised three main points regarding the internal factors that parents identified that influenced children's use of electronic games. The first factor was children's exposure to electronic devices because of the importance of information and communication technologies and access to the Internet in each family's daily lives and the need for distance or online learning. The second factor was the impact of this on parenting style in the context of families who needed to

make personal decisions about the appropriateness of particular electronic games for their young children while maintaining their cultural and religious obligations. The final factor was children gaining a voice in the decision-making process regarding their choice and use of electronic games. The research revealed that parents' decision-making was, on occasion, underscored by their children's preference for particular electronic games. Children's choices were based on how much they enjoyed a game and as noted earlier, their potential addiction and use of manipulation to sway parents' decision-making regardless of their opinions, values and recommendations.

4.6.2. External influences that affect children's use of electronic games

The second subtheme that emerged from the data is external influences, which focused on the environment's influence on parents and children regarding the use of children's electronic games. Parents' responses varied from considering the influence of others in their environment regarding their decision-making to the influence of children's peers on their use of electronic games.

In this regard, just over half of parents ($n = 7$) raised the issue of the influence of people outside their children's environment. This is evident in the following extracts:

My perspectives regarding a particular game are shaped by both my personal experiences with my son and the experiences of people around me. (P2-M)

The customs, traditions, and culture of society affect more than my own cultural values. In regard to electronic games, parents do make specific decisions, but we also have an impact on the society around us. So, when I do not allow my son to play, everyone around me criticises me. (P5-M)

It is evident that people outside their children's environment have an impact on parents' decision-making, which in turn affects their children's use of electronic games.

In addition, approximately 85% of parents ($n = 10$) noted that their children's peers had influenced their use of electronic games, as indicated in the following extract:

I was forced to buy a tablet for my son because all his peers own tabs and play electronic games, so my son started asking me to buy him a tablet so that he could play with it like his peers. (P4-M)

Thus, children's peers influenced parents' decision-making regarding their use of electronic games.

Although this finding supports those of F. M. Ihmeideh and Shawareb (2014) and S. Al-Hassan (2019) in terms of parents being pressured from their society, the present research provides more depth in the nature of parents' interactions with their children and others outside the family in terms of parents being pressured to buy tablets for their children to play electronic games.

Thus, what this subtheme indicates is that parents' decision-making is influenced by values, attitudes and other perspectives in their environment and society regarding the use of children's electronic games, and that these influences may have a greater impact on their decision-making than their own culture on occasions. Furthermore, children are influenced by their peers in relation to the use of electronic games, such as which games to play and which electronic devices to purchase and time spent playing; in turn, they have a powerful voice in influence their parents' decision-making, regardless of their cultural and religious obligations.

4.7. Summary of the chapter

This chapter describes parents' perceptions of young children's use of electronic games as well as the impact or influence of Jordanian culture on parents' evaluations of young children's use of them. The findings revealed that while parents' culture, religion and values are very strong influences on their decision-making regarding their children's use or choice of electronic games, they are also challenged by external influences and pressures of broader society as well as their children's behaviour in seeking to meet their preferences motivated by peers. Nevertheless, parents' critiques of the suitability of electronic games for their children clearly relate to a game's ability to comply with Jordanian culture and values.

Parents also had conflicting perspectives about the impact of children's use of electronic games. Parents highlighted the various benefits of some electronic games for their children, particularly those like Free Fire, Painting and Minecraft games that develop their imagination and use role-play, as well as others that were considered

effective entertainment but importantly educational tools. However, given the different electronic games that parents in this study had approved for their children's use, various harmful impacts were seen as negatively affecting the children's behaviour. For instance, children seem to be developing strategies to influence their parents to increase their playing time. This was described as *bargaining* behaviour, which led to children isolating themselves from their family for long periods and being seen as *addicted* to playing a game. In addition, negative effects included a child imagining frightening monsters because of an electronic game's content. It was found that it was important to preview content since the games may expose children to inappropriate words and images. Further, other parents believed that electronic games have harmful effects on children's health and wellbeing, such as negative effects on children's vision, increased stress and a lack of sleep. Others considered that electronic games have both harmful and beneficial impacts on children, and as noted earlier, they are a double-edged sword in causing parents to balance the good attributes against the bad. Although some parents considered the impact of electronic games based on their content, others assessed them in relation to their use, for instance, their perspectives about the effects of electronic games on children's lives vis-à-vis isolating them from family.

In addition, the findings revealed that the majority of parents believed that their children increased their use of electronic games and electronic devices during the COVID-19 pandemic because there was no communication with the children's relatives, friends, and community and no outside activity available. Further, parents identified several internal factors that influence children's use of electronic games, for example, children's exposure to electronics and devices, the parenting style adopted in children's homes and children's own influence on decision-making regarding their choice and use of electronic games. As well, the findings showed that external factors that influence children's use of electronic games were their families outside connections and their peers as some games were interactive via the Internet. Clearly, this chapter focused on the analysis of the interview data with parents; the next chapter will discuss these findings in greater detail in relation to the research questions.

CHAPTER 5: DISCUSSION

5.1. Introduction

The overarching focus of this research project was to explore parents' perspectives about children's use of electronic games and to better understand the impact of Jordanian culture on their decision-making. The following two research questions helped drive further investigation of this phenomenon: What are Jordanian parents' perceptions of young children's use of electronic games? And how does Jordanian culture impact or influence parents' decision-making regarding their young children's use of electronic games?

This chapter offers key insights related to this phenomenon, informed by the data collected and analysed for this study. The chapter is divided into four separate sections, each of which helps address the goals and research questions for this project. Firstly, attention is centred on the interrelationship between culture and religion in relation to parents' decision-making. Secondly, the metaphor of the double-edge sword of parental perspectives on children's engagement with electronic games is addressed. This is followed by an exploration of factors that influence children's use of electronic games. Finally, details are revealed about the various types of electronic games that are used by children in Jordan based on parents' perspectives, as well as the importance of this categorisation on parental decision-making regarding their children's use of electronic games.

5.2. The interrelationship between culture and religion in parent decision-making

This section of Chapter 5 explores a number of insights related to the second goal of this study, which was to *reveal the impact of Jordanian culture on parents' decision-making regarding children's use of electronic games*. The first factor relates to the entanglement between culture and religion, and how these factors influenced parental decision-making. The second factor addresses the compatibility that parents sought between culture and religion in relation to their decision-making. Finally, the third key factor discusses the extraordinary circumstances that led to parents overriding the importance of culture and religion in their decision-making in relation to their support for children's use of electronic games.

5.2.1. *The entanglement and interrelationship between culture and religion*

Although the initial intent of the second goal of this study was to explore *the impact of Jordanian culture on parents' decision-making regarding young children's use of electronic games*, what emerged was an unexpected and overarching insight into a very strong interrelationship between culture and religion in parents' decision-making in this regard. This strength of influence of culture and religion on decision-making in Islamic communities, while not new, is central to this study, and was also found by researchers such as Beyers (2017) and Abdulla (2018) to impact decision-making on family planning within the Muslim community (El Hamri, 2010; Hasna, 2003). Examples of other areas of focus, similarly, include research that has explored the effectiveness of parenting behaviour in relation to Islamic principles and culture (Oweis et al., 2012). However, the present study extended the research to demonstrate the influence of religion on parents' decision-making in such a way that it could be argued that culture and religion often become entangled, adding complexity and creating concern for parents.

This difficulty of entanglement of culture and religion in decision-making is supported by Abdulla (2018), who noted that it is often the case that culture and religion are not easy to separate, as cultural practices can be linked with religious beliefs and vice versa. She focused on linking culture and religion in efforts to offer insights on the principles of religious freedom and belief. However, the idea of an entanglement of culture and religion in parents' decision-making specific to their children's access and use of electronic games emerging here shifts the focus of past research from the influence of culture (Quarmout, 2019) and religion (Hasna, 2003) to the interrelationship of culture and religion.

Entanglement in this study is understood to mean the inability to separate one constituent or concept from another, or where a relationship or situation is complex and difficult to separate. According to Khojir et al. (2018), religious norms and cultural behaviour, when combined, have a crucial role in shaping individuals' values and society as a whole. This phenomenon of the entanglement of and interrelationship between culture and religion in terms of key insights to emerge from this study will be further explicated, specifically in relation to influencing parent decision-making regarding their values and children's access and use of electronic games and the issues and complexity involved.

Evidence of the entanglement between culture and religion in influencing parents' decision-making is captured in Table 5.1. Examples included both cultural and religious influences on parent decision-making, and evidence surfaced regarding the difficulty in separating these two factors when deciding on their children's playing of games such as Free Fire. In this example, parents were aware that the Free Fire game exposed children to what parents considered unsuitable images (such as images of characters wearing immodest clothes), and players may use inappropriate words due to the fact that this game is considered participatory. As evident in vignettes 1 and 2 in Table 5.1 "Free Fire and Fortnite have female fighters dressed in indecent clothes. This allows children to view inappropriate images." (P4-M) and "In participatory games such as the Free Fire and Fortnite game, you will find the players uttering inappropriate words." (P2-M).

Table 5.1*Entanglement between culture and religion influencing parents' decision-making*

Vignette	Influence on decision-making	What the decision relates to	Explanation	Decision-making questions
1. Free Fire and Fortnite have female fighters dressed in indecent clothes. This allows children to view inappropriate images. (P4-M)	Behaviours in games (inappropriate images and words) not aligned to Jordanian culture and Islamic principles	Culture and religion	Indecent clothes are not allowed to be worn or watched in Jordanian culture and religion. According to Ayat (2013), the translation of the Holy Quran says, "Tell the believing men to reduce [some] of their vision and guard their private parts." (18:30, p. 353). Furthermore, Al-Nawawi (2001) mentioned in his book that bad language is prohibited for Muslims. Al-Nawawi stated that the Messenger of Allah (PBUH) said, "A true believer is not involved in taunting, or frequently cursing (others) or in indecency or abusing" (p. 439).	Are the images used in electronic games culturally or religiously compatible?
2. In participatory games such as the Free Fire and Fortnite game, you will find the players uttering inappropriate words. (P2-M)				
3. Electronic games are not appropriate with our culture as Muslims. They have had a great influence on girls' clothes. Became immodest, as they were before. (P6-M)	Clothing not in line with cultural expectations (immodest clothing). As well as Islamic teachings, which encourage wearing modest clothes.	Culture and religion	Although culture and religion emphasised modest clothes, according to Ayat (2013), in his translation of the Holy Quran, "O Prophet, tell your wives and your daughters and the women of the believers to bring down over themselves [part] of their outer garments." (22:59, p. 426), parents focused more on the influence of these clothes and their cultural aspects, such as the selection of girls of clothes, than religion in relation to modest clothes.	Are the images in the electronic game culturally compatible?

Vignette	Influence on decision-making	What the decision relates to	Explanation	Decision-making questions
4. In the Minecraft game, there is an idea that eating pork, which is a food that does not fit with our Islamic faith and is considered forbidden. (P3-M)	Messages in alignment with Islamic teachings (eating pork)	It is relevant only to religion	In Islam, eating pork is not allowed, as stated on Ayat (2013), in its translation of the Holy Quran, "Prohibited to you are dead animals, blood, the flesh of swine,..." (6:3, p. 107).	Are the messages in alignment with Islamic teachings?
5. In the PUBG game, at one stage, the player must prostrate to an idol in order to win. This is not acceptable in Islam, as we only prostrate to God Almighty. (P2-M)	Behaviour in games not aligned only to Islamic teachings (prostrate to an idol)	It is relevant only to religion	In Islam, prostrating to an idol is not allowed, As stated in Ayat (2013), in its translation of the Holy Quran, "So prostrate to Allah and worship [Him]." (27:62, p. 528),	Are the behaviours compatible with Islamic teachings?

Parents in this study noted that allowing their children to play certain electronic games with inappropriate content such as Free Fire contradicted their cultural and religious values, yet they compromised this because of other pressures. These included lack of choice of games, children's preferences and peer pressure, and the need for home time activity to meaningfully occupy them during COVID-19 lock down. For example, parents were concerned that several games, such as Free Fire, Fortnite and PUBG, influenced their children to adopt behaviours that were not aligned with their culture, such as exposing them to choose immodest clothing for themselves and use of inappropriate language. As evident in vignette 3 in Table 5.1 "Electronic games are not appropriate with our culture as Muslims. They have had a great influence on girls' clothes. Became immodest, as they were before." (P6-M)

Besides being culturally inappropriate, these games were also entangled with the parents' Muslim religious values in relation to rules against wearing immodest clothing and using language deemed unsuitable. However, there were also cases where culture was prioritised over religion or vice versa. For example, in the case of the games identified in this research, parents prioritised the cultural aspect, as they felt that concerns over immodest clothing were of critical concern and an integral part of their culture. Despite adhering to a religion that prohibits wearing immodest clothing, parents considered preventing their children from using these games based on the conflict between them and their culture. The parents were also in touch with other parents regarding their decisions as well as seeking other information on the value and safety of children's use of electronic games to ensure they were able to make an informed decision.

It is worth noting that similar to other Arab cultures, Jordanian culture is widely recognised for its conservative values (Al-Batineh, 2021). According to Quarmout (2019), Jordan is predominantly conservative, with Islam as the main religion and Christianity as a minority faith, both adhering to traditional values. Further, their religion and Islamic teachings prohibit immodest clothes and vulgar or blasphemous words (Al-Qaradawi, 2013). This insight supports other research more broadly, such as that by Abdulla (2018), who wrote that "behind cultural expression usually lies religious motivation" (p. 113). It also aligns with O. M. Al-Hassan et al. (2021), who noted Jordanian parents frequently make decisions that are based on cultural collectivist ideals, and at other times, their decisions are individualistic.

During interviews, some parents voiced concern regarding their children's choice of immodest clothing. They noted that children, particularly girls, chose immodest attire when shopping for new clothes, since they simulate the clothing worn by characters in the electronic games they engage with. They evaluated the suitability of these clothes based on cultural standards rather than Islamic teachings or Christianity, as they held the opinion that electronic games have no influence on their children's beliefs. This may be due to parents' desire for their children's behaviours to align with socially accepted and desired norms, as well as their desire to present their children in a positive manner that garners social acceptance. This was also noted by O. M. Al-Hassan et al. (2021) in their study. S. M. Al-Hassan (2024) also found that parents had influence over their children's behaviour and decisions and made efforts to establish cultural values and educate them on the significance of adhering to societal norms.

Other examples expand on the entanglement between culture and religion in parental decision-making, although presenting a stronger connection to religion. They involved several concepts that contradicted the religious beliefs of parents as the games in focus involve characters who eat pork (in the Minecraft game) and prostrate to idols (in the PUBG game). Parents in these examples shared that they prevented their children from playing such games because they contradicted their religion. Hence, it was evident that parental decision-making was sometimes shaped by either cultural or religious factors, as evident in vignettes 4 and 5 in Table 5.1: "In the Minecraft game, there is an idea that eating pork, which is a food that does not fit with our Islamic faith and is considered forbidden." (P3-M) and "In the PUBG game, at one stage, the player must prostrate to an idol in order to win. This is not acceptable in Islam, as we only prostrate to God Almighty." (P2-M),

Here is where entanglement becomes realised, as this evidence indicates the difficulty that often comes with trying to separate culture from religion, especially in the case of the collectivist culture of Jordanian (O. M. Al-Hassan et al., 2021). In contexts such as this, cultural ideologies are strictly enforced socially and can therefore increase the likelihood that the decisions of parents are often more holistic and often shaped by religion (S. Al-Hassan & Takash, 2011). A key insight that emerged from this study was that although parents were influenced by the interrelatedness between culture and religion in their parental decision-making,

decisions to reject games that condoned activities such as the eating of pork or prostrating to idols were perceived by parents as contradictory to their religion.

Although culture and religion influenced parent decision-making directly, another layer contributing to the entanglement was parents' extended family and peers. For instance, the research suggests that the parents often consulted with their children's grandparents, uncles and aunts, as well as their children's peers, as a source of information to shape understanding and perspectives about electronic games. Thus, in this study, both cultural and religious influences varied in the extent of impact on parents' perspectives regarding their children's access and use of electronic games.

5.2.2. Seeking compatibility between culture and religion in decision-making

The second important key insight regarding research question 2 of this study that emerged was parents' seeking to ensure congruence between their cultural and religious beliefs when making decisions regarding their children's access and use of electronic games. In this study, *congruence* was interpreted and understood to mean attempts to seek compatibility with Jordanian culture and religion. This need for compatibility became a criterion on which parent decision-making was based, with the result often being that their children were prevented from playing a particular game.

The congruence between parents' culture and religion in their decision-making is consistent with the research findings of Podrug (2011), who stated that people's values and beliefs have an impact on their decision-making approaches. However, what emerged as significant in this study was the key influence this compatibility had on influencing parent decision-making in terms of their perceptions as to where a game was deemed appropriate or conflicting with Jordanian culture and religion. This included parental concerns about the potential for a conflict of compatibility between these evidenced in games causing confusion for children in relation to cultural and religious expectations. The vignettes captured in Table 5.2 provide examples of how culture and religion can be compatible in decision-making. Each vignette provides an explanation of compatibility's nature, including the factors that influence decision-making and the questions that arise.

The regard for compatibility between culture and religion aligns with and builds on the research conducted by O. M. Al-Hassan et al. (2021). However, their

research, more specifically, focused on the behaviours that mothers desired to instil in their children that were compatible with their culture and religion. This issue of parents seeking compatibility was evidenced in this study, where unsuitable language and images in specific games, such as Free Fire and Fortnite, led to parents often preventing their children from using such games, as exemplified in vignettes 1 and 2 in Table 5.2: “In participatory games such as the Free Fire and Fortnite game, you will find the players uttering inappropriate words.” (P2-M) and “Free Fire and Fortnite have female fighters dressed in indecent clothes. This allows children to view inappropriate images.” (P4-M). Hence, the need for consistency between messages in electronic games and children’s culture and religion played a significant role in parents’ decision-making. The insights gained by the current study, therefore, add to existing research by suggesting that such parents actively seek consistency between the messages conveyed in electronic games and their culture and religion.

Table 5.2*Seeking compatibility between culture and religion in decision-making*

Vignette	Influence on decision-making	Compatibility between culture and religion	Explanation	Decision-making questions
1. In participatory games such as the Free Fire and Fortnite game, you will find the players uttering inappropriate words. (P2-M)	Unsuitable language	Compatible	Due to the conflict of the game's language in terms of religion and cultural aspects, parents prevent their children from engaging with	Is the vocabulary used in the electronic game suitable?
2. Free Fire and Fortnite game have female fighters dressed in indecent clothes. This allows children to view inappropriate images. (P4-M)	Immodest clothing	Compatible	Parents prevent their children from playing the game because it includes images that conflict with their culture and religion. But parents focused at this point on cultural aspects (selection clothes).	Are the images in the electronic game suitable?
3. My child played a game that included eating pork, which is a food that does not fit with our Islamic faith and is considered forbidden. (P3-M)	Eating pork	It is relevant to religion.	Parents prevent their children from playing the game because it includes messages such as eating pork that conflict with their religion.	Are the messages in the electronic game compatible with Jordanian religion?
4. In a stage of the electronic game, the player must prostrate to an idol in order to win, that is inappropriate with our Islamic belief. (P2-M)	Prostate to an idol	It is relevant to religion.	Parents prevent their children from playing the game because it includes behaviours such as prostrating to an idol, which conflicts with their religion.	Are the behaviours in the electronic game compatible with Jordanian religion?

This finding about the importance of achieving a harmonious relationship or need for compatibility between electronic games and children's culture and religion adds to and builds on other research, such as the work of Al-Batineh (2021), which focused on challenges in localising or translating electronic games from multiple languages into Arabic rather than using children's electronic games. Currently, the idea of the importance of compatibility between culture and religion to protect children from confusion and the potential to learn alternative values from the parenting perspective has not previously emerged as a significant finding, particularly in relation parent decision-making regarding their children's access and use of electronic games.

The importance of cultural and religious compatibility in parents' decision-making also supports the work of Al-Batineh (2021), who argued that Arab culture exhibits a high degree of conservatism when it comes to matters of sexuality, alcohol consumption and the use of inappropriate words. Moreover, Arab countries have banned electronic games because they include content that conflicts with their established cultural standards and values (Al-Batineh, 2021). Thus, parents in this study permitted their children to engage with electronic games that align with Jordanian culture and Islamic teachings while preventing the use of electronic games that did not meet these criteria to prevent adverse learning and confusion. According to Quarmout (2019), parents protect their young children from conflicts by helping them acquire cultural mores from them by demonstrating and reinforcing behaviours that align with prevalent cultural patterns and norms. Thus, parents in the present study made great efforts to make informed decisions by identifying what aligned and what did not align with their cultural and religious values.

This, therefore, highlights those parents had a particular cognitive standard, which in this study is understood to mean rules established by parents for determining the cultural and religious compatibility of electronic games that were influenced by their own cultural background and religious convictions. According to Wang and Ruhe (2007), decision-making involves a fundamental cognitive process that relies on specific criteria. For the parents in this study, the criteria related directly to culture and religion. As can be seen in Table 5.2, the parents were well aware of the influence and compatibility of their beliefs and values in making the decision about electronic games for their children.

5.2.3. Extraordinary circumstances affecting parents' decision-making

Although insights from this study identified that culture and religion played a significant part in parent decision-making about children's use of electronic games, findings also indicated that there were extraordinary circumstances that could at times override these two critical elements. *Extraordinary circumstances* refer to specific situations in which parents allowed their children to use electronic games, regardless of the compatibility of these games with their culture and religion. In this study, two extraordinary circumstances that emerged as particularly strong were the COVID-19 pandemic and the child's age and developmental appropriateness or stage. These circumstances played a significant role in influencing parents' decision-making regarding the use of children's electronic games. Table 5.3 captures the evidence about how extraordinary circumstances influence parents' decision-making, revealing that extraordinary circumstances outweighed other factors in parental decision-making.

The extraordinary circumstance of the COVID-19 pandemic had an important impact on parent decision-making. Due to the COVID-19 pandemic and subsequent lockdown, children were unable to play outside (Lewis et al., 2023). Consequently, parents, as evidenced by the data in this study, permitted their children to engage in electronic games. What is evident was that during these times compatibility with their culture and religion took a secondary priority (particularly with their younger children as is noted later). This decision was made because parents believed that preventing their children from playing electronic games would have a negative impact on their psychological wellbeing because there were no alternative forms of entertainment available at home those days, as captured in vignette 1 in Table 5.3: "Parents cannot prevent their children from playing because there is no other means of entertainment, especially during the lockdown period, to maintain their psychological wellbeing." (P3-M).

Table 5.3*Extraordinary circumstances affecting parents' decision-making*

Vignette	Influence on decision-making	What the decision relates to	Explanation	Decision-making questions
1. Parents cannot prevent their children from playing because there is no other means of entertainment, especially during the lockdown period, to maintain their psychological wellbeing. (P3-M)	No available entertainment options during COVID-19	COVID-19	There are no options for children to play during COVID-19; so, parents allow their children to use electronic games regardless of whether these games are suitable for their culture and religion.	Is there another option for a child to play?
2. During the Corona period, I left the restriction on games, and my son started playing games such as PUBG and Free Fire, even though they contain inappropriate pictures and words. (P2-M)	No available entertainment options during COVID-19	COVID-19	There are no options for children to play during COVID-19; so, parents allow their children to use electronic games regardless of whether these games are suitable for their culture and religion.	Is there another option for a child to play?
3. In Hidden Objects Christmas game, my child asked me to celebrate with the Christmas tree. I told him Christmas is for other people, not Muslims. My child does not think about it in a dogmatic manner because he is under five. (P1-M)	Child is in the early years.	Age of the child	Although the Hidden Objects Christmas game is in conflict with Islam, parents sometimes converse with their children simply about the conflict messages in the games, and then parents allow their children to use electronic games because they are young.	Do electronic games have negative effects on children's beliefs? Do electronic games have conflicting messages or images with Islam?
4. Electronic games had no effect on my daughter's faith because she is still a child. (P8-M)	Child is in the early years.	Age of the child	Parents allow their children to use electronic games because they are young.	Do electronic games have negative effects on children's beliefs?

Vignette	Influence on decision-making	What the decision relates to	Explanation	Decision-making questions
5. Electronic games had no effect on my daughter's faith because she is still a child, so I can control the content of games. My child converts to Christianity and goes to church to pray. (P7-M)	Child is in the early years.	Age of the child	Parents allow their children to use electronic games because they are young.	Do electronic games have negative effects on children's beliefs?
6. In the Free Fire game, extra characters in the Halloween, such as skeletons or pumpkins, appear at specified periods; thus, my child treats these avatars as if they were new characters. He didn't care what they meant. (P4-m)	Child is in the early years.	Age of the child	Although the Free Fire game involves some messages that are in conflict with Islam, parents sometimes allow their children to use this game because parents hold the perspective that their children do not think about this message in a dogmatic manner.	Do electronic games have negative effects on children's beliefs?

The flexibility of the parents in allowing increased screen time during COVID-19 is consistent with the research conducted by Lewis et al. (2023). However, Lewis et al. focused on the influence of the COVID-19 pandemic on parents' decision-making with regard to children's use of digital games. However, their study did not consider the perspectives of Jordanian parents; rather, it involved Australian parents' perspectives. This finding about parents' decision-making during the COVID-19 pandemic adds to and builds on other research, such as that conducted by Eyimaya and Irmak (2021), which emphasised that during COVID-19, parents' rules on the amount of time their children spent on screens and parenting methods lacked consistency. However, their research focused on parenting strategies regarding screen time for children during the COVID-19 crisis in Turkey. Nevertheless, this study gives a valuable insight into how the COVID-19 pandemic changed parents' priorities and thus lends weight to how this could allow the importance of parents' culture and religion to be overridden in their decision-making, as exemplified in vignette 2 in Table 5.3: "During the Corona period, I left the restriction on games, and my son started playing games such as PUBG and Free Fire, even though they contain inappropriate pictures and words." (P2-M).

The second extraordinary factor that impacted reprioritising parent decision-making is in relation to considerations of the age of the child. This study found that the younger the child, the less attentive parents were to be adhering to the decision-making matrix regarding their beliefs, whether Islamic or Christian. For example, parents allowed their young children to use certain electronic games, such as the *Hidden Objects Christmas* game, even though this game contradicted Islamic principles. This finding is consistent with the study of Nikken and Schols (2015), which found that very young children may not make meaning from an electronic game without the mediation of an adult. In this study, parents took advantage of the opportunity to explain religions in other cultures. According to Terras and Ramsay (2016), applying parental control is more possible with younger children than older ones, since as children mature they begin to formulate their own preferences for their use of electronic games, as was found in this study. This reinforces parents' decisions to permit their children's use of *Hidden Objects Christmas* game in attributing it to the child's age, since they perceived it as a valuable educational opportunity. The *Hidden Objects Christmas* game involves the task of revealing a decorated Christmas tree in order to discover a specific number of hidden objects.

Consequently, the child may ask their parents to acquire the same tree and its accessories. But the parents in this case clarified with their children that this tree is used for the celebration of Eid for people or cultures other than Muslims. Thus, the parents discussed how they mediated the situation and confirmed that their children's preference for this tree stemmed from their appreciation of its physical form. Therefore, the parents perceived that there were no adverse impacts on their beliefs because they did not think about the conflicted images as having religious connections in this case celebration with Christmas tree in a dogmatic way, particularly in relation to their younger children, as demonstrated in vignette 3 in Table 5.3: "In Hidden Objects Christmas game, my child asked me to celebrate with the Christmas tree. I told him Christmas is for other people, not Muslims. My child does not think about it in a dogmatic manner because he is under five." (P1-M).

Similarly, a further key insight to emerge from this study is that parents did not dwell on or overly concern themselves with the potential negative effects of electronic games, particularly when the children were early in their development. They held the perspective that there is an association between a child's young age and a lack of adverse consequences for their beliefs. As a result, they permitted their children to engage with electronic games. This was described in vignette 4 in Table 5.3: "Electronic games had no effect on my daughter's faith because she is still a child." (P8-M).

This association from parents' perspectives between children's age and parents' decision-making regarding the use of children's electronic games in relation to culture and religion and particularly Islam has not been previously investigated or evidenced in other research, particularly in relation to the phenomenon of children's engagement in electronic games. Although Eyimaya and Irmak (2021) focused on the association between children's age and their exposure on screens, they did not ask parents regarding the consideration of their children's age while selecting the games their children could access. Nikken and Schols' (2015) research examined how parents guide young children's use of media in the Netherlands. This study offers a thorough understanding of why parents may not pay close attention to their children's use of electronic games. It suggests that parents feel they can still control and supervise their child's use of electronic games because they are young and easy to control, and parents may specify the content of the games, as explained in vignette 5 in Table 5.3: "Electronic games had no effect on my daughter's faith

because she is still a child, so I can control the content of games. My child converts to Christianity and goes to church to pray.” (P7-M). This control and ability to supervise this age group, according to Rodriguez (2021), provides insight into the perspective held by parents that they can have a controlling influence on their young children’s access and use of electronic games. Consequently, the decision-making process was simplified for parents due to the children’ age and amount of control they had over them. Thus, parents’ decision-making may depend on the age of the child.

There were numerous instances in this study where parents overlooked all other cognitive decision-making processes, as they believed that the child’s age made them less impacted by the game’s messages, particularly religious ones. For example, parents disregarded their young children’s playing of the Free Fire game, despite the fact that it contains messages that contradict Islamic principles. For example, this game showed additional characters during Halloween, such as skeletons or pumpkins, to remind children of this celebration, which is not in keeping with Jordanian culture and religion. But the parents observed that their children were unaware of the intended meaning of the characters but derived pleasure from them as entertaining characters, as identified in vignette 6 in Table 5.3: “In the Free Fire game, extra characters in Halloween, such as skeletons or pumpkins, appear at specified periods; thus, my child treats these avatars as if they were new characters. He didn't care what they meant.” (P4-M)

Thus, this study identified important insights into parents’ decision-making about their young children’s access and use of electronic games. It has revealed not only how parents consciously evaluated the content and usefulness of the available games in relation to their cultural and religious values but also their beliefs about what aspects of young children’s exposure to the games’ adverse content may not be a concern depending on age. Therefore, it provided insights about how parents sometimes became less impacted by the game’s messages, particularly religious ones in their decision-making, because their children were believed to be too young to understand some of the religious concepts. They also chose to mediate the situation with their older children depending on the content to explain. This is an important consideration in relation to the cognitive process and parents having adequate background knowledge pertaining to their decision-making.

In summary, this theme discusses several significant key points, for instance, the interrelationship between culture and religion and its importance to parental decision-making regarding the use of children's electronic games. In addition, despite the importance of culture and religion on parents' decision-making, there are certain situations, such as the COVID-19 pandemic and the age of the child, that may take priority over the significance of culture and religion when making decisions. Finally, the research shows the parents employed a clarified decision-making framework based on a cognitive criterion around the compatibility of electronic games with culture and religion to determine whether to accept or decline various electronic games or mediate their use.

5.3. The double-edged sword of parents' perceptions of children's use of electronic games

A key goal of this study was to better understand parents' perceptions and values of young children's use of electronic games. A key insight to emerge from this study is that parents struggled with a range of tensions as related not only to the benefits regarding children's use of electronic games, but also their concerns. Approximately a third of the parents directly referred to these contradictory perceptions, or their feelings, as being similar to a double-edged sword. A double-edged sword is a common term to convey the idea of a situation or action that has both positive and negative consequences (Sanders, 2014). In this current study, the term double-edged sword was adopted as a metaphorical term to identify situations where it was found that parents made parallel references to both the positive impacts and negative concerns associated with electronic games for young children, resulting in contrasting opinions on the benefits and concerns of such games. This section of Chapter 5 discusses three tensions that are perceived among parents that are around conflicts with parents' priorities: (i) parental priorities for children's language development; (ii) decisional conflicts with parental priorities to improve desired skills; (iii) parental entertainment priorities.

Tension 1: Priorities for children's language development

The findings of this study identified that a key tension parents experienced when making decisions about electronic game use was related to priorities around language development. However, the double-edge sword identified in this study highlighted that while parents viewed the majority of games use the English language, and children spend a significant amount of time to using the English language. While this may be beneficial for their English skills, it is probable that it will have a detrimental impact on their proficiency in Arabic, especially considering their young age. Parents in this study attributed this to the fact that almost all the games are presented in English. When children use these games, particularly at an early age, parents perceive they will acquire fluency in the language used within the games, in this case, English, which is a key goal but a concern if it is at the expense of learning their first language of Arabic.

It is acknowledged that other researchers have reported that using electronic games improves children's English, such as Rudis and Poštić (2017) and Atma et al. (2020). Such international studies as these point out key aspects of the role of electronic games in developing children's English. However, in this study, what is new is that parents believed that children's use of English when playing electronic games weakened their Arabic. This finding builds on other research from a Middle Eastern perspective conducted by Al-Jarf (2022), which focused on the perspectives of Saudi Arabian parents rather than Jordanian parents. Thus, the present study extends the literature by showing that parents in Jordan had the same concerns as their other Arabic speaking counterparts in Saudia Arabia regarding children's use of electronic games in English weakened their Arabic language development. Parents in this study reported that their children understand verbal instructions, but they are unable to express themselves or communicate their wants in Arabic, thus switching to English.

The tension between language priorities plays a significant role in parents' decision-making because it created confusion for parents due to the conflicting effects of these games. Evidence about how extraordinary circumstances influence parents' decision-making and outweigh other factors in parental decision-making is captured in Table 5.3. It was deduced that the parents attempted to educate their children by whatever methods were available, which included the uptake of electronic games. Nevertheless, parents became concerned about permitting their

children to engage with these games after observing their detrimental impact on Arabic language proficiency. Therefore, parents were conflicted regarding the use of their children's electronic games and their prioritisation of English language acquisition. Thus, this study adds to the existing literature on parents' tensions about the efficacy of children's use of electronic games to develop their English and the negative potential impact on children's native language, and then this tension reflects on parental decision-making. Thus, it is seen that parents have conflicting decision-making regarding whether to allow their children to use electronic games or not. This is demonstrated in vignette 1 in Table 5.4: "I felt happy because my children's English language has developed, but my children cannot communicate with other children because they do not understand their language, and electronic games have weakened Arabic." (P1-M).

Table 5.4

Influence on parents' decision-making

Vignette	Influence on decision-making	What the decision relates to	Explanation	Decision-making questions
1. I felt happy because my children's English language has developed, but my children cannot communicate with other children because they do not understand their language, and electronic games have weakened Arabic. (P1-M)	Electronic games develop English that aligns with parents' desires.	Educational purpose	Electronic games develop children's English, so parents allow their children to use them.	Is the language used in the electronic games developing English?
	Electronic games have weakened Arabic.	Entertainment purpose	Parents became concerned with allowing their children to use these after observing their negative effect on Arabic skills.	Is the language in electronic games weakening Arabic?

Tension 2: Parents' priorities to improve desired skills

The findings of the study demonstrated that parents faced another significant tension when making their decisions regarding the use of children's electronic games, specifically with parents' priorities around skills that parents desired to develop. Nevertheless, the study revealed a double-edged sword, indicating that while parents acknowledged the efficacy of using electronic games to develop their

children's skills, they (parents) desired to develop, such as logical thinking, problem-solving and concentration skills, they believed that their children were not attracted to their use. Parents' belief that children's use of educational electronic games would develop their skills adds to the findings of Genç and Fidan (2017) and Nikolopoulou (2020), which relate to other English as a foreign language context of Turkish and Greek, respectively.

Furthermore, the finding about the lack of children's attraction to educational electronic games extends the work of Oliemat et al. (2018) into children's use of screen technology, since their research pertained to children's lack of attraction to play with tablets, although it involved children's perspectives rather than parents'. In addition, the present study extends insights from existing research by including reasons for parental perspectives on the factors influencing children's preferences. It also highlights young children's attraction to using electronic games for entertainment rather than educational purposes. Parents in this study attributed children's lack of attraction to educational electronic games to the absence of motivating and enticing features, such as creating challenge, curiosity and use of imagination. This is reinforced by Hwa (2018), who advised that the consideration of motivation levels is crucial when building educational electronic games.

Thus, parents in this study had difficulties maintaining their children's engagement with educational electronic games due to the absence of their capacity to attract and encourage their children to engage in playing with them. According to Sabirli and Coklar (2020), the inclusion of motivational factors in educational electronic games boosts the attractiveness of them to children. Hence, parents linked their children's use of educational electronic games with the presence of motivating factors inside them. Thus, parents had conflicting perspectives in relation to their children's use of electronic games. Although parents in this study encouraged their children's use of educational electronic games to develop their skills, they struggled to keep their children from using them for this purpose and overcome their lack attraction, ultimately influencing the decisions parents make. Thus, the tension arising from the prioritisation of the acquisition of skills played a crucial role in influencing parents' decision-making because it created the contradictory purposes and impacts of the games' choice and use.

Tension 3: Parents' entertainment priorities

The study revealed that parents encountered a notable conflict when making their decision regarding the use of children's electronic games in relation to their value as entertainment tools. Even so, the study revealed a double-edged sword, suggesting that while parents in this study considered that electronic games had entertainment value for their children, they perceived that they had potential negative effects on children's health, wellbeing and behaviour (Nikken & Schols, 2015).

Consideration of the value of electronic games as entertainment has been considered by several researchers, for instance, Genç and Fidan (2017), Oliemat et al. (2018) and Wang et al. (2018). Nevertheless, these studies did not address Jordanian parents' perspectives as did the present research. Moreover, the present study offers reasons that are evident to parents as proof of the entertainment value and explains how these reasons impact parents' decision-making.

Parents in this study perceived that electronic games are effective entertainment tools for children as well as for parents themselves to fulfil their responsibility because they considered that such games are inexpensive forms of fun, as children could play for a long period of time without being bored on their devices or their parents' devices. The approach of using electronic games as a means of keeping children occupied and subsequently reducing the duties of parents is consistent with multiple pieces of literature, such as Genç and Fidan (2017) and most recently Lewis et al. (2023). However, this study uniquely highlights Jordanian parents' demands and duties that impacted their decision-making and motivated them to allow their children to engage with electronic games during COVID-19. Also, in this study, parents considered electronic games a respite from the responsibilities of childrearing, enabling them to carry out activities such as their housework, studying, or enjoying moments of quiet. As shown by the findings of Elias and Sulkin (2019) and Lewis (2020), Jordanian parents in the present study had the same perspectives as parents outside the Middle East who used electronic games as a babysitter.

Thus, parents had positive perspectives on allowing their children to use electronic games to assist them to handle the conflicting demands of work and home. The entertainment factor of electronic games captured parents' focus on their benefits rather than their drawbacks in relation to their children's use. Thus, this was a strong influence on parental decision-making in relation to their children's use of

electronic games, and sometimes parents allowed their children to choose such games.

Nevertheless, parents also recognised that there were some concerns about children's use of screen technology. They were concerned about the association between the negative impact of children's use of electronic games on their health and wellbeing, which aligns with several studies, for example, İnal et al. (2015), Baabdullah et al. (2020) Zhang et al. (2021) and Djannah et al. (2021). However, these studies did not consider the perspectives of parents. Thus, this study presents important insights into Jordanian parents' perspective and also illuminates how they align with research findings from outside the Middle East with regards to children's health and wellbeing and the use of children's electronic games. Specifically, in this study, parents perceived that their children's use of electronic games led to heightened stress levels, harmful effects on their vision due to excessive screen time and a lack of sleep. According to the World Health World Health Organization (2020), electronic games cause lack of sleep, neck pain and vision issues. As the parents sought to be well informed, their negative perspectives of the impact of electronic games on children's health and wellbeing influenced their decision-making regarding their children's use. It was found that parents sometimes did not allow their children to use electronic games due to their potential negative impact on children's health and wellbeing.

The influence of children's use of electronic games and potential negative behavioural effects is in correspondence with several research studies conducted by Nikken and Schols (2015), Genç and Fidan (2017), Barandiarán et al. (2019) and Lim (2019). However, these perspectives were not derived from a Jordanian context. Nevertheless, this study provides insight about the fact that parents in Jordan had similar concerns as other parents' perspectives in other contexts. Parents in the current study claimed that children's use of electronic games leads to a lack of interaction, aggressive behaviour, openness to interaction with strangers and a violent attitude. According to Bentley et al. (2016), parents have concerns about their children's use of electronic games because of the potential for increased stress levels, and their creation of a desire for violent behaviour. The significance of this present study emerged from the research being able to gain deeper insights into parent-child interactions about the games. Parents highlighted how they had extra behavioural concerns, such as children bargaining with parents and lying to their

parents to gain more time to play and having more nightmares than usual, which led to tensions within the parent-child relationship. Thus, this research provided insights into changes in the parent-child relationship and children's interpersonal behaviour as a result of intense game playing. Thus, parents' negative perspectives regarding their children's use of electronic games in relation to their behavioural change became a stronger influence on their decision-making and led to reasons to sometimes disallow their children's use.

This tension mentioned regarding entertainment priorities has a pivotal role in shaping parents' decision-making due to its significant influence. The games cause conflict because of the contradictory impacts they have. Although parents allow their children to use electronic games for entertainment, sometimes they do not allow their use because of potential negative effects on their health, wellbeing and behaviour. Therefore, this research shows that parents can have confusing perspectives, which leads to conflicting decision-making regarding their children's use of electronic games.

In summary, this subtheme explores the complex issue of parents' priorities. Where parents avidly seek their children to acquire English, given its priority in Jordanian education, they hold the perspective that such games' focus on English weakens their Arabic language. In addition to parents suggesting that electronic games help children gain skills and particularly English skills, they also considered that educational electronic games as opposed to those designed to entertain have a lack of attraction among their children. Moreover, in parents noting that electronic games were effective entertainment tools, supported English language learning and were valuable in keeping children occupied they also claimed that they had negative effects on their children's health, wellbeing, and behaviour and also their first language of Arabic. These conflicting perspectives create a dilemma for parents regarding their decision-making on their children's access and use of electronic games. This dilemma was evident in the inconsistent approach to decisions where sometimes parents allow their children to use electronic games, while others do not.

5.4. Factors influencing children's use of electronic games

This section of Chapter 5 discusses several insights pertaining to research question 1 of this study and explores parents' perceptions about the values and benefits of allowing children's use of electronic games. This section also reveals

three factors that influenced children's use of electronic games, as identified by parents: (i) parental factors in terms of facilitating their children's electronic use; (ii) children's decision-making; (iii) exposing children to electronic devices during the COVID-19 pandemic.

This study identified that parents hold the perspective that parental actions, in relation to facilitating their children's use of electronic games, like providing their children with electronic devices or allowing them to use their phones and parents' engaging with electronic games, are a key feature influencing children's usage. Nevertheless, this study presents deeper insights into Jordanian parental decision-making and the issues involved, though similar concerns to those in other Arabic and non-Arabic cultural and linguistic contexts. Despite various concerns parents generally are willing to facilitate children's engagement with electronic games both for entertainment and educational purposes, regardless of the specific type and age-appropriateness of them. But at the same time, parents were keen to have sufficient information to support their decision-making.

This association between parental actions and children's use of electronic games is consistent with the research conducted by Dias et al. (2016), Genç and Fidan (2017) and Lundtofte (2020). For example, Genç and Fidan identified that parental influence is a significant aspect of the extent to which children were able to use their tablets. Thus, this demonstrates that parental involvement plays a vital role in governing children's use of electronic games. In this study, during the interviews, it was discovered that Jordanian parents engaged in electronic games with each other, thus presenting role models for their children. Consequently, as their children were exposed to their own use of games for the first time, they began using them independently. Thus, Jordanian parental personal behaviour and perspectives regarding electronic games played a significant role in their children's interest and use; accordingly, parental behaviours and perspectives about electronic games influenced parents' decision-making regarding their children's usage.

Regarding the second factor that influenced children's use of electronic games, children themselves grew to have a voice in the decision-making. This finding regarding the children's influence on the decision-making reinforces the research findings of Chaudhary (2018) and Huneiti (2023). However, these studies focused on the influence of children's decision-making on the purchase of games besides their use. Nevertheless, the present study extends the literature by showing

the depth of children's involvement with their parents, at the interpersonal communicative level, in influencing decisions that gained them more time to play the games. According to Huneiti, the Middle East has a collectivistic culture in which parents play a major role in determining the relationship and compatibility between their children and themselves and where children regularly follow their parents' instructions and seek their advice. Although the parents actively involve themselves in the details of their child's personal life, the new generation of Jordanian children is known to play a significant role in making decisions regarding their daily activities within their families (Huneiti, 2023). Accordingly, some of the children clearly influenced the decision-making process, including their use of and time spent playing electronic games. For example, parents in this study had preferences for downloading electronic games deemed suitable for their children. However, it has been seen that the children disregarded their parents' suggestions and chose to download electronic games solely based on their personal preferences, using voice commands. As a result, children's electronic game use is influenced not only by their parents' decisions but also by the children themselves.

In this study, parents held the perspective that exposing children to several devices in their home environment during the COVID-19 pandemic was one of the factors influencing their use of electronic games. The rising exposure of children to multiple devices in their homes, specifically during the COVID-19 pandemic, aligns with research conducted by S. Gupta and Jawanda (2020), Elsayed (2021) and Lewis et al. (2023). However, this previous research did not come from Eastern perspectives. However, the present study provides a much more in-depth and comprehensive analysis of the fact that certain activities in children's households in the Jordanian context led to an increase in their exposure to electronic games. Parents in this study attributed the availability of a variety of technological devices in their homes to their substantial role in children's increased use of electronic games. These devices included tablets, laptops and mobile phones. In addition, the behaviour of older siblings influenced younger children's interest in using electronic devices for educational purposes, which was also identified by Lewis et al. (2023). Also, due to school closures, children had been obliged to keep up their education through online platforms for which their access depended on digital devices (S. Gupta & Jawanda, 2020). Thus, this study provides insight into and offers a more detailed comprehension of the fact that depending on digital devices during COVID-

19 in particular, contributed to increasing children's use of electronic games, thus emphasising the specific Jordanian context of the research. This therefore also impacted parents' perspectives regarding their decision-making on their children's access and use of electronic games.

In conclusion, parents considered that there were some key factors that influenced their children's use of electronic games. Although they perceived that they themselves influenced their children's access and use of electronic games, their children also, on occasions, impacted their parents' decision-making to favour their requests such as being allowed extended time to play and avoid family gatherings because they preferred to play their game. However, the COVID-19 pandemic was found to have led to an increase in children's exposure to electronic devices, which resulted in an increased use of electronic games, especially during the periods of lockdown.

5.5. Parents' classification of electronic games and its impact on their decision-making

The last section of Chapter 5 presents several perspectives on research question 1 and focuses on parents' perceptions of the value and benefits of using electronic games for their children's entertainment or education. This section of the chapter explains the different categories of electronic games used by the Jordanian children in this study, as perceived by parents. It also explores how this classification influenced parental decision-making about their children's engagement with electronic games.

The study involved parents classifying electronic games into three distinct groups depending on their effect on their children: positive electronic games, which included those that were believed to provide advantages for their children. For example, these were described as educational electronic games, such as the Learning Numbers game, which aims to enhance children's acquisition of mathematical concepts. In contrast, those described as having negative attributes were seen as having detrimental effects on children. These included such games as the Fortnite game, which exposes children to inappropriate images, words and interactions with strangers. These interactions occur when children actively play in an electronic game that encourages them to communicate with others using a microphone, while also being able to hear the other player through headphones in

order to play together as a team. The last classification pertains to electronic games that have both positive and negative attributes. For instance, the Free Fire game enhances children's imaginative skills and their ability to role-play. However, it also exposes them to inappropriate images and language and encourages children to interact with strangers. This classification of the electronic games being used in the study is shown in Appendix B and is based on parents' perspectives regarding the impact on their children and the researcher's investigation of the media skills required to play them, for example, touching a screen, swiping, dragging and clicking.

In this study, parents were categorising electronic games based on the observed impacts on their children during gameplay, as reported in their notes taken during interviews. This classification of electronic games is inconsistent with several studies that focused on the classification of electronic games, such as Doherty et al. (2018) and Hiasat (2014). However, it is noted that initially, researchers' categorisation of electronic games was based on their settings. Doherty et al. classified electronic games based on four criteria: interaction frequency, error tolerance level, mobility constancy and movement control. On the other hand, Hiasat (2014) categorised electronic games into two groups: finite electronic games (the game has an ending) and infinite electronic games (the game either remains the same or loops indefinitely), rather than what parents thought regarding their effects on their children. In the current study, parents' classification of the games in use influenced their decision-making regarding their children's access. Moreover, the parents linked their perceived effects of electronic games on their children's learning and wellbeing to their decision-making process. For example, although parents supported their children's use of educational electronic games, they limited their use of other games with negative effects, such as shooting, to decrease the potential negative impact, that is, possibly promoting violent behaviour through imitation. Electronic games with positive and negative attributes were considered a challenge for parents to make their decisions; this challenge was evident in the inconsistent approach to decision-making, where parents may occasionally give permission for their children to use electronic games while other times they would not. Therefore, parents need to seek information regarding the specific competencies necessary for playing, as well as the competencies that children acquire through play; they also determine if an educational app truly provides any advantages (Felini, 2015). As a

result, parents in this study were diligent in ensuring they were aware of the purpose of a game and the nature of its content in order to be able to understand its potential usefulness for their children's benefit as part of their decision-making.

In addition, the researcher examined the way the electronic games worked in terms of the kind of media skills that were required to use them. As a result of an immediate need to create enhanced assessment systems for digital content aimed at children in the early stages of childhood that consider the user's skills and experience (Crescenzi-Lanna, 2022). In addition, parents need to help with their ability to choose age-appropriate and personalised digital content for each child (Livingstone et al., 2017). This illuminated, to some extent, how the younger children were able to play a game despite not necessarily having an understanding of the content. However, young children's imitation of their parents' and older siblings' actions serves as an exemplification.

Each electronic game requires the children's ability to participate and aims to achieve a specific objective. Therefore, the suitability of a game's design and content for children's development significantly affects their responses, influencing both the duration of their engagement with it and their level of enjoyment (Crescenzi-Lanna, 2022). Whereas accessibility is a crucial aspect of an app, it needs to be understandable, attainable, clear to the children who use it and appropriate for their age (Brooks et al., 2017). In addition, regardless of the purpose of games, it is essential that the goal be clear to young children so that they are aware of what they need to do (Crescenzi-Lanna, 2022). Therefore, parental mediation plays a crucial role in overseeing children's screen-based media exposure, as it aids very young children in comprehending the content more effectively and applying what they observe on screen to different situations (Swider-Cios et al., 2023). Parents, therefore, seek to know the goal and content of the game in order to encourage their children to engage in electronic games through the *scaffolding* approach.

5.6. Summary of the chapter

This chapter discussed the research questions in relation to parents' perceptions of young children's use of electronic games as well as the influence of Jordanian culture on parents' decision-making regarding their children's use of them. Moreover, it revealed three key insights. Firstly, in the Jordanian context, culture influenced not only parents' decision-making regarding the use of children's

electronic games but also the interrelatedness between culture and religion. Secondly, it discussed parents' tensions that arose among them and their children due to the challenges regarding their priorities for their children that relate to their language development, parental decision-making, improvement of specific skills and entertainment preferences. This chapter also outlined factors that were found to influence parent's decision-making regarding children's access and use of electronic games. Finally, it discussed parents' perceptions of the classification of electronic games used by the Jordanian children in this study and the researcher's identification of the media skills required to play and the need for parents' mediation.

CHAPTER 6: CONCLUSION

6.1. Introduction

This study was undertaken both during and after the COVID-19 pandemic (2021–2024). During this time, young families throughout the world found themselves locked down. Despite the fact that the Jordanian population is considered highly sociable, the lockdown imposed severe regulations, preventing any social occasions or public events (Al-Tammemi, 2020). Thus, families, including young children, resorted to screen technology for their work, study and entertainment, typically watching television and movies and playing electronic games (Malkawi et al., 2022).

Even though a focus on the COVID-19 pandemic was not initially considered as the key focus or intent of the study, the fact that the research was confidentially conducted at the same time added to the depth of the investigation in heightening the families' need to make decisions about their use of technology on a daily basis. In the end, the research provided important insights into the impact of the pandemic on the families' lives in relation to the challenges involved in making decisions about their young children's access and use of electronic games. These challenges became evident in multiple ways and are exemplified in parents' testimonies in the thesis. Overall, there was an increase in children's use of electronic games, as the COVID-19 pandemic and lockdown pressured parents to find ways of engaging their children in educationally meaningful tasks. However, the research found that these extraordinary circumstances had a substantial impact on swaying parents' decision-making in favour of their children's use of electronic games despite a range of concerning language and cultural considerations. The parents shared a wealth of important perspectives regarding their encounters and frustrations with the purposes, appropriateness of content, language and culture, and educational value of the electronic games available to them. Hence, the parents were quite critical of the electronic games they had approved for their children to play and frequently associated their discussion with the impact of the COVID-19 pandemic on their decision-making.

The games referred to by parents during this study were generally synonymous with those played by the children during COVID-19 although the data were collected towards the end of the lockdown. In addition, it was noted that the

children continued to engage with the same games. Consequently, as noted earlier, the parents shared and demonstrated substantial knowledge regarding the electronic games they had approved for their children's use, along with their impact on their children's learning and behaviour. In addition, the study showed that parents employed a distinct matrix to make their decisions about using their children's electronic games.

An overview of the background of electronic games was provided in Chapter 1, which highlighted their increasing popularity in both Western and Eastern countries, including Jordan. Chapter 2 focused on existing research literature regarding parents' perspectives on electronic games, including benefits and drawbacks and how values and culture has affected their electronic game decision-making, particularly with regard to Arab and Jordanian culture.

In Chapter 3, the researcher explicated her hypotheses concerning her research paradigm, ontological stance, and epistemological perspective. In addition, this chapter provided a justification for the research design, selection of data collection tools and analytical procedures, and research decisions employed in this study. Chapter 4 reported the analysis of the research results of parent interviews regarding their young children's use of electronic games, as well as the potential impact of culture and religion on their decisions.

Chapter 5 discussed the study's findings and the significant insights that emerged on the phenomenon of Jordanian families and parent's decision-making regarding their young children's access and use of electronic games, based on the data gathered and the ensuing qualitative analysis for this research. Finally, this chapter, Chapter 6 addresses the study's key contributions to knowledge, including methodological contributions as well as contributions to the field. It is followed by an outline of the implications and recommendations of the study. Lastly, recommendations are made for future research.

6.2. Contribution to the field and knowledge

The contribution to the field is due to the uniqueness of the study in relation to exploring parents' perceptions about using their children's electronic games and the influence of culture and religion on parental decision-making regarding using children's electronic games in the specific setting of Arabic culture, particularly Jordan. This study employed qualitative research methods, including case study

analysis, and adopted an interpretivist approach to gain a comprehensive understanding of the subject matter. As well, this research was conducted in the micro-level environment of children's households in order to gain a deeper understanding of the context of Jordanian families and parental decision-making regarding their children's access to and use of electronic games in the home.

Thus, this study presents valuable insights into the deep connection between culture and religion, and their impact on parents' decision-making about their children's access and use of electronic games. This interconnectedness was central to the way parents critiqued the games' content, suitability and educational value, though their children were also found to be given a voice in their own preferences. Thus, while parents sought to ensure that the messages sent by the electronic games aligned with their cultural and religious values, they were somewhat forced into compromise based on their children's *addiction* to playing the games regardless of their criticisms and the lack of more appropriate alternatives.

6.2.1. *Parents' decision-making within the entanglement of culture and religion*

This study identified the complex nature of parents' decision-making, especially when it is made within the entanglement between culture and religion. Although the influence of culture and religion has been previously investigated, the contribution that this study provides to knowledge is the impact this entanglement between culture and religion has on decision-making. The concept of entanglement reflects the complicated and challenging task that parents face when balancing their cultural and religious backgrounds with the responsibilities of raising children in the modern world. This entanglement is particularly evident within collectivist cultures such as Jordan, where this personal decision-making involves their approval of their children's access to and use of electronic games, making them responsible for ensuring compliance with their cultural and religious beliefs and practices, bearing in mind a strong community social context where parents take such responsibilities very seriously.

Thus, this study's identification of parents' agency in their cultural and religion-based decision-making represents another significant contribution to the field in the way parents were actively seeking their compatibility with the way their children spent their time at home. When they made their decisions, particularly in relation to electronic games or other similar phenomena, they carefully sought to establish a

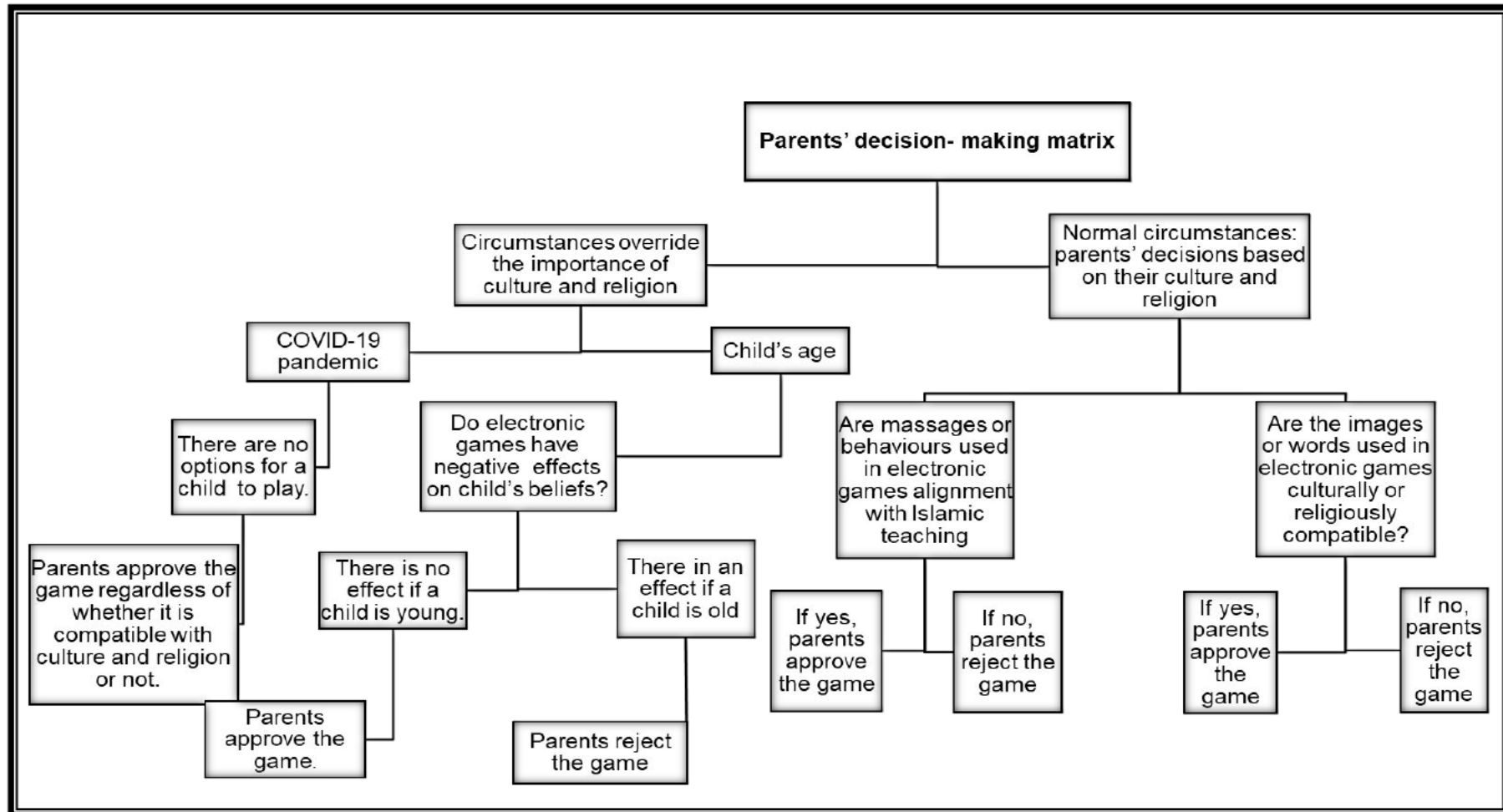
balance between abiding by their cultural and religious commitments and facilitating their children's learning and pleasure. In addition, in order to do this, the parents diligently made themselves aware of the electronic games' contents and their claims of educational value through reading several studies and papers that focused on the effect of such games on their children in order to make informed decisions. However, what was particularly challenging for parents' decision-making in this regard was the fact that these games were created in the West and thus contained Western content and reflected Western culture and values, so they needed to evaluate the potential risk of their children being exposed to conflicting information.

6.2.2. *Decision-making matrix*

The uniqueness of this study is seen in the creation of a decision-making matrix based on the key findings of the research. The analysis of parents' responses identified what decisions were being made, what these were based on, and how the decision was ultimately made. As noted in Chapter 5, parents evaluated the games by asking themselves, for instance, such questions as, "Is the vocabulary, images, messages, or behavior employed in the electronic game appropriate to Jordanian culture and religion?" It was found that these aspects were not always consistent with Jordanian culture and religion. More specifically, since the games were developed in the West and reflected Western culture, and parents evaluated their appropriateness, they needed to make some compromises to be able to allow their children's involvement; otherwise, they would have needed to decline their use. Through Chapter 5, a matrix was identified for parents' decision-making and how variables influence these decisions (see Figure 6.1). This matrix presents evidence supporting the notion that parents engage in substantial and evaluative decision-making processes, influenced by their Jordanian context, and communicate the reasons behind their decisions to their children. What also emerged from this study is the development of a dedicated problem-solving matrix that can be shared with parents more broadly to help them solve other phenomena.

Figure 6.1

Decision-making matrix for children's electronic games issues



6.2.3. *Circumstances that override culture and religion in parents' decision-making*

Further to this, the study identified how *the context for use* of the electronic games or particular circumstances may override or modify the importance of culture and religion in parental decision-making. Although culture and religion clearly exerted a strong influence on parents' decision-making with regards to the suitability of specific electronic games for their young children the context for use was shown to also be a major factor. For instance, the COVID-19 pandemic meant the children were locked down at home with more time than usual available for home activity and learning. Subsequently, parents were more pressured to allow the playing of electronic games, since they reportedly occupied a substantial amount of children's time. Similarly, parents also made allowances for their children's reluctance to stop playing the games in order to participate in more social family activities. However, although this challenge of dealing with children's addiction to playing electronic games is likely to occur anyway if usage time is not regulated, it highlights the importance of parents having knowledge on managing their children's home time, including access to and use of electronic games. This raises the issue of parents' role besides their decision-making.

6.2.4. *The role of parents in using their children's electronic games*

This study presented data on the current electronic games that parents have either approved or rejected for their young children's use. This information holds significant value in terms of raising parents' awareness and aiding their decision-making process. Additionally, it provides valuable feedback to game designers regarding the concerns of parents with young children.

Implications and recommendations

The findings suggest that parents' decision-making is shaped by the entanglement of their cultural and religious values and responsibilities of their children's care and wellbeing. The compatibility of cultural and religious requirements with the content of electronic games was considered the main influence on parental decision-making regarding their evaluation of the appropriateness for their children's use. However, since it was also found that to some extent cultural and religious concerns may be overridden in parents' decision-making because of

extraordinary circumstances, such as the need for children to be meaningfully occupied during the COVID-19 lockdown at home, there are implications for policy development and the development of support strategies for parents' decision-making, not only with regard to children's access and use of electronic games but for the overarching management of children's *home time* as part of parenting responsibilities. This also has implications for parents to be more informed about parenting strategies and the selection of education resources as well as the value of hobbies, pastimes and sport in managing home time. More specifically, the research makes the following five recommendations with regard to maximising the usefulness of electronic games given their potential for supporting children's learning:

- (1) Parents need to be consistent in adhering to the decision-making matrix to guarantee that their decisions are well-informed.
- (2) The Jordanian government needs to foster the development and distribution of electronic games that are in line with their cultural, religious, and language values. This could serve as a way of convincing Jordanian parents to actively support and promote their children's engagement with educational electronic games.
- (3) The Jordanian government should create standards for electronic games to indicate their level of cultural and religious compliance to allow parents and purchasers to be aware of those with inappropriate messages, behaviours, and language.
- (4) The publishers of electronic games should support the development and use of standards to adequately inform parents and purchasers about content and age-appropriateness to ensure informed parental decision-making (Livingstone et al., 2017).
- (5) Research into issues related to families in general should recognise the underpinning influence of culture and religion when examining other issues has implications beyond electronic gaming.

6.2.5. Contribution to the field regarding parents' perceptions about the use of their children's electronic games

Further contribution to the field is raised awareness from this research that parents suggested the idea of a double-edged sword, which discussed the negative and positive effects of electronic games in relation to their tensions and priorities. In this study, parents linked the influence of electronic games to tensions in their lives. While parents hold the perspective that educational electronic games facilitate the acquisition of English vocabulary for children, they were seen as having a detrimental impact on their native language, Arabic. Further, parents acknowledged that educational electronic games had the potential to enhance children's skills in various ways; nonetheless, they perceived that the children were not attracted to this type of electronic game. Parents also perceived electronic games as entertainment tools for their children and expressed concerns about the potential negative impact on their health, wellbeing, and behaviour. Thus, the idea of a metaphor, including the double-edged sword that emerged from this research, can be used in future research to explore this situation or other challenging social issues.

Implications and recommendations

The findings suggest that parents perceive electronic games as a double-edged sword. While parents seek to achieve their priorities by encouraging their children to use electronic games, they face some negative consequences for their children as a result of using such games. Thus, the research offers the following recommendations to enhance the worth of electronic games and reduce their potential adverse impacts, such that parents:

- (1) Need to improve their understanding and recognition of the educational implications and benefits of electronic games.
- (2) Recognise that providing their children with electronic games to improve their skills in English can be advantageous.
- (3) Should not presume that educational advantages will naturally appear but rather recognise that children receive benefits from interactions with their parents. So, parents need to actively motivate their children to use quality educational electronic games seriously, as they can have a beneficial impact on children's learning.

- (4) Must be aware of the risks of exposing their children to multiple electronic devices at home.
- (5) Must be aware of their own behaviour in relation to the use of electronic games and devices and how it may reflect on their children's use of electronic games.
- (6) Need to provide their children with the ability to exercise independence in making decisions regarding their use of electronic games while still providing an appropriate amount of supervision and control.
- (7) Need to encourage their children to use electronic games to have fun as well as follow the recommendations of the World Health Organization in relation to using children's electronic games, particularly in relation to addiction to electronic games.
- (8) Consider their children's use of *home time* and manage the amount of time they spend playing electronic games compared with other activities, including participating in physical activities.
- (9) Ensure that screen protectors are installed on their children's devices as a measure for protecting their visual health.
- (10) Advocate for publishers of electronic games to expand their offerings to include quality English language learning, particularly speaking skills. (In Jordan, there is a notable desire among parents to teach English language skills to their children as a second language, owing to their awareness of its significance alongside Arabic).

6.3. Methodological contributions

Through case study methods, this research was able to identify the challenges each of these Jordanian families faced in their personal parenting decision-making regarding their young children's use of electronic games during the time of COVID-19 lockdown when the importance of children being educationally occupied while confined to the home environment was paramount. The focus on interviews and consideration of culture and religion, and the electronic games in use, as a key underpinning of the investigation, was a major facilitator in achieving a profound depth of understanding. Thus, the case study approach helped unpack the complexity of the cultural and religious considerations in the context of families'

personal parenting decision-making. It demonstrated its applicability to addressing how and why these parents made crucial decisions in the real-life context of their young children's desire to play electronic games (Baker, 2011; Yin, 1994). Overall, the study's research method of case study has contributed to new knowledge in revealing a highly effective approach to facilitating parents' engagement with their personal and highly sensitive decision-making in relation to their young children's education.

6.4. Suggestion for future research

Given that the present research was confined to a particular cultural and religious Islamic context and the selected electronic games represented Western mainstream values, it is important for future research to replicate this study in other cultural contexts and also conduct comparative studies, bearing in mind that there is no longer a pandemic driving parents so much to find ways of meaningfully engaging their children for long periods at home. Future studies may also benefit the field by investigating how parents address their children's *home time* activity decision-making and potential for learning and practicing skills, including those embedded in electronic games, given their potential for sustained engagement if there is quality design and quality learning content. Similarly, this study identified the importance of parents having sufficient information to make informed decisions about home time activities, which suggests future research could examine how this is best managed given the extensive amount of information available.

The findings of the study also suggest that parents may find the use of a decision-making matrix may assist them to make parenting related decisions when faced with challenging and sensitive situations. This strategy would help parents to more deeply understand the context and issues involved and be better able to argue the reasons for acceptance, rejection or compromise. This would also be particularly useful when parents may not agree on their course of action, although in the present study this was not the case. In addition, in order to obtain further insights into this phenomenon, future research could seek the perspectives of other stakeholders, specifically childhood experts and designers and publishers of children's electronic games. A comparable study could be carried out by selecting representative samples of parents from diverse geographical regions and/or socioeconomic backgrounds. This study would include additional variables, such as parents'

perspectives about age appropriateness of games, impact of learning and behaviour, and longer-term effects of their use, besides the opportunity to study any influence that parents' education and socioeconomic background may have on the effectiveness of children's use of electronic games.

Finally, this study's findings show that future research that is able to broaden understanding of how parents address their children's home time program in general and including electronic games and technological solutions would also contribute to the field in identifying the broader challenges and also good practice to better inform parents and caregivers.

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APPENDIX A

Categorisation of researchers for electronic games based on different factors

Classification of electronic games	Definition	Cited by	Example
Control action includes:	Control options for in-game characters and settings are comparable across games.	Doherty et al. (2018)	Cookie Clicker
A) interaction frequency	Which shows how often players must play to succeed.	Doherty et al. (2018)	Dark Souls
B) game's error tolerance level	This shows how many mistakes a player can make and still win.	Doherty et al. (2018)	Grand Theft Auto game
C) mobility constancy	It concerns game management consistency.	Doherty et al. (2018)	A game's keyboard or joystick action that's equivalent.
D) movement control	The similarity of physical actions used to accomplish actions in games.	Doherty et al. (2018)	Shooting game
Educational computer games	Educative computer games.	Gocheva et al. (2020)	
Educational mobile games	Using mobile devices to teach	Gocheva et al. (2020)	
Educational electronic games	Games that have learning purposes.	Samokhin et al. (2020)	
Non-Educational electronic games	Games that have entertainment purposes.	Samokhin et al. (2020)	
The finite electronic game	Game ends.	Hiasat (2014)	
The infinite electronic game	The plot is either fixed or looping forever.	Hiasat (2014)	

APPENDIX B

Categorising parents based on their perspectives regarding the effects of electronic games on their children

Name of game	Effect type	Effect	Media skills	Brief explanation
Simple line drawing game	Positive	Develops children's imagination, which is represented in drawing.	Clicking and swiping	The child can select the drawing tool and colour by clicking and draw by swiping.
Colour and Paint game	Positive	Develops drawing skills. learning more about colour names and recognition.	Clicking and swiping	The child can select the colour by clicking and the paint by clicking or swiping.
Writing letters game	Positive	Develops children's learning of Arabic letters.	Clicking and swiping	By clicking and swiping, the child can select a letter and trace it.
Match game	Positive	Develops children's learning of English alphabets	Swiping	The child can match between two cards by swiping.
Roblox	Positive	Promotes children's learning of new English concepts, and it trains the small and large muscles as it helps the child apply activities such as running and jumping in his real life.	Clicking and swiping	By clicking on the arrow, the child moves. Additionally, the child can swipe to move certain shapes that assist in their progress.
Learning Numbers game	Positive	Develops children's learning of mathematical concepts.	Clicking and swiping	The child needs to click to count numbers and swipe to trace them.
Pictoword game	Positive	Develops children's learning of complex English concepts.	Clicking	The child needs to combine two pictures to make a word by clicking on their letters.
Jigsaw puzzles game	Positive	Develops the child's logical thinking, observation, problem-solving and discrimination skills.	Clicking and swiping	To finish the picture, the child must click on each section of the components and swiping them.
Type Sprint	Positive	Develops children's typing skills.	Clicking	The child can write simple words by clicking them on the keyboard.
Minecraft game	Positive and negative	Develops children's creativity, design, and concentration skills. In contrast, it exposes children to eating pork.	Clicking and swiping	The child has the ability to dig up, extract resources, build structures, and create objects by using the action of clicking and swiping.
Free Fire game	Positive and negative	Promote children's imagination and role-play skills; in contrast, expose children to inappropriate images, words, and interactions with strangers.	Clicking and swiping	The child can move by swiping and shoot by clicking.

Name of game	Effect type	Effect	Media skills	Brief explanation
Fortnite and PUBG games	Negative	Exposes children to inappropriate images, words, and interactions with strangers. Increases violent and aggressive behaviour.	Clicking and swiping	The child must do a swiping to move and a click to choose the desired weapon and shoot.
Monster Egg game	Negative	Develops children's imaginations about monsters in their home.	Clicking and swiping	The child can move, collect DNA from other monsters by swiping, and fight the monster by clicking.

APPENDIX C

Semi-structured interview questions

Part 1: Demographic questions for parents:

- Education level
- Age; Gender
- Access to games
- Type of technology/gaming in the home environment
- Times at which games are played or accessed
- Families' income
- **Level of supervision**
- Preference for games
- Parental style; Your beliefs or religion

Part 2: For the research question 1: What are Jordanian parents' perceptions of young children's use of electronic games?

1. What do you think about young children participating in electronic games?
2. How do your children use electronic games, and how often? What games do they really enjoy?
3. What electronic games do you support the most? Why? What is the value of the particular games you're referring to? Why? Where do you get your ideas for these reasons?
4. What electronic games do they interact with the most, and why?
5. Do you think that electronic games have any educational value or support your children's learning in any way? how? Can you explain why you believe this or where you learned about the educational value of electronic games?
6. Do you think that electronic games stimulate children's imagination? Why and why not?
7. Are electronic games considered a means of self-learning entertainment? Why and why not?
8. Do you have any concerns about your children's use of electronic games? If so, what are they?

Part 3: for research question 2: How does Jordanian culture impact or influence parents' decision-making regarding their young children's use of electronic games?

1. What do you base your decision-making on when allowing or not allowing your child to play electronic games?
2. How do you decide which electronic games your child can play?
3. How do your values, cultural values, and beliefs influence your decision-making process?
4. Do you think electronic games should be restricted in the early years? Why and why not?
7. Do you think that electronic games affect children's religious beliefs, behaviour, and moral development? Why? How?

APPENDIX D

Consent form for interview



USQ HREC Approval number: [HXREAXXX](#)

Project Title

Parents' Perceptions About the Values and Benefits of Electronic Games on Young Children in Jordan: A Case Study

Research team contact details

Principal Investigator Details

Ms Halah Al-Ghwairy

Doctorate Supervisors

Dr. Alice Brown

Dr. Yvonne Salton

Statement of consent

By signing below, you are indicating that you:

- Have read and understood the information document regarding this project. ☐ Yes / ☐ No
- Have had any questions answered to your satisfaction. ☐ Yes / ☐ No
- Understand that if you have any additional questions, you can contact the research team. ☐ Yes / ☐ No
- Are over 18 years of age. ☐ Yes / ☐ No
- Understand that the interview will be audio recorded ☐ Yes / ☐ No
 - Understand that you can participate in the interview without being audio recorded. ☐ Yes / ☐ No
 - If you **do not** want the audio recorded during the interview, please initial here:
- Agree to participate in the project. ☐ Yes / ☐ No

Name (first & last)			
Signature		Date	

Please return this document to a research team member before undertaking the interview.

APPENDIX E

Participant information sheet (PIS)



USQ HREC Approval number: [HXREAXXX](#)

Project Title

Parents' Perceptions About the Values and Benefits of Electronic Games on Young Children in Jordan: A Case Study

Research team contact details

Principal Investigator Details

Ms Halah Al-Ghwairy

Doctorate Supervisors

Dr. Alice Brown

Dr. Yvonne Salton

Description

This project is being undertaken as part of Doctor of Philosophy, through the University of Southern Queensland, Australia.

This project will explore the Jordanian context in terms of parents' perceptions and understandings relating to young children's use of electronic games and investigate the distinctive nature of Jordanian culture the impact Jordanian culture has on parents' decision-making in relation to children's use of electronic games. The use of electronic games in young children is on the rise in both Western and Arab cultures. The COVID-19 pandemic has heightened the use of electronic games for both leisure and educational purposes. However, parents have conflicting perceptions regarding the benefits and values of electronic games, especially in relation to young children aged 18 months–4.5 years of age. Current literature addressing the use of electronic games has centred around Western contexts, with limited consideration for the impact that culture has on parental perspectives and subsequent decisions around the use of electronic games. This gap in current research is concerning, considering the important role parents play as first teachers of young children, as well as the impact on their decision-making from the contradictory messages' parents are currently receiving on this topic. Currently, there are also limited studies that have focussed on an exploration of this phenomenon from other cultural settings, such as Arab contexts.

Participation

Interview

Your participation will involve partaking in an interview that will take approximately one hour of your time.

Questions will include:

- Can you share a little bit of information about your children's use of electronic games?
- What are their favourite electronic games?
- What are your understandings of some of the benefits of electronic games?
- What are some of the concerns you have about electronic games?
- How do your values/beliefs potentially impact on your decision-making?

Photo documentation of context

An important part of learning about your context and your children's use of electronic games in the home, is capturing this information through photos or images. These are a great way for you to share your context with the researcher. This research project will invite you to take several photos of the places and devices that your children use for playing electronic games and to share this with the researcher during the interview process. These photos will not contain or be images of your children or their faces (to protect the identity of the children), but more of the places, spaces where children play electronic games, as well as the times and types of electronic games children play.

Your participation in this project is entirely voluntary. If you do not wish for the research team to talk to you, you are not obliged to grant permission. You are not obliged to take part if you do not wish to. If you decide to take part and later changes your mind, they are free to withdraw from the project at any stage.

You may also request that any data collected about you be withdrawn and confidentially destroyed
OR

You will be able to withdraw data collected about yourself after they have participated in the interview
OR

You will be able to withdraw data collected about yourself after the data has been analysed.

If you do wish to withdraw from this project or withdraw data collected about yourself, please contact the Research Team (contact details at the top of this form).

Your decision whether you take part, do not take part, or take part and then withdraw, will in no way impact their current or future relationship with the University of Southern Queensland.

Expected benefits

This research will contribute to existing research and insights into parents' perception of the value and benefits of electronic games, from a particular cultural perspective, including an awareness of the type of information and messages parents are currently receiving on this topic. The study will contribute to contextual insights into parents' perceptions about the value of electronic games and the impact that culture plays on parents' valuing and decision-making related to playing electronic games and using electronic devices. Finally, it is anticipated that insights from the study will provide educators with contextually and culturally relevant information in relation to the value of electronic games for young children's learning and development to better inform parents with their decision-making..

Risks

In participating in the interview,

1. There are minimal risks such as, time imposition – The researcher will be entirely flexible and arrange semi-structured interviews (1x 1 hour) at times that suit each participant.
2. Whilst it is unlikely, should a participant feel discomfort at any stage of the interview they will be able to request a short break, or to stop the interview. If you are experiencing any concerns or issues that arise from the research interview, please contact this free counselling psychology service - Shaker Mohammad via this number [REDACTED].

Privacy and confidentiality

All comments and responses are confidential unless required by law.

The interviews will be audio recorded and the purpose, e.g. for transcription.

- The expected time frame will be given to review and request any changes to the transcript before the data is included in the project for analysis.

The recording will be used for any other purpose (i.e. as a teaching/instructional tool)

- The translator will have access to the recording, where who may be involved in the transcribing of the recording.
- May it be possible to participate in the project without being recorded.

Participant's data will be not made available for future research purposes.

A short summary report of the aggregated findings will be available upon request.

Please include details about how participants will be provided or how they can access the results' project summary.

Any data collected as a part of this project will be stored securely, as per University of Southern Queensland's [Research Data and Primary Materials Management Procedure](#).

Data and findings from the research will be shared in a range of forms as part of the dissemination of findings. All data will be de-identified for future publications, presentations and dissemination purposes.

If you are interested in the findings from this study please contact the primary researcher for a copy of associated publications, and final thesis.

Consent to participate

If you are supportive of participating in this study, please sign the associated consent form (enclosed). By signing the participant consent form you are agreeing that you are are supportive of participating in this study.

Please return your signed consent form to the Principal Investigator prior to participating in your interview.

Ms Halah Al-Ghwairy

Email: [REDACTED]

Questions

Please refer to the Research team contact details at the top of the form to have any questions answered or to request further information about this project.

Concerns or complaints

If you have any concerns or complaints about the ethical conduct of the project, you may contact the University of Southern Queensland, Manager of Research Integrity and Ethics on +61 7 4631 1839 or email researchintegrity@usq.edu.au. The Manager of Research Integrity and Ethics is not connected with the research project and can address your concern in an unbiased manner.

Thank you for taking the time to help with this research project. Please keep this document for your information.

APPENDIX F

Details on data analysis process

Phase	Details of the procedure
Phase 1: Familiarising yourself with the data	Immersing myself in the data through reading and rereading of the data transcript in this study, this level will include transcribing all data obtained from interviews, photo documentation, and naturalistic contextual observation. Then the recordings will be listened to several times to check transcripts. In this phase, the researcher can create an appropriate format, such as writing comments in a notebook to highlight potentially interesting items
Phase 2: Generating initial codes	In this phase, the researcher will write down the code and highlight the text associated with it. It may reflect the language and concepts of the participants and be relevant to answering the research questions (Braun & Clarke, 2012). In this study, coding will include transcript text to distinguish ideas that form repeated patterns in the data (Merriam & Tisdell, 2015). This is done by reading the text several times and identifying the relevant text. The researcher will code hard-copy data, clearly identifying the code name and highlighting the text portion associated with it. Then, the codes will be analysed again to see if they can be combined or extended.
Phase 3: Searching for themes	During this stage, the researcher will switch from codes to themes. These codes will be screened and organised using tables and thematic maps. Potential themes will be divided into subthemes to ensure data coherence and cohesion. These subthemes will be created by screening and grouping identified codes based on shared meanings and characteristics. After that, within those subthemes, all relevant data extracts were gathered. On discrete sheets, general codes were placed. Each code will be combined with relevant codes, and each code group will also be combined with relevant groups to form a subtheme. To analyse broader meanings and major themes, subthemes will be given appropriate names and consolidated based on interaction. Each of these groups form a candidate theme, which will be given a name and a keyword to begin with.
Phase 4: Reviewing potential themes	This phase entails a recursive process in which the emerging themes are examined in relation to the coded data and the entire data set. The first step is to compare themes to the data extracts and determine whether the theme works in relation to the data. The second stage of the review—examining the themes in relation to the entire data set Subthemes, candidate themes, and identified codes will be reviewed during this phase by re-reading the entire data set and re-checking relevant texts and extracts. Some codes will be merged with other codes to avoid redundancy and guarantee cohesion. Themes capturing the most important and relevant data elements, as well as the overall tone of the data in relation to your research question.

Phase	Details of the procedure
Phase 5: Defining and naming themes	A final review of themes and subthemes is conducted at this stage, and codes are organized. A few codes are re-classified to become more coherent and consistent, and the researcher should consider that the codes are related but do not overlap, so they are not repetitive, even though they may build on previous themes; and it directly addresses the research question.
Phase 6: Producing the report	Following the completion of the analysis, the results are presented in a dissertation/thesis. The goal of the report is to tell a compelling story about the data that is based on the analysis where the narrative must be convincing and clear in order to tell a coherent story about the data.

Note. This table demonstrates thematic analysis on both the interviews and the documentation (naturalistic observations) using Braun and Clarke (2012).

APPENDIX G

Certification for English translation of interviews



مؤسسة دار سيليما للترجمة والتدريب

Selena Bureau for certified Translation duty licensed for providing legal Translation services and Training

To whom it may concern

The administration of Selena Bureau for authorized Translation certified
that

The Arabic paragraphs in this study translated to English language



<https://www.facebook.com/profile.php?id=10087410053143>

APPENDIX H

Jordanian parent and child details

	Parent's name	Gender	Residence place	Parent age	Child age	Parent's education	Parent's religion	Parenting style	Parent's work	Family income	Type of device	Game access
F1-M	Rawan	Female	Zarqa/ House	42 yrs	4 yrs	Bachelor	Islam	Authoritative	At-home mum.	No income	Smartphone Laptop	Modem
F1-F	Ahmad	Male	Zarqa/ House	47 yrs	4 yrs	Bachelor	Islam	Authoritative	Employee	600 JD	Smartphone Laptop	Modem
F2-M	Razan	Female	Zarqa/ House	28 yrs	4 yrs	Master	Islam	Authoritative	At-home mum	No income	Smartphone PlayStation	Modem
F2-F	Ali	Male	Zarqa/ House	33 yrs	4 yrs	(Year 12)	Islam	Authoritative	Policeman	400 JD	Smartphone PlayStation	Modem
F3-M	Jory	Female	Zarqa/ Apartment	32 yrs	4.5 yrs	Bachelor	Islam	Authoritative	At-home mum	No income	Smartphone and PlayStation	Modem
F3-F	Essam	Male	Zarqa/ Apartment	35 yrs	4.5 yrs	Bachelor	Islam	Authoritative	Special business	500 JD	Smartphone and PlayStation	Modem
F4-M	Tasneem	Female	Rusaifa/ House	41 yrs	4 yrs	(Year 12)	Islam	Authoritative	At-home mum.	No income	Tablet	Modem
F4-F	Hesham	Male	Rusaifa/ House	42 yrs	4 yrs	(Year 12)	Islam	Authoritative	Property management	600 JD	Tablet	Modem
F5-M	Kinda	Female	Rusaifa/ Apartment	30 yrs	3 yrs	Bachelor	Islam	Authoritative	At-home mum	No income	Smartphone	Modem
F5-F	Mazen	Male	Rusaifa/ Apartment	35 yrs	3 yrs	Master	Islam	Authoritative	Company employee	900 JD	Smartphone	Modem
F6-M	Laian	Female	Zarqa/ House	39 yrs	3.5 yrs	Bachelor	Islam	Authoritative	Teacher	550 JD	Smartphone PlayStation Tablet	Modem
F6-F	Akram	Male	Zarqa/ House	42 yrs	3.5 yrs	Diploma	Islam	Authoritative	Policeman	500 JD	Smartphone PlayStation	Modem

	Parent's name	Gender	Residence place	Parent age	Child age	Parent's education	Parent's religion	Parenting style	Parent's work	Family income	Type of device	Game access
											Tablet	
F7-M	Leen	Female	Zarqa/ House	38 yrs	4 yrs	Bachelor	Christian	Authoritative	Teacher	600 JD	Smartphone	Modem
F7-F	Rayan	Male	Zarqa/ House	49 yrs	4 yrs	Bachelor	Christian	Authoritative	Teacher	650 JD	Smartphone	Modem
F8-M	Noor	Female	Zarqa/ House	32 yrs	4 yrs	Diploma	Islam	Authoritative	At-home mum.	No income	Smartphone	Modem
F8-F	Laith	Male	Zarqa/ House	36 yrs	4 yrs	Bachelor	Islam	Authoritative	Policeman	500 JD	Smartphone	Modem
F9-M	Hadeel	Female	Rusaifa/ Apartment	40 yrs	4 yrs	Bachelor	Islam	Authoritative	Govt employee	400 JD	Smartphone	Modem
F9-F	Saif	Male	Rusaifa/ Apartment	48 yrs	4 yrs	Bachelor	Islam	Authoritative	Govt employee	1000 JD	Smartphone	Modem
F10-M	Salma	Female	Zarqa/ Apartment	46 yrs	4 yrs	Diploma	Islam	Authoritative	At-home mum	No income	Smartphone Tablet	Modem
F10-F	Assem	Male	Zarqa/ Apartment	48 yrs	4 yrs	Diploma	Islam	Authoritative	Govt employee	400 JD	Smartphone Tablet	Modem

APPENDIX I

Details of electronic games referred to in the study

Name of game	Type of game	Publisher	Description of the game
Jigsaw game	Puzzle game	Graham Nelson, British	The focus of this game is for children to identify the appropriate place for electronic scattered pieces to create shapes such as animals. https://www.roomrecess.com/pages/JigsawPuzzles.html
Roblox game	Role-play game	Roblox Corporation, American	This game's objective is to have children create fictional characters, after which they compete to add various effects. https://playhop.com/tag/roblox_241
Minecraft	Adventure game	Mojang Studios, Swedish Xbox Game Studios, American	The purpose of Minecraft is to provide players with a virtual sandbox in which they can explore, build, and survive. https://www.minecraft.net/en-us
Free Fire	Shooting game	Garena, Singaporean.	This game's objective is to search for enemies' weapons, kill them, and remain alive within the play area. https://ff.garena.com/en/
Color and paint	Educational game	RV appstudios, United States	The purpose of this game is for children to draw a simple shape and colour it. https://images.app.goo.gl/2632VV1MH97sCWWC6
Simple line drawing game	Educational game	D3 Publisher, Japan	The objective of this game is to teach children how to draw using simple lines and a step-by-step instructional guide. https://apps.apple.com/us/app/simple-line-draw-stick-figure/id1168901832
'Monster Egg' game	Fighting game	Square Enix, Japan	The objective of the games is for a child to run with his or her own egg to collect DNA from different monsters to create his or her own monster and fight in the arena to show the power of monster evolution. https://apps.apple.com/us/app/monster-egg-3d/id1619966003
Match it game	Educational game	Ramkrishna Samanta, India	The purpose of this game is for children to match cards to an appropriate picture. https://g.co/kgs/aAWzHGd
Learning Numbers game	Educational game	GunjanApps Studios, India	The objective of this game is to teach children to recognise, count, write, and correctly pronounce numbers. https://apps.apple.com/au/app/numbers-123-play-learn/id6448083567
Pictoword game	Educational game	Kooapps Games, Philippine and Taiwan.	The objective of this game for children is to discover the correct word by connecting two related picture clues. https://www.youtube.com/watch?v=8gUmMrpEcW8
PUBG game	Shooting game	Krafton Inc, South Korean	The objective of this game is for children to shoot other participants, competing to be the last one surviving. Players have the option to enter the competition individually or as a small team. https://pubg.com/en-na/main
Writing letters game	Educational game	Trigonon, Kosovo	The aim of this game is to teach children how to write Arabic letters by tracing an electronic pencil, as well as how to pronounce them correctly.

Name of game	Type of game	Publisher	Description of the game
Type Sprint	Educational game	Masterskaya DK, British	https://apps.apple.com/us/app/arabic-alphabet-%D8%A7-%D8%A8-%D8%AA/id1271745871 The goal of this game is for the player to rapidly or precisely type in displayed words or numbers on the screen. https://www.gameloop.com/game/trivia/type-sprint-typing-games-practice-training-on-pc
Subway	Adventure game	SYBO company, Copenhagen, Denmark	The goal of the game is for children to outrun a railway inspector while evading trains, barricades, and other obstacles and accumulating coins for points. The child only needs to swipe left, right, up, and down to dodge obstacles. https://poki.com/en/g/subway-surfers
Hidden Objects - Christmas	puzzle game	Midva. Games, Serbia	The objective is to locate a number of hidden items, such as Christmas presents, on each level by using hints. The child must click or swipe on the item they missed. https://apps.apple.com/au/app/hidden-objects-christmas-fun/id942390500
Dress up game	simulation games	Roiworld company, South Korean	The aim of the game is a children's game involving the dressing up of a human or doll with clothing for role-playing or cosmetic purposes. The child has to swipe to select the material with which he or she wants to wear his or her doll (dress, accessory) and click to select a specific one. https://www.dolldivine.com/pretty-cover-girl
Fortnite	Shooting games	Epic Games, America	A multiplayer third person shooting game where up to 100 players compete to survive or win. To move, the child must swipe, then click to select the weapon and shoot. https://store.epicgames.com/en-US/p/fortnite