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Family and state intervention in youth gaming behaviours and effects on family relationships

Dajun Wang

Student ID: xxxxxxx

Submitted in fulfilment of the requirements
for the degree of *Doctor of Philosophy*

School of Urban Studies
School of Education

College of Social Science

University of Glasgow

May 2026

Declaration

This thesis has been composed by the undersigned. It has not been submitted or accepted in any previous application for any degree at this or any other universities. This thesis has been completed by me, unless otherwise indicated in the text.

Dajun Wang

May 2026

Previous Published Dissemination

Conference Presentations

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Abstract

Background

Starting in September 2021, the Chinese government introduced an anti-addiction policy for young people using mobile games aiming to prevent the youth from spending more time and money on mobile games and expecting them to invest more energy in studying and extracurricular activities (https://www.gov.cn/zhengce/zhengceku/2021-09/01/content_5634661.htm). The policy strictly restricts youths to only play mobile games from 8 pm to 9 pm every Friday, Saturday and Sunday, stating that relevant schools and parent-caregivers (PCRs) should cooperate with the government's policies. However, there has not yet been a clear study exploring the understanding of the policy among youth and PCRs during the implementation of the policy, as well as their views and opinions regarding it. Based on the above situation, I raised several research questions:

(i) What are the problems, if any, of young people's online mobile gaming behaviours and parental and state interventions in China?
(ii) What are the reasons for problems, if any and how are family relationships affected?
(iii) What are the potential solutions, if any are required, to promote better family relationships and an appropriate level of intervention in young people's gaming?

The research questions were developed to investigate the reasons why young people play mobile games and to examine the perspectives of both youth and PCRs. The aim was to identify ways to balance gaming time and healthy family relationships and understand opinions from both PCRs and youth to find the best way to balance the time length of youth playing mobile games and family relationship.

Family Function Theory (Epstein et al., 1978) was used to investigate how Chinese families maintain family relationships with the emergence of youth mobile gaming on

six aspects: behaviour control, problem solving, communication, role, power dynamics, affective involvement and responsiveness. Additionally, both gender of youth and PCRs will be considered to understand stereotypical and / or counter-stereotypical patterns in gaming behaviour, family functioning, etc. The relationship between gender and psychological traits is best understood through a biosocial interactionist lens, which acknowledges modest between-group differences but emphasises vast individual variability within genders. While analyses reveal small average differences in traits like assertiveness or agreeableness (Costa et al., 2001) and in certain attitudes such as social dominance orientation (Pratto et al., 1994), these group means are poor predictors of any individual's attitudes or behaviours.

According to the Panopticon penitentiary by Jeremy Bentham (1785) on fragmental surveillance, Foucault's (1995) understanding of the Panopticon theory, refers that surveillance makes youth pay more attention to self-restraint because such surveillance is not full-time surveillance, which refers to and this form of surveillance encourages young people to remain constantly aware of potential monitoring. To avoid intentional or unintentional surveillance or monitoring coming at any time. When a young person wants to explore content on the Internet, it is necessary to consider whether their PCRs will see their browsing history and whether this content is appropriate in the eyes of their guardians. The self-restraint enhanced by this fragmented monitoring will gradually become automated and even become self-monitoring. Self-monitoring can allow youth to detect whether their performance is adequate or not and modify their actions if they detect that they are not effective for hardworking (Panadero and Alonso-Tapia, 2013).

In this thesis, I used Foucault’s (1995) Panopticon Theory to find out how Chinese youth currently face the surveillance of PCRs and government policies and what actions they will take after learning about these aspects. I will also discuss a new theory, called Anti-Panopticon, which means youth will become aware of their PCRs' surveillance and will behave as their PCRs expect, but they will eventually relax their vigilance and be discovered by their PCRs, which will affect family relationships. Anti-Panopticon Theory is mainly discussed how family relationships can be affected if the PCRs lack of the understanding on policy, the knowledge of rights, current situation about mobile games in the aspects of online safety, cyberbullying, an educational tool and gaming

design. With the difference of Hawthorne Effect, Anti-Panopticon theory further emphasis the situation about the opinion changing, it will be further discussed in **Chapter 6.**

Method

Surveys and semi-structured interviews were used as part of a mixed methods exploration. The research methodology was approved by the Ethics Committee of the College of Social Science, University of Glasgow (date: 14/03/2023).

The survey was used as the primary research method in order to investigate the different opinions of young people and their PCRs and the difference in their opinions informs the design of the semi-structured interview for in-depth research. The McMaster family function index (2000) and theory by Epstein et al. (1978) primarily served as the basis for the survey on family functioning. It focused on six parameters: responsiveness, communication, organisation, social network and partner relationships (all details in **Chapter 4.3**).

All 1,604 participants were recruited from the school enrolments: 812 students from the fourth to sixth grades (ages 9 to 12 years old) from three elementary schools. All three elementary schools were in Dalian, Liaoning Province, PR China. Additionally, 792 of these students' PCRs were recruited. To make the results more targeted, the family backgrounds of the three schools are different: one school typically enrols youth from families where PCRs work for government agencies, one school typically enrols youth from families where PCRs from commercial units (e.g., business companies, shopworkers and retail workers) and the third school typically enrols youth from families where PCRs' work in rural areas (e.g., farm workers, manual labourers). All participants were volunteers and they were not financially compensated.

The survey was designed from Qualtrics, there were 26 questions for PCRs and 27 questions for youth, mainly to investigate their motivations about mobile games, options on youth gaming behaviour and Anti-addiction policy and Family function test. Compare with the survey for youth, the survey for PCRs also investigates the

surveillance on youth mobile gaming. The original survey is designed in both English, Chinese version was translated by Qualtrics and final verified by me, the participants can choose each version to answer and if the participants choose Chinese version, the answer will be translated into English automatically by Qualtrics. The survey was written originally in English, but the process analysis was used both English and Chinese, the English version is only working for the PhD thesis.

Two structured questionnaires were developed: one for youths and one for PCRs. Both versions were administered in Mandarin Chinese to ensure comprehension and reduce language-related response bias. The surveys were designed based on the McMaster Family Assessment Device framework (Epstein et al., 1978), focusing on key dimensions of family functioning such as communication, affective responsiveness, behaviour control, roles and problem-solving. Reliability checks were conducted on key survey constructs adapted from the McMaster Family Functioning Framework, using Cronbach's Alpha to assess internal consistency.

The youth version was simplified in language and contained shorter and more concrete statements to match the cognitive abilities of participants aged 9–12. The parent version included parallel items but used more formal wording and included additional questions about parental monitoring strategies and awareness of China's anti-addiction policy.
All attitudinal items were measured using a 3-point Likert scale (Agree / Neutral / Disagree) to minimise confusion for younger respondents and to increase response accuracy. The surveys were distributed and collected through school channels, with paper-based questionnaires completed in a supervised classroom environment for youth, while PCRs completed their version at home.

Semi-structured interviews were conducted to gain deeper insight into participants' lived experiences and to explain patterns identified in the survey results. Interviews were carried out with a sub-sample of PCRs and youths who voluntarily agreed to participate in the qualitative phase. All interviews were conducted in Mandarin Chinese to ensure participants could express their opinions naturally and confidently. Depending on participant availability, interviews were conducted either face-to-face in a quiet room arranged by the school or online via video call. Each interview lasted approximately 30–60 minutes. With participants' consent, interviews were audio-

recorded and later transcribed verbatim. To protect confidentiality, all names and identifiable information were removed during transcription and participants were assigned pseudonyms. The interview questions focused on parental monitoring practices, youth perceptions of gaming restrictions, awareness of the anti-addiction policy and the influence of gaming-related conflicts on family relationships.

Data Analysis

Regarding data reliability, I used inter-item correlations and Cronbach's alpha to assess the consistency or responses and reliability of items. Survey data were entered into SPSS for statistical analysis. Prior to analysis, responses were screened for missing values and incomplete cases. Records with substantial missing data were removed, while minor missing values were handled using listwise deletion in relevant tests. Descriptive statistics were used to summarise demographic characteristics and overall response patterns. To examine group differences between youth and PCRs, cross-tabulations and chi-square tests were conducted. Gender-based comparisons were also analysed using chi-square tests of association. Furthermore, I use Mann-Whitney and Kruskal-Wallis tests to clarify the difference both youth and PCRs with gaming experience or not and the relationship of perceived personal importance between, gaming experience, concealment, family argument, supervision, perception of “disease” and intervention, also the relationship between family function, intervention and family argument.

The interviews were conducted in Chinese and transcribed verbatim. To ensure validity, I cross-checked all transcripts with the audio files. Data analysis employed a topic analysis approach, first using iterative open-ended coding to form initial codes, which were then categorised. To ensure consistency, citations used in this paper were translated using the Stream transcription tool and then thoroughly manually edited by me. To minimise bias, the texts were repeatedly read and counterexamples were actively sought. The final analysis mapped the codes to a broader theme encompassing the differing perspectives of PCRs and youth regarding mobile games.

Interview transcripts were analysed using Thematic Analysis as this method have serval advantages such as flexibility, easy to be understand by public and generate unanticipated insights (Braun and Clarke, 2006). After transcription, the data were repeatedly reviewed to ensure accuracy and familiarity. Initial open coding was conducted to identify meaningful statements related to gaming behaviour, parental surveillance, policy understanding and family conflict. Codes were then grouped into broader categories and refined into key themes. To enhance trustworthiness, the coding process included repeated review and reflexive memo writing to reduce interpretation bias. Selected themes were compared with quantitative findings to identify convergence and divergence, supporting the mixed-methods integration process.

Findings

From the Quantitative datasets, responses suggest that PCRs and youth have different opinions on such as supervision, concealment behaviour, and family arguments. I found significant differences in the responses of PCRs and youth to the same questions in the survey data. These differences included questions about parental supervision and family arguments, the impact of gaming on themselves, and whether PCRs and youth answered questions about the impact of gaming behaviour on family functioning. Additionally, PCRs thought the top three reasons for youth play mobile games are kill time (50%), stress relief (28%) and have fun (19%), however, from the perspective of youth, the top three are having fun (55%), teamwork with friends or strangers (37%) and killing time (25%). 50% of youth participants thought they can control their gaming behaviour by themselves while 90% of PCRs had surveillance behaviour on youth mobile gaming as they cannot trust they can limit themselves. With the difference opinion on playing games, increasing the judgement on playing mobile games. Through the survey, I found that the school did a poor job of promoting the anti-addiction system. Some PCRs (8% of the participants), did not know about the anti-addiction system and some youth groups did not know about it (22% of the participants). Furthermore, most youths use their PCRs' accounts to play mobile games, thereby evading the system's identity authentication set-up for youth groups.

Qualitative datasets revealed that the reason for the recurrent problems are that 1) the PCRs sharing their personal information and identities to youth on mobile games verification, because they PCRs are lacking understanding of anti-addiction policy. 2) different opinions from PCRs on youth mobile gaming occur the different type of family relationship: the PCRs who have gaming experience may make less intervention for youth, then make a better family relationship than PCRs who had no gaming experience and strong surveillance on youth mobile gaming behaviour.

Based on the interview, I found that because of the limited understanding of the country's anti-addiction system and policies, this situation leads PCRs to provide personal information voluntarily for youth to play mobile games; despite this, most PCRs do not endorse youth gaming because they are concerned about optical health and mental health or being busy with schoolwork to discourage youth gaming, resulting in conflicts with their youth. Furthermore, with the lack of experience with mobile games, PCRs often use short single-player game durations (e.g., 10 minutes) to control their youth's gaming, displaying a lack of in-depth knowledge about mobile games and insufficient communication with youth.

Discussion and Recommendations

My findings are consistent with the hypothesis that PCRs' attitudes toward mobile games differ based on the gender of the adolescent, particularly in terms of personal well-being, home stress, and family harmony.

Youth should take the initiative to communicate with PCRs, actively share and explain their views on electronic devices, games, etc. and build a good communication environment and family atmosphere. Research from Lansford et al. (2017) on youth–parent communication indicates that youth's active communication enhances mutual understanding and emotional security.

Schools should strengthen contact with PCRs, build wireless network base stations within the school and emphasise the issue of mobile games to PCRs before each holiday to regularly emphasise the government's policies and their specific content to PCRs.

Just like the research from Newman et al. (2019), using Epstein's (1978) six typologies of parental involvement, which indicated that PCRs in this study had significantly different views regarding the implementation of effective parental involvement behaviours by schools. PCRs should take the initiative to investigate the content of policies for youth and at the same time actively communicate with youth on mobile phones, computers and other electronic devices and discourage youth to use PCRs' identity information for game authentication, which will relatively increase youth's extracurricular activities. time; when problems arise, choose communication over coercive measures.

Although the data in the research does not represent the emergence of mobile games among the entire Chinese youth group, in future research may take such as the comparation of different provinces in China or take the long period following research, the methodology used in this research and the data obtained can be used as a template to conduct future research. With the improvement of the current anti-addiction policy, the country has relaxed specific time restrictions on mobile games. Return the control to PCRs, allowing them to manage the specific time periods and duration of youth mobile games according to the situation and improve the relationship between family members as much as possible while ensuring that their studies and family environment remain important.

Chapter 1. Introduction

1.1 The development of mobile games

Mobile games refer to video games that are designed to be played on mobile devices such as smartphones and tablets. These games have become increasingly popular in recent years, thanks to the widespread adoption of mobile devices and the advancements in technology that have made them powerful gaming platforms (Feijoo et al., 2012). According to SKYQUEST (2025), the Global Mobile Gaming Market was valued at USD $112 billion in 2023 and is projected to grow from USD $129 billion in 2024 to USD $400 billion by 2032, at a Compound Annual Growth Rate (CAGR) of approximately 15% over the forecast period (2025-2032). The accessibility, convenience and portability of mobile devices have contributed to the rapid growth of the mobile gaming industry, making it a significant and influential segment of the overall gaming landscape.

One of the defining characteristics of mobile games is their adaptability to the touchscreen interface of smartphones and tablets. Unlike traditional gaming platforms that rely on physical controllers or keyboards, mobile games leverage the touch capabilities of the devices and this has led to the development of a diverse range of gameplay mechanics, from simple tap-based controls to more complex gestures and swipes (Rodrigues, 2016). The intuitive nature of touch controls has somewhat democratised gaming, making it accessible to a broader audience, including those unfamiliar with traditional gaming peripherals.

The mobile gaming industry encompasses various genres and styles, catering to players' diverse interests and preferences. Mobile games offer a vast and dynamic range of experiences, from casual puzzle games to immersive role-playing adventures. The genres of games are developed for users for multiple reasons. Furthermore, developers leverage the unique features of mobile devices, such as accelerometers, gyroscopes and GPS to create innovative and engaging gameplay mechanics, while augmented reality (AR) and virtual reality (VR) technologies are also being integrated into mobile games, further expanding the possibilities for interactive and immersive gaming experiences.

The integration of this technology has transformed gaming, providing players with enhanced engagement, interactivity and virtual reality (Shrivastava and Sharma, 2020).

Applications of mobile technology in business have been widely reported in mobile commerce research. For example, Okazaki (2005) conducted an empirical survey of the perceptions of multinational corporations (MNCs) operating in Europe regarding the adoption of SMS-based mobile advertising, with the results showing that branding strategy, facilitating conditions and security and costs are the strongest determinants. The cultural difference (between Japanese, American and European firms) in terms of users' perceptions of adopting mobile advertising was statistically significant (Okazaki, 2005). Wang and Liao (2007) proposed an instrument for researchers to develop and test mobile-commerce systems and Mallat (2007) presented a qualitative study on consumer adoption of mobile payment technology, the findings of which suggested the relative advantage of mobile payments was different from that specified in adoption theories. Mallat and other researchers (2008) further investigated the adoption of mobile ticketing services in public transportation and the fit-viability model was used to interpret the successful adoption of mobile technologies in organisations (Liang et al., 2007). Meanwhile, Ngai et al. (2007) argued that radio frequency identification (RFID) could benefit an organisation, with particular reference to the operators of a container depot.

Mobile commercial processes, especially mobile payments, bring hidden dangers to mobile phone usage in different regions. For example, on social media, it is not uncommon for users to be presented with ads for mobile games and such ads will make people try to download and play these games and show their interest in them. As per data from Statista (2024), the in-game advertising market was valued at USD $8 billion in 2023 and is projected to grow significantly, with one forecast projecting a worldwide revenue of USD $124 billion. Additionally, in certain mobile games, young people can easily spend money and buy items by linking a bank card, tapping to buy and confirming with a face. Once the youth begin playing mobile games without any surveillance measures, their PCRs may hard to know when and how their money is spent.

The business model of mobile games has evolved alongside their technological advancements. While some mobile games are available for a one-time purchase, many follow a free-to-play model supported by in-app purchases (IAPs) or advertisements (Ravoniarison and Benito, 2019) and this model allows players to download and play games for free, with optional purchases for virtual goods, power-ups, or cosmetic enhancements, while ad-supported games generate revenue through the display of advertisements during gameplay, providing an alternative monetisation strategy. The accessibility of free-to-play games has contributed to the widespread adoption of mobile gaming, as users can engage with games without the barrier of an upfront cost (Kostopoulos et al., 2023). The benefit of releasing a game for free drastically improves the chances of the developer's game being downloaded (Heier, 2015). However, the admiration of the freemium strategy (free-to-play with in-app purchases) is merely felt by the developers and has triggered controversy from consumers. Critics of freemium games derive from two separate groups. First is the faction of people that oppose the 'Pay2Win' system. This system permits a game to allocate advantages to players who spend the most (typically called 'coiners'), rather than reward the most skilled players. The second group of critics comes from PCRs who have been charged hundreds of dollars as a result of their youth playing these games without the parent or account holder's authorisation.

App stores, such as the Apple App Store and Google Play Store, serve as central hubs for the distribution of mobile games, providing developers with a global marketplace to showcase and distribute their creations. The app stores also play a crucial role in ensuring the security and integrity of mobile games by implementing review processes and security measures. Developers must adhere to guidelines and standards set by the app stores to ensure that their games meet quality and safety requirements (the full dataset is available through: *https://store.steampowered.com/eula/1321200_eula_0*.

However, in China, in addition to the well-known mobile app stores above, there are also some third-party application stores, especially for Android phones; according to data from Digital Creative (2023), software such as Tencent My App Store, the largest third-party Android marketplace in China with over 163 million monthly active users. Others include Baidu Mobile Assistant, 360 Mobile Assistant and Wandoujia. In China, Google Play is blocked, so Android app distribution is mainly handled by third-party

app stores. Android developers need to navigate the many local app stores in China. To operate legally in China, websites and most local app stores need to have an Internet Content Provider (ICP) filing, which is a registration system. To get an ICP filing license, developers need to have a company in China or work with a local publisher.

The social aspect of mobile gaming is another key component that distinguishes it from traditional gaming platforms (Li and Counts, 2007). Many mobile games incorporate social features, allowing players to connect with friends, compete against each other, or collaborate in multiplayer experiences. Social media integration, leaderboards and in-game chat functionality enhance the social dimension of mobile gaming, fostering a sense of community among players (Azadvar and Ni., 2025). They provide players with a sense of accomplishment and competition, motivating them to improve their skills and climb the ranks. Leaderboards can be global, regional, or limited to a player's friends, offering various levels of competition. Mobile games often leverage online multiplayer modes, enabling real-time interactions and competitions that transcend geographical boundaries (such as *Fortnite* and *Call of Duty*).

The global reach of mobile devices has led to the democratisation of gaming development. Independent developers and small studios can create and publish mobile games without the need for significant financial investments or extensive resources. Tools and platforms for mobile game development, such as Unity and Unreal Engine, have further lowered the barriers to entry, empowering a diverse range of creators to bring their ideas to life.

Mobile games have also proved to be a powerful tool for education and skill development. Youths feel more confident using mobile devices than personal computers (Li et al., 2021). Li et al.'s research demonstrates high self-efficacy in using smartphones, with studies indicating that they are generally confident in their ability to navigate and utilise these devices effectively (Li et al., 2021). In addition, no matter the environment, games prove a strong motivator in education for every generation, which is utilised by educators (Gocheva et al., 2020). Educational games on mobile platforms cover a wide range of subjects, from language learning to mathematics and science and these games leverage interactive and engaging elements to make learning enjoyable and effective (e.g., Duolingo). Additionally, mobile games designed for cognitive training

and skill development have gained popularity, offering users a fun and accessible way to enhance their mental abilities (Lu et al., 2017). This process of cognitive flexibility facilitates the adjustment of behaviour to adapt to new challenges and is core to critical and creative problem solving by allowing one to view problems from different perspectives and 'think outside the box' (Diamond and Ling, 2020). Educational games provide an adequate compromise between educational content and games that make informal educational exploration more enjoyable and engaging (Molnar and Frías-Martínez, 2011). Students navigate game environments with ease and regularly solve problems, engage in advanced collaborative efforts and communicate complex concepts and strategies to one another during their private gaming sessions at home (Aldrich, 2009). Digital games can be beneficial for youth's speech-sound learning and that gaming element, not just practice time or support learning (Junttila et al., 2022). For youth, the activity of intergenerational play helped them learn "how to help people". For PCRs, on the other hand, the activity meant that they learned about "how their youth react" and "how their minds worked" while spending time together as a family (Siyahhan et al., 2010). Games invite the player to form an understanding of intricate systems and mechanics based on participation and experimentation rather than mere observation and on these merits, games are often prophesised as a medium that will significantly change the face of education as we know it (Berg, 2013).

The evolution of mobile hardware, particularly the increased processing power and graphical capabilities of smartphones, has led to the production of visually stunning and technically impressive games. High-quality graphics, advanced physics engines and realistic animations contribute to an immersive gaming experience that rivals traditional gaming platforms. The convergence of mobile and console gaming experiences is becoming more apparent as mobile devices continue to close the gap in terms of performance and capabilities (Johnson and West, 2022).

Mobile games represent a dynamic and rapidly evolving segment of the gaming industry. Their accessibility, diverse genres, innovative gameplay mechanics and social features contribute to their widespread popularity (De Prato et al., 2010), while the continuous advancement of mobile technology, coupled with the creativity of developers, ensures that mobile games will remain a significant force in the gaming landscape. As technology continues to progress, mobile games will likely push the

boundaries of what is possible, offering new and exciting experiences for players around the world.

Despite the many positive aspects of mobile gaming, the industry also faces challenges and concerns. Issues such as in-app purchases leading to excessive spending, suggestions of 'addictive' gameplay mechanics and concerns about privacy and data security (Marty, 2025; Lee, 2025) have prompted discussions and regulatory scrutiny and striking a balance between creating profitable games and ensuring a positive user experience remains a challenge for developers and industry stakeholders.

1.2 Youth, mobile games and the family relationship

With the fast development of mobile technology, many functions of desktop computers have been transferred to mobile devices like tablets and smartphones, which is especially the case for game applications. Mobile video games refer to games played by either single or multi-players via online mobile devices. These games are particularly popular when they can be downloaded for free (Su et al., 2016).

The interplay of youth, mobile games and family relationships reflect that reflects the evolving nature of communication and shared experiences. The social logic of perpetual contact (Katz and Aakhus, 2002) refers to the anytime and anyplace access to friends and family afforded by mobile communication technologies. This connectivity has led to a new 'connected' mode of relational management, whereby physically distant others gain presence via a multitude of mediated communication gestures (Licoppe, 2004). Mobile games, ranging from casual puzzles to immersive multiplayer adventures, have become a significant part of the daily lives of young individuals. Young people are playing with peers, discussing games as a common interest and expanding their interactions and relationships (Lenhart et al., 2008; Olson, 2010; Orleans and Laney, 2000). This digital revolution has potential implications for family dynamics, as it introduces new elements to the traditional concept of bonding and shared activities.

The youth, representing a vibrant and dynamic cohort, serves as both the product and progenitor of contemporary cultural trends (Johnston et al., 2019). Young people

navigate a world characterised by rapid technological advancements and changing social norms. For youth, mobile-based games have become integral to their daily lives, particularly among primary school students, serving not only as entertainment but also as potential learning tools (Rosidah et al., 2025).

Mobile gaming's allure lies in its accessibility and convenience (Moos, 2016). With a few taps on a touchscreen, individuals can transport themselves into virtual realms of challenge and excitement, fostering a sense of agency and accomplishment. The gaming landscape, once confined to dedicated consoles or personal computers, has now permeated the pockets and purses of the youth, blurring the lines between the digital and physical realms. Psychologists and players say games have become cultural anchors and emotional escapes reshaping daily human connection (Barnett and Coulson, 2010; Berne, 1968; Isbister, 2016).

However, this digital integration is not without consequences, especially concerning the intricate web of family relationships. Traditionally, several families have bonded over shared activities and conversations around the dinner table—practices understood as key family rituals (Fiese et al., 2002). The advent of mobile technology has significantly reshaped daily family interactions (Ling and Lai, 2016), with mobile gaming introducing a new layer to these dynamics. This medium is actively redefining how families connect, communicate and spend leisure time together (Chambers and Gieseking, 2020). The traditional family structure is undergoing rapid transformation as young adults migrate to other regions seeking better employment opportunities (Silverstein et al., 2006; Glei et al., 2005). Understanding the impact of mobile games and gaming on family relationships is a nuanced exploration that demands consideration of both the positive and challenging dimensions of this technological shift.

This exploration is intended to unravel the complexities woven into the fabric of youth culture, mobile gaming and family relationships. From understanding the psychological appeal of mobile games for the youth to examining how these digital pursuits shape familial bonds, Gardner and Davis (2013) highlight the evolving dynamics of family life in the digital age. By unpacking the motivations behind youth engagement with mobile games and scrutinising the implications for family dynamics, they examined the interrelationships of youth, technology and family relationships.

At its core, this exploration grapples with the question of balance. How do families navigate the fine line between embracing technological advancements and preserving the essence of traditional familial connections? The answer lies in understanding the multifaceted nature of mobile gaming's impact on the youth and family life.

Based on the above situation and after reviewing the literature, I developed three research questions:

(i) What are the problems, if any, of young people's online mobile gaming behaviours and parental and state interventions in China?

(ii) What are the reasons for problems, if any and how are family relationships affected?

(iii) What are the potential solutions, if any required, to promote better family relationships and appropriate level of intervention in young people's gaming?

The subsequent sections of this discussion will unpack the layers and examine the psychological behind youth engagement with mobile games, exploring the allure of virtual worlds and the social dynamics that unfold within gaming communities. Simultaneously, I will dissect the challenges and opportunities presented to families as they navigate the integration of mobile gaming into their shared experiences.

Through this thesis, I hope to shed light on the transformative power of technology in shaping the familial environment and provoke thoughtful reflections on how families can embrace the digital age without losing the essence of what binds them together. This exploration delves into the multifaceted relationship between the youth, their engagement with mobile games and the impact on family relationships. From examining the role of technology in shaping social interactions to understanding how families navigate the integration of digital entertainment into their shared experiences, this thesis seeks to evolve dynamics in the context of contemporary family life.

The relationship between youth and PCRs is a multifaceted and dynamic interplay that significantly shapes individual development and societal cohesion. As the cornerstone of the family unit, this connection undergoes various transformations, mirroring the broader changes in societal norms, cultural values and psychological understandings.

This relationship between the younger generation and their parental figures is marked by evolving roles, communication challenges and the quest for autonomy and independence. In this exploration, I delve into the complexities of youth and parent relationships, seeking to investigate the underlying factors that influence these dynamics and their profound implications for both individuals and the broader social fabric.

1.3 Perspectives on youth and parent relationships

To comprehend the contemporary dynamics between youth and PCRs, it is crucial to examine the historical context that has shaped familial interactions over the years, exploring the impact of technology on youth and parent relationships and considering both the opportunities and challenges posed by the digital landscape.

In the digital age, technology has become an integral part of daily life, influencing how individuals communicate, connect and relate to the world (Castells et al., 2009). However, with the advent of the digital age, the convenience of electronic devices, the gradual popularisation and spread of the awareness of freedom and equality and the physiological development of youth during adolescence, I think these situations have greatly affected the traditional authority relationship between PCRs and youth (Fuligni, 1998).

The shaking of this traditional relationship has produced a great change, especially in mobile games. For example, youth may gradually stop listening to their PCRs' advice and prefer to spend more time on mobile games or social media, which intensifies the conflicts between them and their PCRs (Gold, 2014). Some PCRs even use various methods to supervise the use of mobile phones by youth, but because PCRs are not familiar with electronic products, this supervision is sometimes easily detected by youth and the original panopticon-like supervision will become a performance; the youth will be aware of their parent's supervision and behave in accordance with their PCRs' expectations to maintain a superficial good family relationship. Once this behaviour is noticed by PCRs, the previous balanced relationship will be broken, which will further

deteriorate the relationship between family members and lead to distrust between members (Robin and Foster, 2002).

As researchers navigate the intricate terrain of youth and parent relationships, it becomes evident that this dynamic interplay is influenced by myriad factors spanning historical, societal, psychological and cultural dimensions (Fouad and Kantamneni, 2008). Recognising the evolving nature of these relationships is essential for fostering understanding, empathy and healthy communication. By exploring the complexities and nuances within youth and parent connections, we can glean insights into the challenges faced by both generations and work towards creating supportive, nurturing environments that facilitate personal growth and familial harmony.

1.4 Societal changes and the evolution of family dynamics

The 20th and 21st centuries have witnessed unprecedented societal changes that have significantly impacted the dynamics of expectations, communication and shared experiences within youth and parent relationships. Rapid urbanisation, technological advancements and globalisation have ushered in new challenges and opportunities. The rise of dual-income households, changes in gender roles and the increasing influence of media have all played pivotal roles in reshaping family structures (Haq, 2024).

Understanding the psychological aspects of both PCRs and youth is crucial for unravelling the intricacies of their relationships. Parenting styles, attachment theory and adolescent development theories provide valuable frameworks for comprehending the emotional underpinnings of family dynamics (Cummings et al., 2020). Exploring how psychological factors contribute to the formation of bonds, the establishment of identity and the negotiation of autonomy within the context of the youth and parent relationship requires an understanding of the opinions from both PCRs and youth about mobile games, gaming behaviour and the acknowledgement of anti-addiction policy.

Effective communication is the bedrock of any healthy relationship and the youth and parent dynamic are no exception (Blechman, 1992). However, the generation gap,

differing communication styles and evolving modes of interaction often pose challenges to effective dialogue (Venter, 2017).

One of the defining aspects of the youth and parent relationship is the quest for autonomy and the establishment of individual identity. As adolescents navigate the path to independence, tensions may arise as they seek to define themselves as distinct from their parental figures (Gerson, 2009). Especially during the period of puberty, how to balance the developmental milestones associated with autonomy by youth, the role of parental support in fostering independence and the potential conflicts that may arise during this transformative phase.

Cultural contexts greatly influence the expectations and norms within family structures (Lansford et al., 2018). Discussing how cultural diversity impacts the relationship between youth and PCRs is important, especially using Epstein, Bishop, and Levin's (1978) theoretical framework, which is widely recognized in cross-cultural psychology. By examining both collectivist and individualistic cultural frameworks, I will explore how cultural values, traditions, and expectations shape the interactions between generations in Chinese families.

1.5 Addiction and youth mobile gaming

Addiction, in the context of youth mobile gaming, is characterised by an individual's inability to control the frequency and duration of their gaming activities, despite experiencing negative consequences in other areas of life (Paulus et al., 2018). It is important to emphasise that most current literature indicates that addiction pathology applies to adolescent gaming, although some scholars believe that youth gaming addiction is marked by symptoms similar to other behavioural addictions, including preoccupation, loss of control and persistence despite negative consequences (Tabish, 2025). The addictive nature of mobile gaming is often fuelled by the immersive and rewarding experiences designed by game developers to keep players engaged (Mohammed et al., 2024). Mobile gaming addiction among the youth refers to the excessive and compulsive use of mobile games among individuals in their adolescent

and young adult years, leading to negative consequences in various aspects of their lives (Irmak and Erdogan, 2016).

Video games allow the fulfilment of three psychological needs (i.e., autonomy, competence and relatedness) for compensating the highly frustrating physical world (Ryan et al., 2006). Most games allow players to exert autonomy over the in-game pursuits (to satisfy the autonomy need), exercise their skill and knowledge while facing challenges (to meet the competence need) and cultivate social connections (either with peers or in-game characters for fulfilling relatedness need; Marques et al., 2023). Many games are engineered to drain users' cognitive capacity by offering rewards to chase and constant psychological and physiological stimulation. Consequently, the action of playing these games can be like other potentially addictive activities, such as gambling or using substances (Zastrow, 2017)

Generally, when a mobile player's basic psychological needs are frustrated during gameplay, for example, being forced to act against their volition, not being competent, or feeling rejected or isolated), the symptoms of IGD can easily emerge. Escapism has also been empirically found as a significant mediator between psychological distress and gaming disorder (Bányai et al., 2019)

From NHS Digital (2020) in the UK, mobile gaming addiction can lead to psychological issues such as anxiety, depression and low self-esteem. The constant comparison with others' gaming achievements and the pressure to succeed in virtual environments can negatively impact mental well-being.

While video game addicts undoubtedly play frequently, an addiction involves more than just high gameplay; pathological gaming results in impaired social and psychological functioning (Lemmens et al., 2009). However, there is no clear definition of "addiction", so in this thesis, all words using "addiction" are used to clarify that the situation related to mobile gaming is more than a normal disorder.

However, this thesis does not position gaming within a framework of addiction pathology. Conventional interpretations frequently characterise excessive gaming as a form of compulsive behaviour associated with loss of control, neglect of responsibilities,

social withdrawal, and diminished well-being. While such concerns are evident in PCRs' perceptions in this study, the empirical findings suggest that this interpretation is overly reductive and fails to adequately capture the complexity of youths' gaming practices.

The data indicate that youths' engagement with mobile games is context-dependent and functionally diverse rather than uniformly pathological. For many participants, gaming is embedded in everyday routines and serves specific purposes, including stress relief, social interaction, and identity exploration. These findings challenge a singular "addiction" narrative and instead point to the need for a more differentiated understanding of digital engagement.

This position reflects a broader debate within the literature that questions the appropriateness of applying an addiction framework to gaming and other online behaviours. Critics argue that the concept of "addiction" risks oversimplifying a heterogeneous set of digital practices by reducing them to symptoms of disorder. In this context, Kardefelt-Winther (2017) proposes the compensatory internet use model, which conceptualises intensive engagement with online activities as a response to underlying psychosocial difficulties, such as stress, loneliness, or unmet emotional needs. From this perspective, behaviours that appear excessive may be more accurately understood as coping strategies rather than as primary addictive disorders.

Applying this framework to the present study, it becomes evident that what PCRs often interpret as "addiction" may instead reflect adaptive—albeit sometimes maladaptive—responses to offline pressures. This does not negate the potential negative consequences associated with excessive gaming; rather, it emphasises the importance of situating such behaviours within the broader social and familial contexts in which they occur. Accordingly, this thesis adopts a nuanced analytical approach that recognises both the risks and the functional roles of gaming, while foregrounding the relational dynamics that shape youths' digital practices.

Similarly, Aarseth et al. (2017) cautions against the premature medicalisation of gaming behaviours. Their critique of the DSM-5 and ICD-11 frameworks argues that formalising "gaming disorder" risks locking research into confirmatory, pathology-

driven approaches, potentially stigmatising normal recreational gaming and diverting attention from broader contextual factors shaping play . This concern is echoed in wider debates, where the inclusion of Internet Gaming Disorder as a diagnostic category has been criticised for conceptual ambiguity, inconsistent criteria, and insufficient empirical grounding (Király et al., 2015).

Other scholars further question whether "internet addiction" or "gaming addiction" constitutes a coherent clinical entity at all. Critics highlight that these labels often conflate distinct activities (gaming, social media, gambling) under a single framework, obscuring important differences in motivation, context, and outcomes (Pontes and Griffiths, 2014). In addition, the historical origins of "internet addiction" itself—initially proposed partly as a satirical construct—underscore the conceptual instability of the term and its ongoing lack of standardised definition (Friedman, 2020).

1.5.1 Connection between youth mobile gaming and addiction

Kim and Lee (2021) claim that the widespread availability of smartphones and the ease of downloading gaming applications contribute significantly to youth mobile gaming addiction. Smartphones are always within reach, enabling constant access to games. It breaks down traditional barriers to gaming and allows for gaming in any context—during commutes, in class, or at work—integrating it seamlessly into daily life (Panova and Carbonell, 2018). Gaming applications have become one of the main entertainment features on smartphones and this could be potentially problematic in terms of dangerous, prohibited and dependent use among a minority of individuals (Lopez-Fernandez et al., 2018). With mobile games at their fingertips, young individuals find it easy to indulge in gaming activities, often leading to excessive usage.

The development from the portable telephone to the personal, handheld computer and the ubiquitous integration of the mobile has taken place within just a decade. The pace of the resulting changes in behaviour, attitudes and their implications for identity formation, have potentially been significant. Yet even if there is a gap between what young people say about their use of mobiles and what they do, they are increasingly reflexive about their uses of this technology (Stald, 2008).

The Malaysian Communications and Multimedia Commission (MCMC) reported that the adoption of smartphone ownership grew higher amongst young adults, especially for those with higher internet access (MCMC, 2021). In 2005, 60% of those who played mobile games in the U.S. were young people between the ages of 13 and 17 (NPD Techworld, 2006). According to tom the Department of Protecting Youth Rights of the Central Committee of the Communist Youth League, in 2021, the number of underage Internet users in China reached 191 million and the Internet penetration rate of minors reached 97%.

The latest China Internet Network Information Center's (CNNIC) report revealed that the growth rate of mobile online games has reached 10% and adolescents are the main user group (CNNIC, 2018). In comparison with most segments of society, Kandell (1998) indicated that adolescents are more vulnerable to Internet-related addiction because of their psychological and developmental characteristics, the easy access to the Internet with a portable device and the positive expectation of mobile gaming. More recent research continues to support adolescent vulnerability but offers a more nuanced interpretation of so-called "addiction", emphasising developmental sensitivity, contextual factors, and the distinction between high engagement and clinically significant impairment (Przybylski et al., 2017; Pontes and Griffiths, 2015; King et al., 2018).

On one hand, some studies suggest that a minority of young people display problematic gaming behaviours associated with impaired well-being, emotional distress, and reduced daily functioning, supporting the relevance of constructs such as gaming disorder (Griffiths et al., 2017; Musetti et al., 2025). On the other hand, critics argue that framing gaming as an addiction may be conceptually misleading. Kardefelt-Winther (2017) proposes that intensive gaming often reflects coping or compensatory behaviour, while Aarseth et al. (2017) caution against the premature medicalisation of gaming, highlighting risks of over-pathologizing normal engagement.

Taken together, recent scholarship suggests that while some adolescents experience harmful patterns of gaming, these behaviours are not uniformly "addictive," but are better understood along a spectrum ranging from high engagement to problematic use, shaped by broader psychological and social contexts.

Even if this means that adolescent health behaviours need to be improved, if young people lack self-discipline and families lack good guidance and management mechanisms, it will also lead to problematic use of mobile phones among adolescents, for example, the portability of mobile phones make their use more hidden and undetectable. When young people use their phones horizontally or vertically, it is difficult for family members to tell what they are doing with their phones: watching videos, playing games or sending messages. These unclear phenomena will make it difficult for PCRs to distinguish their youth's current mobile phone behaviour and can easily lead to misunderstandings.

Gamification is a novel intervention strategy that may target intrinsic motivation through fun and enjoyment. Before the effects of gamified interventions on motivation can be determined, there must be an understanding of how gamified interventions operationalize rewards, such as point systems.

Many mobile games incorporate reward systems and in-game achievements to keep players engaged. The constant gratification from completing tasks, unlocking levels, or earning virtual rewards triggers the release of dopamine, a neurotransmitter associated with pleasure and reward, reinforcing the desire to continue playing (Wyatt, 2025). Online mobile gaming activities offer a system of goals and rewards where it gives players personal satisfaction and motivates them to play or use the application in the long-term (Šporčić and Glavak-Tkalić, 2018).

Reward systems in games can be viewed as player motivators or as compromises for easing disappointment. In modern video games, reward systems also provide social meaning within and outside of games (Reeves and Read, 2009). Reward mechanisms provide sense of fun by fostering intrinsically rewarding experiences and are equally or more important than the extrinsic rewards that are distributed (Wang and Sun, 2011).

Furthermore, reward systems differ based on the type of play and have different effects on players according to their preferences and motivations (Wang and Sun, 2011). Social and cultural contexts also determine how reward systems affect gaming experiences. Huizinga (2018), one of the first to argue that culture is derived from play and to stress

the cultural function of play, suggested that play has five characteristics: it is often a free activity; it is separate from ordinary life; it often involves no real-world profit; it proceeds according to fixed rules within temporal and spatial boundaries; players tend to form social groups marked by secrecy and separation from other groups. These characteristics, which have attracted much research attention and discussion, are associated with general play rather than video game play. The establishment and improvement of the reward mechanism in the game will encourage players to invest time and energy in the game. If the players have poor self-control, this investment is likely to affect their daily life, study and work (Huizinga and Hull, 2025).

Mobile indicates a level of potential engagement with the surrounding environment and geolocation input that is unnecessary or not evident in much casual mobile play. Clearly, these markers are purely indicative of general characteristics in a constantly moving and developing landscape of games, technologies and players (Willson and Leaver, 2016). Katz (2017) emphasised the role of mobile phones, especially as a fashion object, in identity creation and maintenance.

Licoppe (2004) argues that people can now maintain relationships through a complex web of co-present and mediated communication, where the distinction between the presence and absence of a salient other is blurred because they are always available through some means, creating a connected presence. People can manage multiple encounters at the same time and across time, from almost any preferred or convenient place or time and where simply maintaining contact or even the easy potentiality of contact is the primary message. Being able to communicate with different others while "cycling through" different communication devices foster a "multiplicity of digital selves" (Turkle, 2011, pp. 155).

An analysis from McMillan and Morrison (2006) about college communication majors' autobiographical essays (from 1998 through 2000) revealed that their internet use had implications for four main social spheres, each with a primary duality: self (active/passive personal development and management of information), family (different abilities and support from old/young members and staying in touch with members), real communities (participating in and planning for work/school or play even if distant) and virtual communities (expanding one's world view and social

memberships and fostering concerns about utopian/dystopian implications). The respondents indicated various dependencies throughout, but more intensely in the more personal spheres. These included expectations of being continuously connected in order to participate in the community, family or friendships; concerns about addiction; and the importance of future careers. U.S. college students use their mobile phones both to manage their privacy as well as keep in touch with their PCRs (Aoki and Downes, 2003).

Mobile games offer a platform for social interaction and competition. The desire to connect with friends or compete with other players globally can drive excessive gaming behaviour, as individuals seek social validation and a sense of accomplishment within the gaming community (Wang, 2024). The social dynamics within these games, such as forming friendships, competing with others and achieving recognition, can lead to increased engagement and, in some cases, excessive play. This behaviour is influenced by various social interaction factors, including the desire to escape loneliness, expand social networks and reinforce real-world social bonds. These elements contribute to the immersive and potentially addictive nature of mobile gaming environments.

It is important to recognise that mobile-MMOG (Massively Multiplayer Online Game) connectivity is equally contingent on its techno-cultural context. *The World of Magic: Imo*, the first mobile phone-based MMORPG (Massively Multiplayer Online Role-Playing Game), was launched in South Korea in mid-2006. Such innovations are unsurprising, given that South Korea already has a well-ensconced networked PC gaming culture (Chan, 2008). In other words, it has the right technology and the right audience for mobile MMORPGs to thrive.

Such connectivity represents a form of social capital for players. In this scenario, the social network cultivated by the game is combined with multiple resources of connectivity to enhance the possibilities for player mobility (Licoppe and Inada, 2006). Mobile gaming provides a site for thinking about the possibilities for harnessing and harmonising what may be characterised as cross-media adjacency, as in the PC and mobile interface. Along with the evolution of new material practices and cultural economies, convergence in this context also produces techno-cultural connectivity that engenders new modes of sociality.

For some youths, mobile gaming serves as an escape from real-world challenges, stress, or boredom. The immersive and alternate realities created by games provide a temporary refuge, leading to an overreliance on gaming as a coping mechanism (Kuss and Griffiths, 2017; Kardefelt-Winther, 2014). Individuals who feel the need to escape often turn to gaming as an option and while this is evident, it is equally important to delve into the impact that escapism has on gaming practice characteristics. In place of regular gaming, individuals with a strong inclination for escapism are at a higher risk of developing addictive gaming habits. In such instances, gaming often takes precedence as a central activity in the individual's life, displacing valuable time that could have been allocated to other essential life activities had problematic gaming not been a factor (Marques et al., 2023).

Rubin (2009) analysed media consumers' motives by categorising them more broadly as orientations. Ritualised media use orientation refers to the use of media for diversion, escape, or passing time. Instrumental orientation refers to media consumption to gain information. Most mobile games can be classified as media that cater to a ritualised orientation (although instrumentally oriented educational games occupy an important niche). Motivations predicting the use of mobile devices include accessibility, mobility, social utility and information-seeking, while the motive of passing time was related to playing mobile video games (Wei, 2008).

Demetrovics et al. (2011) identified seven motivational factors for online gaming: social, escape, competition, coping, skill development, fantasy and recreation. Brailovskaia et al. (2019) found that daily stress was positively associated with Facebook usage, which depressed individuals use to escape from stress and to find relief as well as social support. Haberlin and Atkin (2022) found moderately strong associations between salience (behavioural conditioning) and the fantasy and escape motivations for gaming-suggesting that, for some people, gaming can lead to a kind of dissociation. As mentioned previously, many people develop what is mostly a bad habit that can be relatively easy to correct.

1.5.2 Consequences of youth mobile gaming addiction

Internet addiction has been claimed to be one of the psychological problems that decrease academic achievement among adolescents (Jiang, 2014), with different types of addiction, such as instant messaging (Huang and Leung, 2009), online gaming (Jiang, 2014) and smartphone (Hsiao, 2017).

The gaming-addicted youth may also present with lowered academic performance, sadness, lower attachment to PCRs, behavioural problems, socialisation deficits, sleep disorders and various other problems (Przybylski and Mishkin, 2016; Zajac et al., 2017), continued internet gaming in the efface of knowledge of adverse impacts such as bad grades, poor relationships or job loss (Bass et al., 2016).

By using a short-term longitudinal design, Zhang et al. (2018) obtained data from 2,407 students from 47 classes in China over two waves across six months. From their research, a multilevel structural equation model was used to explain the nested data structure. Results indicated that the negative effect of internet addiction on adolescents' later academic achievement was mediated by academic engagement and disaffection at the individual level.

Furthermore, classroom achievement norm moderated the association between academic disaffection and achievement, with a significant indirect effect in the high classroom achievement norm classes and a non-significant effect in the low classroom achievement norm classes (Zhang et al., 2018). These results were held after controlling for an individual's gender, age and academic achievement in the first term at the individual level and the class size and school at the classroom level (Lin et al., 2019). This pattern is consistent with research demonstrating that classroom-level norms shape how individual motivational processes translate into academic outcomes. For instance, classroom goal structure research shows that achievement-oriented environments can amplify the effects of students' engagement or disengagement on performance (Murayama and Elliot, 2009; Ryan and Patrick, 2001). Similarly, studies on academic motivation indicate that the relationship between motivation and achievement is context-dependent, with stronger associations emerging in supportive, high-expectation environments (Martin and Marsh, 2008).

Addiction to mobile gaming can result in social withdrawal, as individuals spend more time in virtual worlds than engaging in real-life social interactions (Bhagat et al., 2020; Byeon, 2025). This isolation can lead to strained relationships with family and friends (Hall-Lande et al., 2007). Caused by over-immersion in the technological world, social isolation may be a severe issue facing this generation. Nevertheless, mobile social games may provide an appropriate social platform for lonely individuals to ease the unpleasant feelings caused by social isolation (Carter and Johnson, 2023).

Moreover, risk factors for the development of pathological gaming included personality styles marked by neuroticism, social isolation and diminished self-control, as well as mental health problems related to depression, anxiety and ADHD (Ferguson et al., 2011).

Zavaleta et al. (2017) defined social isolation as the inadequate quality and quantity of social relations with other people at different levels where human interaction takes place. A narrative survey analysis from 575 Indian students, using Young's online gaming addiction scale questionnaire, found that the average during for gaming is 3 hours and over 70% participants had the addiction-play time for 7 hours. Students who are addicted to online video gaming admitted that they are spending less time with their families and are failing to control emotions with other family members (Yarasani et al., 2018). Critics argue that the scale may over-pathologies high engagement by conflating intensive use with addiction, thereby potentially inflating prevalence estimates. Second, the reliance on self-reported data raises concerns about response bias, including social desirability effects and recall inaccuracies, as participants may underreport or overreport their gaming behaviour and its impact on family relationships. Third, the interpretation of findings is constrained by limited contextual information about the sample. For example, without clear specification of participants' age range, it is difficult to assess developmental appropriateness or compare results across adolescence and emerging adulthood, where gaming behaviours and self-regulation capacities differ significantly.

Moreover, the cross-sectional nature of the survey restricts causal inference; while associations are observed between gaming and reduced family interaction or emotional regulation difficulties, it remains unclear whether gaming contributes to these outcomes

or whether pre-existing relational or emotional challenges lead to increased gaming. Consequently, although the study offers indicative trends, its findings should be interpreted with caution, and further research employing longitudinal designs, multi-informant data, and more refined diagnostic instruments is required to establish stronger validity.

Adolescent users may turn to the internet to try to compensate for lower psychological well-being, a sense of isolation, or stressful life events (Gross et al., 2002) through entertainment or relationship maintenance (Leung, 2006). Based on the self-report method from Stockdale and Coyne (2018), 1,205 young adults to compared internet Gaming Disorder Scale (IGDS) video game addicts to matched non-addicts in terms of their mental, physical and social-emotional health, it has been demonstrated that video game addicts suffer poorer mental health and cognitive functioning and increased emotional difficulties, such as enhanced depression and anxiety, as well as more social isolation. The link between mobile game addiction and mental health may be due to the social isolation resulting from spending too much time gaming, which in turn leads to undermined psychological well-being (Kraut et al., 1998).

Physical health is the normal condition of an individual's body at all levels which promotes balance between the body's condition, adaptability, functions and freedom from any illness (Koipysheva et al., 2018). This is especially important in young adults because their physical health determines their interpersonal relationship, experiences and their quality of life as a whole. Physical health is very important to maintain as it helps an individual perform their best and have a great quality of life (Zakaria and Adnan, 2022). According to Chen et al. (2024), Malaysian youth spend more time engaging with mobile gaming applications through prolonged mobile device usage. These prolonged or extended usages, however, induces negative physical health symptoms mostly related to sedentary behaviour, optical problems, obesity and musculoskeletal issues in young adults. Koipysheva et al. (2018) stated that physical health can be defined as a normal functioning body at all levels to ensure the survival and reproduction of an individual with the absence of diseases or painful conditions. Physical health can also be determined as the physical preparedness in personal life that undergoes physical development due to external environment or activity. Physical activity is highly beneficial especially to youths because it can influence positive mental

development and wellbeing as well as lowering their depression and anxiety levels (Pascoe et al., 2020).

Chapter 2. Literature Review

Chapter 2 will mainly discuss the key terminology about online gaming, addiction and gaming addiction, the situation of online and mobile gaming and share the viewpoint about addiction in pathology. Furthermore, the influence of games and family relationships and how gameplay can benefit or bad situations for mental health. In the end, I will describe the anti-addiction policy and mechanisms.

2.1 Online and mobile gaming

2.1.1 Definition of youth

The dawn of the 21st century has witnessed an unprecedented fusion of technology and daily life. At the heart of this revolution lies the ubiquitous presence of mobile games, captivating the attention and leisure time of the younger generation (Nandkishore and Chandra, 2023). As smartphones become indispensable companions, the intersection of youth, mobile games and family relationships becomes a fascinating lens through which to understand the dynamics of modern familial bonds.

Youth is a multifaceted and dynamic phase of human life, encompassing a range of biological, psychological, social and cultural dimensions (Jones, 2002). While the exact age range defining youth may vary across societies and contexts, it is generally considered to be the period between childhood and adulthood, typically spanning from adolescence to early adulthood. This transitional phase is characterised by myriad physical, cognitive, emotional and social changes that collectively shape the individual's identity, values and aspirations (Evans, 2008).

Biologically, youth is marked by the onset of puberty and the maturation of reproductive organs, leading to the development of secondary sexual characteristics (Fortenberry, 2013) and these physiological changes are accompanied by rapid growth, increased energy levels and a heightened capacity for physical activities. The interplay of hormones during this period influences mood, emotions and behaviour, contributing to the distinctive characteristics of youth.

Psychologically, the youth phase is characterised by a quest for autonomy and identity formation and individuals at this stage often grapple with questions of self-discovery, personal values and life goals (Gill, 2012). Kelly and Allen (2015) claim that the development of cognitive abilities, including abstract thinking and problem-solving, allows young people to engage with more complex concepts and navigate the challenges of an evolving world. This cognitive growth also fosters creativity and a sense of curiosity, encouraging exploration and experimentation.

Socially, youth is a time of expanding social networks and relationships. Peers play a crucial role during this period, influencing attitudes, beliefs, behaviours and friendships become increasingly important, providing a support system outside of the family and contributing to the formation of social identity (Fortenberry, 2013). The pursuit of independence may lead to a renegotiation of relationships with PCRs and authority figures, as young individuals seek to establish their own autonomy while still relying on others for guidance and support (Mill et al., 2010).

Culturally, youth is often associated with cultural trends, movements and expressions (Bucholtz, 2002), this age group is at the forefront of adopting and shaping cultural norms, including fashion, music, language and technology. Youth culture reflects not only the preferences of this demographic but also serves as a barometer for societal changes and evolving values (Miles, 2000).

Education plays a pivotal role during the youth phase, as individuals transition through various levels of formal learning (Alemán et al., 2024). Educational experiences not only contribute to intellectual development but also shape social skills, values and aspirations, the choices made during this period concerning career paths and academic pursuits, laying the foundation for future endeavours and professional trajectories (Dwyer and Wyn, 2004).

Health and well-being are integral components of youth, as lifestyle choices established during this phase often impact long-term health outcomes (Breiner et al., 2015). Habits related to diet, exercise and mental health are formed, influencing overall well-being

and resilience (Fox, 1999). Issues such as substance abuse, risky behaviours and mental health challenges may also emerge during this period, requiring attention and support.

Political engagement and civic participation are increasingly recognised as vital aspects of youth development (Sherrod et al., 2010) as young people bring fresh perspectives, innovative ideas and a sense of social justice to the political landscape. As active citizens, they have the potential to shape policies, advocate for change and contribute to the democratic process (Banaji, 2008).

Despite the myriad opportunities and potentials afforded youth, this phase is not without its challenges. Societal expectations, peer pressure, economic uncertainties and identity struggles can create stressors that impact mental health (Sharma, 2015). Issues such as unemployment, discrimination and lack of access to education can disproportionately affect certain groups of young people, exacerbating existing inequalities (Jamatia, 2023).

Youth is a complex and transformative phase of human life that encompasses biological, psychological, social, cultural, educational, economic and political dimensions (Bucholtz, 2002). It is a period of exploration, self-discovery and growth, marked by the interplay of various factors that shape the trajectory of individuals and society at large (Schwartz, 2002). Recognising and understanding the diverse facets of youth is essential for fostering environments that support positive development and empower young people to contribute meaningfully to the world.

2.1.2 The evaluation of online gaming

With the development of the internet and mobile devices, online games, also known as online video games, have become a popular mode of leisure for youth, young people, adolescents and adults. Fascinated by the internet, mobile phones and video games, young people have found in them an extraordinary medium for relationships, communication, learning, the satisfaction of curiosity, leisure and entertainment (Rosell et al., 2007).

There are several reasons why adolescents play videogames (Castellana et al., 2006): they permit them to live out an adventure in the first person, implementing strategies in a virtual context without consequences in real life; they are an appropriate form of leisure pursuit for those with an interest in IT and new developments; they are comfortable to play, accessible and cheap and can be played in groups or alone, at home or in games centres and cybercafés; they can raise self-esteem, self-confidence and the capacity for achievement or improvement; and they are emotionally stimulating in view of their intensity and demand for rapidity of decision and reflexes.

Online gaming can be traced back to 1940 when the Nimatron was introduced, an electro-mechanical game that allowed players to experience a fun game using mathematics (Shah et al., 2025). From then, the concept of online gaming started to evolve and a second game had been developed, known as OXO (1952). Since then, the world has witnessed a turning point in online gaming development. Not only are people amused with the idea of playing online, but also with the concept of accessing numerous online games (Lee and Tsai, 2010).

With the continuous development of portable electronic devices, people hope to spend more time on computers or smartphones for work and leisure activities and several users have been attracted by online games, which represent a multibillion-dollar international industry (McGonigal, 2011).

With the rapid development of the internet in particular, online gaming has become a popular industry, providing new leisure activities for people to spend their free time on. Furthermore, online-gaming industries now form not only primarily professional events such as football tournaments, such as *League of Legends*, *Overwatch* and *Dota 2*, but professional, competitive video-gaming by professional gamers at tournaments has also given birth to a new definition: e-sports. Moreover, the continued professionalisation and commercialisation of e-sports has promoted the establishment of sports-like models, whereby various stakeholders can be integrated into various professional leagues, championships, teams, players, sponsors and media rights (Games Newzoo, 2016).

The attractiveness of watching e-sports is comparable to traditional sports viewing (Seo and Jung, 2016). In this sense, some of the motivations found in the traditional sports

environment may also apply to special online situations of e-sports, because those who seek to meet basic psychological needs may also be attracted to watching e-sports (Pizzo et al., 2019).

The development of online games has also had a different impact on society. Overall, video games can provide an enabling environment to cope with and learn from setbacks and failures (Durkin et al., 2015). In some standalone games, numerous opportunities have been designed and given to players to help them to try and absorb mistakes and make processes. Some of the negative impacts, such as addiction, resentment, rudeness, anti-social behaviour, isolation and fewer socialisation skills, have been noticed by other scholars (Curtis , 2015).

Video games can also broaden the social scope and abilities of certain groups of youth and address the sense of direction in a targeted manner. Otherwise, the positive impacts of online games are habituating youth to be responsible, friendly, visionary, have self-control, hard-working, be a person who like to share and many other impacts (Fuad, 2017), because in the vital world, they have to deal with problems by themselves. In line with social development, online games also affect youth's cognitive development; for instance, youth who play a game online have a stronger memory, better problem-solving skills and the capability to synchronise their brains, hands and eyes with high comprehension skills (Fuad, 2017).

2.1.3 Definition of addiction

As the definition from WHO (2019), addiction is a chronic disease. It affects a person's brain and changes their behaviour so that they act in a way that harms them. They become unable to stop taking a drug or engaging in a certain behaviour (gambling, shopping, online gaming) to the point where it becomes harmful. People may feel it does not hurt to take a drug or gamble occasionally for fun or with friends. In fact, some people are able to maintain their control over such behaviour. However, others lose their control and start doing it frequently, even if it causes problems for them. Eventually, if the drug use or other addictive behaviour continues, persistent changes occur in the brain. These changes make addiction a chronic disease. Addicted people

are at risk of relapsing into their problem behaviour and require long-term treatment – possibly even life-long treatment.

However, the concept of addiction is still complex and the meaning of this term has been debated both by scholars and by the public. Most typically, the idea of addiction has been applied to behaviours involving substance use and is reflected in current scientific nomenclature in the criteria for substance dependence disorder in the American Psychiatric Association's Diagnostic and Statistical Manual (DSM-IV, APA, 1994).

Differing perceptions about the meaning of the term 'addiction' are not merely academic debates. Instead, as Leshner (1997) notes, these differing perceptions 'matter' in many ways. For example, the conceptions of addiction and addictive behaviours that scientists and policymakers hold are likely to influence their policy decisions and how they allocate resources to treat and prevent addictive behaviours (Leshner, 1997). Similarly, within the lay public, individuals' views of particular behaviours as 'addictive' are likely to influence their perceptions of the risks associated with the behaviour and thus influence their decisions about whether or not to engage in such behaviours.

As mentioned above, addiction is currently categorised as substance dependence. Yet *substance dependence* is defined as compulsive drug-taking with classic hallmarks including craving the substance, development of tolerance (needing higher doses to achieve the same effect or deriving more negligible effect over time from a constant dose) and the experience of withdrawal symptoms (i.e., negative reactions to discontinuing use).

Video gaming is highly prevalent in modern culture, particularly among young people and a healthy hobby for most users (Jensen and Bengtsson, 2024). However, in recent years there has been increasing global recognition among public health professionals and academics that particular patterns of video gaming may lead to marked impairment in personal, family, social, educational, occupational or other important areas of functioning and psychological distress for a significant minority of players (Kuss and Griffiths, 2012). Individuals who engage in gaming should be alert to the amount of

time they spend on gaming activities, particularly when it is to the exclusion of other daily activities, as well as to any changes in their physical or psychological health and social functioning that could be attributed to their pattern of gaming behaviour.

Gambling disorder has long been included in formal classification systems and epidemiological surveys, but Gaming disorder was introduced as a new condition in the 11th revision of the International Classification of Diseases (ICD-11) endorsed by the 72nd World Health Assembly (WHA72) in 2019. From the World Health Organisation (WHO), disorders in video gaming due to addictive behaviours are recognisable and clinically significant syndromes associated with distress or interference with personal functions that develop as a result of repetitive, rewarding behaviours other than the use of dependence-producing substances.

2.1.4 What kind of behaviour can be called 'addiction'?

As introduced previously, the definition of addiction is complex, as it is found in different situations, such as smoking, alcoholism, or drugs. I would like to further explore the definition and interpretation of addiction on a case-by-case basis.

In terms of smoking addiction, its central principle is that the nicotine in tobacco will reach the brain within seven seconds of being inhaled into the human body, combine with the nicotine receptors in the brain and promote the secretion of dopamine in the brain, which will make people feel relaxed and happy (Nestler, 2005). As Chassin et al. (2008) note, there are two leading causes of smoking addiction: appetite and obsessive-compulsive disorder. However, different attitudes have emerged across adolescence and adulthood: for adolescents, both dimensions were equally crucial in the overall significance of addiction, while for adults, the compulsive dimension was more critical than the appetite factor (Casey et al., 2008; Somerville and Casey, 2010). The two dimensions of addiction were associated with perceptions of smoking addiction but were different for adolescents and adults with the appetite dimension a significant predictor for adolescents, whereas, for adults, the compulsive dimension was significant and appetite scores were primarily predictive with high recognition of the compulsive factor (Koob and Volkow, 2010; Nestler, 2005).

Although the reasons for smoking are analysed from the starting point, the purposes of adults and adolescents are different. Most of the reasons for smoking in adults are related to relieving or releasing anxiety in their lives, while adolescents may think that smoking is a way to indicate their extraordinary personalities (West, 2006; Shiffman, 2005). In contrast, adolescents are more likely to interpret smoking as a means of expressing identity, autonomy, or social distinction, often linked to peer influence and the construction of a desired self-image (Steinberg, 2008; Brook et al., 2001).

Alcohol addiction can cause changes in the brain and neurochemistry that make it difficult for drinkers to control their behaviour (Koob and Volkow, 2010). In other words, symptomatic people have uncontrolled drinking which dramatically impacts their everyday lives (Leeman et al., 2012). De Santis et al. (2020) showed that chronic alcohol consumption gradually increases the diffusivity of the extracellular space (ECS) in the brain's grey matter, which in turn gradually increases the diffusivity and concentration of neurotransmitters concentration in the grey matter ECS, as both synergistically combine. This may represent a new mechanism of alcohol addiction.

Regarding drug addiction, similar to the drinking and smoking addictions described above, addictive substances will stimulate dopamine secretion after entering the human body and enhance the pleasure felt in the human body (Koob and Volkow, 2010; Nestler, 2005). Repeated use of these substances will disrupt the standard balance of people's memory and cognition, eventually leading to addiction. In medicine, surgical staff use the right amount of anaesthesia to eliminate pain so that the patient can get better treatment. Nevertheless, an overdose of medicine can make people forget the pain and obsess about the thrill and excitement.

With the rapid growth of internet use over the last 10 years, the concept of internet addiction and new diagnostic methods in the field of addictive diseases are still the subject of many debates (Ng and Wiemer-Hastings, 2005). So far, internet addiction, as with addiction and drug abuse (Levine, 1978), has been defined as an individual's inability to control their internet use that causes obvious distress and dysfunction in five areas: academic, social, professional, developmental and behavioural (Lemmens et al., 2009). In addition, major depression, anxiety, attention-deficit/hyperactivity disorder and schizophrenia are also considered comorbid psychosis (Han et al., 2012). After

conducting studies into the phenomenon of online game addiction, Han et al. (2012) emphasise that the activation of internet game stimulation may be similar to the activation of pathologically ill people. In other words, it is suggested online game addiction should be treated as a severe long-term disease.

However, a contrasting body of literature argues that Problematic Internet Use (PIU) should not be conceptualised as a formal addiction, but rather as a maladaptive coping strategy or a symptom of underlying psychosocial difficulties. Critics contend that the application of addiction frameworks to internet use risks pathologizing normative or high-frequency behaviours, particularly in increasingly digital societies where extensive online engagement is common (Ferguson et al., 2011; Przybylski et al., 2010). Empirical evidence suggests that many individuals classified as "addicted" do not exhibit the core clinical features of substance addiction, such as tolerance, withdrawal, or significant functional impairment, calling into question the construct validity of PIU as a distinct disorder. Furthermore, some scholars argue that problematic internet behaviours are better understood as manifestations of pre-existing conditions, including depression, anxiety, or social isolation, rather than as primary addictive disorders (Ferguson et al., 2011). From this perspective, excessive internet use may reflect broader contextual or developmental issues and labelling it as an "addiction" may oversimplify complex behavioural patterns and lead to inappropriate interventions. Consequently, a more cautious and context-sensitive approach has been advocated, emphasising underlying psychological needs and environmental factors rather than adopting a strictly addiction-based model.

2.1.5 Definition of game addiction

I consider online gaming addiction can be understood as investing time or money in games that have affected the average quality of life and, to a certain extent, represent a situation beyond self-control. According to the current information, I found that the three primary mechanisms in online games – namely, goals, challenges and real-time feedback – are the real reasons for game addiction. Below, I will explain the three major problems in turn.

Frist, the matching mechanism in games, especially MMORPG games, allow players to randomly obtain players who are match their game ability to become teammates or enemies. Such a matching mechanism enables players to reach a balance to a certain extent and this balance means the player likes to spend more time pursuing victory, even after failure. This situation will also mean the player enters the 'flow' model, as described in the field of psychology (Ellis et al., 1994), that is, resistance to interruption or disturbance; such a psychological situation causes players to voluntarily invest more time and energy than they require to in the game without being aware of it. According to Csikszentmihalyi (2013), the flow state is characterised by an optimal experience, wherein the level of challenge of a task is matched with the person's skill. For example, when players set a goal in a game, they will probably try their best to achieve it without caring about time or money, or even their health. Once the goal has been reached, they will finish and stop. Such a 'flow' state means players spend a lot of time trying to achieve a certain goal in the game or an ideal achievement in their hearts. For example, in multiplayer games, players may need to perform more than one victory for a victory in the game.

Secondly, video games motivate a remarkable amount of goal-directed behaviour (Przybylski et al., 2010). For example, the competitive ranking mechanism in the game will stimulate the human instinct for competition and plunder and the game develops this human instinct to the extreme. The game ranks players' abilities and achievements across different dimensions and at different times, generating a leaderboard. Riesman et al. (1950) have characterised the property-owning middle class as 'inner-directed', by which they mean both the particular way in which conformity was assured and a concern with the integrity and inner experiences of the individual. Driven by their own instincts, players want to be at the top of the leaderboard in order to prove their ability, gain everyone's admiration and fame and satisfy their upper-level needs, such as those for respect and social interaction. Such an inner desire to be recognised by the outside world will make younger players prefer to spend a lot of time, energy and money in the game (Stevens et al., 2008).

At the same time, game designers have seized people's sense of honour and have ensured, step by step, that players might become 'addicted'. Contemporary digital games often incorporate structured reward systems—such as progression,

achievements, and status hierarchies—that reinforce continued engagement by providing players with a sense of accomplishment and social recognition (Ryan et al., 2006; Griffiths, 2018). These systems allow players to pursue success, prestige, and symbolic rewards within a low-risk virtual environment, fulfilling psychological needs for competence, autonomy, and relatedness. Moreover, virtual achievements and in-game identities can provide forms of self-recognition and social validation that may be less accessible in offline contexts, thereby reinforcing continued engagement (Turkle, 2011; Yee, 2006). Consequently, progressive achievement structures may contribute to immersive experiences in which players become increasingly attached to virtual roles and identities, sometimes compensating for unmet needs or frustrations in real life, which can heighten the risk of problematic or addictive gaming behaviours (Kuss and Griffiths, 2012; Yee, 2006).

Finally, the feedback mechanism in the game – that is, the reward-and-punishment mechanism and instant feedback – makes the simplest and most effective method of control to attract players (Kuss and Griffiths, 2012; Schüll, 2012). As a core of a game, the game mechanic needs to be designed to suit players and encourage them to play more (Schell, 2008). Even if the tasks are endless, as long as the merchant guarantees that every operation has direct consequences, such as rewards or punishments and that every operation can generate instant feedback, most players will subconsciously indulge in many boring, simple and repetitive things（Schüll, 2012）. In addition, as the reward and punishment mechanism in the game is upgraded, the resulting psychological control means that players will be addicted to the items in the game during the process of playing it, because the items in the game require you to invest time, energy and skill to obtain them (Griffiths, 2018).

Psychologically speaking, one develops cognitive dissonance in the process, leading to addiction (Dilakshini and Kumar, 2020). The more you play, the more cognitive dissonance; the more valuable you think the item is, the more addicted to the item you will probably become and the greater the desire to collect valuable virtual substances out of human instinct (Holleran, 2008).

For example, in some games, upgrading some characters requires specific materials and the probability of such materials appearing is one percent or even one thousandth. In this case, players will invest time and energy into acquiring the materials. Psychologically speaking, people will develop cognitive dissonance with the object in the process, leading to addiction. Other common cognitive beliefs among video game players with problems include thoughts about gaining power and status through the game, thoughts of mentally escaping from the real world and thinking of the computer as a companion or 'electronic friend' (King et al., 2012).

There will also be some players who play games to escape reality or use the characters in the game to replace their real identity in order to experience things that cannot be satisfied or obtained in the offline world (Turkle, 2011; Yee, 2006). In addition, the uncertainty in the game, the sense of mystery and the positive feedback mechanism and correction system in the game (Schüll, 2012), as designed by the game vendors, will also lead to game addiction among players, which will not be explained in more details here.

Chinese media metaphorically frame online games as internet opium or electronic heroin, especially when referring to young people, who are more vulnerable (Jiang and Leung, 2012). The reason for this definition is similar to the awful situation regarding drugs, smoking and alcohol abuse explained above (Levine, 1978; Weinberg, 2002). All these addictions involve dopamine being secreted by the brain, which stimulates happy reactions and feelings and if the self-control is overwhelmed and no external restraint appears in time, such feelings will fall into a vicious circle in which the brain is constantly stimulated. Judging from the current situation, such addiction is not only uncontrollable in the adult group but also in the adolescent group is even more difficult.

2.1.6 What is the difference between addiction and playing games?

Playing games itself is a way to relax and pass otherwise boring time and the original intention is to allow people to have a new way to rest. However, due to the existing mechanisms of online games and the unique responses to them in the brain, many

scholars are now discussing online gaming addiction. The next section will discuss the difference between gaming addiction and typical game playing.

Firstly, with regard to time limitation, existing research highlights substantial variation in gaming engagement across populations. For instance, Yee (2006) reported that some users spent an average of 22.72 hours per week (N = 5,471, SD = 14.98) playing their chosen MMORPG, while Williams et al. (2008) found a higher overall mean of 25.86 hours per week (SD = 19.06) among players. In contrast, industry data from Ipsos-Insight (2005) indicates that adults spend approximately 7.5 hours per week on video game play. This discrepancy suggests that a subset of players engage in gaming at significantly higher intensities. Notably, Yee (2006) further proposed that individuals who play more than 20 hours per week may be considered addicted, although many such players do not self-identify as having problematic gaming behaviours.

In the different time ages, developing technology might increase the time-length of using them. Furthermore, the calculation of the time limit primarily explains how it would affect physical or mental health. Peters and Malesky Jr. (2008) were primarily interested in examining the relationship between online gaming involvement—particularly within Massively Multiplayer Online Role-Playing Games (MMORPGs)—and players' personality traits and psychosocial characteristics. The study employed a quantitative survey design, collecting self-reported data from online gamers through internet-based questionnaires. Participants provided information on their gaming habits (including weekly hours played and participation in in-game guilds), as well as completing standardised personality assessments, most notably measures aligned with the Big Five personality framework. The researchers operationalised "heavy users" as individuals who reported playing approximately 20 hours or more per week and examined differences between these users and less frequent players.

The findings indicated that heavy gamers and those involved in structured in-game social groups (e.g., guilds) tended to report higher levels of social anxiety and neuroticism, alongside lower levels of extraversion and conscientiousness, compared to less engaged players. Peters and Malesky Jr. (2008) interpreted these results as suggesting that individuals with certain personality profiles—particularly those characterised by emotional instability and lower sociability—may be more drawn to

immersive online gaming environments, where social interaction is mediated and potentially less threatening than face-to-face contexts. However, the authors were cautious in their conclusions, acknowledging that the study's cross-sectional design prevents causal inference; it remains unclear whether these personality traits predispose individuals to heavy gaming or whether prolonged gaming engagement contributes to such psychological patterns. Additionally, as the study relied on self-reported measures, the findings may be influenced by reporting biases, limiting the overall reliability and generalisability of the results.

As Young (1999) mentions, time is not a direct function in defining internet addiction; however, according to Ng and Wiemer-Hastings' (2005) findings, the participants' data was investigated according to time spent in-game continuously. Following this research, a cut-off score of eight hours was chosen to test the assumption that playing online games continuously can be established as an indicator for conspicuous behaviour. In other words, users of online games spending over eight hours continuously playing the game show problematic gaming behaviour and depressive tendencies more often (Stetina et al., 2011).

Secondly, aggressive behaviour can also be seen as another method to distinguish gaming addiction from normal game-playing. Compared with regular gaming, game addiction affects individuals' lives, leading to loneliness and less communication with family and friends (Kim and Haridakis, 2009). Research on the exposure to violence in television and movies indicates that playing violent video games increases aggressive behaviour (Williams and Skoric, 2005) and the impact of such violent behaviour on young people and adolescents is gradually increasing (Anderson and Bushman, 2001). PCRs, educators and social activists believe that long-term exposure to interactive violence poses a greater threat to youth than other types of intermediary violence and continue to protest despite the enactment of a voluntary industry rating system. But most of this research contains several methodological errors. These studies often lack scientific transparency, have low statistical capacity and show alarmingly high rates of statistical reporting errors, based on their research finding, they indicate gaming addiction in itself may not be directly related to mental or physical health (Ferguson et al., 2011; Przybylski et al., 2017). The results suggest that the diagnosis of video game addiction is not stable over time, because scholars pushing for gaming disorder to be

recognised do not distinguish between the different types of research. Sherry (2007) highlights that it is believed that violent video games have less impact on aggression than television violence does and this effect is positively correlated with the type of gaming violence and negatively correlated with time spent playing.

2.1.7 What problems are there in the current literature?

The existing literature describes the problem of game addiction, but it is more difficult to define it. The boundaries and definitions of game addiction are different in different fields blurred definition of online games. Most of the literature on online game addiction is related to medical research to find solutions to addiction problems. For sociology, online game addiction primarily discusses the causes and effects of addiction (Young, 2009). However, the existing literature, such as Ghosh et al. (2018), presents the idea that the current monitoring by PCRs of their youth is too strict and they believe that such behaviour infringes on youth's privacy, so the relationship between PCRs and youth suffers a negative impact from these strict parental interventions.

2.2 The influence of games on family relationships

2.2.1 Gaming as a family activity

As psychology scholars Chak and Leung (2004) highlight, players can become addicted to a game, lie about using it, lose interest in other game activities (Young, 2009), withdraw into the game away from family and friends and use it as a means of escape (Kuss and Griffins, 2011). However, the view that online gaming only has a negative impact on family relationships and not a positive is problematic. As Chambers (2012) says, video gaming is being integrated into family relations, as PCRs and their youth play the same video games together with, occasionally, all of them taking turns to play. According to this view, gaming can be a process of communication; it can be a conversation topic. It is also possible that video games can boost family harmony, acting as a way for family unity to strengthen.

Some home video games have been designed specifically to allow mixed age groups, i.e., PCRs and grandparents to interact with young people. For example, the Wii series

of games allows multiple family members to participate in games and the process of learning and understanding from the beginning emphasise family bonding within a game designed as collaborative rather than competitive. Furthermore, family gaming offers PCRs opportunities for family bonding and control of younger generation's use of new media. Such family practices can be viewed as 'socially scripted behaviour' (Gagnon and Simon, 1987). Both PCRs and young people (aged 5–15) perceive benefits to learning and playing video games as a family (Ulicsak, 2010).

Before the advent of online games, people used poker, mahjong and board games such as Monopoly as a family activity to increase goodwill between each other, strengthen the relationship between family members and promote communication between them. The emergence of online games has expanded the original boundaries of ‘games are virtually played with familiar people’ to ‘games can be played with strangers who have entered the game’.

Nevertheless, while the space for online games is also a ‘family activity’, the emergence of online games also makes PCRs feel pressured to negotiate with their youth about when and where they can play video and computer games (Aarsand and Aronsson, 2009), such as after completion of school homework (Haddon and Silverstone, 1995; Kuss and Griffins, 2012).

As a leisure activity, the game itself can promote feelings between people and games, especially among family members, can promote such positive relationships. For example, when playing board games, sitting with each other and spending the time together, thinking, deliberating and acting will bring the relationship between family members closer.

By contrast, with the advent of video games, especially home consoles such as the Microsoft Xbox, Sony PlayStation and Nintendo Wii/Switch – which allow the games to run on a large scale – the game participants are not necessarily from the same home. The environment of members of the game is separated and with the continuous increase in different types of games, there are increased worries of PCRs, causing estrangement and disagreement between PCRs and their youth.

2.2.2 What effect does gaming have on family relationships?

Firstly, there should be a discussion of both the benefits and disadvantages of the family relationships affected by traditional games, such as board games. Regarding advantages, board games offer opportunities for early learning, as each simple game helps young players identify colours, count spaces and enhance hand–eye coordination and fine motor dexterity through the manipulation of cards and pieces (Bergen, 2002; Pellegrini, 2009). Games may also develop analytical skills, having to plan moves, estimating risks and calculating probabilities – sometimes under stress (Sandford and Williamson, 2006). In addition, learning to wait your turn and follow the rules are essential lessons that serve kids far beyond the living room floor – using a familiar domestic place for young people to extend their behaviour into an outer space (Pellegrini, 2009). Players can also boost their language skills, which can be a way of helping school-age kids work on skills they are struggling with (Hirsh-Pasek et al., 2009). Meanwhile, games in which players have to remember several pieces of information at once (who did what and where) might help a youth who's having trouble with reading comprehension – all while still having fun (Baddeley, 2003). Besides the advantages of psychological attention and teamwork, board games are an alternative to time out – taking turns and practising patience during a game, even when things do not go their way, can help youth practice more respectful responses (Kuo et al., 2023).

Board games also have a series of drawbacks, especially regarding family relationships. First, board games are not simply about any moral or strategic approach they try to impart to players. Many of these board games were created in the early 20th century, they often reflect practices and behaviours that are considered inappropriate today and the age restrictions on most board games can put them in an awkward position. Interestingly, this raises concerns about whether playing the board game manipulates some to change their behaviour repeatedly and subconsciously, some players may repeat their strategies when facing different opponents, which solidifies their thinking and makes them lack the ability to cope with the situation In addition, as an online boardgame, being obsessed with playing Monopoly might tell someone that greed is good, it encourages players to adopt strategies that maximize their wealth, often at the expense of others, which can be interpreted as promoting greed as a necessary trait for success and it can reflect the notion that greed is beneficial, as players are rewarded for

aggressive financial tactics and resource management (Yanez-Designs, 2018) relationships, at that time, the players may see family opponents. Second, excessive competition may worsen family relationships by making family members spend their time online rather than playing board games.

At home, video games brought families together in a new opportunity for shared play and interaction, which families in our society have not experienced since the appearance of television (Mitchell, 1985). The study by Siyahhan et al. (2010) indicates that when PCRs played video games with their youth, it resulted in positive outcomes, such as decreased levels of aggressive behaviour. The fascinating finding was that PCRs gaming with their youth increased pro-social behaviour (more philanthropic activities and benefits to other people), specifically girls. Wonsun Shin and Jisu Huh (2011) analysed data from 536 parent-youth pairs on PCRs' strategies to handle their youth's gaming habits. The study measured three forms of parenting: playing with their child, checking the game's rating before allowing their youth to play it and stopping their youth from gaming altogether. It found that PCRs who thought that gaming was bad were more likely to stop their youth from gaming altogether. The results from a study conducted by B. Wang et al. (2018) indicate that the more family members play video games together, the higher they rate their family satisfaction and closeness. Multiplayer and cooperative games can increase family cohesion, providing structured, low-pressure environments for interaction. According to research by Coyne et al. (2011), adolescents who played video games with a parent reported higher levels of family connection and positive affect. Games like Mario Kart or Minecraft create shared referents—common goals and experiences that become natural topics for conversation, teamwork and light-hearted competition. This co-play can facilitate "reverse socialisation," where young people teach PCRs, temporarily flattening traditional hierarchies and building mutual respect. For families separated by distance, online multiplayer games or shared worlds can serve as vital digital hearths, providing a persistent space for interaction that supplements calls and texts, thus maintaining relational bonds through shared activity (Williams et al., 2006; Consalvo, 2017; Turkle, 2011).

However, it is important to emphasise another angle on benefits of gaming from the PCRs' perspective. PCRs emphasised the benefits of playing video games together as

a family when the game of choice emphasised parental supervision or teaching of roles and skills (Chambers, 2012). In other words, when PCRs still have decision-making power in a given environment, PCRs acquiesce that this is a positive activity. This acceptance does not necessarily imply active enthusiasm; rather, it reflects a negotiated judgment in which PCRs weigh potential risks against perceived benefits and ultimately deem the activity acceptable within the broader context of family norms, developmental expectations and practical constraints. Such acquiescence often signals trust in the youth's capacity to engage responsibly, as well as confidence in the surrounding regulatory or social structures that shape the activity. Consequently, parental consent becomes not merely a passive allowance but a meaningful indicator of how families construct boundaries, assign value to behaviours and mediate the relationship between autonomy and oversight in everyday life (Livingstone & Helsper, 2008; Nikken & Jansz, 2014).

Besides, if playing computer games is just a personal behaviour for family members – that is, only one person participates in this activity and other people cannot participate in it – the behaviour of playing games may cause problems in family relations. None of the existing literature analyses the adverse effects of simply playing games on family relationships, discussing instead the effects of computer game addiction on family relationships.

2.2.3 Video games as a 'safe house'

It should be noted that young people in dysfunctional family prefer to regard video games as a kind of 'safe house', which can be understood as a kind of spiritual sustenance (Bonnaire et al., 2020). Adolescents with broken family relationships may play MMORPG to benefit from social interaction and escape from a dysfunctional family environment (Bonnaire et al., 2020). Wang et al. (2018) found that families with poor family communication benefit more from co-playing than those with effective family communication from games, although people who participated in the research typically enjoyed playing video games with family members. Social benefits are the most salient in family settings. One of the reasons video games is considered a "safe house" is related to the safe family environment: a family that lacks cohesion and communication will make young people unable to develop their mental health

positively. However, Mitchell (2008) emphasises that home video games brought families together in a new opportunity for shared play and interaction. However, if family conditions fail to meet such a premise, the situation will only worsen.

2.3 Globalisation situations about youth mobile gaming

Globalisation has significantly transformed the landscape of various industries and the gaming sector is no exception. In recent years, the proliferation of smartphones and the advent of high-speed internet connectivity have facilitated the unprecedented growth of mobile gaming. Smartphone shipments worldwide added up to over one billion units in 2023, declining from the past couple of years. By the end of 2023, almost 70% of the world's population were smartphone users (Statista, 2024). Mobile games accounted for 57% of the global gaming market revenue in 2022, surpassing both console and PC gaming. As of 2023, there are over 2.8 billion mobile gamers worldwide (Newzoo, 2023). Asia-Pacific is the largest market, with China and India leading in terms of the number of users and revenue generated. This phenomenon has particularly impacted the youth demographic, creating unique situations and challenges across the globe. This section explores the globalisation scenarios surrounding mobile gaming among youths, delving into its cultural, social, economic and technological dimensions.

2.3.1 Cultural impact

Globalisation has facilitated the exchange of cultural elements through mobile games. Developers now integrate diverse themes, characters and narratives that appeal to players worldwide and this cross-cultural pollination has led to a richer and more inclusive gaming experience (Duval et al., 2022).

One of the most profound effects of globalisation on mobile gaming among the youth is the cross-cultural exchange of gaming content. Mobile games developed in one part of the world can easily reach and captivate audiences on a global scale and this has led to the fusion of diverse gaming styles, themes and narratives. Games that incorporate elements from different cultures appeal to a broad audience, contributing to a more interconnected global gaming community (Andrews and Silk, 2004).

Moreover, the globalisation of mobile gaming among the youth has fostered cultural understanding and appreciation, as players from different backgrounds engage in shared virtual experiences, breaking down cultural barriers and promoting a sense of unity. The diverse themes in mobile games also expose players to various cultural nuances, enhancing their global awareness and understanding (Consalvo, 2017). At the same time in China, mobile phones have become the most popular electronic product for youth, with the internet penetration rate among minors reaching 97% (CNNIC, 2022). More than 80% of young Chinese people go online every week and smart watches and tablet learning machines are the most common internet devices they own. 41% of young people use their PCRs' or other people's mobile phones to go online (Communist Youth League of China, 2023).

However, cultural sensitivity is crucial in this context. Games that fail to consider cultural nuances may face backlash, as seen in instances where elements offensive to certain communities were included. Striking the right balance between global appeal and cultural respect is a challenge that developers continually navigate. For example, under China's strict censorship system, some names of Japanese troops and events related to the invasion of China during World War II (731, Nanjing Massacre) and bloody and violent scenes cannot be shown in games that are allowed to be played by young people.

2.3.2 Social dynamics and economics perspectives

The social dynamics within youth mobile gaming communities have been profoundly influenced by globalisation. Online multiplayer games, facilitated by high-speed internet connectivity, allow players from different corners of the world to interact in real time. This has given rise to a global gaming culture where friendships and alliances transcend geographical boundaries (Nayak, 2016).

However, the global nature of online gaming also brings forth challenges such as language barriers, cultural differences and varying time zones. Developers and gaming platforms are continually adapting to these challenges by implementing features like real-time translation, culturally inclusive content and matchmaking algorithms that consider players' geographic locations (Pedraça, 2024).

The economic aspects of youth mobile gaming under globalisation are multifaceted. The global market for mobile games has expanded exponentially, creating lucrative opportunities for developers, publishers and associated industries. The freemium model, where games are initially free to play but offer in-app purchases, has become a dominant monetisation strategy, appealing to a wide audience (Imre, 2009). Globalisation has reshaped monetisation strategies in the mobile gaming industry, as in-app purchases, ad-based revenue models and subscription services have become prevalent (Song, 2017) with developers often tailoring their monetisation approaches based on regional preferences and spending habits.

The free-to-play model, popularised by games like *Fortnite* and *Genshin Impact*, relies on optional in-game purchases to generate revenue (Alha, 2020). This approach has suggested effective in attracting a large player base globally while providing players the flexibility to spend based on their preferences.

Furthermore, globalisation has enabled the emergence of e-sports on a global scale (Chen, 2021). Competitive mobile gaming tournaments attract massive audiences and significant sponsorships, contributing to the economic growth of the gaming industry. However, this economic boom is not uniform, as disparities in income and access to technology persist, creating a digital divide among youth from different socio-economic backgrounds.

One of the most apparent effects of globalisation on mobile games is the diversification of the market. With games accessible to a global audience, developers have adapted their strategies to cater to various cultural preferences and market demands (Kerr, 2017) and popular game genres may vary significantly from one region to another, leading to a more nuanced and varied gaming ecosystem.

The Asian market, particularly in China and South Korea, has emerged as a major player in the global mobile gaming industry (Chen, 2022) and the popularity of mobile e-sports, multiplayer online battle arena (MOBA) games and role-playing games (RPGs) in these regions has influenced global trends. Games like *Honor of Kings (Arena of*

Valor) and *PUBG Mobile*, which originated in Asia, have achieved international success, underscoring the global appeal of games that resonate with diverse audiences.

2.3.3 Technological advances

Globalisation has been a driving force behind the technological advancements in mobile gaming among the youth. The availability of high-performance smartphones, augmented reality (AR) and virtual reality (VR) technologies has revolutionised the gaming experience and this has led to the development of more immersive and visually stunning games, captivating the attention of the youth demographic (Chambers, 2004).

From family computers to console games such as PlayStation and Xbox, now to portable games such as Nintendo Switch, steam deck and mobile phones, gamers are easier to play anywhere and anytime. From Tetris to Open World, from single-play offline games to multi-player online games, players can choose several genres of games as they want to play. At the same time, with the development and progress of the future internet, the quick save and multi-platform cross-server connection in the game make players' data browsing faster and more convenient.

Additionally, cloud gaming services have gained traction, allowing players to access and play resource-intensive games without the need for high-end hardware. This democratisation of gaming technology has expanded the reach of mobile gaming to a broader audience, particularly in regions where traditional gaming consoles or powerful PCs are less accessible.

Although technological advances have undoubtedly increased the accessibility and sophistication of mobile gaming, the relationship between technological innovation and gaming participation is not entirely straightforward. Much of the existing literature adopts a technological determinist perspective, assuming that improvements in hardware, internet infrastructure and cloud computing inevitably lead to increased gaming engagement (Kline et al., 2003). However, scholars argue that technology alone cannot explain gaming behaviour, as social, cultural and economic factors also shape access, preferences and patterns of use (Livingstone, 2009; Goggin, 2011). For example, while cloud gaming reduces hardware barriers, it remains dependent on stable high-

speed internet connections and affordable data services, which are unevenly distributed across and within countries, reflecting persistent digital inequalities (van Dijk, 2020). Furthermore, the increasing portability and constant availability of games have blurred the boundaries between leisure, education and everyday life, contributing to concerns about excessive screen time, problematic gaming behaviours and the commercialisation of young people's digital environments through mechanisms such as in-app purchases and loot boxes (King and Delfabbro, 2018). Consequently, technological advancement should not be viewed solely as a driver of gaming participation but also as a source of new social, ethical and regulatory challenges.

2.3.4 Challenges and future trends

Despite the positive aspects, globalisation has brought about challenges for young people in mobile gaming, as issues such as privacy concerns, online toxicity and the addictive nature of some games have raised ethical questions. Governments and regulatory bodies are grappling with the need to strike a balance between fostering a vibrant gaming industry and protecting the well-being of young players (Bulut, 2020).

Looking ahead, future trends in youth mobile gaming will likely continue to be shaped by globalisation. AR and VR technologies are expected to play a more prominent role, providing even more immersive gaming experiences (Ferguson et al., 2015), while the integration of artificial intelligence into games will enhance personalised gaming experiences as content is adapted to individual preferences and behaviours.

Globalisation has profoundly impacted young people’s mobile gaming, creating a dynamic and interconnected landscape and the cultural, social, economic and technological dimensions of this phenomenon have led to a global gaming community with shared experiences and challenges. While presenting numerous opportunities, globalisation has also brought about ethical concerns that require careful consideration (Singer, 2016). As the industry continues to evolve, it is essential to strike a balance that fosters innovation, inclusivity and responsible gaming practices for the benefit of the global youth population.

Censorship regulations in certain countries can impact game content, limiting the global release of some titles. Therefore, striking the right balance between creative expression and compliance with local regulations is an ongoing challenge for developers seeking global reach. Strict censorship and digital game localisation made the Chinese government implement a 15-year ban on foreign or domestic manufacturers and sales of game consoles back in 2000, the period of censorship made Chinese companies have no interest in making PC or consol games, they may prefer to make mobile games. Besides, foreign companies have to partner with the domestic game manufacturer and the products would still be subject to a list of inspection criteria (Zhang and Chiu, 2020).

The globalisation of mobile games has transformed the industry in profound ways. Market trends, cultural influences, technological advancements and evolving monetisation strategies collectively shape the landscape in which developers operate (Bakhmat and Smorgun, 2022). The cross-cultural exchange facilitated by globalisation has enriched gaming experiences, while also necessitating careful consideration of diverse preferences and sensitivities. As the mobile gaming industry continues to evolve, developers must navigate the challenges posed by globalisation to create engaging and culturally resonant experiences for a truly global audience.

2.4 Games' influence on mental health

2.4.1 Influence on mental health from gaming behaviour

Through many discussions about internet addiction, the ways in which some people use this media has caused heated debate among mental health academics (Klingelhoefer and Meier, 2023), as it can affect the lives of individuals, such as leading to loneliness and less communication with family and friends (Kim and Haridakis, 2009).

Historically, research on the exposure to violence in television and movies claims that playing violent video games increases aggressive behaviour (Williams and Skoric, 2005) and the impact of such violent behaviour on young people and adolescents was seen as gradually increasing (Anderson and Bushman, 2001).

The adverse effects of the internet are mainly reflected in the deterioration of interpersonal relationships and increase in anxiety (Nan et al., 2023). In the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*), internet gaming disorder was included among conditions recommended for further research. Gaming disorder was also defined in the eleventh revision of the *International Classification of Diseases* (*ICD-11*).

However, there are still some benefits to playing video games. Video games can help relieve stress and stimulate the mind. Video games might improve the ability to learn factual knowledge, problem-solving strategies and higher-level cognitive thinking processes (Chuang and Chen, 2007). Depending on the complexity of the game, players may need to think, strategize and analyse quickly, especially in strategy games where the entire game is decided in a split second. Playing video games can improve development and critical thinking skills (Bavelier et al., 2012; Gee, 2003) and moreover, playing games can help with trauma recovery, acting as a distraction from pain and psychological trauma (Schaefer and Drewes, 2014).. Play therapy has been effectively used to help youth recover from trauma, such as natural disasters and domestic violence (O'Connor and Braverman, 2014). The research from UNICEF (2023) in Cianjur, Indonesia, play therapy involving fun games and singing was used to help youth affected by an earthquake, resulting in positive behavioural changes and improved lifestyles.

Video games can also help people dealing with mental disorders like anxiety, depression, attention deficit hyperactivity disorder (ADHD) and post-traumatic stress disorder (PTSD) (Merry et al., 2012; Green and Bavelier, 2012). More importantly, failure in a game or other situations can be frustrating and video games help people learn how to cope with failure and keep trying, which is an essential tool for young people to learn and use as they get older. The game mechanics in some shooting games offer this opportunity for each player to learn from their failure and restart at the same point they failed.

2.4.2 Different types of video games with multiple effects

Although we have been discussing the negative impact of online games on young people and adults, attention should be paid to the fact that online games also affect specific groups of people or the cultivation of some basic abilities. It is important young people to pay attention to the fact that online games also affect specific groups of people differently.

Online games are popular amongst people with autism spectrum conditions, with autistic adolescents playing twice as much as their peers (Ophiret al., 2023). This group can struggle to disengage from video games (Mazurek and Engelhardt, 2013; Sundberg, 2018) and the genre of a game (Mazurek and Engelhardt, 2013), social requirements and friendships and low-to-moderate use of online games were linked with less loneliness experienced among participants with autism spectrum disorder (Sundberg, 2018).

Moreover, playing video games is a suitable channel for developing a wide range of cognitive skills, which is especially evident in shooter video games, which feature a lot of violence (such as *Halo 4* and *Grand Theft Auto IV*). The most convincing evidence of this effect comes from several training studies in which researchers recruit 'noobs' (people who have played little, or no shooter video games) and randomly assign them to play shooter games or other types of electronic games for the same amount of time. Compared to the control participants, those who played the shooting video game showed faster and more accurate attentional allocation, higher spatial resolution of visual processing and more significant mental rotation (Green and Bavelier, 2012). One published meta-analysis (Uttal et al., 2013) concludes that the improved spatial skills gained by playing commercially available shooter video games could be compared with elevated (high school and college level) courses designed to enhance such skills. Furthermore, according to this meta-analysis, spatial skills can be developed using video games relatively quickly, while the benefits of training persist over a more extended period than not using video games.

These cognitive advantages are reflected in measurable changes in neural processing and efficiency. For example, a recent functional magnetic resonance imaging (fMRI) study (Bavelier et al., 2011) found that the mechanisms that control attention distribution, such as the frontoparietal network, were less active in players' brains than

in those of non-players during a challenging pattern test task, which led the researchers to conclude that shooter-game players can allocate their attention more efficiently and filter out irrelevant information more efficiently (Bavelier et al., 2011), as they recently concluded in *Nature Reviews: Neuroscience*:

> Video games are controllable training regimens in highly motivated behavioural situations... because changes in the brain cause behavioural changes, cognitive performance often accompanies neural physical remodelling and functional remodelling is not surprising. (Bavelier et al., 2011, p. 763)

These changes in neural function may be part of how humans generalise cognitive skills acquired from video games across out-of-game situations.

2.4.3 Benefits of game-playing for younger generations

Scholars also speculate that video games are an excellent means of developing problem-solving skills (Ashinoff, 2014), as problem-solving seems to be at the heart of all types of video games, including those with violent content. Additionally, game planners often provide little guidance on solving in-game puzzles instead of providing players with an almost blank toolbox to explore many possible solutions based on experience and intuition. Ktoridou et al. (2012) argues that exposure to these open-question games (and other learning experiences on the internet) has influenced a generation of young people and adolescents who will become the 'digital natives' of the future. Rather than following explicit linear guidelines (such as pre-reading a manual), many young people and adolescents solve problems by trial and error (Ulicsak et al., 2009; Adachi and Willoughby, 2013), recursively gathering evidence they measure from practice.

Only two studies explicitly test the relationship between video game playing and problem-solving; in both studies, problem-solving is defined as deep thinking (such as spending time gathering information, making plans and considering changing strategies and goals before taking further action). One of the studies, looking at *World of Warcraft* players (Steinkuehler and Duncan, 2008), could not tell whether the game improved people's problem-solving skills or whether only good problem-solvers were interested

in the open-ended characters and thereby attracted to playing the games. Adachi and Willoughby's (2013) research were a longitudinal study showing that the greater the number of teens that played strategy video games (e.g., role-playing games), the more significant the improvement in their problem-solving skills in the following year, based on self-reported surveys. The same positive predictive associations were not reflected in fast-paced racing or fighting games. Furthermore, the latter study demonstrated an indirect mediating effect, with playing a strategy game predicting higher self-reported problem-solving abilities, which predicted better academic performance.

Nevertheless, more research is needed to unravel some causal questions: whether and to what extent video games convey problem-solving skills that are generalisable to real-world situations. Moreover, video games also appear to promote the development of another cognitive ability: greater creativity. Evidence suggests that playing any video game increases young people's creativity, whether it is a violent one or not. For example, in a sample of nearly 500 12-year-old students, playing video games was positively associated with creativity (Jackson et al., 2012).

While these findings suggest that video games may contribute to the development of problem-solving skills, the evidence remains far from conclusive. A major limitation of the existing literature is that much of it relies on correlational or self-reported data, making it difficult to establish causal relationships between video game play and improvements in problem-solving ability (Granic et al., 2014; Boyle et al., 2016; Bediou et al., 2018). Although Sammond and Woods (2024) employed a longitudinal design, their measures of gaming behaviour and problem-solving were primarily self-reported, leaving the possibility that pre-existing cognitive abilities or personality traits influenced both variables. Similarly, Steinkuehler and Duncan (2008) acknowledged that more capable problem-solvers may simply be more likely to engage with complex strategy games rather than acquiring these skills through gameplay itself. More broadly, meta-analytic evidence suggests that while video games can improve specific cognitive processes, such as visual attention or task switching, there is considerably less evidence that these gains transfer to general problem-solving or other real-world cognitive domains (Powers et al., 2013; Sala and Gobet, 2017; Sala et al., 2018). This "transfer problem" remains one of the central debates within cognitive training research, with scholars arguing that improvements often remain confined to tasks that closely

resemble those practised during gameplay rather than reflecting broad enhancements in reasoning or executive functioning. Furthermore, the literature increasingly recognises that cognitive outcomes vary substantially across game genres, with strategy and puzzle games placing greater demands on planning and decision-making than casual or repetitive games (Granic et al., 2014). Consequently, broad claims that video games generally improve problem-solving skills should be interpreted with caution, and future research should employ more rigorous experimental designs and objective cognitive measures to determine whether gaming-related benefits can be generalised beyond the gaming environment.

2.5 Anti-addiction policy

2.5.1 Anti-addiction policies and mechanisms

The emergence of the definition of anti-addiction itself, is potentially problematic, because it could be argued to represent an excessive interpretation of addiction within the context of Internet usage and online gaming.

According to our previous definition of addiction, we can define anti-addiction as a mechanism to limit the amount of time and money that people spend on an activity that leads to addiction. The main reason the term anti-addiction appears is that people think that addiction is a problem that needs to be solved urgently and that addiction has specific adverse effects, both physically and mentally. In other words, anti-addiction is a solution that addresses people's problems with addiction.

In order to improve the current situation of addiction in video gaming, Fu et al. (2018) designed a channel state information (CSI) from Wi-Fi devices to limit the time spent on video games. Their results indicate that Advanced Combat Optical Gunsight (ACOG) on commercial devices is robust and accurate, with a best detection rate of approximately 96% and a false positive rate (FPR) of less than 5%. Therefore, I envision that this technology could be widely used in smart home environments or offices.

As referred from Pan (2016), an anti-addiction system can only prohibit the superficial addicted behaviour (playing games for long hours) and assist the PCRs to monitor and manage; the proper method is to enhance their subjective and build the correct value from users their own.

2.5.2 Anti-addiction policies and mechanisms in China

As one of the first pieces of regulation on anti-addition of online gaming worldwide, Chinese local authorities launched the "Online Game Anti-Indulged System For Adolescents" in 2007. The policy aims to solve the perceived problem of young people's 'addiction' to online games (Zhang et al., 2025) and it targets the needs of PCRs and society to limit the time and money spent by young people and restrictive management of gaming, as published in 2021: (https://english.www.gov.cn/statecouncil/ministries/202110/08/content_WS616035a5c6d0df57f98e1588.html).

China has one of the most rigid systems to monitor and intervene in youth's gaming behaviours. It works by not giving total game points to users who play for over 3 hours in a row (Szablewicz, 2012). In 2019, the Chinese government strengthened regulations on tackling youth's "addiction" to online games. The regulation requires gaming services to monitor and restrict young people's gaming to not exceed 3 hours per day on statutory holidays and 1.5 hours per day in other days of the year.

The rapid development of the internet and related industries have forced China to build a more secure internet system and manage its economic development, especially for the youth. As referred by "Statistical Report on Internet Development in China" in June 2021, the number of Chinese netizens is over 1 billion and the actual sales revenue of China's game market in 2021 was almost UK £36 billion with 666 million game-users. This represents approximately 44% of the Chinese population having already played or participating in online games.

However, there has also been a great deal of negative information about youths and internet development in China. When PCRs come forward to stop them, young people may show resistance to their PCRs or spend a lot of money on purchasing equipment

or good-looking characters in the game without the permission from PCRs. What is more serious, when PCRs think that youngers have developed ‘internet addiction’ and they increase control and interventions, some send their youth to special schools for closed learning. Research on punitive or overly controlling parenting practices further indicates that excessive external regulation can undermine autonomy, damage parent–youth relationships, and lead to more severe behavioural or emotional problems over time (Deci and Ryan, 2000; Smetana, 2017). In general, although such a school may solve the problem of “internet addiction” in the eyes of PCRs to a certain extent and it has indeed improved, it has not fundamentally solved the internal problems of young people or will be more severe than before it becomes serious.

The problem of young people' addiction to online games has caused widespread concern in society and PCRs have expressed strong reactions. As early as 2019, the government promulgated regulations on the addiction of young people to online games. The length of time that online game companies provide game services to young people shall not exceed 3 hours per day on statutory holidays and 1.5 hours per day in other hours. The system was developed according to the ‘Online Game Anti-Addiction System Standard’ issued by the General Administration of Press and Publication of the People's Republic of China and first implemented in 2007. The goal is to restrict young people to prevent them from being addicted to online games for a long time. In August 2005, the Chinese mainland government notified the seven largest online game companies in China to issue the ‘Development Standards for Anti-Addiction Systems for Online Games’, saying they had to submit plans to the government to develop anti-addiction systems and the online game anti-addiction system was installed in its products and a trial operation was carried out. In March 2006, the essential development work was completed and the ‘Notice on Implementing the Online Game Anti-Addiction System to Protect the Physical and Mental Health of Minors’ was released. It was decided to implement the anti-addiction system for online games in China from 15 April 2007 and it was ordered to be fully implemented on 16 July 2007.

However, the poor feedback from PCRs stimulated the Chinese government to launch an online game anti-addiction system in August 2021, which required that the system sends a reminder if it monitors that the player’s game time is close to three hours. If more than three hours, the system will continue to warn gamers not to continue playing.

At the same time, between three and five hours, the game's income (including experience points, treasure drop rates, honour points, reputation points) will drop to 50% of the original and be lost completely after five hours. The system also stipulates that if the player has played a healthy amount of game time, the account must go through a cumulative interval of five hours of offline time before being activated. With the current limitation, many PCRs reflect that the standard is still relatively loose and it is recommended it should be more rigorous.

With the outbreak of the global epidemic, the Chinese government issued a notice on 1 September 2020, at the start of the new semester, in response to the problem of excessive use of online games by youths, proposing specific clarification on the work required to prevent addiction to online games and striving to promote the anti-addiction work in order to achieve better social effects and foster the healthy growth of young people. The new policy further restricts the amount of time youths can spend less time playing video games. It also provides practical measures to limit further and compress the period for providing online game services to young people, which is believed to solve the dependence of young people on online games to a certain extent but may not fundamentally allow the youth group to enter the normal state in daily life.

Prescott et al. (2018) conducted a meta-analysis of 24 studies from around the world from 2010 to 2017 with over 17,000 participants, ages nine to 19 years old. The studies all examined how violent video game play affected changes in real-world physical aggression over time, ranging from three months to four years. Examples of real-world physical aggression associated with gaming behaviour included incidents such as hitting someone or being sent to the principal's office for fighting and were based on self-reports by young people, PCRs, teachers and peers.

2.5.3 Why has 'anti-addiction' emerged?

First, on a societal level, technological advances have made portable devices more accessible to people of any age. In addition, people's pastime has also shifted from previous sports activities to televisions, to portable devices such as game consoles and mobile phones, as Kuss and Griffins (2012) highlight that a lot of game play has moved from the real (i.e., embodied world) to the online world. However, if more and more

time is spent on these devices, problematic use such as addiction may occur not only in adults but also in young people; the word anti-addiction came about, firstly, because it was considered a therapeutic expression of a pathological phenomenon and secondly, as a way of getting people out of these popular perceptions of life and finally returning to their normal lives. Whether it is work, study or entertainment, there is an increasing need to rely on the internet, with the assistance of portable devices to perform tasks that could previously be done face-to-face. This situation leaves people with alternatives and spending a lot of time in front of a screen.

In pursuing their interests, the company's game suppliers failed to properly consider the psychological development of people of different age groups. Young people are rarely involved in the design and development of games, particularly those aimed at mental health, which can result in products that do not fully engage or meet the needs of this demographic. Participatory design methods are suggested to better incorporate their perspectives and enhance the relevance of games for mental health purposes (Saiger, 2023).

At the same time, the country lacks a rigorous grading system for games within the country and the government needs to strengthen the effectiveness of its policy formulation. From the perspective of the government, the above-mentioned social development and problems in the family, as well as problems in the supply of enterprises, means the government's attention to the 'anti-addiction' phenomenon and the implementation of related policies have been promoted. Because the government needs to solve the current social problems from multiple perspectives – legislation, policy formulation and implementation effects – in addition to improving the relationship and problems between families, some policies have not achieved the expected results.

In addition to businesses and the government, the substantial prejudice shown towards youths by parent groups has also prompted the government to take action on anti-addiction. According to the 2021 *China Gaming Industry Report* by the Chinese government, young people are still at the stage of physical and mental development, their self-control ability is relatively weak and they are prone to excessive use of online games and even dependence.

The view from PCRs about playing video games has a substantial prejudice. Although the youth group lacks a clear understanding of new things, most Chinese PCRs also lack time to accompany their youth (Ulicsak et al., 2009) and have a kind of attitude towards the younger group as being an exceptional social environment. The sense of domination has caused PCRs and young people to have many problems in their family relations because of online games.

Consider the reasons for the emergence of anti-addiction from the perspective of the family, the main reason is the desire of PCRs to control their youth. In the minds of most PCRs, they think that young people are not good at self-control or a group that is not able to control themselves and they think that as a guardian, they need to have a complete understanding of their youth's lives and have sufficient control, but more PCRs do the latter than the former. A meta-analysis (Willems et al., 2018) highlights that parenting is significantly associated with adolescents' self-control, both concurrently and longitudinally. This relationship is bidirectional, as adolescents' self-control also influences subsequent parenting practices (Li et al., 2019). Parental monitoring is most effective when combined with autonomy-supportive parenting, leading to better adolescent adjustment outcomes. Conversely, high psychological control paired with monitoring results in poorer outcomes (Rodríguez-Meirinhos et al., 2020). This situation can lead to situations that could not theoretically be defined as "addicted" and are considered "addicted" by PCRs: For example, although the current literature does not have a clear definition of how much time each day spent participating computer games can be called "addicted" or it is addictive, but according to the daily life of a Chinese primary school student as an example: the school day is between 08:00-16:00, then learners typically require 2 hours for homework; if we consider the additional need for a healthy amount of sleep, then 3-4 hours or more of gaming in such a schedule will be seen as problematic.

What is more, it is worth mentioning that some PCRs will repeatedly observe the young people's behaviour at short intervals (10 minutes; Steinberg, 2001). Parental observation of young people's behaviour at short intervals, such as every 10 minutes, can be understood through the lens of parental monitoring and behavioural observation strategies (Crouter and Head, 2002). This approach is often employed to manage and

mitigate risk behaviours in adolescents, as well as to ensure safety in various contexts, which are crucial in predicting and reducing risk behaviours such as substance abuse, delinquency (Trick et al., 2016) and mobile gaming. If they find that the young people continue to play games for three consecutive observation periods – that is, 20 minutes – they might have already judged those young people are addicted to games.

It is undeniable that the addiction of some young people to online games has seriously affected their regular learning, their lives and their physical and mental health, even causing a series of social problems and many PCRs to fall into conflict (Chen and Leung, 2016). Ofcom (2022) found that increasing numbers of PCRs in the UK are concerned about the content of games they play. This includes 25% of PCRs of 3-4-year-old gamers. Most major titles do come with age guidance but as with films or TV shows, many young people access the content at a younger age. Fortnite, for example, is rated 12+ yet many primary school-age young people play.

Furthermore, when youth fail to meet the expectations set by PCRs, parents may attribute this underperformance to activities they do not support. For example, if a youth does not achieve desired academic outcomes within a specified timeframe, PCRs may blame the youth's engagement in preferred activities—such as gaming or hobbies—rather than considering a broader range of contributing factors. This attribution tendency reflects a form of selective bias; whereby disapproved activities are positioned as primary causes of failure.

At the same time, PCRs often face practical limitations in supervising their youth continuously across different contexts. As a result, when PCRs observe their youth participating in games, this limited and fragmented visibility can reinforce the perception that gaming is excessive or harmful. Consequently, some PCRs may develop a one-sided belief that young people are addicted to games and incapable of deriving any developmental or educational benefits from them.

2.5.4 Benefits and disadvantages of anti-addiction systems

Firstly, the benefits of online gaming anti-addiction system. The system may control the time and money spent by young people and possibly reverse the so-called addiction

on them, relieving the concern and confusion from PCRs about online games that young people participate. Secondly, this system may also require more time from PCRs to supervise and manage their youth's leisure time. However, more importantly, I think an anti-addiction system on online games would incur more problems than benefits it can bring.

First of all, the appearance of the anti-addiction system may reduce revenue. As Park and Ann (2010) state, several game companies have voluntarily adopted the anti-addiction system through the method of the tax and rebate policy but did so to ease the burden of frequently updating online game content. By implementing the tax and rebate policy while the total revenue of the online gaming industry increases slightly, the social image of gaming is improved and the number of ‘addicted’ game users decreases. Because some game users play the same game many times over extended hours, they rapidly reach the maximum skill level. As a result, game companies need to release updated versions after the first release. Moreover, depending on different policies from different countries, the designers would pay more capital, human resources and technology for each game, designing several versions, which may increase the trouble and costs for entertainment companies. Because of the emergence of the anti-addiction system, some companies shut down games they have already published in specific regions. For example, the developers of *Fortnite* in China shut down the servers of the game in that country. Although the game was introduced in 2018, it never left the beta stage due to the government’s heavy restrictions on playing video games.

However, there are still some disadvantages that should be discussed. Non-collaboration between companies leads to different anti-addiction systems from different companies that cannot be inter-connected, which means some adolescents can play more for longer even during the 'controlling time'. For example, youngers may play more than three hours by playing one hour each across three games by three different companies, even though each game company only allows them to play for 1.5 hours per day. This situation leads players — particularly youths — to circumvent government policy controls and engage in gaming sessions that exceed the limits mandated by those policies: borrowing adults' accounts, using shared identities, or exploiting technical loopholes, thereby reducing the effectiveness of regulatory interventions (Xiao, 2023; Feng et al., 2023).

Furthermore, extremely restrictive policy management might also lead to a chain of severe situations. First, restrictive anti-addiction policies may encourage young people to play more ‘in the shadows’, hiding their gaming behaviours and making this behaviour more furtive. The system may lead the adults, mainly the PCRs of youths, to find it more difficult to control and manage their youth’s behaviours, such as the amount of game time. For example, as in a panopticon, PCRs may pay attention to the young people's activities, but the youths might adapt their behaviours knowing that their PCRs are monitoring them. But when the young people become aware of their PCRs’ behaviour, they will take fake activities to cheat their PCRs and get their trust until their true behaviour was discovered by their PCRs. This situation will be discussed further in **Chapter 6**.

Secondly, the system may also lead to a bad relationship within the family; the more time and energy young people spend on online games, particularly on their own, the more conflict and tension may arise with their PCRs. Parental opposition might form an intense conflict with young people's indulgence, further leading to the deterioration of family relations.

PCRs can try to contact young people at any time, or they can try to consult their digital footprint (Boyd and Hargittai, 2013). In Lachance's (2020) interview with 16 French young people, they emphasised how young people can change their behaviour to adapt to their PCRs’ behaviours. At the same time, in the current online world, there are some applications, youth protection models, or parental controls that have emerged for young people.

Furthermore, some media companies focus on adolescence, such as YouTube, by creating YouTube Kids, mainly designed for kids below 12. However, due to the different countries' definitions of the age of young people and the different perspectives of PCRs, it is hard to explain what a kid’s mode of the social platform is valid. The Chinese model is proposed to balance young people’s gaming time and the conditions of control and intervention. At the same time, the insights from this study can provide suggestions and new perspectives on developing healthy family relationships around young people’s gaming behaviours.

2.5.5 Panopticon and family surveillance

The panopticon is depicted as a round building or circle of cells with an observation tower at the core.

> "All that is needed, then, is to place a supervisor in a central tower and to shut up in each cell… a worker or a schoolboy… One can observe from the tower, standing out precisely against the light, small captive shadows in the periphery cells" (Foucault, 1995, p. 200).

There is a similarity between the panopticon and schools. As stated by Deacon (2006) it is necessary to evaluate modern schools in the context of the disciplinary power that began to multiply and spread in 17th century Europe. The realities of physical surveillance, attendance records, exams, performance progress reports, body-belongings research, seclusion units in schools interrogate us the idea that a school could be a prison in disguise (Çeven et al., 2021). In short, schools are designed as institutions where there is no rule gap, strict discipline prevails and no one can escape surveillance (Dolgun, 2008). Students, in alert against the possibility of being under surveillance, are urged to feel they must improve their abilities of self-control (Hope, 2018). They normalise being monitored and monitoring since they are socialised in the surveillance culture (Taylor, 2012).

Amestoso et al. (2023) found that Filipina gamers in Mobile Legends face stereotypes of being weak and incompetent, often relegated to support roles. This reflects broader societal biases that underestimate women's capabilities in competitive environments. Meanwhile, Song et al. (2020) found gender stereotypes influence Korean game style preferences and teammate selection, with both male and female gamers having preconceived notions about the opposite gender's gaming abilities. This is further exacerbated by hostile sexism in certain gaming communities.

Building on this, family environments and parenting practices play a critical role in shaping how gendered gaming identities are formed and reinforced among young people. Research suggests that parental mediation is often gender-differentiated, with

boys more likely to be granted autonomy in gaming practices, while girls' gaming is more closely monitored or subtly discouraged, particularly when it is perceived to conflict with normative expectations of femininity (Nikken and Jansz, 2006; Wartella et al., 2013). Such patterns contribute to the reproduction of gendered digital divides within the home, where boys are positioned as more "natural" gamers and girls as peripheral or casual participants. These familial dynamics intersect with broader societal stereotypes, reinforcing gendered expectations before young people even enter online gaming spaces. Narrowing this to gender-sex and gaming specifically, these early socialisation processes shape both participation and self-perception: male players are more likely to adopt competitive, mastery-oriented gaming styles, while female players may internalise lower perceived competence or gravitate towards socially oriented or supportive roles, not necessarily due to preference but as a response to structural and cultural constraints (Shaw, 2012; Hayes, 2007). Consequently, gender differences in gaming are not merely individual choices but are embedded within a continuum of family influence, social norms, and in-game cultures that collectively reproduce gendered patterns of play.

Furthermore, PCRs' worldly surveillance of their younger youth's internet use in Australian family homes can often be likened to Foucault's Panopticon, where the site of central inspection is often the family kitchen (Holloway, 2018). This is because the physical positioning of spatial dimensions in the standard Australian home lends itself to panopticon surveillance of youth (Holloway, 2018). It also may happen in bedrooms of young people. PCRs may approach the door of young people's room or open the door to monitor the behaviour of young people. Such behaviour will cause the youth to use various methods to evade the supervision of PCRs, which will affect the trust between members and lead to the deterioration of the relationship between family members. Further details will be expanded in **Chapter 6**.

2.6 The rights of youth and PCRs

2.6.1 Rights from UN

The United Nations Convention on the Rights of the Child (CRC) is a landmark international treaty that outlines the rights and protections afforded to youth worldwide.

Adopted by the United Nations General Assembly in 1989, the CRC recognises the inherent dignity and worth of every youth and aims to ensure their holistic development, well-being and protection. The convention consists of 54 articles that cover a wide range of rights, encompassing civil, political, economic, social and cultural aspects

The CRC begins by affirming that all youth have the right to a life free from discrimination, recognising the equal and inalienable rights of every child. It emphasises the best interests of the youth as a primary consideration in all actions and decisions that affect them. This principle guides governments, families and communities to prioritise the well-being and development of youth in every aspect of their lives. For Chinese youth, this principle is vital in promoting inclusivity and ensuring that every child, regardless of ethnicity, gender, or socio-economic status, has access to the same opportunities and protections.

Article 12 emphasises the right of the youth to express their views in all matters affecting them and this principle is significant for Chinese youth's participation in decision-making processes. Recognising the unique cultural context, efforts can be made to create platforms for young people to voice their opinions on issues that impact them directly, promoting a sense of civic engagement and responsibility.

Participation is a key theme throughout the CRC. Article 12 specifically outlines the youth’s right to express their views in all matters affecting them and requires those views to be given due weight in accordance with the age and maturity of the youth. This principle recognises youth as active agents in their own lives, promoting their participation in decision-making processes at home, in schools and within the community. The UNCRC's application to the digital environment is addressed through General Comment No. 25, which outlines states' obligations to protect youth from digital threats while ensuring equitable access to digital services and literacy education. The digital landscape presents unique challenges, such as balancing protection with freedom and requires cooperation between governments, businesses and caregivers to uphold youth's rights effectively (Livingstone et al., 2024).

Article 31 underscores the Right of the Child to rest and leisure, as well as to engage in play and recreational activities. Recognising the importance of cultural, artistic and

recreational opportunities, this provision highlights the need for a balanced and enriching childhood that goes beyond academic pursuits. In the context of China's competitive academic environment, it is important to ensure that youth have time for recreational activities and play, contributing to their holistic development.

The United Nations Convention on the Rights of the Child represents a comprehensive framework that recognises the unique vulnerabilities, needs and potential of every youth. By emphasising the principles of non-discrimination, best interests, survival, development, participation and protection, the CRC sets a global standard for the treatment of youth. While progress has been made since its adoption, challenges persist in ensuring the full realisation of these rights for every youth. Governments, communities and individuals must continue to work together to create a world where every youth can thrive and reach their full potential.

However, the UNCRC is increasingly being interpreted in a 'post paternalist' context, where youth are not merely passive recipients of rights but active participants in claiming them. This shift is evident in the global climate action movement, where youth and youth are leading grassroots initiatives and collaborating with adults as equals in legal and advocacy efforts. This transformation challenges traditional paternalistic approaches and calls for adult allies to support youth-led initiatives in a manner that respects their autonomy and agency (Daly et al., 2024).

2.6.2 The rights of Chinese youth

Youth rights have gained significant attention in recent years, both globally and within the context of individual countries, including China. The Chinese legal system has undergone several reforms to address and protect the rights of youth. China has specific legislation dedicated to protecting youth's rights. The Law on the Protection of Minors, enacted in 1991 and revised in 2006, is a comprehensive legal framework. It addresses issues such as parental responsibilities, education, healthcare and protection from abuse and exploitation. It provides social welfare services to support vulnerable youth, including those without proper family care. Adoption laws in China regulate domestic and international adoptions, ensuring the best interests of the youth are prioritised.

Chinese law recognises the right to education for all youth. The "Compulsory Education Law" mandates nine years of free and compulsory education for every youth. Efforts have been made to improve access to education in rural areas, reducing disparities between urban and rural regions.

Despite progress, challenges remain, such as regional disparities in implementing and enforcing laws. Additionally, societal changes and technological advancements pose new challenges in safeguarding youth's rights. Ongoing efforts are needed to address these challenges and continually improve the legal framework for youth's rights in China.

2.6.3 Restriction from the Chinese authority

China has issued many policies on youth game addiction prevention to address issues related to game addiction, myopia and mental health. In the fall of 2021, the Chinese government strictly restricted minors to play mobile games only from 8 to 9 pm every day on weekends. To enforce age restrictions and monitor gaming activity, the Chinese government requires real-name registration for online gaming accounts. This measure aims to ensure that gaming companies can verify the age of players and enforce the specified time limits for minors. To address concerns about in-game purchases and loot boxes, regulations have been introduced to limit the amount of money minors can spend on virtual items within games. This is part of an effort to prevent excessive spending and protect young players from potential exploitation.

Gaming platforms and companies are required to display health warnings about the potential risks of gaming, including issues related to eye health, sedentary behaviour and gaming addiction (Chan et al., 2022). Educational campaigns are also conducted to raise awareness among PCRs and guardians about the importance of monitoring and regulating their youth's gaming activities (Faraz et al., 2022). Efforts have been made to address gaming addiction, including the establishment of anti-addiction systems within games. These systems often include features such as pop-up reminders and penalties for exceeding time limits. Game developers are required to implement these measures to promote responsible gaming behaviour.

There are penalties for gaming companies that fail to comply with regulations, including fines and potential bans on game releases. The enforcement of these policies is monitored by relevant government authorities and companies must adhere to the specified guidelines. The implementation of gaming restrictions has generated both practical challenges and mixed societal responses. While some stakeholders support such measures as necessary for safeguarding young people's well-being and preventing excessive gaming behaviours, others have raised concerns regarding their potential impact on the gaming industry, individual autonomy, and digital rights (Griffiths, 2018). Critics argue that overly restrictive policies may infringe upon personal freedoms and fail to account for the diversity of gaming practices, particularly where moderate gaming is not inherently harmful (Przybylski et al., 2017). In addition, industry stakeholders have highlighted potential economic implications, including reduced market growth and innovation, particularly in regions where regulatory frameworks are highly stringent (Newzoo, 2023). Consequently, the debate surrounding gaming regulation reflects a broader tension between public health objectives, economic interests, and individual rights in the digital age. It's crucial to check the latest sources for updates on China's youth gaming policies, as regulations in the gaming industry can evolve over time based on new developments and feedback from various stakeholders.

2.6.4 PCRs' rights on surveillance in China

The PCRs' rights in surveillance often intersect with the broader issue of balancing privacy rights with PCRs' responsibility to ensure their youth's safety and well-being. From the legal framework, the Law of the People's Republic of China on the Promotion of Family Education (POFE Law) it is surrounding PCRs' rights in surveillance can vary significantly between jurisdictions (2021). In some cities in China, PCRs may have the right to monitor their minor youth without explicit consent, especially if the youth is dependent on them. However, this can depend on the nature and extent of surveillance.

Regarding the privacy rights of youth, while PCRs have a responsibility to protect their youth, they must also balance this with the youth's right to privacy and autonomy. Youth may have a reasonable expectation of privacy in certain areas of their lives. Several types of surveillance should be noticed. PCRs often have the right to monitor their youth's online activities, including social media use, to ensure their safety and

well-being. Tracking a youth's location is another area where parental rights may come into play, especially in the context of ensuring the youth's safety. Educational institutions may have their own policies regarding surveillance. PCRs should be aware of these policies and how they affect their youth. Establishing open communication with youth is crucial. On ethical considerations, while PCRs have a duty to protect their youth, trust and respect for the youth's autonomy are important. Surveillance should be proportionate and reasonable. Furthermore, excessive or intrusive surveillance may negatively impact the trust between PCRs and youth, potentially leading to strained relationships. In some cases, intrusive surveillance without proper legal justification may have legal consequences.

In summary, while PCRs generally have the right and responsibility to ensure the safety and well-being of their youth, the extent of surveillance should be reasonable, respectful and considerate of the youth's right to privacy. It's essential to be aware of the legal and ethical considerations in jurisdiction and to maintain open communication within the family.

China has a highly monitored society with extensive government surveillance. This includes the use of technologies such as facial recognition, internet censorship and the monitoring of online activities. Chinese law typically emphasises the importance of family and parental responsibilities. However, these rights may be subject to limitations, especially in areas where government interests are involved. The Chinese government has implemented strict controls over the internet and social media platforms. PCRs may not have direct control over these platforms and the government exercises significant influence in regulating online activities. China recognises the rights of youth, including privacy rights. However, the emphasis on family and societal interests may sometimes take precedence. Surveillance in educational institutions, including schools, may be subject to specific regulations and practices. Schools may implement monitoring systems for security and safety reasons.

2.6.5 Conflict between PCRs and youth

In the era of rapid technological advancement, PCRs find themselves grappling with the question of how much surveillance is too much when it comes to monitoring their youth. Striking a delicate balance between ensuring the safety and well-being of their offspring and respecting their rights to privacy poses a formidable challenge. This section explores the complex landscape of parental surveillance, examining the rights of PCRs and youth, potential ethical concerns and the need for a balanced approach.

First, PCRs have a fundamental responsibility for the welfare of their youth and this extends to their safety in both physical and digital realms. Legal systems worldwide generally recognise PCRs' rights to monitor their youth's activities, particularly when minors are involved. This includes the right to access and control their youth's education, medical decisions and, to a certain extent, their online behaviour. However, these rights are not absolute and are often constrained by the broader legal framework. Laws and regulations vary and there is a growing acknowledgement of youth's rights to privacy and autonomy. Courts are increasingly called upon to arbitrate cases where parental surveillance may infringe upon the youth's rights.

Parental surveillance raises ethical questions that extend beyond legal boundaries. While PCRs may have the right to monitor their youth, the manner in which they exercise this right warrants scrutiny. Excessive surveillance can erode trust, hinder the youth's development of autonomy and potentially lead to long-term psychological consequences (Deci and Ryan, 2000; Grolnick, 2003; Smetana, 2017). Such as snooping, a form of covert surveillance, is less frequent but more strongly associated with negative family dynamics and perceived privacy invasion compared to overt monitoring strategies like solicitation (Hawk et al., 2016). Ethical considerations also encompass the potential misuse of surveillance tools. The fine line between safeguarding and overreach becomes blurred when technologies meant for protection are used for control or invasion of privacy. Striking the right balance requires PCRs to be conscientious of the potential consequences of their actions. Surveillance technologies can both undermine and reinforce trust within families. While some PCRs view these tools as a means of care, adolescents often perceive them as invasive, potentially damaging trust and communication (Damkjær et al., 2019). The psychological impact of surveillance includes potential long-term consequences, such

as anxiety and reduced self-esteem, stemming from a lack of privacy and autonomy (Fahlquist, 2015).

Second, the key challenge lies in finding a balance that preserves the safety of the youth without compromising their autonomy. Open communication between PCRs and youth is crucial in establishing trust and understanding the reasons behind surveillance measures. Informed consent, where age-appropriate, can empower youth to participate in decisions about their own privacy. Technology, when used judiciously, can aid in this delicate balancing act. Parental control features on devices, monitoring applications and internet filters can provide a level of oversight without infringing on the youth's privacy excessively. However, the implementation of such tools requires careful consideration and a commitment to respecting the youth's right to develop into an independent individual. The relationship between PCRs and youth plays a pivotal role in determining the success of any surveillance strategy. Excessive monitoring can strain these relationships, leading to resentment and rebellion. Conversely, a lack of oversight may expose youth to risks that could have been prevented.

A daunting array of rights-related problems are becoming pressing – hacking data from the 'internet of things', the surveillance of youth's online privacy by anxious PCRs, the exploitative practices of age-blind commercial bodies, the heavy-handed criminalisation of teenage explorations of sexuality, the amplification of youth sexual abuse through image sharing and paedophile networks, the restrictions placed on youth's freedom of information (health, sexual and political) by censorious governments and the seeming refusal of companies to provide comprehensible terms and conditions or youth-accessible rights of redress (Livingstone and Third, 2017). Open dialogue is essential for navigating this terrain. PCRs must communicate the reasons behind their surveillance efforts and actively listen to their youth's concerns. Striking a balance involves creating an environment where youth feel comfortable discussing their experiences and seeking guidance without fear of punitive measures.

Third, as technology continues to evolve; the landscape of parental surveillance will undoubtedly undergo further transformations. The ethical and legal frameworks must adapt to these changes, ensuring that the rights of both PCRs and youth are protected.

Collaboration between policymakers, ethicists and technologists is essential to develop guidelines that reflect the nuances of contemporary parenting in a digital age.

The question of parental surveillance of youth is multifaceted, involving legal, ethical and interpersonal dimensions. While PCRs possess certain rights to monitor their youth, these rights are not absolute. Striking a balance requires a nuanced approach that respects youth's rights to privacy and autonomy while acknowledging the legitimate concerns of PCRs regarding their youth's safety. The key lies in fostering open communication, utilising technology responsibly and adapting legal and ethical frameworks to the ever-changing landscape of parenting in the digital era.

In China, parental rights regarding the surveillance of youth are influenced by a combination of cultural norms, legal regulations and technological developments. It's important to note that in January 2022 and specific regulations may have evolved since then. The cultural and legal context should be discussed firstly. Chinese culture traditionally places a strong emphasis on family and parental authority. PCRs are generally expected to play a significant role in their youth's lives, including education and discipline. Confucianism emphasises the importance of family as the foundation of virtue and societal stability, with filial piety being a core tenet. This cultural value mandates respect and obedience to PCRs, reinforcing parental authority in family structures (Zhang, 2024). Chinese law recognises parental rights and responsibilities. The General Principles of Civil Law and the Law on Protection of Minors outline certain aspects of parental authority, but specifics may vary.

Secondly, PCRs in China typically have a high level of involvement in their youth's education. They may monitor academic performance closely and often guide their youth's career choices. With the rise of the digital age, PCRs are increasingly concerned about their youth's online activities. This has led to the adoption of various monitoring tools and apps to track and control internet usage. Technological surveillance from PCRs is more frequent than before. By using digital Parenting Apps, many Chinese PCRs use digital parenting applications that provide features for monitoring and controlling their youth's online activities, including social media use and gaming. Besides, some schools in China also use digital platforms that allow PCRs to monitor their youth's academic progress, attendance and behaviour.

Government initiatives and social expectation or pressure also increased the surveillance for youth mobile gaming. From national cybersecurity laws, China has implemented cybersecurity laws that impact online activities and these may indirectly influence how PCRs monitor their youth's internet use. The government places emphasis on protecting minors from harmful online content. Within data Privacy Concerns, the increasing use of technology for surveillance raises concerns about data privacy. Regulations around data protection and privacy are evolving and PCRs may need to navigate these issues responsibly.

By the environment of competitive education, the highly competitive education environment in China can contribute to increased parental monitoring. PCRs may feel societal pressure to ensure their youth succeed academically and socially. While primarily a government initiative, the Social Credit System, which assesses citizens based on their behaviour, could indirectly influence parenting practices. The pressure to succeed academically is particularly intense due to the perception of education as a primary ladder for social mobility, leading to increased parental involvement and monitoring (Zhao et al., 2018).

Fourth, in the landscape of mobile surveillance, particularly focusing on the intersection of surveillance practices and mobile games, smartphones have become integral to our daily lives, the increasing use of mobile applications, including games, has raised concerns about user privacy and the extent to which individuals are being monitored. This section examines the evolution of mobile surveillance, the role of mobile games in data collection, the associated privacy implications and the regulatory frameworks in place to address these concerns. Although the Chinese authorities try their best to limit to the youth mobile gaming behaviour and while parental rights are recognised, there are legal limits to how far surveillance can go. Balancing the need for protection with a youth’s right to privacy is an ongoing challenge.

The surge in mobile usage has led to an increase in surveillance practices, both by app developers and third-party entities. From the early days of basic feature phones to the sophisticated smartphones of today, the capabilities and methods of surveillance have evolved significantly. It also delves into the technological advancements that have

facilitated more sophisticated surveillance practices. Mobile games have become a major source of entertainment for millions of users worldwide in social gaming and esports, which feature professional players and large audiences (Lal, 2019). However, the integration of data-driven features and the freemium model in many games have raised concerns about the extent to which user data is being collected.

The collection of vast amounts of user data through mobile surveillance has profound privacy implications, such as unnecessary data collection, identity theft, unauthorised access and the creation of detailed user profiles. The psychological impact on individuals who may feel a loss of autonomy and privacy is also discussed. The analysis of user data allows for the creation of detailed user profiles, which can be used for targeted advertising and personalised services, this profiling can lead to privacy threats, as third parties may track users without their explicit consent (Liu, 2022). There have been specific cases where mobile games have been involved in controversial surveillance practices. It includes instances of data breaches, privacy violations and the misuse of user data by both app developers and third-party entities. As concerns about mobile surveillance grow, governments and regulatory bodies have begun to address the need for comprehensive frameworks to protect user privacy.

Chapter 3. Methodology

3.1 Mixed methods research

In this chapter, I will discuss a mixed-methods approach for this thesis: integrating semi-structured interview as the qualitative method and survey as the quantitative method. A mixed-methods approach was deemed the best fit for the study's methodological considerations because it has the capacity to intersect multiple methods and create an integrated approach for addressing complex practical problems (Creswell and Clark, 2017). Combining quantitative and qualitative approaches can produce rich and transferable results by integrating qualitative stakeholder views with quantitative measures to inform action/intervention planning, implementation, evaluation and monitoring (Ivankova, 2017).

A mixed-methods design was adopted to capture both the breadth and depth of the research problem. The quantitative survey allowed the study to identify general patterns in youth gaming behaviour and parental attitudes across a relatively large sample. However, survey data alone cannot fully capture the complex dynamics of family relationships and policy perceptions. Therefore, semi-structured interviews were conducted to explore participants' lived experiences and to provide contextual explanations for patterns identified in the quantitative data. This sequential design enabled triangulation and enhanced the overall validity of the findings.

3.1.1 Research design and principles

The quantitative survey provided a broad understanding of patterns in gaming behaviour and family relationships, while the qualitative interviews allowed a deeper exploration of the meanings and experiences behind these patterns. As such, quantitative and qualitative components were considered equally important.

I decided to conduct the quantitative phase first, followed by the qualitative. Specifically, based on a review of the literature which formed the basis for survey questions (McElwain and Bub, 2018; Pires et al., 2016; Röttinger et al., 2021), the

quantitative phase was performed in anticipation of potential topics of discussion and eventual possible themes from the interview data. The survey was to investigate whether the PCRs were conducting surveillance on youth mobile gaming behaviour, then analyse whether gender of youth affect how much their PCRs intervene in mobile gaming behaviour. The qualitative phase identified the reasons and motivations that affect the opinions of young people and their PCRs on mobile games via semi-structured interviews.

The reason I chose the survey as my quantitative method was that it helped me focus on individual opinions; this method has been used to collect data in research on various topics, ranging from consumer behaviour to public preferences and from political ideologies to preferred free time activities and preferred vacation spots (Stockemer, 2019). A survey has several strengths, such as it being a relatively cheap and quick way to gather a large amount of data (Kline, 2013). They can be administered online and to a large group of participants simultaneously, as in the case of this research. Surveys can be completed privately (and often anonymously) with responses that, therefore, more likely to be honest. Also, surveys use written self-report techniques where participants are given a pre-set number of questions to respond to (Paulhus and Vazire, 2007). Surveys are also useful for collecting information on sensitive matters, especially with youths. As a vulnerable group, they can answer the survey more precisely and privately than other research methods, especially in this case, given that the questions related to the actions of their family members and surveillance of their gaming behaviours. Besides, as the first step of my research, the survey helped me to collect initial data, which then helped me to further improve on that data during the interview.

However, surveys still include some disadvantages; as Patten (2016) says, such as the low response rate and snapshot feedback and they may elicit socially desirable responses. Smaller response rates mean a smaller sample size. When the sample size is small, there is a greater chance that it will not be representative of the population, because the people who showed up to take the survey may not be diverse enough to reflect everybody in the target group. To partly avoid these challenges, I used a semi-structured interview as a different research method to expand on the data found in the survey (See details in **Appendix I**).

Semi-structured interviews were used in my fieldwork. Qualitative interview attempts to generate data about how people understand and experience particular aspects of the human world. They are usually directed toward topics that are not easy to measure or observe directly and are often used to respond to research aims and objectives that begin with ‘how’ and ‘why’. Furthermore, it can be directed toward multiple aspects of fieldwork.

The researcher's subjective position, shaped by personal convictions concerning parenting practices, digital media regulation and the role of government, is acknowledged as a fundamental aspect of this inquiry. Rather than attempting neutrality, a stance of critical reflexivity was adopted (Wacquant and Bourdieu, 1992; Alvesson et al., 2016). This involved a disciplined practice of self-reflection to identify how these preconceptions could shape the research, particularly in:

1. The Framing of Questions: Ensuring interview prompts were open-ended and not leading, thereby minimising the imposition of the researcher's assumptions.
2. The Interpretation of Data: Interrogating initial analytical impressions during coding and thematic development to challenge potential bias in reading participant responses.

This reflexive process was documented in a research journal and informed the iterative analysis of both qualitative and quantitative datasets. By making this positionality explicit, the study strives for transparency and methodological rigor, recognising the researcher as an active, situated interpreter of the social world.

Furthermore, in this mixed methods study, methodological rigour was ensured through attention to reflexivity, reliability and validity. Reflexivity was maintained throughout the research process, with the researcher critically reflecting on their positionality as a researcher with an academic background in Media Studies and a personal interest in youth digital wellbeing. Recognising that personal beliefs about parenting practices, screen time limitations and government intervention could influence both data collection and interpretation, the researcher engaged in regular self-reflection. These reflections acknowledged the potential for bias, especially in framing interview questions and analysing participant responses. This process informed the interpretation

of both qualitative and quantitative data, promoting transparency and analytical integrity.

Reliability in the quantitative phase was addressed by employing standardised, previously validated survey instruments measuring parental control strategies, gaming time and family communication patterns. Validity was approached from multiple angles. Construct validity was supported in the quantitative phase using well-established measurement tools.

For the qualitative phase, reliability (or dependability) was enhanced through the use of an audit trail, documentation of coding decisions (See details in **Appendix IX**). Credibility was enhanced by conducting member checks with selected participants to confirm the accuracy of interpretations (from March to May 2023).

3.1.2 Site selection, participant recruitment and ethical procedures

Research in China is one of the trickier issues before research began, because the current political and ideological management in China is stricter for universities outside of China compared to China's domestic universities. It is commonplace that showing the names of foreign universities in the study would discourage participants from taking part in the study and could lead to slower research. To solve this problem, I cooperated with the Education Bureau of Shahekou in Dalian, sent the documents to the government for examination and requested that the materials be distributed to the schools from the government instead of the university. In response, I removed the words “University of Glasgow” from the research and communicated this strategy to the principal before the research began. A sample of the survey was sent to the school; with the school's permission, research materials were sent to PCRs and young people. This process made the research easier and some research materials, such as surveys, have been modified iteratively (at least 10 times) to make the questions easier to understand.

Participants were recruited from three primary schools in Dalian, Liaoning Province, China. I selected three primary schools in Shahekou, a district of Dalian, China. For participant recruitment, I obtained the permission of the schools’ headteachers prior to

the notification sent by the school to the youths and their PCRs (the approval letter was presented to the ethics committee before the beginning of the fieldwork, once approval was granted).

The choice of these particular schools reflected the differences in the occupational groups in society: the PCRs of one school were from high-income classes, most of the PCRs of the other were farmers and workers and the PCRs of the third were mainly from government staff. At the same time, I chose youth as my research participants because they have a great deal of experience in online games and webcasting is a popular new phenomenon among youths. Whereas PCRs may have different opinions about how their youth spend and experience their time and care for their mental and physical health, their academic grades and other aspects of young people's lives. These situations may cause PCRs to have different opinions about mobile games compared to their youth. Moreover, my research participants had different gaming experiences, allowing a broader scope of research.

A convenience sampling approach was adopted due to accessibility and institutional cooperation, based on school accessibility and participants' willingness to participate. Recruitment of all participants took place at the three schools. Students in Grades 4-6 (aged 9–12) were eligible to participate and their PCRs were invited to complete the corresponding parental questionnaire.

The advert and documentation were written in plain Chinese in order to inform potential participants about the nature of the research and I appealed directly to the young people (who would then need parental/adult permission to participate) and PCRs. Young people aged 9-12 were recruited with the consent of their PCRs and their data was anonymised for the thesis. Also noting a vulnerable group, they were allowed to participate in the study only with PCR's (or guardian's) knowledge and approval. PCRs were noted that a pseudonym will replace the youth's name during the fieldwork.

Regarding ethical practice, when participants got in contact, they were informed of the voluntary nature of their participation and their right to withdraw at any point in the process. A web link was sent to consented participants, which contained a survey to obtain quantitative data and I selected families for interview from the students and

PCRs who participated in the survey. Participants were also given an information sheet with the details of the project and the supervisor's contact details.

Written informed consent was obtained from PCRs and the youth. Regarding the youth's consent form, I asked for signatures from one of the PCRs, to confirm that the PCRs understand the study and agree to their youth's participation and that the young people are giving informed consent themselves. The participation information sheet and consent forms were produced in youth-friendly plain language for young people. During the interviews, especially for youth, I used simple language structures to help young people fully understand various materials and got the best data (See details in **Appendix I and III**).

My research included some sensitive questions and themes (e.g., have argument with youth on mobile games, opinion on current policy or family intervention about mobile games) and I ensured that all the participants had the right to refuse to answer those questions. I gave the participants access to support if they became distressed or if they feel that they needed help after participating in the whole study; none of them asked for this support. To maintain confidentiality, participants were not asked to provide identifiable personal information and all data were anonymised during analysis.

Participation was voluntary. Participants were informed of their right to withdraw at any time without penalty. No financial compensation was provided; however, participants were informed that their involvement would contribute to academic research on youth gaming behaviours and family relationships.

3.2 Survey instruments

The survey instruments were developed through an iterative process to ensure that the questions were clear, age-appropriate and aligned with the theoretical framework of the study. The initial version of the questionnaires was designed by the researcher based on the McMaster Family Assessment Device framework (Epstein et al., 1978), which examines key dimensions of family functioning such as communication, affective responsiveness, behaviour control, roles and problem solving. During the early

development stage, the researcher discussed the structure and wording of the survey items with academic supervisors and research peers to ensure that the questions were theoretically relevant and methodologically appropriate. These discussions helped refine the wording of several items and ensured that the questions adequately reflected the conceptual constructs being measured.

To improve clarity and accessibility, especially for younger participants aged 9–12, the questionnaire was also reviewed by individuals who matched the inclusion criteria of the study population but did not take part in the final research. A small number of youth and PCRs were invited to read the questions and comment on whether they understood the wording and meaning of each item. This informal pilot feedback process allowed the researcher to identify phrases that were potentially confusing or overly complex for younger respondents. Based on this feedback, several items were simplified by reducing sentence length, replacing abstract terms with concrete language and ensuring that each question focused on only one idea at a time.

In addition to these revisions, the response format was simplified to a three-point Likert scale (Agree / Neutral / Disagree). This decision was made because younger respondents can sometimes struggle with more complex scales and a simplified response structure can improve comprehension and response accuracy. The final version of the youth questionnaire therefore contained shorter sentences, clearer vocabulary and examples that were easier for youth to understand.

The effectiveness of these revisions was evaluated during the early stages of data collection. Participants were able to complete the questionnaire without requesting clarification, suggesting that the questions were generally understandable. Furthermore, reliability testing conducted during the quantitative analysis phase (using Cronbach's alpha) demonstrated acceptable internal consistency across the family functioning constructs, providing additional evidence that the survey items were interpreted consistently by respondents.

Two structured surveys were developed: a youth survey and a PCR survey. Both surveys were administered in Mandarin Chinese to reduce comprehension barriers and improve response accuracy. Qualtrics, an online survey platform recommended and

hosted by the university, was used as the platform to collect quantitative data, all recorded information was anonymised in the research output and no confidential information (e.g., names) was disclosed.

The youth survey contained simplified language, short sentences and concrete behavioural statements to ensure suitability for youth aged 9–12. The PCR survey included parallel family functioning items but added additional sections on parental monitoring behaviours, awareness of the national anti-addiction policy and attitudes toward youth's gaming.

The youth survey was completed in school under teacher supervision, while PCRs completed their survey at home and returned it through school channels.

3.3 Semi-structured interview process

Semi-structured interviews were conducted following the completion of survey analysis. A sub-sample of participants was invited to participate in interviews to provide deeper insights into the quantitative findings and to explore the lived experiences behind observed response patterns. Interviews were conducted with both youth and PCRs.

Interview questions focused on experiences of conflict over gaming, parental intervention practices, youth's perceptions of surveillance and the role of the national anti-addiction policy in shaping family interactions.

3.4 Confidentiality and data handling

During the fieldwork, all data were kept on the researcher's hard drive and the university's OneDrive cloud storage and the folder where the data was kept was encrypted and password protected. The fieldwork data on the researcher's hard drive and OneDrive will be destroyed after 10 years. Only the researcher and supervisors could access data at various stages. No one else was allowed to access them during the period of fieldwork.

The source of the data was mainly the study's survey and semi-structured interview. During the research period, as the researcher, I collected the data by myself and the data were used to investigate relationships between families and young people in the parental model policy regarding mobile video games.

After the PhD thesis and viva completed, the anonymised data should be made available for reuse by researchers. After the PhD thesis and corrections are finished, certain parts of the data will be shared with other academics, for example, through the Open Science Framework.

3.5 Overview of data collection and analysis

A total of 1,604 survey links (812 for youth, 792 for their PCRs) were sent to participants to invite them to take part in the survey research. This allowed an analysis of young people's gaming behaviours and youth's and PCRs' opinions about the anti-addiction policy in China. This includes investigating whether youth gaming behaviours affect their relationships with their family members and how.

To better understand the participants' views, a series of semi-structured interviews with young people were conducted (Marshall and Rossman, 2014) as well as with their PCRs. The participant-centred approach is suited to query how the young people aged 9-12 perceived their social interactions and gaming experience (Greig et al., 2012).

A total of 20 families were interviewed and the questions asked in the interviews centred around themes including the following: 1) perspectives of PCRs and youth on the reason on why they play / do not mobile games and any family relationships changed by mobile games and the emergence of anti-addiction policy, 2) parental intervention and potential different response from PCRs (e.g., by age group).

Following a concurrent mixed-methods design, the quantitative and qualitative data were collected and initially analysed separately. They were then integrated using a joint display matrix (see **Appendix IV, V, VII and VIII**) to facilitate comparison. The

process of integration involved mapping quantitative patterns onto emergent qualitative themes to identify points of convergence, complementarity and divergence. Importantly, validity at the mixed-methods level was strengthened through triangulation: key themes emerging from interviews were compared with survey findings to ensure convergence or meaningful divergence. This integration provided a fuller understanding of how family dynamics and policy measures jointly shape youth's gaming behaviours and intergenerational relationships. Contradictory findings were systematically examined for methodological and substantive explanations, as detailed in **Chapter 6**.

Chapter 4. Quantitative Research

The purpose of this chapter is to present the data collected from the quantitative method and discuss how young people use mobile games, the different opinions of youth and PCRs about mobile games and, therefore, aim to investigate reasons in youth mobile gaming behaviour.

Compared with previous games, mainly in the 20th century, games at the current stage have shown many differences: the types of games have become more extensive, the difficulty of the games has increased and the games have been not only simply used as a way of leisure at the beginning and now they also can be used as a way to chat, communicate and expand friendships (Kolek et al., 2023). The circle of friends method exists, which gives people more reasons to spend time in the game. In the context of networking, due to increased game difficulty, people gradually begin to collect materials and information online, while at the same time, they find news and speedrunning information, allowing them to spend longer and longer in the games than in previous single-player modes. Especially in mobile games, as game memory and usage continue to increase, they are gradually evolving towards computer gamification. The game rankings or the professional players on internet videos inspire people's pursuits, especially among students, who are more likely to pursue the goals in games to satisfy personal vanity when their minds are not yet mature.

However, in the context of Chinese families, most PCRs and schoolteachers prefer to describe mobile games as "drugs" or "things that can decrease their grades". A major reason for this situation is related to the structure of Chinese families. In China, influenced by Confucian culture, young people are taught by their PCRs from the very beginning to "follow the order" and "not be questioned" (Huang and Gove, 2015). At the same time, PCRs occupy the top position in the family hierarchy under Confucian values. This cultural environment makes it easy for family members to lack effective, positive and necessary communication from the start. In this environment, it is difficult for youth to find their place in the family and to develop a sense of accomplishment. Especially in learning, when their efforts do not receive corresponding positive

feedback, the sense of a gap in their hearts will make youth more disgusted with learning.

Compared with other family theories, Epstein and other researchers' family functioning theory (1978) assumes that the basic function of the family is to provide appropriate environmental conditions for family members to develop in the physical, psychological, social and other aspects. The McMaster model of Family Functioning is a comprehensive, systematic and multidimensional approach for evaluating and understanding family dynamics and family functioning (Epstein et al., 1978; Miller et al., 2001). The McMaster model of Family Functioning, a six-dimensional construct, highlights the pivotal role of family interaction in maintaining a healthy family functioning (Ryan et al., 2006). Family members in well-functioning families tend to engage in activities that enhance family relationships and foster positive individual psychological states (Epstein et al., 1978; Miller et al., 2001). Based on this line of thinking, family interactions during youth-parent communication, which reflect family dynamics, play a dual role. They not only contribute to the overall functioning of the family unit but also significantly influence the status of individual family members. Therefore, family intimacy and engagement are proposed to reveal the underlying mechanism linking family interaction to the future adult youth-parent travel intention.

Family Function Theory posits that the family serves as a fundamental unit of society responsible for fulfilling essential roles, such as socialisation, emotional support, economic provision and the regulation of reproduction and behaviour (Bales and Parsons, 2014). Within this framework, the family not only nurtures individuals but also transmits cultural norms and values, including gender roles and expectations. These socialising functions are deeply intertwined with the perpetuation or challenge of gender inequality, especially during the formative adolescent years. On the other hand, families that function with equity, open communication and gender-sensitive parenting can act as protective factors against the reproduction of societal gender inequalities. Such families foster balanced development by encouraging all youth to pursue diverse interests, challenge stereotypes and engage in mutual respect regardless of gender.

Gender differences often emerge from early socialisation processes, in which boys and girls are exposed to distinct expectations, emotional roles and communication patterns. Parent-youth relationships often differ by gender. Research indicates that daughters typically report closer emotional bonds and more frequent communication with PCRs—especially mothers—than sons (Starrels, 1994).

Girls are often encouraged to express emotions and take on nurturing roles, leading to greater involvement in family cohesion and caregiving. In contrast, boys may be more social and more inclined towards independence, emotional restraint and less verbal engagement in family matters. Parental expectations also vary by gender. PCRs may impose stricter rules and protective oversight on daughters, especially concerning behaviour, sexuality and household responsibilities. Boys, meanwhile, may experience more freedom and encouragement to explore autonomy, yet may receive less emotional support. These unequal patterns can reinforce traditional gender roles and affect the development of self-concept, autonomy and interpersonal skills during adolescence (Hill and Lynch, 1983). However, the related papers are all from 1990s, the situation might be changed by the development of technology, culture and social background.

Gender disparities are often intensified in dysfunctional family environments—marked by conflict, poor communication, or lack of cohesion. For instance, in families with limited emotional support, teenage girls may be more vulnerable to mental health issues, while boys may struggle with expressing emotional needs due to ingrained norms about masculinity (Way et al., 2014).

Current research shows that PCRs tend to engage more in emotion-rich conversations with daughters and offer more supportive responses to girls' negative emotions, while sons are more likely to receive encouragement for externalising behaviours such as anger or assertiveness (Chaplin and Aldao, 2013; Morawska, 2020). These patterns begin early in life, with PCRs shaping gendered behaviour through differential interaction, toy choices, discipline and emotional modelling (Endendijk et al., 2016). For example, fathers are more likely to use spatial language with sons and mothers are more emotionally expressive with daughters, contributing to developmental differences in communication and cognitive-emotional skills (McNaughton and Niedzwiecki, 2000).

Cultural context also plays a role, with parental emotional socialisation strategies varying across ethnic and socioeconomic groups (Bowie et al., 2013). Stereotypes in parenting and their effects on youth development. Despite increasing awareness, subtle gender biases persist, reinforcing gender schemas that influence identity, behaviour and even mental health outcomes across childhood and adolescence (Morawska, 2020). These findings suggest that gendered parenting practices remain a critical lens through which to understand family dynamics and developmental outcomes. Early-age socialisation among youth can lead to unequal participation in family decision-making and conflict-resolution processes. For instance, research suggests girls may be encouraged to adopt conciliatory roles, prioritise others' needs and engage in emotional labour, while boys may be socialised to dominate discussions, avoid vulnerability, or withdraw from emotional conversations (Keddie, 2022).

According to Family Function Theory (Epstein et al., 1978), when emphasising wholeness, the whole family system not only refers to the sum of family members but also the interaction between them. In other words, each member of the family is a small part of the family; however, in China, when the opinions of family members are different and diverging, the older family members (such as the PCRs) will not regard the younger family members (such as the youth) as equal but as in a command relationship, for example, the young people will be forced by their PCRs to do something and there is little chance they feel able to refute it. As a part of the family, the opinion and behaviour from PCRs plays an important role in whole function, parental behaviour functions to maintain family homeostasis—that is, a stable, consistent internal environment (Kim and Rose, 2014). In other words, the opinion from PCRs change impact the whole family function and affect the mood of each family member.

Family Function Theory emphasises the importance of communication among family members. However, in the Internet age, family members spend most of their time communicating or playing mobile games on their phones. The lack of communication among family members also creates hidden dangers and communication barriers when playing mobile games.

The survey first collected basic information about both youth and PCRs (e.g., ages, workplace/school), then collected data on participants' gaming experience to assess their knowledge of mobile games and their opinions on gaming behaviour. Then data are collected on participants' understanding of the anti-addiction policy, e.g., how much they know about it and how useful they find it. Finally, the survey's final section is the family function test, based on the McMaster Simplified model (2012) and assessing six significant aspects: Problem-Solving, Communication, Roles, Affective Responsiveness, Affective Involvement and Behaviour Control. This is used to investigate how PCRs solve problems when they face them. As Epstein and other scholars (1978) suggest, the six kinds are:

1) Problem solving mainly maintains effective family functioning; the family solves problems that threaten family cohesion and functional capacity.
2) Communication strengthens that information communication between family members can be direct.
3) Family role refers to the behaviour patterns established by each family member to complete their different family functions.
4) Affective response refers to the degree of emotional response of the family members to stimuli.
5) Affective involvement refers to the degree of concern and attention of family members to the activities and other things among each other.
6) Behaviour control refers to different behaviour control in different situations of a family.

This chapter presents survey data from 1,604 participants (792 PCRs and 812 youth aged 9 to 12) from three primary schools in Dalian. The survey and questions were developed based on the framework of Family Function Theory by Epstein and other researchers (1978), to understand Chinese families' dynamics and the environment affected by mobile phone games. In addition, my analysis also focuses on how gender may affect PCRs' interventions regarding mobile gaming.

I will examine the hypothesis that family functioning does not differ by gender among youth with the same mobile gaming experience. The hypothesis is based on existing research that claims the gender of youth affects PCRs' attitudes toward mobile games,

which in turn affects family relationships (Bonnaire and Phan, 2017; Kanak and Özyazıcı, 2018; Altıntaş et al., 2025). Relevant statistical testing, such as Mann-Whitney tests, Kruskall-Wallis tests, and chi-square tests are also presented in the chapter.

4.1 Research Method

4.1.1 Participants and procedure

812 students in the invited group of youth completed the survey with valid information, of whom 323 were in fourth grade (aged 9-10 years), 200 in fifth grade (aged 10-11 years) and 289 in sixth grade (aged 11-12 years). 426 boys and 386 girls took part. This is summarised in Table 4.11. However, given that participants had the right to skip / not complete any items that they did not want to answer, total number of responses / degrees of freedom in analyses will vary from test-to-test.

Table 4.1.1 Participant recruitment by Grades and Gender-Sex

	Grade 4	Grade 5	Grade 6	Total
Female	149 (39%)	86 (22%)	151 (39%)	386
Male	174 (41%)	114 (27%)	138 (32%)	426
Total	323 (40%)	200 (25%)	289 (36%)	812

Note. Percentages represent Row values – that is Female Grade 4, 149 represents 39% of the 386 participants recruited in total; Grade 4 Total 323 represents 40% of the 812 participants recruited in total.

PCRs of the students (n=792) were included as research participants during the survey period. As with the Youth dataset, given that participants had the right to skip / not complete any items that they did not want to answer, total number of responses / degrees of freedom in analyses will vary from test-to-test.

All survey fieldwork was conducted online from a place of the participants' choice based on their needs. Qualtrics, an online survey platform recommended and hosted by the university, was used to collect quantitative data. Furthermore, Qualtrics complies with UK GDPR regulations and participants' data was stored securely on a university

server. The data collected was used for the scientific research purposes of this study and any information gathered (e.g., raw data from survey responses) will be retained for 10 years and destroyed securely 10 years after the completion of the study.

4.1.2 Survey questions and test

In the survey questions, I first asked about basic information about the youth and/or PCRs (including age, gender, the youth's grade of study and whether they have a phone). The surveys then moved to personal gaming experiences and reasons and opinions for playing or not playing games, followed by views on youth playing mobile games and their understanding of the policies issued by the Chinese government. Finally, I tested family functions to identify situations or problems that may have arisen in family relationships due to mobile games. The design of the questions involved identifying key concepts (e.g., family communication and problem-solving) and ensuring that the questions were clear, relevant and targeted.

A series of checks were performed to explore reliability of inter-connected survey items, for both Youth and PCR datasets. These tests are summarised in the following tables.

Table 4.1.2 Youth Data – Gaming and Lifestyle Dimensions Survey Item Inter-Correlations

		Personal Mood	Daily Routine	Sense of Identity	Personal Wellbeing	Stress Relief	Family Harmony
Personal Mood	r_s	--					
	p	--					
	n	--					
Daily Routine	r_s	.719**	--				
	p	<.001	--				
	n	740	--				
Sense of Identity	r_s	.668**	.694**	--			
	p	<.001	<.001	--			
	n	737	740	--			
Personal Wellbeing	r_s	.593**	.600**	.673**	--		
	p	<.001	<.001	<.001	--		
	n	727	731	730	--		

Stress Relief	r_s	.407**	.393**	.401**	.504**	--	
	p	<.001	<.001	<.001	<.001	--	
	n	739	744	740	738	--	
Family Harmony	r_s	.601**	.604**	.639**	.651**	.382**	--
	p	<.001	<.001	<.001	<.001	<.001	--
	n	742	746	744	742	754	--

Note. **p<.01

All relationships in the matrix are positive and statistically significant (p<.001), indicating that as agreement as to the importance of gaming on one variable increases (e.g., better mood), the others also tend to increase (e.g., stronger sense of identity, greater family harmony). This suggests a cohesive, mutually reinforcing system rather than a set of isolated traits. The sample sizes are large and consistent, lending high confidence to these results.

These data were further analysed for reliability through a Cronbach's alpha test. Results revealed a Cronbach's α = .889 (.887 based on standardised items; F (5, 3500) = 11.81, p<.001). This suggests that there is reliability within this dataset.

The corresponding items from the PCR survey were explored in the same manner.

Table 4.1.3 PCR Data – Gaming and Lifestyle Dimensions Survey Item Inter-Correlations

		Personal Mood	**Daily Routine**	**Sense of Identity**	**Personal Wellbeing**	**Stress Relief**	**Family Harmony**
Personal Mood	r_s	--					
	p	--					
	n	--					
Daily Routine	r_s	.604**	--				
	p	<.001	--				
	n	757	--				
Sense of Identity	r_s	.590**	.722**	--			
	p	<.001	<.001	--			
	n	748	757	--			
Personal Wellbeing	r_s	.679**	.658**	.719**	--		

	p	<.001	<.001	<.001	--		
	n	732	740	735	--		
Stress Relief	r_s	.651**	.451**	.441**	.549**	--	
	p	<.001	<.001	<.001	<.001	--	
	n	744	753	746	732	--	
Family Harmony	r_s	.608**	.580**	.694**	.695**	.524**	--
	p	<.001	<.001	<.001	<.001	<.001	--
	n	746	755	748	734	749	--

Note. **p<.01

All correlations in the PCR dataset are positive and significant (p<.001), with the strongest ties forming around Sense of Identity, which links tightly to Personal Wellbeing (*rs* = .719), Daily Routine (*rs* = .722), and Family Harmony (*rs* = .694). Personal Wellbeing and Family Harmony are also strongly coupled (*rs* = .695). The only moderate relationships involve Stress Relief, which correlates less strongly with Daily Routine (*rs* = .451) and Sense of Identity (*rs* = .441)—the weakest in the matrix. Compared to the first dataset, Stress Relief is more integrated here, especially with Personal Mood (*rs* = .651). Overall, Identity acts as the central hub, while Stress Relief, though still important, is somewhat more independent of routine and self-concept.

These data were further analysed for reliability through a Cronbach's alpha test. Results revealed a Cronbach's $\alpha = .900$ (.901 based on standardised items; $F(5, 3550) = 122.38$, p<.001). This suggests that there is reliability within this dataset.

The same analyses were performed on the Youth Family Function item response set.

Table 4.1.4 Youth Data – Family Function Survey Item

		FF1	FF2	FF3	FF4	FF5	FF6	FF7	FF8
FF1	r_s	--							
	p	--							
	n	--							
FF2	r_s	-.074*	--						
	p	.021	--						
	n	754	--						
FF3	r_s	-.251**.	.365**	--					
	p	<.001	<.001	--					
	n	754	754	--					
FF4	r_s	-.140**	.356**	.615**	--				
	p	<.001	<.001	<.001	--				
	n	746	746	747	--				
FF5	r_s	-.201**	.325**	.550**	.606**	--			
	p	<.001	<.001	<.001	<.001	--			
	n	739	739	740	734	--			
FF6	r_s	-.238**	.369**	.609**	.651**	.657**	--		
	p	<.001	<.001	<.001	<.001	<.001	--		
	n	744	743	744	739	730	--		
FF7	r_s	-.197**	.512**	.485**	.493**	.510**	.555**	--	
	p	<.001	<.001	<.001	<.001	<.001	<.001	--	
	n	744	743	745	736	732	737	--	
FF8	r_s	.365**	.066*	-.090**	-.064*	-.038	-.103**	.013	--
	p	<.001	.036	.007	.041	.152	.003	.359	--
	n	752	750	751	743	737	744	744	--

Note. *p<.05; **p<.01. Full survey item text for all 8 FF items in Appendix VIII.

On the whole, there are relationships between responses to Family Function scale items, of various strengths and polarities. The negative / positive correlations reflect the wording / directionality of the scale items and "agreement" / "disagreement" options.

These data were further analysed for reliability through a Cronbach's alpha test. Results revealed a Cronbach's $\alpha = .624$ (.699 based on standardised items; $F(7, 4886) = 576.08$, p<.001). Overall, this suggests that there is sufficient reliability within this dataset.

Finally, the same tests were performed on the parallel PCR Family Function item responses.

Table 4.1.5 PCR Data – Family Function Survey Item

		FF1	FF2	FF3	FF4	FF5	FF6	FF7	FF8
FF1	r_s	--							
	p	--							
	n	--							
FF2	r_s	-.097**	--						
	p	.005	--						
	n	727	--						
FF3	r_s	-.129**	.320**	--					
	p	<.001	<.001	--					
	n	729	738	--					
FF4	r_s	-.153**	.399**	.614**	--				
	p	<.001	<.001	<.001	--				
	n	721	729	734	--				
FF5	r_s	-.150**	.324**	.563**	.566**	--			
	p	<.001	<.001	<.001	<.001	--			
	n	717	724	728	729	--			
FF6	r_s	-.144**	.356**	.583**	.627**	.701**	--		
	p	<.001	<.001	<.001	<.001	<.001	--		
	n	724	729	733	728	723	--		
FF7	r_s	-.111**	.436**	.453**	.491**	.441**	.480**	--	
	p	.001	<.001	<.001	<.001	<.001	<.001	--	
	n	724	732	734	728	724	733	--	
FF8	r_s	.277**	-.002	-.138**	-.139**	-.109**	-.098**	-.043	--
	p	<.001	.474	<.001	<.001	.002	.004	.123	--
	n	728	733	737	731	727	736	737	--

Note. *p<.05; **p<.01. Full survey item text for all 8 FF items in Appendix V.

On the whole, there are relationships between responses to Family Function scale items, of various strengths and polarities. The negative / positive correlations reflect the wording / directionality of the scale items and “agreement” / “disagreement” options.

These data were further analysed for reliability through a Cronbach's alpha test. Results revealed a Cronbach's $\alpha = .509$ (.696 based on standardised items; $F(7, 4795) = 609.94$, $p<.001$). Overall, this suggests that there is sufficient reliability within this dataset.

4.2 Results

I discovered that PCRs and youth differed greatly in terms of gaming experience and feedback on family relationships, and these differences foreshadowed the family crisis.

4.2.1 Youth

The data below summarise response by Youth participants with respect to their gaming behaviours.

Table 4.2.1 Participants responses from youth on what kinds of games they like to play the most

Kind of game	Amount
Adventures	154 (13%)
Sports (e.g., football, basketball, etc)	64 (5%)
Shooting (e.g., fixed shooting games)	85 (7%)
MMORPG	71 (6%)
FPS	89 (7%)
Battle Royale	28 (2%)
MOBA (e.g., League of Legend)	123 (11%)
Puzzle	71 (6%)
Card games	38 (3%)
Others	72 (6%)
Didn't game in the past month	353 (31%)

Note. Response numbers add up to different totals due to the multiple choice. MMORPG = Massively multiplayer online role-playing game; FPS = First-Person Shooter.

In terms of game types, most respondents would choose to play adventure games, followed by MOBA games such as *League of Legends*. Shooting games and FPS are

other choices for youth, while Battle Royale is the least chosen game. The diversity of game preferences shows that young players use mobile gaming for multiple purposes. Some youth play games mainly to relax and entertain themselves, while others seek challenge, competition, or social interaction with peers.

The top three reasons for young people are as follows: have fun (*n*=264); work in teams/friends (*n*=178); and kill time (*n*=119) (See detail in Table 4.2.2). In the survey, among the activities that asked about youth being affected by games, physical exercise was ignored by youth and was the activity that was affected the most in terms of time and frequency, which shows that most youth have difficulty in keeping their bodies healthy while playing games. The balance between health and relaxation through mobile games has also indirectly affected the decline in the physical fitness of Chinese youth: due to some minors young people playing games with their heads lowered or lying on their sides for a long time, watching short game videos or other peripheral content and other bad postures, as a result, their cervical vertebrae, fingers and other joints also have certain problems. And because of excessive academic pressure, students will focus their time on mobile phones at night. Excessive use of mobile phones at night will affect sleep quality, thereby reducing learning efficiency and mental state. There are also some students who have become obese due to excessive time spent on mobile games.

Table 4.2.2 Participant responses from youth about opinion in the reasons they play mobile games

	Amount	**Percentage**
Kill time	119	(25%)
Have fun	264	(55%)
Work in teams/friends	178	(37%)
Escape the real world	20	(4%)
Stress relief	111	(23%)
Competition with other	23	(5%)
Occupy mind to relax	114	(24%)
Make friends	64	(13%)
Others	20	(4%)

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

Regarding the time participants spent playing video games per week, 337(72%) people self-report that they play less than one hour a day, 91(20%) people say 1-2 hours a day and only 37(8%) people play mobile games for more than two hours a day. The results indicate that youth engage with a variety of game genres, reflecting the diversity of digital entertainment available through mobile platforms. Action and competitive games appear to be particularly popular among youth participants, while puzzle-based and casual games also attract a significant number of players.

Table 4.2.3 Participant responses from youth on how long they spend on mobile games

	Below 1 hour	**1-2 hours**	**Above 2 hours**
Amount	337 (72%)	91 (20%)	37 (8%)

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

Table 4.2.4 Youth spending on mobile games

None at all	**< 100 CMY (**£10 GBP**)**	**100-300 CMY (**£10-£30 GBP**)**	**> 300 CMY (>**£30 GBP**)**	**Total**
442 (91%)	37 (8%)	4 (<1%)	3 (<1%)	486

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

Regarding the amount of money invested in the game, 442 (91%) people said they had never spent money in the game, 37 (8%) people said they spent less than 100 CMY (about £10 GBP) in the game and 7 (1%) people would spend more than 100 CMY in the game (See details in Table 4.2.4). These findings suggest that mobile gaming among the surveyed youth population is largely characterised by free-to-play participation rather than financial investment. The limited financial expenditure may reflect parental restrictions on in-game purchases or the fact that many youth lack independent access to digital payment systems.

Table 4.2.5 Participant responses from youth about how much they can control their mobile gaming behaviour

	Count	%age
Can control myself	411	(50%)
Need help by my PCRs	363	(44%)
I cannot control by myself	33	(4%)
I cannot control myself even by the help from my PCRs	11	(1%)

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

Most young people (50%) believe that they can control their gaming behaviour on their mobile phones.

4.2.1.1 Perceived Personal Importance of Gaming – Youth Data

Youth participants were asked to indicate the relative importance of online gaming to different aspects of their daily lives.

Table 4.2.6 Youth Perceptions of Perceived Importance of Gaming

	Extremely important	Neutral	Not at all important	'Missing'
Personality	181 (22%)	370 (46%)	230 (28%)	31 (4%)
Daily routine	204 (25%)	349 (43%)	229 (28%)	30 (4%)
Sense of identity	162 (20%)	372 (46%)	242 (30%)	36 (4%)
Personal wellbeing	178 (22%)	361 (44%)	236 (29%)	37 (5%)
Stress relief	181 (22%)	468 (58%)	139 (17%)	24 (3%)
Family Harmony	215 (26%)	328 (41%)	250 (31%)	19 (2%)

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

When discussing the impact of games on their lives, young people believe that playing games is extremely important and has a substantial impact on their daily lives and family harmony. However, some young people also believe that playing games has a negative effect on family harmony, identity and personal well-being, even though they think that the influence of being is unimportant. The youth groups experience conflicts

regarding the time they spend on outdoor sports, being with family and doing housework because of playing mobile games (See details in Table 4.2.6).

To compare differences between Gamers and Non-Gamers on perceptions of gaming importance, data pre-checks suggested that non-parametric tests were most appropriate, therefore a series of Mann-Whitney tests were performed. These are summarised in Table 4.2.7.

Table 4.2.7 Gamers vs. Non-Gamers – perceived personal importance for youth [Mean Ranks]

	Personality	**Daily Routine**	**Sense of Identity**	**Personal Wellbeing**	**Stress Relief**	**Family Harmony**
Gamers	**403**	**360**	**360**	384	**403**	391
Non-Gamers	**355**	**401**	**395**	366	**349**	375
U	**59481**	**61696**	**62264**	65198	**60469**	68171
Z	**-3.27**	**-2.78**	**-2.34**	-1.19	**-3.83**	-1.03
p	**.001**	**.006**	**.019**	.233	**<.001**	.306

Note. Gamers vs. Non-Gamers data represents Mean Ranks rounded to whole numbers. Larger numbers signify "greater importance of gaming". Significant results highlighted in **bold**.

There were significant differences between perceived importance of gaming to Gamers' personality, daily routine, sense of identity, and stress relief compared to Non-Gamers. In all cases, median values and mean ranks suggested greater importance for Gamers and less importance for Non-Gamers. However, there were no differences between Gamers and Non-Gamers with respect to perceived personal wellbeing or family harmony. Taken together, these results suggest that gaming is more strongly associated with how young people construct aspects of their identity, organise their daily routines, and manage stress, rather than with broader evaluations of wellbeing or family relationships. In other words, gaming appears to function primarily at the level of personal meaning and everyday practice, rather than fundamentally reshaping overall life satisfaction or family cohesion. This distinction is important, as it indicates that while gaming may influence individual experiences, its impact on more stable or structural dimensions of life is comparatively limited.

Participants were also asked about their time spent gaming – responses were either: non-gamer, below 1 hr per day on average, 1-2 hours per day on average, above 2 hrs per day on average. This data was analysed again perceived personal importance of gaming via Kruskall-Wallis tests were performed. These are summarised in Table 4.2.8.

Table 4.2.8 Youth average daily gaming length– perceived personal importance

	Personality	Daily Routine	Sense of Identity	Personal Wellbeing	Stress Relief	Family Harmony
H	7.39	7.13	0.72	3.07	**25.58**	1.73
p	.060	.370	.868	.380	**<.001**	.629

Note. All degrees of freedom = 3. Significant results highlighted in **bold**.

There were non-significant effects of Game Time on perceived importance to personality, daily routine, sense of identity, personal wellbeing, and family harmony. However, there was an effect of Gaming Time on stress relief, indicating that game time is strongly associated with perceptions of gaming as a means of emotional regulation**.**

Table 4.2.9 Average Gaming Time and Perceptions of Gaming as a Stress Relief

	Non-Gamer	<1 hr	1-2 hrs	2 hrs
Mean Rank	255	301	346	343
	Comparison			
Non-Gamer vs. <1 hr	.174			
Non-Gamer vs. 1-2 hrs	**.009**			
Non-Gamer vs. >2 hrs	**.019**			
<1 hr vs. 1-2 hrs	.080			
<1 hr vs. >2 hrs	.102			
1-2 hrs vs. >2 hrs	.714			

Mean Ranks rounded to whole numbers. Larger numbers signify "greater importance of gaming". Significant results highlighted in **bold**.

Follow up comparisons revealed that – unsurprisingly, as gaming time increased, as did perceived importance of gaming as a source of stress relief. This pattern was mostly

driven by the difference between non-gamers and light gamers (i.e., < 1 hr) vs. 'heavier' gamers (1-2 and > 2 hrs).

Taken together, these results suggest that while gaming duration does not reshape core aspects of identity, wellbeing, or family relationships, it plays a more specific and pronounced role in how gaming is experienced as a tool for managing stress, highlighting the importance of considering emotional functions rather than simply time spent when evaluating gaming behaviour.

To compare differences in perceived importance of gaming between Youth who had Concealed their gaming from their PCRs (Concealers) vs. Non-Concealers, data pre-checks suggested that non-parametric tests were most appropriate, therefore a series of Mann-Whitney tests were performed. These are summarised in Table 4.2.10.

Table 4.2.10 Concealed Activity (Yes / No) – Perceived personal importance

	Personality	**Daily Routine**	**Sense of Identity**	**Personal Wellbeing**	**Stress Relief**	**Family Harmony**
Concealers	388	397	390	405	406	398
Non-Concealers	371	373	371	368	375	378
U	27564	26986	27272	24882	27575	28550
Z	-0.77	-1.05	-0.80	-1.63	-1.44	-0.87
p	.442	.294	.423	.103	.151	.383

Note. Concealers vs. Non-Concealers data represents Mean Ranks rounded to whole numbers. Larger numbers signify "greater importance of gaming". Significant results highlighted in **bold**.

There were non-significant effects of concealment activity of personality, daily routine, sense of identity, personal wellbeing, family harmony and gaming time on stress relief.

To compare differences in perceived importance of gaming between Youth who reported that their PCRs had Supervised their gameplay or not, data pre-checks suggested that non-parametric tests were most appropriate, therefore a series of Mann-Whitney tests were performed. These are summarised in Table 4.2.11.

Table 4.2.11 Parental supervision (Yes / No) – perceived personal importance from youth

	Personality	Daily Routine	Sense of Identity	Personal Wellbeing	Stress Relief	Family Harmony
Supervised	**379**	**382**	**384**	**383**	**391**	**391**
Unsupervised	**364**	**366**	**357**	**356**	**364**	**364**
U	**62982**	**64154**	**61203**	**61016**	**62216**	**63762**
Z	**-1.01**	**-1.04**	**-1.86**	**-1.80**	**-2.22**	**-1.78**
p	**.314**	**.299**	**.063**	**.072**	**.026**	**.076**

Note. Supervised vs. Unsupervised data represents Mean Ranks rounded to whole numbers. Larger numbers signify "greater importance of gaming". Significant results highlighted in **bold**.

There were significant differences between parental supervision of gaming to both stress relief – those with Supervised gaming reported that gaming was more important as a stress reliever than those who had remained unsupervised. However, there was no difference across personality, daily routine, sense of identity, and family harmony and personal wellbeing.

When considered together, the results suggest a consistent pattern: while neither concealment behaviours nor parental supervision substantially influence broader perceptions of gaming in relation to personality, identity, or family relationships, they do play a more specific role in shaping the emotional function of gaming, particularly in relation to stress relief. This implies that regulatory dynamics within the family—whether through supervision or concealment—may be more closely tied to how gaming is used as an emotional coping strategy, rather than to its perceived importance in wider aspects of life.

To test the relationship between Youth knowledge of policy and youths' perceptions of gaming importance, a series of Kruskal-Wallis tests were performed. The response options regarding knowledge and understanding ranged from: Nothing at all; Not very much; A fair amount about it; I understand this policy well enough to clarify what it says.

Table 4.2.12 Youth Anti-Addiction policy knowledge– Youth perceived personal importance

	Personality	Daily Routine	Sense of Identity	Personal Wellbeing	Stress Relief	Family Harmony
H	6.21	**15.62**	7.67	4.47	2.48	2.95
p	.102	**.001**	.053	.215	.479	.399

Note. All degrees of freedom = 3. Significant results highlighted in **bold**.

From the youth, there were non-significant relationships between understanding of Anti-Addiction Policy on gaming importance to personality, sense of identity, personal wellbeing, family harmony and gaming time on stress relief. However, policy knowledge was significantly associated with Youth perceptions of gaming and their own daily routine. Follow up comparisons are highlighted below.

Table 4.2.13. Anti-Addiction Policy Awareness and Gaming Importance in Youth Daily Routine

	Nothing	Not Very Much	A Fair Amount	Well Enough To Clarify…
Mean Rank	438	386	358	357
	Comparison (*p*)			
Nothing vs. Not Very Much	**.030**			
Nothing vs. A Fair Amount	**<.001**			
Nothing vs. Well Enough…	**.001**			
Not Very Much vs. A Fair Amount	.152			
Not Very Much vs. Well Enough…	.212			
A Fair Amount vs. Well Enough…	.945			

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "greater importance of gaming". Significant results highlighted in **bold**.

Mean ranks data reveals that the Youth who know the least about the anti-usage policy are the ones who place most importance on gaming in their daily routines. Ironically, it appears that those who are most informed are those who pace less importance on gaming as part of routine.

4.2.1.2 Youth Gender and Perceived Personal Importance

A summary of boys' and girls' responses to perceived gaming importance questions is shown in Table 4.2.14.

Table 4.2.14 Youth gender– perceived personal importance for youth

	Extremely important		Neutral		Not at all important		'Missing'
	Daughter	**Son**	**Daughter**	**Son**	**Daughter**	**Son**	
Personality	89	92	170	200	115	115	31
Daily routine	104	100	156	193	116	113	30
Sense of identity	80	82	163	209	126	116	36
Personal wellbeing	89	89	153	208	132	104	37
Stress relief	78	103	216	252	81	58	24
Family Harmony	113	102	141	187	127	123	19

Across the six chi-square tests examining gender differences in perceived importance of various factors, the results showed that personality was not significantly associated with gender [Pearson χ^2 (2)=1.71, p=.426] and daily routine was also not significant [$\chi^2(2)=3.96$, p=.138]. The association between gender and sense of identity was marginal but did not reach statistical significance [$\chi^2(2)=5.68$, p=.058].

However, gender showed a significant relationship with personal wellbeing [$\chi^2(2)=11.81$, p=.003], stress relief [$\chi^2(2)=8.34$, p=.015] and family harmony [$\chi^2(2)=6.29$, p=.043], indicating that male and female respondents differed significantly in how they rated the importance of these three dimensions. In all cases, these effects were driven by a greater number of female youths than expected choosing "Not at all important" and a greater number of male youths choosing "Extremely important" than expected.

4.2.1.3 Youth Gaming Related-Behaviours, Policy, and PCR involvement

The results indicate a mixed pattern of differences between Gamers and Non-Gamers across key family and policy-related variables. Significant differences were observed in several domains.

First, concealment behaviour differed notably between Gamer vs. Non-Gamer groups ($\chi^2(1)=8.76$, $p=.003$, *Cramer's V*=.107), suggesting that gaming experience is associated with a greater likelihood of hiding gaming-related activities. Observed and Expected values reveal that Gamers (Yes) are more likely to have concealed their behaviour from their PCRs (Yes) than would be expected at chance level (65 Yes-Yes observed vs. 52 expected); vice versa, fewer Gamers (Yes) had *not* concealed gaming behaviour (No) than at chance level (Yes-No 379 observed vs. 392 expected).

Similarly, perceptions of mobile gaming as a "disease" (Strongly Disagree, Neutral, Strongly Agree) showed a statistically significant difference across Gamer and Non-Gamer groups ($\chi^2(1)=30.33$, $p<.001$, *Cramer's V*=.198), suggesting that gaming experience is associated with a lower likelihood of viewing excessive game time as a "disease". Observed and Expected values reveal that Gamers (Yes) are more likely to Strongly Disagree than would be expected at chance level (39 observed vs. 35 expected) and less like to Strongly Agree (153 observed vs. 190 expected); vice versa, more Non-Gamers Strongly Agreed with labelling gaming behaviour as a "disease" than at chance level (176 observed vs. 139 expected).

The perceived importance of parental supervision of gaming (PCRs should / should not supervise) showed a statistically significant difference across Gamer and Non-Gamer groups ($\chi^2(1)=22.85$, $p<.001$, *Cramer's V*=.172), Observed and Expected values reveal that Gamers (Yes) are less likely to support supervision than would be expected at chance level (273 observed vs. 305 expected); vice versa, more Non-Gamers were more likely to endorse supervision than at chance level (199 observed vs.167 expected).

The perceived importance of parental intervention (PCRs should / should not intervene) showed a statistically significant difference across Gamer and Non-Gamer groups ($\chi^2(1)=9.43$, $p<.002$, *Cramer's V*=.111), Observed and Expected values reveal that

Gamers (Yes) are less likely to support intervention than would be expected at chance level (369 observed vs. 385 expected); vice versa, more Non-Gamers were more likely to endorse intervention than at chance level (268 observed vs. 253 expected).

It was important to explore the relationship between frequency of family arguments over gaming (from least frequent to most frequent: Never, Rarely, Several times a year, Often arguing, Always / During any gaming.) and Youths' perceptions of the importance of gaming to various aspects of daily life. This data is summarised in Table 4.2.15. Below following a series of Kruskal-Wallis tests.

Table 4.2.15 Family Arguments and Youth perceived personal importance of gaming

	Personality	**Daily Routine**	**Sense Identity**	**ofPersonal Wellbeing**	**Stress Relief**	**Family Harmony**
H	5.50	4.91	9.54	22.31	18.71	9.30
p	.239	.297	.049	<.001	<.001	.054

Note. All degrees of freedom = 4. Significant results highlighted in **bold**.

There were non-significant relationships between Gaming Importance and frequency of Family Arguments in the context of personality, daily routine or family harmony. However, there was a relationship on sense of identity, personal wellbeing and stress relief. Follow up comparisons are explored below.

Table 4.2.16 Follow-up comparisons – Mean Ranks by Family Arguments [Youth Data] and Comparisons

Mean Ranks	Sense of Identity	Personal Wellbeing	Stress Relief
A. Never	358	341	349
B. Rarely	382	386	400
C. Several Times	355	389	382
D. Often	450	463	449
E. Always	407	435	419
Comparison	***p***	***p***	***p***
A vs. B	.147	**.005**	**<.001**
A vs. C	.906	.108	.246
A vs. D	**.009**	**<.001**	**.003**
A vs. E	.101	**.002**	**.014**
B vs. C	.365	.923	.528
B vs. D	.054	**.031**	.142
B vs. E	.399	.105	.507
C vs. D	**.027**	.092	.102
C vs. E	.179	.243	.320
D vs. E	.325	.530	.467

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "greater importance of gaming". Significant results highlighted in **bold**.

Across dimensions, descriptive statistics (Mean Ranks) suggested that Gaming Importance was typically higher in situations where Family Arguments were more frequent; vice vera, in situations where Family Arguments were more frequent, the importance of gaming to the Youth tended to be higher. These effects appear to be driven by the differences between the lowest 'intensities' and the higher, with little to no difference between the higher / highest levels.

These findings demonstrate that gaming experience is closely tied to behavioural and relational dynamics within the family, particularly in terms of regulation, negotiation, and conflict, rather than being a neutral or isolated leisure activity.

Youth indicated whether or not PCRs had intervened in their gaming behaviour (Yes / No); this was assessed against the perceived importance of gaming in their own lives. This was explored via a series of Mann-Whitney tests.

Table 4.2.17 Family intervention (Yes / No) – perceived personal importance from youth

	Intervened	Not Intervened	*U*	*z*	*p*
Personality	384	320	**32950**	**-3.30**	**<.001**
Daily Routine	384	335	**34634**	**-2.49**	**.013**
Sense of Identity	387	308	**31403**	**-4.09**	**<.001**
Personal Wellbeing	389	291	**29361**	**-5.10**	**<.001**
Stress Relief	386	344	**36204**	**-2.30**	**.022**
Family Harmony	394	315	**32428**	**-3.99**	**<.001**

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "greater importance of gaming". Significant results highlighted in **bold**.

There were significant differences between family intervention of perceived importance of gaming to personality, daily routine, sense of identity, stress relief, personal wellbeing and family harmony. In all cases, parental intervention was associated with situations where gaming had greater significance to the Youths' daily lives.

These findings suggest that family intervention has a broad and consistent influence on how gaming is perceived across both individual and relational domains**.** Taken together, the results indicate that family intervention is not limited to shaping specific aspects of gaming perception, but rather affects multiple dimensions simultaneously, including identity, emotional regulation, everyday routines, and family relationships, highlighting its central role in structuring youth experiences and interpretations of mobile gaming.

These findings demonstrate that gaming experience is closely tied to behavioural and relational dynamics within the family, particularly in terms of regulation, negotiation, and conflict, rather than being a neutral or isolated leisure activity.

4.2.2 PCRs

This section summarises responses from PCRs, regarding their own gaming behaviour, their perceptions on youth gaming behaviour, and their own behaviours towards their own children's gaming (e.g., supervision, intervention).

Table 4.2.18 Percentage of kinds of games played by PCRs

Kind of game	Number	Percentage
Adventure	40	(10%)
Sports (e.g., football, basketball, etc)	33	(8%)
Shooting (e.g., fixed shooting games)	19	(5%)
MMORPG	24	(6%)
Shooting championship games	10	(2%)
MOBA	41	(10%)
Puzzle	102	(24%)
Card games	12	(3%)
Others	137	(33%)
Sub-Total	418	
I have not played any games in the past week	*521*	

Note. Response numbers add up to different totals due to the multiple choice. MMORPG = Massively multiplayer online role-playing game; FPS = First-Person Shooter.

In Table 4.2.18, the distribution of game types played by PCRs shows a diverse but uneven engagement across genres. Among those who reported playing games, "Others" (33%) and Puzzle games (24%) dominate, suggesting that PCRs tend to prefer more casual, flexible, or less time-intensive gaming formats rather than highly competitive or immersive genres. More interactive or competitive genres such as MOBA (10%) and Adventure games (10%) appear moderately popular, while Sports (8%) and MMORPGs (6%) attract smaller proportions. Notably, traditionally intensive or skill-based genres such as Shooting games (5%) and Shooting championship games (2%) are less frequently selected, indicating relatively low engagement with fast-paced or competitive gaming environments among PCRs. However, the most striking finding is that 521 respondents reported not playing any games in the past week, which exceeds the subtotal of those who did play (418 responses). This highlights that a substantial

proportion of PCRs are either non-gamers or only occasional players, reinforcing the idea that many parents may have limited direct experience with contemporary mobile gaming.

Table 4.2.19 PCRs' opinions on reasons to play mobile games

Opinion about mobile games	Number	Percentage
Novelty	142	10%
Competency or Mastery	63	4%
Exploration	52	4%
Risk Taking	78	6%
A Safe Place to Fail	65	5%
Competition	63	4%
Building Relationships	79	6%
Relaxation or Excitement	676	47%
Social Escape	169	12%
Autonomy or Independence	26	2%
Collecting items in games	16	1%

Table 4.2.19 shows that PCRs mainly view mobile gaming as a form of relaxation or excitement (47%), making it the dominant motivation by a large margin. A smaller proportion associate gaming with social escape (12%) and novelty (10%), while motivations such as building relationships and risk taking are moderately recognised (both 6%). In contrast, factors like competency, competition, and exploration (each 4%) receive limited attention, and autonomy (2%) and collecting items (1%) are rarely acknowledged. Overall, PCRs tend to emphasise emotional and leisure-related aspects of gaming, with less recognition of its skill-based or developmental dimensions.

4.2.2.1 PCR Perceptions of Youth Gaming Behaviours

PCRs were asked a series of questions as to their perceptions of youth gaming behaviour.

Table 4.2.20 Participant responses from PCRs about opinion of youth in the reason they play mobile games

	Amount	Percentage
Kill time	163	(50%)
Have fun	63	(19%)
Work in teams/friends	33	(10%)
Escape the real world	15	(5%)
Stress relief	90	(28%)
Competition with other	11	(3%)
Occupy mind to relax	13	(4%)
Make friends	7	(2%)
Others	80	(25%)

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

As for PCRs' views on young people playing mobile games (Table 4.2.20), most PCRs believe that playing mobile games can relieve the pressure on young people (n=163), as with their original intention for playing games, but most PCRs also express the view that they do not want youth to be exposed to mobile games, because they believe that 1) the original intention of online game design is to make players addicted; and 2) playing games is not conducive to family parent-youth relationships.

Table 4.2.21 What activities PCRs thought the youth might be affected by their mobile gaming activity

Kind of actions	Percentage
Watching films	11%
Personal daily routine	11%
Laundry	11%
Doing sports	19%
Household chores	13%
Homework	12%
Spending time with friends in real life	10%
Spending time with family in real life (travel with family)	13%

Note. Percentages do not add up to 100% because participants could choose more than one option.

However, at the same time, they also highlight the impact of mobile games on young people's physical and mental health and are particularly concerned about their effect on vision. Most PCRs believe that mobile games have the most significant impact on personal hygiene (sleeping, having meals), followed by laundry activities, household chores, spending time with family in real life (travel with family), spending time with friends in real life, doing sports and watching films or TV, which they consider as having the most negligible impact (Table 4.2.22).

To explore this data further, PCR perceptions of the impact of mobile gaming on youth life dimensions was examined as a function of whether or not the PCRs were themselves gamers (or not).

Table 4.2.22 PCRs Gamers vs. Non-Gamers – perceived impact of gaming on youth

	Gamers	**Non-Gamers**	***U***	***z***	***p***
Personal Hygiene	310	317	46198	-0.57	.572
Laundry Activities	313	316	46887	-0.20	.839
Household Chores	312	316	46759	-0.27	.789
Personal Wellbeing	330	304	43438	-1.85	.065
Spending time with Family	321	310	45560	-0.80	.422
Doing Sports	319	312	46210	-0.54	.588
Watching TV or Films	**301**	**323**	**43967**	**-2.26**	**.024**

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "greater impact of gaming". Significant results highlighted in **bold**.

Specifically, there are no significant differences of whether or not the PCR is a Gamer vs. Non-Gamer on their perceptions of the impact of gaming on youths' personal hygiene, laundry activities, household chores, personal wellbeing, spending time with family, or doing sports. This suggests that PCR gaming behaviour (or group differences) does not substantially affect perceptions of these everyday behaviours among youths. However, there is only significantly different amounts of time watching TV or films compared to the other, suggesting a shift in media consumption patterns. Non-Gamer PCRs believe that Youth Gaming is having more of a negative impact on youth media engagement than Gamer PCRs.

While PCRs' gaming experience shapes perceptions of gaming's emotional and relational importance, it has limited impact on perceptions of youth's everyday behaviours**,** with the exception of media consumption patterns. This suggests that differences between PCRs are more strongly rooted in how gaming is interpreted and valued, rather than in how it is believed to influence routine activities, reinforcing the idea that gaming is primarily understood as an affective and cultural practice rather than a direct behavioural determinant.

Table 4.2.23 PCRs idea about youth playing mobile games

Idea about youth gaming	Number	Percentage
Playing can help relax	488	29%
Playing can help to absorb knowledge (e.g., history)	103	6%
Playing is just addictive	241	15%
Playing games will let your grade down	290	17%
Playing games are not good for your optical health	507	30%
Others	38	2%

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

Compared with the feedback from youth about how much they can control their mobile gaming behaviour, the feedback from PCRs places more emphasis on the fact that they take more surveillance on the behaviour of youth playing mobile games, which suggests that PCRs hardly trust that youth can control themselves on mobile games.

Table 4.2.24 PCRs have/had surveillance on youth gaming behaviour or not

PCRs' surveillance	Number	Percentage
No	108	14%
Yes	684	86%

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

In response to a series of questions about PCRs intervening in their young person's mobile game behaviour, most PCRs say they have intervened in their young person's

mobile phone behaviour and they think that, after the intervention, most youth will follow their advice. However, some young people will rebel against their families or obey on the surface while resisting inwardly. Many PCRs refuse to admit they have had disputes with their youth over playing mobile games, but when they find out their young people are playing them, they generally restrict their time on mobile games. At the same time, it is worth noting that PCRs are not worried about the impact of mobile games on current and future young people.

Table 4.2.25 The PCRs' opinion on phone may impact the mental health of youth

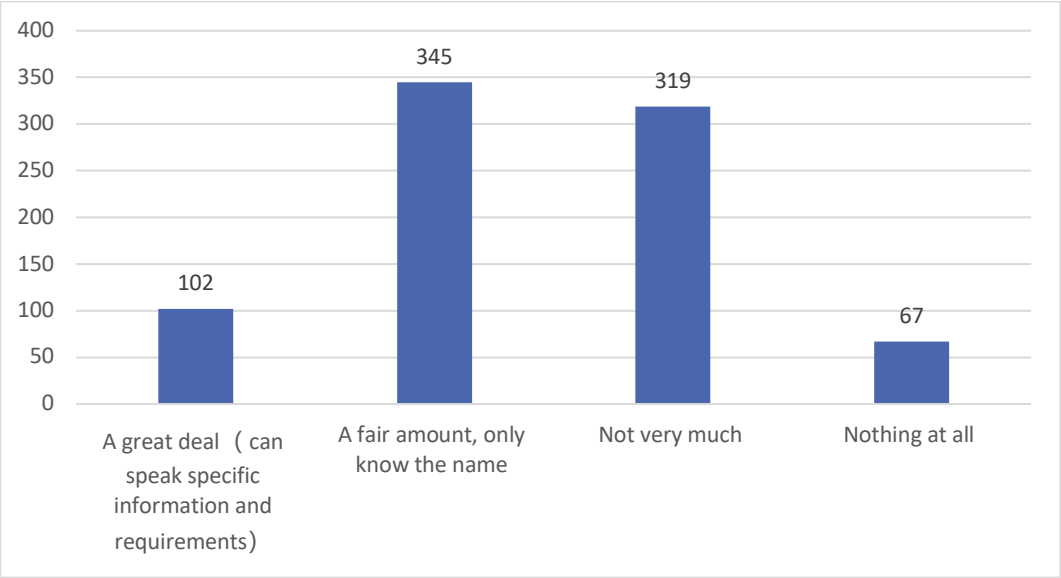
Options from PCRs	**Number**	**Percentage**
Yes	571	72%
No	140	18%
Not clear	81	10%
Total	792	

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

According to the PCRs' family survey (Table 4.2.25), responses suggest that most PCRs believe mobile games will affect youth's mental health, as they think most mobile games will impact youth's mental growth.

I find that the vast majority of PCRs know only the policy's name and cannot recall its specific details and rules (*n*=345) and 319 PCRs say they did not understand the policy or had never heard of it. Only 102 PCRs say they understood this policy and could describe its general content. Furthermore, participants suggest that the school did a poor job of promoting the anti-addiction system. Some PCRs do not know about the anti-addiction system (*n*=67) and have not even heard of it (See details in Figure 4.1).

Figure 4.1 How much the PCRs knew about the anti-addiction policy in China



To test the relationship between PCR knowledge of policy and their own views on the importance of gaming, a series of Kruskal-Wallis tests were performed. The response options regarding Knowledge and Understanding ranged from: Nothing at all; Not very much; A fair amount about it; I understand this policy well enough to clarify what it says.

Table 4.2.26 PCRs Anti-Addiction policy knowledge – perceived personal importance of gaming

	Personality	Daily Routine	Sense of Identity	Personal Wellbeing	Stress Relief	Family Harmony
H	1.47	**8.46**	4.82	3.22	**9.02**	1.50
p	.688	**.037**	.186	.359	**.029**	.683

Note. All degrees of freedom = 3. Significant results highlighted in **bold**.

From the data of PCRs, there were non-significant effects of acknowledgement on Ati-Addiction Policy of personality, sense of identity, personal wellbeing and family harmony, however, it has significant effects on daily routine and gaming time on stress relief. Follow up comparisons are presented below:

Table 4.2.27 Policy Knowledge and Gaming Importance -- Comparisons

	Nothing	Not Very Much	A Fair Amount	Well Enough To Clarify…
Daily Routine Mean Rank	350	366	399	413
Stress Relief Mean Rank	306	384	388	369
	Daily Routine (*p*)	**Stress Relief (*p*)**		
Nothing vs. Not Very Much	.583	.790		
Nothing vs. A Fair Amount	.067	.648		
Nothing vs. Well Enough…	.074	.309		
Not Very Much vs. A Fair Amount	**.019**	.726		
Not Very Much vs. Well Enough…	.059	.244		
A Fair Amount vs. Well Enough…	.743	.347		

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "greater importance of gaming". Significant results highlighted in **bold**.

The general trend is that those who place greater importance on gaming appear to be the most informed about the relevant policies; conversely, those who are less interested in gaming appear to have the least awareness of policy; n.b., this is a mirror opposite of the pattern observed in Youth dataset.

These findings suggest that policy acknowledgement is more closely linked to practical and functional dimensions of gaming—such as time use and emotional regulation—rather than to deeper identity-related or relational domains, highlighting that policy awareness may shape perceptions of gaming behaviour in everyday life without fundamentally altering broader attitudes toward wellbeing or family relationships.

4.2.2.2 PCR Gaming-Related Behaviours, Policy Awareness, and Outcomes

To compare the relationship between PCR gaming behaviours, knowledge of policy, and associated family-related outcomes, a series of tests were performed.

First, PCR beliefs as to whether online gaming was affecting youth academic studies (Strongly Disagree that gaming affects studies, Neutral, Strongly Agree) did not behaviour differed notably between PCR Gamer vs. Non-Gamer groups ($\chi^2(2)=1.28$,

p=.529). It is noteworthy, that across both groups there was very Strong Agreement that youth gaming was affecting their studies (80% overall).

Similarly, there was no relationship between agreement with the statement that youth gaming affects youth mental & physical wellbeing based on PCR Gamer vs. Non-Gamer groups ($\chi^2(2)=0.13$, $p=.935$). It is noteworthy, that across both groups there was very Strong Agreement that youth gaming was affecting their health and wellbeing (75% overall).

Perceptions of mobile gaming as a "disease" (Strongly Disagree with "disease" label, Neutral, Strongly Agree) showed a non-significant difference across PCR Gamer and Non-Gamer groups ($\chi^2(2)=4.94$, $p=.085$). It is noteworthy, that across both groups there was Strong Agreement that excessive youth gaming should be seen as a "disease" (73% overall).

There was no difference in the likelihood of PCRs having intervened in their child(ren)'s gaming based on their own adult, PCR Gamer vs. Non-Gamer status ($\chi^2(1)=0.99$, $p=.319$). Notably, across both groups / overall, the vast majority of PCRs had intervened in their child(ren)'s gaming (88% overall).

These findings suggest that PCRs' gaming experience does not substantially influence most attitudes or practices regarding youth gaming. Overall, this pattern suggests that differences between PCRs lie more in interpretation and framing of gaming-related harm rather than in their everyday behaviours or levels of engagement with youth gaming. This also implies that experiential familiarity with gaming does not necessarily translate into different parenting practices but rather influences the cognitive lens through which gaming is evaluated, particularly in relation to risk, morality, and perceived harm.

4.2.2.3 PCR Self-Perceptions of Gaming Importance and Family Outcomes

It was important to understand how PCRs own gaming behaviours and own perceptions of the importance of gaming were related to key variables.

Table 4.2.28 PCRs family intervention (Yes / No) – perceived personal importance

	Intervened	Not Intervened	*U*	*z*	*p*
Personality	381	368	29558	-0.58	.565
Daily Routine	384	372	29979	-0.57	.567
Sense of Identity	381	362	28502	-0.89	.375
Personal Wellbeing	372	357	27472	-0.73	.464
Stress Relief	382	347	27175	-1.57	.117
Family Harmony	**384**	**339**	**26659**	**-2.05**	**.040**

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "greater importance of gaming". Significant results highlighted in **bold**.

There were significant differences only between family intervention of perceived importance of gaming to family harmony. Among those who had intervened in their child(ren)'s gaming, these PCRs tended to place more importance on gaming. However, there were no significance on personality, daily routine, sense of identity, stress relief and personal wellbeing.

We considered the relationships between PCR gaming perceptions and whether or not PCRs and their child(ren) had argued related to the youth's gaming.

Table 4.2.29 PCRs family arguments – perceived personal importance

	Personality	Daily Routine	Sense of Identity	Personal Wellbeing	Stress Relief	Family Harmony
Argued	**396**	390	389	**388**	**395**	**398**
Not Argued	**359**	371	363	**351**	**357**	**356**
U	**6.49**	4.91	9.54	**22.31**	**18.71**	**9.30**
p	**.011**	.176	.054	**.008**	**.008**	**.003**

Note. All degrees of freedom = 1. Significant results highlighted in **bold**.

From the PCR data, the results indicate that the relationship between family arguments (Yes / No) show a mixed pattern of effects across dimensions of PCRs' perceived personal importance of gaming. Descriptive statistics (Mean Ranks) suggest that gaming is of higher importance to PCRs who have been involved in arguments over

Youth gaming. The relationship reached statistical significance within the context of personality, personal wellbeing, and stress relief.

While family arguments do not strongly affect routine or identity-related dimensions, they have a more pronounced impact on emotional and relational aspects, particularly in shaping perceptions of wellbeing, stress relief, and family harmony. This also implies that experiential familiarity with gaming does not necessarily translate into different parenting practices but rather influences the cognitive lens through which gaming is evaluated, particularly in relation to risk, morality, and perceived harm.

4.2.3 Family function

Participants' responses to Family Function items are summarised below.

Table 4.2.30 Family Function items – Youth Data

	Agree	**Natural**	**Disagree**	**Total**
In our home it is difficult to decide how to solve a problem because we never agree about anything.	96 (12%)	278 (35%)	416 (53%)	790
It is important that everyone in the family has time for themselves	563 (71%)	201 (26%)	24 (3%)	788
I can talk with my family about the things that make me unhappy	594 (76%)	166 (21%)	26 (3%)	786
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better	557 (72%)	196 (25%)	24 (3%)	777
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped	557 (72%)	195 (22%)	19 (3%)	771
In the family we collaborate together to find the best way to solve our problems	595 (77%)	169 (22%)	13 (1%)	777
Despite many problems I have to deal with in my family, I always find a little time for myself	567 (72%)	193 (25%)	23 (2%)	783
When I am angry with someone in the family, I tend not to speak to him/her	230 (30%)	279 (35%)	279 (35%)	788

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

Within the youth dataset, significant relationships were observed between communication-related items and emotional regulation behaviours. For instance,

responses to *"I can talk with my family about things that make me unhappy"* were associated with responses to *"When I am angry, I tend not to speak to others"*. Youth who reported higher agreement with open communication were less likely to endorse withdrawal behaviours, suggesting that effective family communication is inversely related to emotional suppression among youth.

In addition, youth who agreed that families collaborate to solve problems also showed higher agreement with post-problem discussion items. This indicates that problem-solving and communication operate as interconnected dimensions within youth perceptions of family functioning, consistent with the McMaster model.

Table 4.2.31 Family Function items – PCR data

Name of the question from PCRs	Agree	Disagree	Neutral	Total
In our home it is difficult to decide how to solve a problem because we never agree about anything.	186 (24%)	420 (54%)	176 (22%)	782
It is important that everyone in the family has time for themselves	655 (83%)	39 (5%)	91 (12%)	785
I can talk with my family about the things that make me unhappy	679 (86%)	11 (1%)	99 (13%)	789
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better	678 (87%)	9 (1%)	94 (12%)	781
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped	659 (86%)	10 (1%)	101 (13%)	770
In the family we collaborate together to find the best way to solve our problems	686 (88%)	8 (1%)	90 (11%)	786
Despite many problems I have to deal to deal with in my family, I always find a little time for myself	672 (85%)	24 (3%)	90 (12%)	784
When I am angry with someone in the family, I tend not to speak to him/her	286 (36%)	360 (46%)	143 (18%)	789

Note. Response numbers add up to different totals due to, for example, skipped items / withheld data.

In the PCRs' survey, the finding and result is quite similar with the youth one, but the interesting part in both youth and PCRs is that two sharp different, either agree or disagree, only a few would like to choose as neutral, so it can be used to assume that

the family function in Chinese families spread into two parts: a harmonious family or a discordant one.

4.2.3.1 Gamers vs. Non-Gamers (Youth and PCR data)

I have found that whether or not a child has gaming experience has different impacts on family function, parental concern behaviour, parental supervision, and arguments. At the same time, there are also different viewpoints between youth and adults.

Table 4.2.32 Youth Gamers vs. Non-Gamers – family function task

Youth	Gamers	Non-Gamers	*U*	*Z*	*P*
In our home it is difficult to decide how to solve a problem because we never agree about anything.	**398**	**355**	**62024**	**-3.01**	**.003**
It is important that everyone in the family has time for themselves	381	377	69374	-0.33	.742
I can talk with my family about the things that make me unhappy.	**369**	**394**	**65544**	**-2.02**	**.043**
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better	365	390	63896	-2.04	.410
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped	**353**	**398**	**59065**	**-3.60**	**<.001**
In the family we collaborate together to find the best way to solve our problems	367	387	65074	-1.67	.095
Despite many problems I have to deal to deal with in my family, I always find a little time for myself	**364**	**393**	**63741**	**-2.30**	**.021**
When I am angry with someone in the family, I tend not to speak to him/her	**403**	**347**	**59718**	**-3.64**	**<.001**

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "Agreement" with the FF statement. Larger numbers represent "better" Family Function for FF2, FF3, FF4, FF5, FF6, FF7; Smaller numbers represent "better" Family Function for FF1 and FF8. Significant comparisons highlighted in **bold**.

From the survey data from the youth about their gaming or non-gaming experience, there were significant differences between Gamers' and Non-Gamers [Youth] Family Function responses on problem solution, communication when unhappy, problem solution to get along better, family collaboration, personal time when deal problems and not to speak when I feel angry compared to Non-Gamers; generally, Gamers reported *poorer* Family Function than Non-Gamers. However, there were no differences between Gamers and Non-Gamers with respect to have personal times in their families and solution when bad behaviour feedback.

The results suggest that gaming is linked more strongly to communication patterns and emotional regulation within the family rather than to structural aspects such as shared time or cooperative roles. In particular, the significant differences in conflict-related behaviours—such as difficulties in reaching agreement and tendencies toward silence when angry—indicate that gaming may be associated with variations in how youth engage with family interactions during moments of tension. At the same time, the absence of differences in areas such as shared personal time suggests that gaming does not necessarily disrupt broader family routines but rather influences the quality and style of interaction within them.

Table 4.2.33 PCRs Gamers vs. Non-Gamers – family function task

PCRs	Gamers	Non-Gamers	*U*	*Z*	*p*
In our home it is difficult to decide how to solve a problem because we never agree about anything.	369	371	65308	-0.16	.876
It is important that everyone in the family has time for themselves	378	368	64692	-0.96	.338
I can talk with my family about the things that make me unhappy.	366	380	64683	-1.55	.121
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better	361	379	63115	-1.87	.062
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped	**356**	**375**	**61643**	**-1.98**	**.048**
In the family we collaborate together to find the best way to solve our problems	365	377	64288	-1.32	.187
Despite many problems I have to deal to deal with in my family, I always find a little time for myself	376	371	66054	-0.44	.662
When I am angry with someone in the family, I tend not to speak to him/her	384	367	64051	-1.18	.238

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "Agreement" with the FF statement. Larger numbers represent "better" Family Function for FF2, FF3, FF4, FF5, FF6, FF7; Smaller numbers represent "better" Family Function for FF1 and FF8. Significant comparisons highlighted in **bold**.

The Mann–Whitney results from PCRs indicate that there are no substantial differences between groups in areas such as problem-solving difficulty, importance of personal time, emotional communication, collaborative problem-solving, maintaining personal time, and conflict avoidance**.** there is a significant group difference in post-problem reflection and evaluation**,** indicating that Non-Gamer PCRs are more likely to engage in reflective family communication following conflict resolution (vice versa, Gamer PCRs are less likely to do so). This indicates that while general communication and problem-solving structures remain similar, reflective communication practices following conflict may vary depending on PCRs' gaming experience. Overall, the results suggest that differences between PCRs are limited and specific**,** with variation

emerging primarily in how families reflect on and learn from conflict, rather than in how they initially communicate or manage everyday interactions.

4.2.3.2 Family Arguments related to Online Gaming [Yes/No] (Youth and PCR data)

Youth participants were asked how often they had arguments with their PCRs regarding online gaming. Response choices included (from least frequent to most frequent): Never, Rarely, Several times a year, Often arguing, Always / During any gaming. These data were explored via Kruskal-Wallis test.

Table 4.2.34 Frequency of Family Arguments on Gaming – Family Function [Youth Data]

	H	***P***
1. In our home it is difficult to decide how to solve a problem because we never agree about anything.	**75.90**	**<.001**
2. It is important that everyone in the family has time for themselves	**10.10**	**.034**
3. I can talk with my family about the things that make me unhappy.	**37.27**	**<.001**
4. If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better	**41.25**	**<.001**
5. When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped	**42.69**	**<.001**
6. In the family we collaborate together to find the best way to solve our problems	**51.75**	**<.001**
7. Despite many problems I have to deal to deal with in my family, I always find a little time for myself	**27.83**	**<.001**
8. When I am angry with someone in the family, I tend not to speak to him/her	**32.56**	**<.001**

Note. Significant results highlighted in **bold** and all Degrees of Freedom = 4.

Table 4.2.35 Follow-up comparisons – Mean Ranks by Parental Arguments [Youth Data] and Comparisons

Mean Ranks	**FF1**	**FF2**	**FF3**	**FF4**	**FF5**	**FF6**	**FF7**	**FF8**
A. Never	329	395	407	414	411	415	405	340
B. Rarely	377	379	383	365	361	367	372	384
C. Several Times	467	353	304	309	312	326	326	433
D. Often	482	346	327	305	287	303	300	478
E. Always	536	328	301	307	309	281	321	463
Comparison	***p***	***p***	***p***	***p***	***p***	***p***	***p***	***p***
A vs. B	**.002**	.243	.062	**<.001**	**<.001**	**<.001**	**.016**	**.008**
A vs. C	**<.001**	.090	**<.001**	**<.001**	**<.001**	**<.001**	**.001**	**.002**
A vs. D	**<.001**	.088	**.004**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**
A vs. E	**<.001**	**.008**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**
B vs. C	**.002**	.299	**<.001**	**.026**	.054	.086	.061	.113
B vs. D	**.002**	.248	**.049**	**.048**	**.012**	**.025**	**.015**	**.010**
B vs. E	**<.001**	**.046**	**<.001**	**.024**	**.040**	**<.001**	**.040**	**.011**
C vs. D	.720	.819	.507	.928	.475	.502	.475	.303
C vs. E	.069	.449	.935	.970	.925	.142	.865	.450
D vs. E	**.201**	.651	.466	.955	.529	.519	.578	.727

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "Agreement" with the FF statement. Larger numbers represent "better" Family Function for FF2, FF3, FF4, FF5, FF6, FF7; Smaller numbers represent "better" Family Function for FF1 and FF8. Significant comparisons highlighted in **bold**.

There were differences in Family Function responses based on frequency of Family Arguments with respect to problem-solving, communication when unhappy, constructive resolution, family collaboration, maintaining personal time under stress, and conflict avoidance behaviours, as well as responses to behavioural feedback. Descriptive statistics and follow-up comparisons revealed that there was a pattern by which "better" family function was associated with less-frequent gaming-related arguments; in general, those who never or rarely argued about online gaming reported typically better family functioning than those who argued about gaming more frequently.

Taken together, these findings suggest that family arguments are closely associated with multiple dimensions of family functioning, particularly communication, emotional expression, and problem-solving processes, while having a more limited relationship with personal autonomy. This indicates that variations in family arguments are embedded within broader interactional patterns, shaping how family members negotiate conflict and respond to challenges in everyday life.

PCRs were asked the same questions about frequency of family-based arguments related to youth gaming. However, PCRs responded to this as a Yes / No item. These data were explored via Mann-Whitney test.

Table 4.2.36 PCR Family Function data by Family Argument (Yes / No)

	PCR Argued	PCR Not Argued	*U*	*z*	p
In our home it is difficult to decide how to solve a problem because we never agree about anything.	**424**	**317**	**46840**	**-7.59**	**<.001**
It is important that everyone in the family has time for themselves	**347**	**384**	**60239**	**-3.69**	**<.001**
I can talk with my family about the things that make me unhappy.	**354**	**384**	**62372**	**-3.21**	**<.001**
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better	**353**	**380**	**61789**	**-3.00**	**<.001**
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped	**347**	**378**	**59801**	**-3.35**	**<.001**
In the family we collaborate together to find the best way to solve our problems	**357**	**378**	**63307**	**-2.38**	**<.001**
Despite many problems I have to deal to deal with in my family, I always find a little time for myself	**355**	**381**	**62700**	**-2.71**	**<.001**
When I am angry with someone in the family, I tend not to speak to him/her	**403**	**342**	**56489**	**-4.24**	**<.001**

Note. Mean Ranks rounded to whole numbers. Larger numbers signify “Agreement” with the FF statement. Larger numbers represent “better” Family Function for FF2, FF3,

FF4, FF5, FF6, FF7; Smaller numbers represent “better” Family Function for FF1 and FF8. Significant comparisons highlighted in **bold**.

These findings indicate that family functioning differs significantly across groups in a comprehensive way, covering communication, problem-solving, emotional expression, and autonomy. Notably, the strongest effects are observed in problem-solving and conflict-related behaviours, suggesting that how families manage disagreement and communication is a key point of divergence. The data demonstrate that family arguments are deeply embedded within broader family functioning processes, with variations evident across multiple domains rather than isolated aspects. This highlights that conflict is not an independent phenomenon, but is closely intertwined with how families communicate, regulate emotions, and negotiate roles, ultimately shaping the overall quality of family relationships.

4.2.3.3 PCR Gaming Intervention and Family Function

Youth participants were asked about PCR intervention and gaming behaviour [Yes / No]; these responses were aligned with Family Function data.

Table 4.2.37 PCRs intervention – family function task from youth

	PCR Intervened	PCR Not Intervened	*U*	*z*	p
In our home it is difficult to decide how to solve a problem because we never agree about anything.	381	364	38371	-0.87	.383
It is important that everyone in the family has time for themselves	378	373	39299	-0.30	.768
I can talk with my family about the things that make me unhappy.	377	380	39683	-0.23	.820
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better	370	389	36819	-1.16	.246
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped	371	370	38558	-0.07	.942
In the family we collaborate together to find the best way to solve our problems	374	369	38702	-0.37	.710
Despite many problems I have to deal to deal with in my family, I always find a little time for myself	377	360	37603	-1.07	.283
When I am angry with someone in the family, I tend not to speak to him/her	**388**	**329**	**33686**	**-3.02**	**.003**

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "Agreement" with the FF statement. Larger numbers represent "better" Family Function for FF2, FF3, FF4, FF5, FF6, FF7; Smaller numbers represent "better" Family Function for FF1 and FF8. Significant comparisons highlighted in **bold**.

The Mann-Whitney tests from PCRs (comparing youth responses of those whose PCRs have intervened vs. not) show that most family functioning variables are not statistically significant (all *p*s>.05), including communication, problem-solving, collaboration, and personal autonomy. This indicates that these aspects are broadly consistent across group. However, there is a significant group difference in conflict avoidance behaviour, indicating that emotional expression during conflict varies between groups. These findings indicate that PCRs' intervention does not substantially affect core dimensions of family functioning, suggesting that communication patterns, problem-solving processes, and autonomy remain broadly consistent across group. However, there is a significant group difference in conflict avoidance behaviour (*p*=.003), indicating that

emotional expression during conflict varies between groups. This suggests that while most aspects of family functioning remain stable, PCRs' intervention may influence how youth respond to conflict, particularly in terms of withdrawal or silence, rather than affecting broader patterns of communication or collaboration within the family.

PCR participants were asked about their own intervention and Youth gaming behaviour [Yes / No]; these responses were aligned with Family Function data.

Table 4.2.38 PCRs intervention – Family Function task from PCRs

	PCR Intervened	**PCR Not Intervened**	***U***	***z***	***p***
In our home it is difficult to decide how to solve a problem because we never agree about anything.	**375**	**329**	**25518**	**-2.13**	**.033**
It is important that everyone in the family has time for themselves	369	390	28433	-1.41	.158
I can talk with my family about the things that make me unhappy.	373	380	29588	-0.47	.637
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better	368	394	26986	-1.84	.066
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped	364	389	25889	-1.72	.085
In the family we collaborate together to find the best way to solve our problems	371	376	28685	-0.34	.731
Despite many problems I have to deal to deal with in my family, I always find a little time for myself	372	377	29827	-0.38	.706
When I am angry with someone in the family, I tend not to speak to him/her	376	354	28246	-1.03	.303

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "Agreement" with the FF statement. Larger numbers represent "better" Family Function for FF2, FF3,

FF4, FF5, FF6, FF7; Smaller numbers represent “better” Family Function for FF1 and FF8. Significant comparisons highlighted in **bold**.

However, the results from PCRs show that most family functioning variables are not statistically significant, indicating broadly similar patterns across groups in areas such as personal autonomy, emotional communication, collaboration, and conflict avoidance. However, there is only a significant group difference in perceived problem-solving difficulty, indicating that some families experience greater disagreement and challenges in reaching consensus.

Taken together, these findings suggest that PCRs’ intervention does not substantially alter the overall structure of family functioning but is more specifically associated with variations in how families approach and resolve problems. While communication styles and emotional interactions remain relatively stable, differences in problem-solving difficulty highlight that intervention may influence the effectiveness of reaching agreement within the family, thereby shaping the quality of decision-making processes rather than broader relational patterns.

4.2.3.4 Gaming Supervision and Family Function

Regarding parental supervision, most survey participants report having been supervised by family members while playing mobile games and that their PCRs have also tried to interfere with their gaming behaviour. PCRs will not allow them to play mobile games, even if the PCRs know that they are doing so. Games can help youth relax, but as they turn into eye and physical and mental health issues, PCRs do not support youngsters playing mobile games and will therefore limit their gaming time.

Youths were asked as to whether or not their PCRs supervised their online gaming [Yes / No]. This data was aligned with Family Function responses and tested via a series of Mann-Whitney analyses.

Table 4.2.39 PCRs supervision [Yes / No] – Family Function [Youth Data]

	Supervised	Unsupervised	*U*	*z*	*p*
In our home it is difficult to decide how to solve a problem because we never agree about anything.	374	384	65788	-0.70	.489
It is important that everyone in the family has time for themselves	376	381	66844	-0.37	.713
I can talk with my family about the things that make me unhappy.	380	371	65756	-0.74	.458
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better	367	383	63188	-1.23	.218
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped	369	372	64250	-0.23	.819
In the family we collaborate together to find the best way to solve our problems	372	375	65479	-0.23	.822
Despite many problems I have to deal to deal with in my family, I always find a little time for myself	375	374	66200	-0.02	.986
When I am angry with someone in the family, I tend not to speak to him/her	377	378	67054	-0.08	.934

Note. Mean Ranks rounded to whole numbers. Larger numbers signify "Agreement" with the FF statement. Larger numbers represent "better" Family Function for FF2, FF3, FF4, FF5, FF6, FF7; Smaller numbers represent "better" Family Function for FF1 and FF8. Significant comparisons highlighted in **bold**.

There were non-significant effects of all elements with the question related to supervision. These findings indicate that PCRs' supervision does not produce measurable differences in family functioning across any of the assessed domains, suggesting that supervision alone may not significantly influence how families communicate, resolve problems, or manage emotional interactions. Instead, family functioning appears to remain stable regardless of supervision, highlighting that other factors—such as communication quality or shared understanding—may play a more central role in shaping family dynamics.

4.2.3.5 Youth and PCR Gender and Family Function

A series of chi-square tests of association were conducted to explore relationship between Youth and PCR gender and Family Function item responses. Please note, in Tables relating to Youth data, the labels “Female / Daughter”, “Male / Son” are used and in Tables relating to PCR data, the labels “Female / Mother”, “Male / Father” are used. Cramer’s V is reported for significant results only. Note. Due to ethical affordances, cell counts will differ from table-to-table.

Considering the question, "In our home, it is difficult to decide how to solve a problem because we never agree about anything," there was no association between Gender and Agreement with the statement in Youth data [$\chi^2(8)=4.74$, $p=.094$] nor PCR data [$\chi^2(8)=3.05$, $p=.218$].

Table 4.2.40 Youth responses to “In our home, it is difficult to decide how to solve a problem because we never agree about anything.”

Youth	Gender		Agree	Disagree	Neutral	Total
	Female	Count	37	210	139	386
	Daughter	%gender	10%	54%	36%	100%
	Male	Count	59	206	161	426
	Father	%gender	14%	48%	38%	100%
Total		Count	96	416	300	812
		%gender	12%	51%	37%	100%

Table 4.2.41 PCRs responses to “In our home, it is difficult to decide how to solve a problem because we never agree about anything.”

PCR	Gender		Agree	Disagree	Neutral	Total
	Female	Count	125	313	169	607
	Mother	%gender	21%	51%	28%	100%
	Male	Count	49	91	45	185
	Father	%gender	27%	49%	24%	100%
Total		Count	174	404	214	792
		%gender	22%	51%	27%	100%

Considering the question “It is important that everyone in the family has time for themselves.”, the chi-square data revealed a non-significant association between Gender and Agreement with the statement in Youth data [$\chi^2(2)=0.74$, $p=.690$] nor PCRs data [$\chi^2(2)=5.02$, $p=.081$].

Table 4.2.42 Youth responses to “It is important that everyone in the family has time for themselves.”

Youth	Gender		Agree	Disagree	Neutral	Total
	Female	Count	270	13	103	386
	Daughter	%gender	70%	3%	27%	100%
	Male	Count	293	11	122	426
	Son	% gender	69%	3%	28%	100%
Total		Count	563	24	225	812
		% gender	70%	3%	27%	100%

Table 4.2.43 PCRs responses to “It is important that everyone in the family has time for themselves.”

PCR	Gender		Agree	Disagree	Neutral	Total
	Female	Count	491	24	92	607
	Mother	%gender	81%	4%	15%	100%
	Male	Count	136	12	37	185
	Father	%gender	74%	6%	20%	100%
Total		Count	627	36	129	792
		%gender	80%	4%	16%	100%

Regarding the third question, "I can talk with my family about the things that make me unhappy", this question mainly wants to know whether PCRs and youth like to share with their families when they encounter unpleasant things and then investigate their reactions.

Table 4.2.44 Youth responses to "I can talk with my family about the things that make me unhappy"

Youth	Gender		Agree	Disagree	Neutral	Total
	Female	Count	291	13	82	386
	Daughter	%gender	75%	3%	21%	10%
	Male	Count	303	12	111	426
	Son	% gender	71%	3%	26%	100%
Total		Count	594	25	193	812
		% gender	73%	3%	24%	100%

A Pearson's chi-square revealed a non-significant association between communication choice and unhappy condition from youth [$\chi^2(2)=2.68$, $p=.262$]. Most boys and girls agree that they can share their unhappiness with their family members and so well, no significant association between gender and observed responses. From the survey, especially the respond from youth, it is hard to see that the gender difference in communicating with PCRs when they feel unhappy.

The fourth question, "If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better," focuses on whether family members can listen to each other's advice when encountering problems.

Table 4.2.45 Youth responses to " If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better"

Youth Gender		Agree	Disagree	Neutral	Total
Female	Count	274	10	102	386
Daughter	% gender	71%	3%	26%	100%
Male	Count	283	14	129	426
Son	% gender	66%	3%	30%	100%
Total	Count	557	24	231	812
	% gender	69%	3%	28%	100%

Table 4.2.46 PCRs responses to "If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better"

Parent Gender		Agree	Disagree	Neutral	Total
Female	Count	507	5	95	607
Mother	% gender	84%	<1%	16%	100%
Male	Count	143	4	38	185
Father	% gender	77%	2%	21%	100%
Total	Count	650	9	133	792
	% gender	82%	1%	17%	100%

A Pearson's chi-square revealed a non-significant association between gender and communication and unhappiness from both Youth [$\chi^2(2)=2.00$, $p=.367$] and PCRs [$\chi^2(2)=4.92$, $p=.085$].

It seems that PCRs in the research can share their ideas if they feel unhappy with other family members and they can work on how to get along with them. However, given the inequality in the number of female and male participants, it is hard to clarify whether mom and dad may have different methods or strategies for youth gaming behaviour across genders.

In the youth survey, regarding the fifth question: "When we have dealt with a problem in the family, we usually examine what we have done and whether it helped." This question mainly explores how family members solve problems when they encounter them, which is called "problem-solving".

Table 4.2.47 Youth responses to "When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped"

Youth	Gender		Agree	Disagree	Neutral	Total
	Female	Count	274	10	102	386
	Daughter	% gender	71%	3%	26%	100%
	Male	Count	283	14	129	426
	Son	% gender	67%	3%	30%	100%
Total		Count	557	24	231	812
		% gender	69%	3%	28%	100%

The chi-square revealed a non-significant association between problem-solving and discussion condition among youth [$\chi^2(2)=2.00$, $p=.367$].

Table 4.2.48 PCRs responses to "When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped"

PCR	Gender		Agree	Disagree	Neutral	Total
	Female	Count	488	8	111	607
	Mother	%gender	81%	1%	18%	100%
	Male	Count	143	2	40	185
	Father	% gender	77%	1%	22%	100%
Total		Count	631	10	151	792
		% gender	80%	1%	19%	100%

A Pearson's chi-square revealed a non-significant association between problem solving and the discussion condition from PCRs [$\chi^2(2)=1.06$, $p=.588$].

For the sixth question, "In the family we collaborate together to find the best way to solve our problems", a further set of chi-square tests were conducted.

Table 4.2.49 Youth responses to "In the family we collaborate together to find the best way to solve our problems".

Gender		Agree	Disagree	Neutral	Total
Female	Count	292	7	87	607
Daughter	%gender	76%	2%	22%	100%
Male	Count	303	6	117	426
Son	% gender	71%	1%	28%	100%
Total	Count	595	13	204	792
	% gender	73%	2%	25%	100%

A Pearson's chi-square revealed a significant association between problem solving and collaboration condition from youth [$\chi^2(8)=2.73$, $p=.256$].

For the seventh question, "Despite many problems I have to deal with in my family, I always find a little time for myself," the aim is to investigate how family members cope with challenges and whether they have sufficient space to address difficulties while adjusting their emotions and state of mind.

Table 4.2.50 Youth responses to "Despite many problems I have to deal with in my family, I always find a little time for myself."

Youth	Gender		Agree	Disagree	Neutral	Total
	Female	Count	277	12	97	386
	Daughter	%gender	72%	3%	25%	100%
	Male	Count	290	11	125	426
	Son	%gender	68%	2%	29%	100%
Total		Count	567	23	222	812
		%gender	70%	3%	27%	100%

The result of a chi-square test of association suggested that there is no significant association between Youth gender and responses to item "Despite many problems I have to deal with in my family, I always find a little time for myself." [$\chi^2(2)=1.91$, $p=.385$].

Table 4.2.51 PCRs responses to "Despite many problems I have to deal to deal with in my family, I always find a little time for myself."

PCR	Gender		Agree	Disagree	Neutral	Total
	Female	Count	496	15	96	607
	Mother	%gender	82%	3%	15%	100%
	Male	Count	145	9	31	185
	Father	%gender	78%	5%	17%	100%
Total		Count	641	24	127	792
		%gender	81%	3%	16%	100%

The result of a chi-square test of association suggested that there is no significant association between Gender and responses to item 22 [$\chi^2(2)=2.97$, $p=.228$].

Regarding the last question, "When I am angry with someone in the family, I tend not to speak to him/her", it (Table 4.2.52) emphasises the methods family members will adopt to resolve conflicts with family members.

Table 4.2.52 Youth responses to "When I am angry with someone in the family, I tend not to speak to him/her"

Youth	Gender		Agree	Disagree	Neutral	Total
	Female	Count	108	135	143	386
	Daughter	%gender	28%	35%	37%	100%
	Male	Count	122	144	160	426
	Son	% gender	29%	32%	39%	100%
Total		Count	230	279	303	812
		% gender	28%	34%	38%	100%

The result of a chi-square test of association suggested that there is no significant association between Gender and responses to item 17 [$\chi^2(2)=0.13$, $p=.939$].

Table 4.2.53 PCRs responses to "When I am angry with someone in the family, I tend not to speak to him/her"

PCR	Gender		Agree	Disagree	Neutral	Total
	Female	Count	211	270	126	607
	Mother	%age	35%	45%	20%	100%
	Male	Count	60	78	47	185
	Father	%age	32%	42%	26%	100%
Total		Count	271	348	173	792
		%age	34%	44%	22%	100%

The chi-square analysis revealed a non-significant association among PCRs [$\chi^2(2)=1.80$, $p=.407$].

However, PCRs' options differed markedly from those of the youth. This distributional difference suggests that PCRs perceive themselves as more communicative during conflict, whereas youth show greater ambivalence or withdrawal. Chinese families have made relatively little effort in regulating their emotions. For example, in the survey, responses reveal that when the question "When I am angry, I tend not to talk to him/her" was mentioned, that is. Table 4.53 shows that in current Chinese families, emotional management is still one of the more difficult issues, especially the relationship between PCRs and youth. This relationship will lead to ineffective communication between the two parties and intensify problems the next time a conflict occurs. Compared to females, males show more rejection of communication with others when they feel angry.

4.3 Discussion

In this part, I will firstly investigate the difference opinions from PCRs and youth about mobile gaming behaviour. Furthermore, it will be mainly discussed about how PCRs' opinion can affect the family relationships regarding the youth gaming experience and behaviour. Using different opinion on their gaming experience and affect family relationships further and the opinions from PCRs on youth gaming behaviour will affect the family relationships.

A developmental perspective highlights why we need to understand what motivates youth gaming behaviour. Different game genres shape how young people engage cognitively, respond emotionally and interact socially. As a result, PCRs may form different perceptions of mobile games based on the types of their youth play.

Although financial spending on mobile games appears relatively limited in this sample, parental concerns about potential economic risks associated with gaming may still influence attitudes toward mobile game use. In particular, PCRs may worry that youth could develop problematic spending habits if gaming behaviour is not adequately monitored.

When it comes to mobile games, Chinese PCRs may only think from the parental perspective, worried that mobile games will affect youth's academic performance and cause vision and addiction problems, although their attitude toward addiction is still at the level of single-player or simple understanding games. During the research, I found that youth academic performance has become more important for PCRs than even youth's physical and mental health or their mental state. This is because PCRs define the college entrance examination as 'one's only chance to change one's life', a view reflected in China's current education system and compared with higher education, vocational education is 'unacceptable' and 'humble' in the eyes of Chinese PCRs (Tong et al., 2021). Therefore, in those parental eyes, anything and anyone that interferes with their personal views is seen as 'hostile' and needs to be urgently addressed. The social environment in China emphasises the rights of the young people are comprehensive and extensive, but, on the other hand, the parent's view of everything except learning is restricted; that is, after learning, anything else can be placed necessarily. In this situation, the social pressure on the youth is also increasing and it is precisely because of this that young people need some ways to relieve themselves from and release pressure. And related to the Family Function Theory, the communication between PCRs and youth are always should be "clear and direct" – even PCRs using their surveillance behaviour to the youth, from the view of PCRs, they feel all monitor are success, however, with the ignore of the feeling of youth, all surveillance behaviour cannot receive the best result.

On the issue of mobile gaming, PCRs and young people have completely different views and there is little interaction between family members; even if there is some interaction, the youth's approach is just to follow the PCRs' ideas and basically not move the phone (Kildare and Middlemiss, 2017). However, this problem has yet to be properly resolved and the solution is only to follow the will of the PCRs as a group. In terms of family roles, the family system is managed and restricted by specific rules. For example, the emergence of mobile games is often not allowed by families and the so-called family rules are only the unilateral regulations of PCRs, which are not realistic in terms of the needs of young people and lack of corresponding communication, so the rules are neither an explicit system nor a 'self-evident' set of hidden rules among family members.

Under such circumstances, PCRs and young people have different views regarding mobile games, which leads to conflicts in some families. This leads to the breakdown of family relations in the absence of effective communication and any measures to make the relationship better.

The difference of opinion about the reason for playing mobile games may occur. For example, as PCRs, they thought that they mainly use mobile games to relax when they are stressed and under pressure. However, for youth and young people, the reason they play mobile games is not only as a means of leisure but also a method to communicate with other young people with whom they team up in a game or to extend their relationships with friends and classmates. The differing reasons for youth and PCRs may affect the length of time they spend on mobile games; PCRs may spend less time on mobile games, from 10 to 20 minutes; for youth, they would like to spend 30 minutes and potentially more if they play with their friends. The genres preferred by these two different groups include puzzles, MOBA (such as *League of Legends*) and adventure (such as *Genshin Impact*) for PCRs; for youth, they prefer several kinds of games: MOBA, adventure, FPS, shooting, MMORPG and puzzles. Especially for MOBA games that have already become the top choice for both youth and PCRs, some initially struggled with making the transition to mobile due to the complexity of gameplay controls and the typical length of matches (around 35-50 minutes).

For PCRs, they can use mobile games to relieve stress when they feel the pressure of daily life is too much. However, for youth, PCRs believe that they are not yet at the level of self-control and are unable to resist the temptation of mobile games (e.g.,. the ability to stop after winning and control time limits). The same goes for spending. PCRs often think that youth currently do not have the ability to earn money and have not formed a complete concept of money. When facing skins or characters in games, they only consider whether they are good-looking as the sole reason for purchase, rather than thinking about the relationship between value and price like PCRs do.

4.3.1 Meet social needs and a sense of accomplishment from games

At school and at home, youth feel that the study is only about 'academic achievement' and provides neither fun nor self-satisfaction. Therefore, they show a lack of interest in learning, low mood and lack of motivation. Teachers and PCRs do not recognise them because of unsatisfactory results, which creates further frustration and boredom among youth with learning. However, young people at this stage have a strong desire to realise their self-worth and hope that others will accept and recognise them (Harter and Marold, 1991), putting more energy into things through which they can quickly gain recognition from others and find their own sense of accomplishment, such as games, which is also a competitive achievement mode.

Furthermore, some young people find it difficult to make friends at school because of personality issues, while schools and teachers do not care about students' friendships and require them to spend more time studying. In a game, the adolescents can build some social relationships by working with the team, while PCRs put themselves in an uncompromising position of authority, resulting in the opposition of the parent-youth relationship, closing the channels of psychological communication and emotional exchange with youth and leading them to seek emotional support through the network.

According to models of gratification-seeking behaviour, youth seek and derive similar pleasure from real-life activities and the games they play, which might suggest that this finding supports the supplementary model.

As with in-person social activities, it is always crucial for PCRs and guardians to supervise youth and adolescents in the virtual world and to set reasonable, age-appropriate limits on device use. However, in gaming, screen time alone is not the most important metric. Spending a significant amount of time on a specific game might not indicate a gaming 'addiction', but rather a search for social interaction during a time when opportunities for connection are scarce. To adults, it may appear that youth are escaping into games and ignoring the outside world.

New generations, also known as "Gen Z," can visit foreign countries from their seats, defeat their rivals effortlessly and challenge supernatural powers without needing courage (Bulduklu, 2019). These relationships can not only release young people from the isolation of their real environments but also help them find friends online with the same hobbies. Some social video games encourage collaborative problem-solving by providing specific quests or challenges, while others support open-ended play in a shared environment. The socialisation opportunities provided by these games are limited only by users' imaginations. During the pandemic, especially, people found myriad ways to re-create in-person socialisation opportunities within video games, embracing the freedom of not being bound by geography or physical capabilities (Wiederhold, 2021). Beyond recreating the socialisation opportunities available in the physical world, the virtual world offers unique experiences that are especially appealing to youth and teens. Young people need to play. They need to join their friends and let their imaginations guide them as they explore the world around them in an open-ended way. Games, especially 'sandbox' games in which players can wander a complex world freely, can provide an ideal space to do this – a space that helps young people cross the boundaries between fantasy and reality safely and creatively and perhaps most importantly (Wiederhold, 2021).

In a game, gamers are praised and encouraged when practising to a certain level, pass a level, reach a high score, or develop a character to a certain stage and some youth find it difficult to gain a sense of accomplishment in their daily lives. Because the pressures, both academic and in the rest of their lives, are relatively high, the standards of expected achievement in life and academia are set by PCRs and society. To put it simply, young people, as the main subjects of learning, need guidance from their PCRs, schools and society. The rules set by the outside world are constraining and it is difficult for most

young people to meet these standards. The emergence of this situation make it difficult for many students to gain recognition, but this is not the case with gaming, although there are things like rankings, game racing times, external rankings and other information, et cetera, but because players can also have their own gaming social circles, they tend to be more personal than external ones, so it is easier to get a sense of accomplishment and joy in personal gaming circles, which makes young people more willing to spend time on mobile games rather than study in schools or learn knowledge. At the same time, the game's reward system gives young people a sense of accomplishment that can be achieved quickly. Compared with countless hours of hard study in school to get good final grades, 30 minutes of 'hard fighting' in the game can contribute to their 'section' and even enable them to obtain some powerful titles.

Research supports the idea that finding a sense of accomplishment is crucial for adolescents' well-being and motivation. According to a study by Ryan and Deci (2000), intrinsic motivation, which arises from within the individual and is driven by personal satisfaction and fulfilment, is closely linked to psychological health and positive outcomes in various domains of life. In the context of education, if students perceive their efforts as leading to personal growth, mastery, or self-determination, they are more likely to be engaged and motivated to learn (Ryan and Deci, 2000). However, when the focus shifts solely to external rewards or evaluations, such as grades or parental approval, intrinsic motivation diminishes, leading to disengagement and decreased performance (Ryan and Deci, 2000).

In the gaming realm, the immediate feedback, rewards and recognition provided by game systems serve as potent motivators for adolescents. As noted by Ryan and Rigby (2019), well-designed games often fulfil basic psychological needs, such as autonomy, competence and relatedness, thereby enhancing intrinsic motivation and psychological well-being. Moreover, the social aspect of gaming, including online communities and social circles, provides adolescents with avenues to connect, collaborate and validate their achievements in a supportive environment. Therefore, it is understandable that adolescents may gravitate towards gaming as a means of finding fulfilment and accomplishment, especially when traditional educational systems may not provide the same level of immediate gratification or personal validation. By recognising and leveraging these inherent psychological mechanisms, educators and PCRs can better

support adolescents in cultivating intrinsic motivation and a sense of accomplishment across various facets of their lives.

4.3.2 Avoiding responsibility by relieving excessive stress and underestimating adolescent rebellion

The other situation is PCRs using mobile phones as a replacement for their youth, to avoid their companionship responsibilities; however, the current situation is not in line with the original intentions of PCRs in giving young people mobile phones in the first place.

Society, PCRs and schools put a lot of pressure on young people to go to school, especially some PCRs with high social status and busy work; they will have exceedingly high expectations and requirements for their youth but no time to take care of the family and they will ignore the many needs of their youth's physical and mental development, bringing heavy pressure onto the youth. At first, PCRs hope to use mobile phones to comfort young people, encouraging them to stay at home as much as possible and to be safe. However, in the absence of control, effective communication and supervision, young people will invest more time and even money in games. According to research by the Chinese government (2019) with 1,939 PCRs of primary and middle school students, more than 30 per cent of those surveyed said they failed to guide their youth to use gadgets rationally.

At the same time, without the guidance and companionship of PCRs, youth cannot find these expectations and inner self-motivation; they will feel that this is not what they really want and the realisation of learning goals will not bring happiness. However, society, PCRs and schools have not recognised this pressure and cannot help young people effectively adjust their mentality or relieve and release various pressures; they can only gradually escape the problem by transferring pressure through online games. PCRs and schools lack the responsibility to reduce the burden on young people, especially when communication across all aspects is lacking.

Furthermore, the rebellion of youth is beyond the thoughts of PCRs, even though it is not an entirely new phenomenon nor a specific product of any particular inherent socio-

cultural determinants (Rennick, 2015). Political slogans and ideals depend on particular historical, socio-cultural and geopolitical situations, but it has been traditional for youth to rebel against their PCRs' traditions and fight the socio-cultural systems of their PCRs. The thoughts of the youth have usually been a rebellion against authority, no matter who held authority and what their socio-political philosophy was. The rebellion of youth in the mobile games realm, however, is a multifaceted phenomenon that reflects the changing landscape of entertainment, technology and social interaction. At the same time, the rebellious psychology of youth in adolescence will be amplified in mobile games because, compared with daily life and study, mobile games are the area where youth and their PCRs have the most conflicts. With the rise of smartphones and mobile gaming platforms, young people have gained unprecedented access to a vast array of games that cater to diverse interests and preferences and this accessibility has empowered them not only to consume but also to create and critique mobile games, shaping the industry in new and unexpected ways.

The psychological development of the youth is in an unbalanced state and some psychological problems occur as a result of the development of adolescence. The enhancement of self-awareness and the imbalance of psychological development make young people feel pain and confusion, who feel that life is out of their control and that the eyes of their PCRs or others are directing their lives. Only the game world is something you can control. At this time, if PCRs and schools obstruct his action to play the game, it will stimulate his reverse psychology.

However, the rebellion of youth in mobile gaming is not limited to activism and critique; it also encompasses subverting traditional gaming norms and expectations. Independent developers and grassroots communities have challenged mainstream conventions and pushed the boundaries of what is possible in mobile games, experimenting with new mechanics, art styles and narrative structures. Mobile games offer a platform for experimentation and innovation, allowing creators to explore unconventional ideas and push the medium in exciting new directions (Su et al., 2016). From avant-garde art games to experimental interactive fiction, these unconventional experiences challenge players to question their assumptions and engage with games in new and unexpected ways.

With the emphasis on Family Function Theory, each family member should note problem-solving. In China, when families encounter challenges of youth, PCRs may cope maladaptively by avoiding responsibility through relieving excessive stress rather than addressing underlying relational conflicts. PCRs initially resort to mobile phones as a substitute for accompanying their youth. However, when problems arise with the youth's phone use, PCRs often fail to consider the root causes and address them from their own perspective. Instead, they blame the youth for their inappropriate phone use. This parental avoidance mechanism maintains short-term harmony, but it undermines role clarity and limits the family's ability to address underlying issues (Ryan et al., 2016).

At the same time, underestimating or misjudging the rebellious behaviour of youth across generations can also strain family relationships, although such avoidance may provide a temporary buffer and protect the family from significant stress (Compas et al., 2017). When avoidance becomes habitual, the family system may become rigid or disconnected, ultimately weakening its ability to adapt during developmental transitions. This, in turn, undermines family roles, communication and emotional connections, impacting family cohesion and adolescents' well-being.

Overall, these results indicate that PCRs are more likely than youth to frame gaming as harmful and to justify surveillance, supporting the idea that conflict is driven by mismatched perceptions rather than by gaming duration alone.

4.3.3 Family function theory with the comparation between PCRs and youth

Family function refers to the various roles and responsibilities of family members within a family unit. These functions are essential to the family's overall well-being and cohesion. Family functions can vary across cultures and societies, but some common elements provide stability and support within the family structure. From the survey data, especially the family function test, the results from PCRs and youth are partly similar. In the youth survey, they thought they could communicate with their PCRs or other family members when problem-solving or facing unhappy situations and that in their free time, they could spend it on themselves. Each question will be discussed further.

4.3.3.1 Family Relationships and Solving Problems by Communication

Effective communication within a family is crucial for maintaining healthy relationships. Family communication environments enhance family strength and satisfaction (Koerner and Fitzpatrick, 2002). Family members share thoughts, concerns and information which helps in problem-solving and preserving a sense of togetherness.

The relationship between family emotional support and communication is pivotal in fostering emotional well-being and development. Effective communication within families, characterised by listening, empathy and emotional expression, creates a supportive environment that strengthens emotional connections and reduces conflict. This interplay is crucial for individual growth and family harmony. As Oye (2024) refers, active listening and empathy are foundational for understanding emotional needs, facilitating conflict resolution and strengthening bonds. In my research, I found that families who already have equal communication with youth help youth build the 'correct' opinion about mobile games and also want to share their gaming experience with their PCRs. Although the number of families that have or are establishing equal communication is still small compared to those that do not understand games, this number is increasing.

Navigating and resolving family problems is an ongoing and dynamic process that requires patience, empathy and a commitment to collective well-being. Through open dialogue, active collaboration and a shared dedication to finding solutions, it should be possible to overcome challenges and strengthen family bonds. Open communication within a family is the cornerstone of healthy relationships and effective problem-solving. Furthermore, discussing problem-solving strategies within the family is a powerful way to promote understanding, strengthen bonds, foster continuous improvement and enhance the emotional well-being of its members. This approach aligns with the idea that a family is a collaborative unit where each member's insights and experiences are valued. By embracing open communication about problem-solving, families can create a resilient and supportive environment, better equipped to navigate the complexities of life together.

According to Family Function Theory (Epstein et al., 1978), affective responsiveness should be thought of in terms of two questions: one for families to respond to life with the full range of human emotional experiences. Another is whether the emotion experienced is consistent with the stimulus and situational context, in my research, I realised that some Chinese families hardly follow the full emotional experience rather than express empathy, when they face problems, the family members may prefer no communication, even cold violence with close members, what is worse that when they are not in the same situational context, especially PCRs and youth, the gap about experience, time, development of technology and society even globalisation might trigger the conflict of two groups.

One of the fundamental reasons it is essential to have open and honest communication with families about unhappiness is its impact on emotional well-being. Life is filled with ups and downs and not every moment is one of joy and contentment. Moreover, family functioning can vary significantly by gender in terms of parental control, emotional responsiveness and communication styles. Research suggests that girls may experience more restrictive monitoring, particularly around issues like dating or internet use, while boys may receive more autonomy but less emotional support (Hill and Lynch, 1983). These imbalances can compound gender inequalities by shaping divergent expectations and experiences during adolescence.

Across items related to problem-solving (e.g., discussing solutions after resolving family issues), PCRs again reported higher agreement levels than youth. This pattern suggests a consistent perceptual asymmetry, whereby PCRs evaluate family functioning more positively than youth. Building on this pattern of asymmetry**,** these findings demonstrate that statistically meaningful differences exist between PCRS and youth responses, particularly in the domains of communication, emotional expression, and conflict resolution. These differences highlight a perception gap within family systems, which may contribute to misunderstandings surrounding youth gaming behaviour.

Within this broader context of communication and emotional dynamics, unhappiness is one of the emotions in personal life; it may be affected by several factors, such as stress, daily routine and other things. To be unhappy is for one’s emotional condition to exhibit a sufficiently unfavourable balance of positive versus negative (Haybron, 2008). As

communication is the cornerstone of any healthy relationship and nowhere is this more crucial than within a family. Expressing their thoughts, feelings and concerns to the family members is vital for maintaining strong, loving bonds. In this part, I will explore the importance of talking with family about what makes us unhappy, the benefits it brings to their lives and how it fosters a supportive and nurturing environment.

Building upon the impact of dysfunctional family settings, it is important to note that, on the other hand, families that function with equity, open communication and gender-sensitive parenting can act as protective factors against the reproduction of societal gender inequalities. Such families foster balanced development by encouraging all youth to pursue diverse interests, challenge stereotypes and engage in mutual respect regardless of gender.

Most PCRs with no gaming experience will discuss communicating with their families from the perspective of life and work pressures, to help resolve the negative emotions of the day and make them feel more comfortable. At the same time, they will also observe the emotional changes of their family members. Among most of the families who participated in the survey, a vast majority of them believed that it is difficult for you to communicate effectively with family members in your family, especially when you are unhappy, other families Members often refuse to communicate or reject this and then family members will use methods other than communication to resolve their negative emotions, such as playing games, watching TV series and even smoking. As the number of times increases, dependencies on these methods will also increase the negative emotions.

Families comprise individuals with diverse experiences, backgrounds and viewpoints. When I talk with family members about the things that make us unhappy, I invite many perspectives and wisdom into their lives. I found that sometimes unhappiness with family members stems from misunderstandings or miscommunication. By opening up to the family, I allowed them to provide their insights and explanations, shedding light on aspects of the situation that might not have been considered. This process of sharing and learning from different perspectives can be a valuable tool for personal growth and self-awareness. Learning from different perspectives within the family can also help members build better coping strategies. The family members may have experienced

similar challenges and can share their own plans for dealing with unhappiness and this collective wisdom can be invaluable in developing resilience and emotional intelligence.

Furthermore, discussing the unhappiness within the family can also lead to constructive problem-solving. As family members come together to address the issues that cause unhappiness, they collaborate and work as a team to find solutions. This not only resolves the immediate problem but also reinforces the idea that the family is a support network that can handle adversity together. A family communicating openly about their unhappiness will likely create a supportive and nurturing environment. This environment is characterised by trust, empathy and unconditional love. When family members know that they can share their unhappiness without fear of judgment or rejection, they are more likely to reach out for help when they need it. A supportive family environment benefits not only individuals but also the family as a whole. It sets the stage for healthy, honest discussions, making it easier to address problems, conflicts and misunderstandings. This can prevent issues from festering and escalating, leading to a more harmonious family life.

Thirdly, the ability to talk with family about unhappiness is not only crucial for emotional well-being but also for teaching valuable life skills. By engaging in open, honest and empathetic discussions with family members, learning vital communication and conflict-resolution skills essential to personal and professional relationships. When participants discuss family unhappiness, they practice active listening, empathy and the art of expressing their thoughts and feelings clearly. These skills can be applied in various life situations, helping them navigate the challenges of adulthood and build healthier relationships with friends.

Additionally, discussing unhappiness within the family teaches members the importance of compromise and negotiation. As family members work together to solve problems, they learn to find common ground and reach mutually satisfactory agreements. The ability to talk with family about what makes members unhappy is a vital aspect of maintaining emotional well-being, strengthening family bonds and creating a nurturing, supportive environment. However, during the research, I found that most youths were reluctant to share their unhappy experiences with their families,

unlike their PCRs. They believed that such sharing would make their PCRs think they were childish and they wanted to show their PCRs their mature side. In addition, the youth group believed they had nothing to share with their PCRs or other members; they may have to communicate with their friends and classmates, with whom they spend more time than with family members.

It is also an opportunity to learn from different perspectives, gain valuable life skills and make lasting, loving connections with loved ones. By embracing open and honest communication within the family, you pave the way for a happier, healthier and more resilient family life. Especially when PCRs have problems with their youth, they will share their opinions, encourage them and support them. In my surveys, many PCRs stated that when their youth encounter difficulties, the youth will be found by their PCRs or seek to communicate with them. For example, if they are unhappy with their classmates at school or are criticised by teachers, etc., the PCRs will respond according to their own opinions. Communicate experiences and ideas to youth to persuade them to view the problems they have encountered from a different perspective.

Golish (2003) found that family communication environments are tied to strength and satisfaction; frequent communication usually indicates good relationships. In my research, most families communicate less, often due to workload or the belief that youth are naive and lack life experience, leading them to feel communication is unnecessary.

Parental prejudice can cause lasting harm. PCRs may express negative attitudes towards their youth's identities, reducing acceptance and increasing psychological control. This can result in higher youth anxiety, depression and substance use (Hubachek et al., 2023).

Cook and DeFrain (2005) identified positive communication, which involved the open expression of feelings primarily for the purposes of problem-solving and easing tensions, as one primary theme that emerged from the social messages of strong families. Schrodt (2009) indicates that family expressiveness has a strong, positive association with family strength, whereas structural traditionalism and conflict avoidance have moderate, inverse associations with strength, in other words, when families (and primarily PCRs) communicate in ways that encourage open discussions of ideas and feelings, such environments may strengthen the family by equipping family

members with the information-processing and behavioural skills needed to cope with internal and external stress. Besides, conflicts are a natural part of any family. A significant function of the family is to address and resolve conflicts in a healthy, constructive way. Learning to resolve differences helps family members develop essential interpersonal skills.

Regarding mobile game issues, most PCRs explained that although they would have disputes with their youth, once the matter was resolved, they would sit down calmly and exchange views to find better solutions.

4.3.3.2 Emotional Support Involvement, Affective Repressiveness, Security Protection and Behaviour Control

The family plays a central role in providing emotional security, behavioural regulation, and developmental guidance for young people. As a primary social unit, it offers both protection and a support network during times of need, while also shaping how individuals regulate behaviour and navigate social interactions. In line with frameworks of family functioning, behavioural control can be understood across three domains: managing physically risky situations, regulating psychobiological needs, and guiding interpersonal social behaviour (Miller et al., 2001). In this study, behavioural control is defined as the use of non-violent strategies to resolve conflicts and encourage self-restraint among family members. However, the findings suggest that such regulation is often inconsistently applied, with some PCRs relying on avoidance or reactive control rather than addressing underlying relational tensions.

Youth development further complicates these dynamics, as adolescence is characterised by rapid social, emotional, and cognitive change (Hubachek et al., 2023). Families play a critical role in shaping gender identities and expectations, particularly where traditional norms remain influential. In such contexts, gendered expectations may become internalised, contributing to disparities in self-esteem, aspirations, and interpersonal relationships (Eccles, 1994). These developmental pressures intersect with family communication patterns, influencing how youth interpret parental expectations and respond to conflict.

Emotional support remains a fundamental function of the family and is closely linked to adolescents' psychosocial development. Strong emotional bonds foster a sense of belonging and contribute to emotional intelligence and maturity. Empirical evidence demonstrates that perceived family support is associated with dimensions of emotional intelligence, including mood regulation and interpersonal functioning (Barragán Martín et al., 2021), while relationships with PCRs significantly influence youths' psychosocial maturity (Meeus, 2016). However, the findings indicate that emotional support is unevenly experienced. In families where communication is limited or hierarchical, young people may feel misunderstood or reluctant to express their concerns, particularly regarding mobile gaming and associated conflicts.

Collaboration and joint problem-solving emerge as key mechanisms through which families can strengthen relationships and manage challenges. Families that engage in open dialogue, shared decision-making, and mutual reflection are better positioned to address conflicts constructively. When family members collectively discuss problems, establish goals, and evaluate outcomes, they create a more adaptive and resilient relational environment. This aligns with broader understandings of family functioning, in which collaborative engagement supports both emotional connection and practical problem-solving. In the context of youth mobile gaming, such approaches enable families to negotiate boundaries and expectations without escalating conflict.

Nevertheless, these positive dynamics are not universal. A significant proportion of families experience communication barriers characterised by avoidance, emotional suppression, or asymmetrical power relations. In such contexts, young people may withdraw or seek alternative coping mechanisms, including increased engagement with mobile games. Research suggests that a lack of perceived family support is associated with greater emotional repressiveness and relational dysfunction among adolescents (Malinowska-Lipień et al., 2015). This indicates that gaming behaviour may not simply reflect leisure preferences, but also unmet emotional needs and limited opportunities for expression within the family.

Emotion regulation plays a critical role in linking family interaction patterns and relationship outcomes. Defined as the processes through which individuals monitor and modify emotional responses (Thompson, 1994), emotion regulation significantly

influences social functioning and conflict resolution. Studies show that emotion regulation affects goal-directed behaviour and interpersonal interactions (Gross et al., 2002), while the ability to regulate emotions during conflict is associated with improved relationship satisfaction and reduced withdrawal (Bloch et al., 2014; Holley et al., 2018; Vater and Schröder-Abé, 2015). Conversely, maladaptive strategies such as expressive suppression can hinder conflict resolution and reduce relational quality (Peters and Jamieson, 2016; Srivastava et al., 2009; Thomson et al., 2018). Observational research further highlights the importance of interpersonal emotion regulation patterns, such as co-rumination, in shaping relational dynamics (Rose, 2002; Rose et al., 2014). These findings suggest that effective emotion regulation is essential for maintaining stable and supportive family relationships.

Cultural context further shapes communication patterns and conflict management. In many Chinese families, indirect communication and the prioritisation of harmony influence how emotions are expressed and managed. While such approaches may reduce immediate conflict, they can also limit open discussion and delay resolution. Silence, for example, may function as a coping mechanism to manage emotional intensity, but it can also create ambiguity and hinder mutual understanding. These culturally embedded communication styles may contribute to intergenerational misunderstandings, particularly in the context of rapidly evolving digital practices such as mobile gaming.

Finally, the findings reveal a perceptual gap between PCRs and youth regarding family functioning. PCRs tend to evaluate communication, emotional support, and problem-solving more positively, whereas youth report greater difficulty in expressing themselves and receiving support. This asymmetry suggests that conflicts surrounding mobile gaming are not driven solely by behavioural factors, but by differences in perception, expectation, and communication. As a result, family tensions are better understood as relational mismatches rather than as issues of control or regulation.

Family functioning plays a decisive role in shaping youth engagement with mobile gaming. Effective communication, emotional support, and collaborative problem-solving can mitigate conflict and promote healthy development. In contrast, avoidance, miscommunication, and rigid control strategies may exacerbate tensions and encourage

reliance on alternative coping mechanisms. These findings highlight the importance of fostering balanced, dialogic family environments in which both PCRs and youth can negotiate expectations, express emotions, and build mutual understanding.

4.3.3.3 Roles in Family

Family structures are organised around roles and responsibilities that shape interaction patterns, behavioural expectations, and relational stability. These roles, often influenced by age, gender, and individual capacity, help maintain balance within the family system. Evidence suggests that family satisfaction and strength are positively associated with healthy family functioning, particularly when youth are given opportunities to participate in family decision-making and everyday practices (Greeff, 2013). Conversely, family environments characterised by structural traditionalism and conflict avoidance tend to limit expressiveness, which is negatively associated with family satisfaction (Koerner and Fitzpatrick, 2002; Schrodt, 2009). This highlights the importance of participatory and communicative family structures in fostering relational well-being.

Within the Chinese context, these dynamics are further shaped by hierarchical cultural norms. Adults often assume authoritative roles within parent–youth relationships, reinforcing expectations of obedience and respect (Zhang et al., 2024). While such structures may maintain order, they can also constrain open communication. Empirical findings indicate that adult youth may avoid initiating conversations with PCRs due to anticipated conflict or low expectations of constructive dialogue (Jia et al., 2023). When communication does occur, youth may prioritise compliance over self-expression, sometimes compromising their own needs to maintain harmony, thereby reducing their willingness to engage in future interactions (Fu et al., 2022). This dynamic reflects a tension between cultural expectations of filial piety and the developmental need for autonomy and voice.

Alongside relational structures, the allocation of personal time emerges as a critical factor in family functioning and individual well-being. Personal time supports self-regulation, emotional recovery, and identity development, contributing to a more balanced family environment (Shokri et al., 2023). The concept of “flow,” as articulated

in the psychology of optimal experience, illustrates how engagement in meaningful activities can foster deep concentration, intrinsic satisfaction, and psychological well-being (Csikszentmihalyi, 2013). Complementary research demonstrates that participation in personally meaningful activities enhances life satisfaction, reduces stress, and supports emotional functioning (Lyubomirsky et al., 2013; Vallerand et al., 2024). These findings underscore the importance of personal time not as a luxury but as a necessary component of healthy development.

However, the pursuit of personal time is not culturally neutral. In East Asian contexts, self-construal is often interdependent, with decisions shaped by social expectations and relational obligations rather than individual preference (Markus and Kitayama, 2014; Savani et al., 2015; Leong, 1991). Confucian traditions further reinforce hierarchical relationships and collective responsibility, emphasising respect for authority and prioritising family over individual desires (Svirbutaitė-Krutkienė, 2021). While such values promote cohesion, they may also limit the legitimacy of personal pursuits, particularly when these are perceived to conflict with family expectations. This creates a structural tension between individual well-being and collective responsibility.

Time, as both a social structure and subjective experience, provides a useful lens for understanding these dynamics. It organises daily routines and obligations while also reflecting relational priorities and emotional investments (Durkheim, 2023; Urry, 2014; Steets, 2016; Scott, 2009). The distinction between “quality time” and routine or obligatory time highlights how families negotiate meaning within shared activities (Gillis, 1996; Hochschild, 2018). Time spent together can strengthen relationships when it is intentional and meaningful, yet increasing external demands often reduce opportunities for such engagement. Consequently, family interactions may become functional rather than relational, limiting opportunities for emotional connection.

Leisure activities represent one avenue through which families can reinforce cohesion and relational quality. Research consistently demonstrates positive associations between shared leisure and family functioning, including improved communication, adaptability, and emotional bonding (Zabriskie and Freeman, 2004; Zabriskie and McCormick, 2003). However, access to and participation in such activities are not uniform. Families with additional stressors, such as those raising youth with

developmental disabilities, may face structural barriers, although evidence suggests that they can still achieve comparable levels of functioning through adaptive strategies (Mactavish and Schleien, 2004; Singer, 2016; Ferguson et al., 2020). These findings highlight the potential of leisure as a practical, accessible means of strengthening family relationships.

At the individual level, personal time also contributes to physical health, emotional resilience, and self-awareness. Engagement in restorative activities can reduce stress, mitigate burnout, and enhance overall well-being (Stanton-Rich and Iso-Ahola, 1998; Miller-Fox, 2022). Furthermore, self-reflection during personal time supports identity development and a deeper understanding of one's values and goals (Daniel, 2019; Naor and Mayseless, 2022). Theoretical perspectives on self-actualisation emphasise that such processes are central to human growth and fulfilment (Sosteric and Ratkovic, 2022). Within family contexts, individuals who maintain personal well-being are better positioned to contribute positively to relational dynamics.

Nevertheless, the boundary between personal time and relational disengagement is not always clear. In some families, personal time is interpreted as withdrawal or silence, particularly in contexts where communication is already limited. Silence may function as a coping strategy or a culturally embedded form of emotional regulation, but it can also inhibit conflict resolution and reinforce misunderstandings. When individuals rely on avoidance rather than dialogue, unresolved tensions may accumulate, weakening relational cohesion over time.

Empirical findings from this study indicate that both PCRs and youth recognise the importance of personal space, even during periods of conflict. From the perspective of Family Function Theory, this suggests relatively stable functioning across dimensions such as role allocation, affective responsiveness, and problem-solving capacity. The absence of significant gender differences further indicates that these patterns may be shaped more by shared family environments than by gender-specific factors. However, challenges remain in balancing individual needs with collective expectations, particularly in families where communication is constrained or hierarchical.

Finally, broader structural factors, including urban environments and technological development, influence how families allocate time and manage leisure. Limited access to safe outdoor spaces, combined with concerns about safety and mobility, may restrict opportunities for physical activity among youth. In this context, mobile games and digital media become accessible and socially accepted forms of entertainment. While these platforms can provide relaxation and social interaction, they may also reshape family dynamics by altering time-use patterns and communication.

The findings highlight the complex interplay between family roles, cultural expectations, personal time, and relational functioning. Healthy family systems require a balance between structure and flexibility, authority and dialogue, and collective responsibility and individual well-being. Personal time, when integrated constructively, can enhance rather than undermine family relationships by supporting emotional regulation, self-development, and more meaningful interaction. These insights suggest that improving family functioning requires not only behavioural regulation but also a deeper recognition of the relational and cultural contexts in which family life is embedded.

4.3.3.4 Decision-making

Family decision-making is a central dimension of family functioning because it reflects how authority, responsibility and individual needs are negotiated within the household. In healthy family systems, decisions are not only made to solve practical problems but also to recognise the perspectives of different family members. Collaborative decision-making can therefore strengthen family cohesion by encouraging shared responsibility, mutual understanding and a sense of belonging. However, the findings suggest that PCRs and youth often experience decision-making differently, particularly when decisions concern youth autonomy, mobile gaming and everyday rules.

Previous research shows that PCRs and youth may hold different perceptions of their roles in family decision-making (Lamborn et al., 1996). Although adolescent autonomy can support development, Lamborn et al. (1996) also found that granting autonomy too early was associated with lower academic effort and grades. This indicates that autonomy should not be understood as unrestricted freedom, but rather as a gradual,

context-specific process. In relation to youth mobile gaming, the issue is therefore not whether youth should have complete independence, but how PCRs and youth negotiate appropriate levels of participation, responsibility and guidance.

The findings suggest that gender is not the main factor shaping perceptions of family disagreement. Instead, broader structural and generational dynamics appear more influential. Within the McMaster framework, difficulties in reaching agreement are more closely related to problem-solving and communication than to affective responsiveness or gendered interaction patterns. This means that family conflict around mobile gaming is better understood as a problem of communication structure, authority and consensus-building rather than as a simple gender-based difference.

In the Chinese context, these dynamics are intensified by the pressure placed on both PCRs and youth. PCRs often face heavy work and family responsibilities, making it difficult to maintain a high-quality family life while also providing consistent emotional support and supervision. Under such pressure, even relatively simple disagreements can become more complicated, especially when communication is limited or there is no third-party support. As a result, misunderstandings between PCRs and youth may deepen, contributing to worsening family relationships.

Parenting roles within Chinese families are also changing. In some households, the parent who spends more time at home becomes more involved in managing the youth's study and daily life. In contrast, the other parent may be associated more with care, relaxation or emotional closeness. This complicates traditional assumptions about gendered parenting roles. Although the traditional image of the father as disciplinarian and the mother as caregiver remains influential, the findings suggest that actual family roles may be more flexible and situational.

The idea of "tiger parenting" further illustrates this complexity. Tiger parenting emphasises academic success, discipline and high expectations (Chua, 2011). In East Asian contexts, this model is often associated with mothers, particularly the figure of the "tiger mother". However, this can create ambiguity in family roles when parental authority becomes concentrated around academic pressure rather than emotional support or shared decision-making. In such cases, youth may feel their views are

neglected, especially when PCRs make decisions without considering youth perspectives.

Existing studies suggest that Chinese PCRs have often been described as more authoritarian and less authoritative than Western PCRs (Chen et al., 1997; Chen and Lustre, 2002). However, social and cultural changes in China have also reduced strict parental role differentiation. Economic reform, the One-child Policy and increased investment in education have reshaped family structures and parenting practices. For example, Chuang et al. (2012) found that Chinese fathers were increasingly involved in responsibilities traditionally associated with mothers, while national data showed that many fathers shared domestic chores and childcare responsibilities (National Bureau of Statistics of China, 2011). Porter et al. (2005) also found variation in how Chinese fathers and mothers exercised authority toward children.

These changes indicate that Chinese parenting cannot be understood through a fixed contrast between "stern father" and "compassionate mother". Instead, both mothers and fathers increasingly participate in breadwinning, caregiving and disciplinary roles. At the same time, mothers may experience intensified pressure because they are expected to balance employment, family care and educational supervision. This may partly explain why "tiger mother" practices emerge in some families. As Chen et al. (2017) suggest, the traditional role of the "stern father" involved maintaining order and exercising authority. Still, contemporary family transitions mean that these responsibilities may now be shared or redistributed.

Cultural context is therefore essential for interpreting Chinese family decision-making. Lim and Lim (2004) argue that Chinese parenting should be understood in the context of culture's dynamic nature and the need for a balanced perspective. Similarly, Liu et al. (2015) suggest that Western models of parenting may not fully capture Chinese parenting practices. Chinese family relationships may include both authority and care, discipline and emotional investment. However, when authority is not balanced with communication, family decision-making can become one-sided and conflictual.

The introduction of portable digital devices adds another layer to these family dynamics. Both PCRs and youth can now access information independently, but partial or one-

sided understandings of digital media may increase misunderstanding. In the context of mobile gaming, PCRs may interpret gaming primarily as a threat to study and discipline, while youth may see it as leisure, social interaction or personal space. When these interpretations are not discussed openly, decision-making becomes less collaborative and more confrontational.

Findings suggest that family functioning is shaped more by shared household environment, parenting practices and generational authority structures than by gender alone. Quantitative evidence showing limited gender-based variation supports this interpretation. Nevertheless, gender may still influence some aspects of emotional responsiveness, behavioural control and interpersonal interaction. Therefore, gender should not be dismissed but understood as one factor within a broader system of family roles, cultural expectations, and communication practices. In relation to youth mobile gaming, family tensions are best understood as the outcome of mismatched perceptions, uneven authority and limited collaborative decision-making rather than gaming behaviour alone.

4.3.4 Theoretical implications of the quantitative findings

The quantitative findings reveal that the primary tensions surrounding youth mobile gaming behaviours within Chinese families are structural rather than gender based. Chi-square analyses across multiple family-function items, including decision-making and personal adjustment questions (Tables 23–26), indicate no statistically significant association between gender and response patterns ($p>.05$); the absence of gender effects is itself theoretically meaningful. Rather than reinforcing assumptions that boys and girls experience fundamentally different parental responses to gaming, the findings suggest that structural patterns of family governance exert greater influence than gender differentiation in shaping tensions around youth gaming behaviour.

Viewed through the McMaster Model of Family Functioning, the results indicate a reconfiguration of functional balance within families responding to digital risk. Traditionally, the six dimensions of the model—Problem Solving, Communication, Roles, Affective Responsiveness, Affective Involvement and Behaviour Control—are conceptualised as mutually reinforcing components of systemic stability. However, the

present data suggest that in the context of youth mobile gaming, Behaviour Control assumes a structurally dominant position. Parental monitoring and regulatory practices appear to expand in response to perceived technological and policy-driven risks, potentially displacing communicative negotiation and participatory problem-solving processes.

This regulatory intensification does not necessarily indicate dysfunction; rather, it reflects an adaptive response to an environment characterised by heightened concern regarding digital exposure and academic performance. Yet when Behaviour Control expands without parallel strengthening of Communication and Affective Involvement, a structural imbalance may emerge. Decision-making becomes less collaborative and intergenerational negotiation shifts toward hierarchical enforcement. Within such configurations, conflict over gaming is shaped less by gender identity than by authority distribution and governance logic.

The absence of significant gender differences, therefore, redirects theoretical attention from relational stereotypes toward structural governance. The findings imply that gaming-related tension is embedded in how authority is organised within the family system rather than in differential treatment of sons and daughters. This challenges gender-centric interpretations of parent–youth digital conflict and instead foregrounds governance configuration as the primary analytical lens.

Furthermore, the data suggest that family functioning in this context cannot be understood independently of the broader regulatory environment. Within China's anti-addiction policy framework, families operate as co-regulators of youth behaviour. External regulatory expectations may amplify parental emphasis on Behaviour Control, encouraging households to internalise policy discourse within everyday governance practices. In this sense, family regulation becomes intertwined with state-level disciplinary narratives, subtly reshaping the balance of family-function dimensions. The family does not merely manage gaming; it does so within a policy-saturated environment that legitimises surveillance and precaution.

This dynamic extends the McMaster model by demonstrating that functional dimensions are not static but responsive to sociopolitical pressures. When macro-level

regulation intensifies, micro-level family systems may recalibrate around control-oriented governance structures. Such recalibration, however, carries implications for emotional engagement and communicative openness. If regulatory emphasis overshadows relational reciprocity, youth may perceive governance as distrust rather than care, potentially generating adaptive responses that mask rather than resolve tension.

In this regard, the quantitative findings provide structural groundwork for the Anti-Panopticon dynamics explored in **Chapter 6**. When Behaviour Control becomes central and communication remains constrained, conditions may arise in which youth comply performatively while privately negotiating autonomy. Although these adaptive processes are examined qualitatively in subsequent chapters, the present quantitative patterns reveal the structural preconditions that enable such dynamics.

Finally, the findings refine the cross-cultural applicability of family-function theory. Developed within Western clinical contexts, the McMaster model assumes relatively balanced distributions of authority and emotional expression. The present evidence suggests that within collectivist and policy-intensive settings, elevated Behaviour Control may be culturally normative rather than inherently dysfunctional. However, when regulatory emphasis is not accompanied by communicative and affective reinforcement, structural strain may emerge regardless of cultural norms. Thus, the study contributes a contextualised understanding of functional imbalance that integrates digital transformation, governance structure and intergenerational negotiation.

Overall, the quantitative findings shift theoretical focus from individual attributes to systemic configuration. Youth gaming behaviour does not inherently destabilise family functioning; rather, the organisation of authority, communication and regulation determines whether gaming becomes a site of conflict or constructive negotiation. This repositioning provides the conceptual bridge needed to examine how families interpret, justify and respond to governance pressures in everyday life, a task undertaken in the following chapter.

4.4 Conclusion

The quantitative analysis extends beyond descriptive reporting by examining both differences between youth and PCRs and relationships within and across family system variables, thereby enabling a more structural interpretation of family functioning in the context of youth mobile gaming. Drawing on the McMaster model, the findings are interpreted across core dimensions of communication, problem-solving, behavioural control, affective involvement, and roles, with particular attention to how these dimensions operate not only within individuals but across generational perspectives.

A series of Mann-Whitney, Kruskal-Wallis, and chi-square tests were conducted to examine whether statistically significant differences exist between youth and PCRs on survey items based on gaming behaviours, perceptions of the relative importance of gaming, knowledge and understanding of policy, family circumstances, and Family Function. Across multiple domains, the results reveal a pattern of divergence between the two groups. Youth participants were more likely to report higher levels of autonomy, particularly in self-regulating gaming behaviour, whereas PCRs expressed comparatively lower confidence in youths' ability to manage their gaming independently. This divergence is not merely descriptive but reflects a statistically observable difference in response distributions, indicating that youth and PCRs interpret the same behavioural phenomena through fundamentally different evaluative frameworks.

This discrepancy is most clearly situated within the behavioural control dimension of family functioning. From a youth perspective, gaming is positioned as a manageable, self-regulated activity embedded in everyday leisure practices. In contrast, PCRs tend to frame gaming within a risk-oriented discourse, associating it with potential harm to academic performance, mental health, and physical well-being. The statistical differences between these groups therefore reflect not only disagreement, but a deeper misalignment in normative expectations, where youth emphasise agency and PCRs emphasise control.

Beyond behavioural control, similar patterns emerge within the communication and problem-solving domains. While many youth report being willing to communicate with family members and engage in collaborative problem-solving, PCRs' responses suggest a more cautious or constrained interpretation of these processes. However, inferential testing indicates that, in some cases, these differences do not reach statistical significance, suggesting that shared understandings may still exist at a structural level. For example, previous analyses within the dataset demonstrate that certain communication-related items do not vary significantly by gender, reinforcing the interpretation that family structural dynamics, rather than demographic variables, are the primary drivers of variation in responses .

To further examine internal family dynamics, chi-square tests of association were conducted within each group to explore relationships between key family functioning variables. Within the youth dataset, significant associations were observed between communication-related items and problem-solving behaviours, indicating that youth who report open communication with family members are more likely to describe collaborative approaches to resolving conflicts. This finding supports the internal coherence of the McMaster framework, in which communication serves as a foundational mechanism enabling effective problem-solving within the family system. Similarly, within the PCRs dataset, relationships emerge between perceptions of behavioural control and emotional regulation. PCRs who express stronger concerns about gaming behaviours are also more likely to report restrictive or supervisory practices, suggesting that parental monitoring is not an isolated behaviour but part of a broader regulatory orientation within the family system. These within-group relationships highlight that both youth and PCRs exhibit internally consistent patterns of response; however, the nature of these patterns differs across groups.

The most significant contribution of the inferential analysis lies in the identification of cross-group structural misalignment. While each group demonstrates internal consistency, the comparison between youth and PCRs reveals that their internal logics are not aligned. Youth perceptions of autonomy and normalised gaming behaviour contrast with parental perceptions of risk and the need for intervention. This misalignment produces a form of relational tension that cannot be fully explained by individual variables alone but instead reflects a breakdown in shared family meaning

systems. This structural divergence is particularly evident in domains related to affective involvement and communication under conditions of conflict. For example, responses concerning emotional withdrawal during conflict situations suggest that both youth and PCRs experience difficulties in emotional regulation, yet they differ in how they interpret and respond to these situations. Youth responses indicate a tendency towards withdrawal or non-communication when experiencing anger, while PCRs are more likely to perceive themselves as attempting to restore communication. Although these patterns do not always produce statistically significant differences, their directional inconsistency reinforces the presence of relational asymmetry within the family system.

Taken together, the inferential findings demonstrate that family functioning in the context of youth mobile gaming is not characterised by simple agreement or disagreement, but by a more complex configuration of aligned internal structures and misaligned intergenerational perceptions. The family system operates coherently within each group yet lacks coherence across groups. This condition creates an environment in which interactions are shaped by misunderstandings, misinterpretations, and competing expectations, thereby increasing the likelihood of conflict and tension within family relationships.

Chapter 5. Qualitative Research

With the introduction of the anti-addiction policy by the Chinese government in 2021, it is necessary to examine how Chinese PCRs understand this policy and to what extent it affects how PCRs interact with their youth, such as limiting or monitoring mobile gaming behaviour. This study sought to explore how differing opinions about mobile games among PCRs and youth affect family relationships and how other behaviours (such as PCRs sharing log-in credentials/online identities with their youth) may lead to family discord.

5.1 Methodology

5.1.1 Interview design and sample

The semi-structured interview was chosen as the second research method because it provides participants with a space to express their feelings about various aspects of their experiences and lives (Clark and Bryman, 2019). This method provides rich insights into participants' lived experiences in specific contexts. At the same time, semi-structured interviews as a descriptive method can include rich details in the field of interest, which is instrumental when summarising complex pictures, allowing to 'gain a deeper understanding of everyday experiences' in three different areas (See details in **Appendix IV and VII**). To gather rich, detailed information, semi-structured interviews are more open to problem flows and the dialogue is more dynamic. Furthermore, using research methods such as semi-structured interviews allows researchers to maintain an open attitude toward the outline of what the research topic needs to understand, thereby allowing concepts and theories to emerge from the data (Bryman, 2016).

As Clark and Bryman (2019) explain, the researcher explores a series of potential topics with participants regarding the interview's purpose and the interviewees' needs. However, using this format can be challenging because it requires planning, listening and adjusting on behalf of the interviewee and it often needs to be done in one go. The interview must be managed in accordance with both the interview schedule's

requirements and the necessary dialogue details. This method requires them to have enough information, but they cannot 'lead' and must be flexible without departing from their goals. In addition, it requires a certain level of social and technical skills and often requires some practice. The semi-structured interview method requires substantial resources and a sufficient number of interviewees to draw conclusions and make comparisons.

I specifically chose to interview the youths and their PCRs because they play a central role in the online gaming community and anti-addiction policy. Most youth may wish to spend hours playing games and watching webcasts every day, not only to watch but also to deepen their understanding of game skills and interact with other community members, such as friends they met in person or online (Zamiri and Esmaeili, 2024). Chinese authorities limited youth to 90 minutes of video game play per day on school nights and 3 hours on weekends before 2021. After 2021, the Chinese government reduced the time youth can play video games to just 1 hour a day, 3 days a week.

A total of 61 qualitative interviews (20 families) were conducted across three primary schools in Dalian. PCRs were invited to participate in the qualitative interviews after completing the survey and were involved as a family unit. The purpose of the sampling was to select young people and their PCRs who have experience with the government's online gaming protection mechanism. The sample also included participants with different demographics, though they must be 9- to 12-year-olds and of different genders and socioeconomic backgrounds. A breakdown of participants and relevant demographic details can be found in **Appendix IX**.

5.1.2 Interview process and data collection

A total of 20 families were interviewed: all youth participants in fourth, fifth and sixth grade in three selected elementary schools. The questions asked in the interviews centred around themes including the following:

- PCRs' perspectives on the impact of parent intervention on young people and family relationships before and after the emergence of the system
- Young people's views on parental interventions

- Young people's views on family relations before and after the emergence of the system
- Different perceptions of parental intervention among PCRs of different ages and their responses to young people and family relationships.

Each family was required to participate in the interview once and each interview lasted approximately 60 minutes (45 minutes for PCRs and 15 minutes for youths). The youth were asked to conduct separate interviews from PCRs to ensure the authenticity of the interview data and the PCRs and young people had the right to terminate participation in the study (See details in **Appendix I**).

Interviews were conducted one-to-one in Chinese and audio and visual data were recorded. For transcription and coding, I initially conducted the interviews and coding in Chinese, then translated them into English (for transparency). Participants were fully informed about the research purposes and data collection procedures and they could opt out of the interview at any time, with their data not used in any way.

5.1.3 Data processing

Verbatim transcriptions of recorded interviews were created manually, using software in Teams and Tencent meetings. All transcripts were written in the language in which the interviews had been conducted. Identifying information, such as participants' ages and occupations, was omitted upon transcription or upon receipt of transcripts from Stream.

Balancing technology and manual correction in semi-structured interview transcription involved a two-stage process combining efficiency with interpretative accuracy. First, automated speech recognition (ASR) tools were used to generate initial transcripts quickly. These provided a useful structural outline but often struggled with the non-linear, conversational nature of semi-structured interviews.

Automated transcription tools were used to produce initial transcripts, which were then manually reviewed and corrected to ensure accuracy. Common issues included errors in accent recognition, overlapping speech, and informal language. These were addressed by re-listening to recordings, correcting misinterpretations, and using

contextual judgement where audio was unclear. To maintain consistency, a standardised transcription approach was applied. This combined method improved both efficiency and data reliability.

Manual correction was then conducted in multiple passes, listening alongside the audio to fix errors, restore meaning, and ensure clarity. This was especially important where participants used informal, fragmented, or context-specific language. A "clean verbatim" approach was adopted, retaining key phrasing while removing non-essential fillers.

Several challenges emerged. ASR frequently misinterpreted overlapping speech, accents, and youth participants' expressions. This was addressed by replaying audio at slower speeds and manually separating speakers. Informal or culturally specific terms (e.g., gaming-related language) were often mis transcribed, requiring contextual interpretation supported by field notes. Maintaining consistency across varied interviews was managed through a standardised transcription protocol, including clear rules for formatting and anonymisation.

5.1.4 Data analysis

An inductive, data-driven and interpretative thematic analysis of all interviews was conducted, guided by Braun and Clarke (2006). Each piece of data from participants had been analysed and the analysis began during data collection. First, all interviews were transcribed verbatim and read repeatedly to ensure familiarity with the data, with initial observations recorded in a reflexive journal. Second, inductive codes were generated across the dataset using a line-by-line approach, remaining grounded in participants' language (e.g., "parental restriction," "gaming for relaxation"). Third, related codes were grouped into potential themes, such as "family governance of gaming" and "gaming as an emotional resource."

These themes were then reviewed and refined to ensure coherence and alignment with the full dataset. Subsequently, themes were clearly defined and named in relation to the research questions and linked to dimensions of family functioning. Finally, the analysis was written up by selecting illustrative quotes and developing an interpretative narrative

connecting participants' accounts to existing literature, while maintaining reflexive awareness throughout.

After thorough reading and re-reading of the transcripts, I coded the data in NVivo. As data collection and analysis proceeded, the codebook was continuously updated by adding new codes and refining existing ones to better capture emerging themes in the data. Excerpts from the data were consistently incorporated to illustrate and reinforce the analysis, ensuring that the results were firmly grounded in the data and aligned with it. Furthermore, because all participants are from the same city, even though their occupations, work and gaming experiences differ, the dataset is still treated as a whole.

5.1.5 Measures to ensure reliability and validity

To ensure a transparent and rigorous process, I developed a detailed guidebook outlining the conceptual framework, sampling strategy and interview schedule. To further enhance reliability. I also completed harvesting templates summarising key emerging themes, sample quotes (both in original languages and translated into English) and methodological reflections.

5.1.5.1 Internal Validity:

I incorporated supervisor debriefings, ensuring continuous discussion of findings and methodological approaches. I also engaged in ongoing critical reflection, acknowledging potential biases in sampling and interpretation. By maintaining meticulous record-keeping and decision trails, we ensure transparency and consistency in data interpretation. Specifically, I recognised a tendency to interpret young people's gaming behaviours through a risk-oriented lens, influenced by dominant policy and parental discourses around "addiction" and harm. There was also a potential bias toward privileging parental perspectives over those of young people, as well as an inclination to over-emphasise themes that aligned with family dysfunction rather than everyday functional family dynamics. In addition, sampling bias was considered, as participants who agreed to take part may have had stronger views on gaming, potentially skewing the data.

To mitigate these biases, I actively compared and contrasted youth and parent accounts to ensure balanced representation, and I remained attentive to disconfirming or contradictory evidence during analysis. Supervisor debriefings were used to challenge assumptions and refine interpretations, helping to avoid overgeneralisation. I also maintained a reflexive journal to document how my positionality as a digital media researcher might shape coding and theme development. By keeping detailed audit trails of coding decisions and analytic steps, I enhanced transparency and consistency in data interpretation, ensuring that findings were grounded in the data rather than preconceived expectations.

5.1.5.2 External Validity:

For external validity, I employed purposive sampling, carefully selecting participants based on their relevance to the research topic. Our approach followed grounded theory principles, seeking to generate meaningful insights rather than impose pre-existing theoretical frameworks.

5.2 Findings

To clarify the first research question on what the current situations of young people's online mobile gaming behaviours and parental and state interventions in China are and to investigate in depth the reasons for problems, if any and how family relationships are affected.

5.2.1 Youth interviews

Table 5.1 The relationship between PCRs' gaming experience and youth gaming behaviour

PCRs Gaming Experience	**Youth Gaming Experience**	**Relationship**	**Family Function**	**Interpretation**
PCRs with Gaming Experience	Youth also game	Shared gaming experience	Good	Shared practices strengthen bonding and mutual understanding
PCRs with Gaming Experience	Youth do not game	Divergent gaming experience	Good	Relationship quality not dependent on gaming alignment
PCRs with Gaming Experience	Youth also game	Shared gaming experience	Bad	Gaming alone does not guarantee positive family interaction
PCRs with Gaming Experience	Youth do not game	Divergent gaming experience	Good	Positive relationships may rely on broader family dynamics

Table 5.2 The themes about youth gaming behaviour affect family relationship

Theme	Sub-theme	Communication Pattern	Interpretation	Outcome
Shared Gaming Experience	Mutual engagement	Open, frequent, and reciprocal communication	Shared interest facilitates emotional bonding, role flexibility, and mutual understanding	Positive and harmonious relationship
Divergent Gaming Experience	Youth plays, PCRs do not	One-sided or rejected communication	PCRs rely on assumptions (e.g., addiction, academic harm); youth feel misunderstood	Conflict and hidden resistance (e.g., secret play)
	PCRs discourage gaming	Communication breakdown	Lack of collaborative decision-making leads to unilateral control	Tension and deterioration of relationship
No Gaming Experience	Neither engages in gaming	Stable but limited communication around gaming	Alignment reduces conflict but does not necessarily enhance engagement	Stable but less dynamic relationship
Behavioural Adaptation	Youth compliance	Compliance without negotiation	Behaviour shaped by authority and fear rather than mutual understanding	Superficial harmony (compliance-based)
Conceptual Conflict	Addiction definition gap	Misaligned interpretations	Generational differences in defining risk leads to disagreement	Ongoing tension and misunderstanding

5.2.1.1 Youth Interviews – Gaming Experience and Family Relationships

During the interview, responses suggest that youth who had experience playing games did not have conflicts or contradictions with their PCRs regarding mobile games when

they have experience as well, because, in their opinion, they could communicate with their PCRs effectively, exchange game experiences and even share some skills and methods.

> I am very happy to share my experience with PCRs, because they also know more about games and which kinds I play, so I have always communicated with them very frankly about mobile games.
>
> (12-year-old boy)

This reflects strong affective involvement and clear communication, key components of family functioning. Parental gaming experience facilitates role flexibility and shared leadership in leisure activities. As the focus is on how family members can show an interest and invest themselves in each other, if the PCRs and youth have the same interest, the family relationships will be in a better situation and family members can demonstrate a true affective concern for the interests of others in the family, even though they may be peripheral to their own interests. As Miller and other scholars refer to, the dimension of affective involvement is defined as the degree to which the family as a whole shows interest in and values the activities and interests of individual family members. The focus is on how much and in what ways family members show interest and invest in each other (2001). In other words, it should clarify the degree of involvement among family members.

As they implemented the solutions, consistent communication in several families remained paramount. Some PCRs in my research with gaming experience scheduled regular family meetings to check in on everyone's well-being, discuss any challenges encountered during the resolution process for youth playing mobile games and celebrate milestones. This continuous dialogue strengthened familial bonds and ensured everyone felt supported throughout the journey. Addressing and resolving the family problem led to a tangible solution and fostered a deeper understanding and appreciation for each family member's individuality. It underscored the importance of open communication, active listening and a collaborative approach to overcoming challenges within the family unit. For these PCRs, mobile gaming is not a behaviour that needs to be restricted, but a tool to promote sharing among family members.

In addition, this pattern suggests that shared gaming experience functions as a bridge that reduces generational distance and fosters mutual understanding within the family. When PCRs possess experiential or at least contextual knowledge of gaming, they are less likely to interpret gaming behaviour through a purely risk-oriented or deficit lens. Instead, gaming can be reframed as a legitimate social and recreational activity, which allows for more balanced discussions around time management, academic responsibilities, and leisure. This shared understanding also enhances the quality of communication by enabling both parties to use a common language when discussing gaming-related issues, thereby reducing misinterpretations and unnecessary conflict. In this sense, gaming becomes an important medium through which affective bonds are reinforced and trust is maintained.

As times change, the experience of mobile games among youth may not be lacking, just as it was among their PCRs. On the contrary, some youth will be exposed to mobile games due to external factors, while others will follow their PCRs' advice and avoid them. These two different experiences also lead to differences in family relationships. In a family environment where PCRs do not play mobile games or know little about them, if a youth has experience with mobile games, it is very likely to lead to conflicts and disagreements with PCRs. At the same time, in the absence of effective communication, family relationships are very easy to deteriorate; on the contrary, if neither the youth nor the PCRs have gaming experience, family relationships tend to be positive and stable.

This divergence highlights how asymmetry in digital experience can create structural tension within the family system. When one party—typically the youth—possesses significantly more knowledge about gaming than the PCRs, interactions may become characterised by misunderstanding, suspicion, and unequal power dynamics. PCRs may rely on external narratives (e.g., media discourses on gaming addiction) to interpret behaviour, while youth draw on personal experience and peer interaction, resulting in conflicting frames of reference. Without effective communication mechanisms to reconcile these differences, the family may struggle to establish shared norms, leading to recurring disputes. Conversely, when both parties lack gaming experience, the absence of this contested domain reduces the likelihood of conflict, contributing to a more stable—though not necessarily more communicative—family environment.

> I play mobile games myself, because sometimes I would exchange experience and skills in the game with my classmates in class. When I heard of a good method, I would try it in the game, but my PCRs did not allow me to play games. Although I communicated with them many times about the reasons for playing games, they would not listen. I gradually played secretly, although sometimes it was inevitable to be discovered, but I still did not like to listen to my PCRs' advice, because they just thought that games would be addictive and affect academic performance, but the fact is that I always ranked in the top ten in the class in every exam.
>
> (10-year-old girl)

Here, the failure of PCRs to acknowledge the youth's perspective leads to communication breakdown and hidden resistance, undermining effective problem-solving within the family. Rather than reaching negotiated solutions, young people may resort to secrecy, which further erodes trust.

This form of hidden resistance can be understood as an adaptive strategy employed by youth to maintain autonomy in the face of rigid parental control. When open communication channels are ineffective or dismissed, secrecy becomes a means of preserving both personal interests and social belonging, particularly when gaming serves as a key site of peer interaction. However, this strategy carries relational costs, as it introduces elements of deception and reduces transparency within the family. Over time, such patterns may weaken the family's capacity for collaborative problem-solving, as interactions become increasingly characterised by monitoring and concealment rather than dialogue and mutual understanding.

In contrast, some young people respond to strict parental control through compliance rather than resistance:

> I usually don't like playing games because my PCRs didn't let me play when I was a youth and I got punished, so I became afraid and didn't

> dare to play anymore. After I stopped playing mobile games, I tried to take up sports and my PCRs were very supportive.
>
> (9-year-old boy)

While this may reduce overt conflict, it reflects a form of authority-based role enforcement, where harmony is achieved through obedience rather than mutual understanding, potentially limiting emotional openness.

Such compliance-based dynamics may create a form of surface-level harmony that masks deeper limitations in emotional communication. While behavioural conformity aligns with parental expectations, it does not necessarily indicate internal agreement or understanding. Instead, it may reflect the internalisation of authority and avoidance of punishment, which can restrict the development of independent judgement and self-expression. In the long term, this may influence how young people engage with authority figures beyond the family, as well as their ability to negotiate differences in other social contexts. Therefore, although compliance reduces immediate conflict, it does not fully support the development of resilient and communicative family relationships.

Furthermore, PCRs and young people have different views regarding addiction, which is also the reason for the conflict between PCRs and youth regarding mobile gaming. From the interviews, most PCRs associate addiction with lifestyle and believe that, when it comes to youth, for example, mobile phone games affect their daily lives and they think about games all the time – a state is defined as ‘addiction’. Young people generally associate ‘addiction’ with the appearance of games and believe that it can only be considered addiction when the game time exceeds two hours per day and such a definition exists in the upper age group of the experimental audience. In the interviews, the ideas of the younger groups are generally in line with their PCRs’ views, suggesting that as they get older, their self-awareness will become more evident and they will develop a certain resistance to the standards their PCRs set.

> In my opinion, playing games may affect daily life, whether it is studying, doing homework, or taking a break. It is considered an addiction.

(11 years old, girl)

These differing conceptualisations of addiction reveal a deeper epistemological gap between PCRs and youth. While PCRs tend to adopt a holistic and consequence-based definition rooted in responsibility and discipline, young people often rely on measurable criteria, such as time spent, to assess whether behaviour is problematic. This reflects broader developmental processes, where younger individuals initially internalise parental norms but gradually construct their own evaluative frameworks through experience and social interaction. As youth mature, this shift can lead to increased questioning of parental authority, particularly when rules are perceived as inconsistent or unjustified. Consequently, "addiction" becomes not only a behavioural concern but also a contested concept through which authority, knowledge, and legitimacy are negotiated within the family.

Overall, these findings suggest that alignment in gaming experience and shared understanding of gaming practices are key factors in maintaining positive family relationships. Where such alignment is absent, differences in perception—particularly regarding risk and addiction—can disrupt communication, weaken affective involvement, and challenge effective problem-solving within the family.

5.2.1.2 Youth Interviews – Family Discord

As for the problem of youth playing mobile games, I find there were few situation on family discord, one was that most young people use their PCRs' account information to access games, thus evading the system's identity authentication designed for youth. On the one hand, it increases the time young people can play mobile games, but on the other hand, it increases conflict between PCRs and their youth. In other words, sharing personal information or identities among youth can lead to family discord. They put it this way in their interview:

> I would rather use my PCRs' account information to log into the game. On the one hand, this can allow me to avoid real-name authentication in the game, but it also allows me to have enough time to play the game without being punished and my PCRs' account has some skin and

> equipment, so I do not have to bother to play, but can also achieve good results. I can show off my gear when I play with my friends.
>
> (boy, 9 years old)

This behaviour can be understood as a form of strategic circumvention, where young people actively navigate technological and regulatory constraints to maximise their access to gaming. Rather than simply violating rules, such actions reflect a calculated response to perceived limitations imposed by both the state and the family. Importantly, the use of PCRs' accounts not only bypasses institutional controls but also symbolically blurs boundaries between parental authority and youth autonomy. This creates a paradoxical dynamic: while youth rely on parental identities to gain access, this very act undermines parental authority and may be interpreted as a breach of trust when discovered. Consequently, what begins as a practical solution to technological restriction can escalate into relational tension, particularly when issues of honesty, control, and responsibility are brought into question.

At the same time, not all youth–PCR relationships are characterised by conflict. Some young people demonstrate adaptive communication strategies and attempt to negotiate gaming practices in ways that maintain family relationships. These accounts suggest that youth exercise agency in managing both their gaming behaviours and their interactions with PCRs, although such efforts are not always successful. For instance, one participant highlighted both a rationalisation of gaming behaviour and a breakdown in communication:

> "I don't think playing games has much impact on my optical health, because compared to the time I spend on studying (2-3 hours), the time I spend on electronic products every day is very short (1-2 hours), so I don't think playing games will have too many negative effects on my body. At the same time, it is difficult for my PCRs to sit down and have a good conversation with me about mobile phones and mobile games. After that, I will not communicate with them. I keep everything in my heart, or vent on my phone when I have it."
>
> (10 years old, girl)

This account illustrates how young people attempt to construct rational and evidence-based arguments to legitimise their gaming practices, drawing comparisons between gaming and other daily activities such as studying. Such reasoning reflects an emerging capacity for critical thinking and self-regulation. However, when these efforts are not reciprocated by PCRs, communication becomes one-sided, leading to frustration and emotional withdrawal. The shift from attempted dialogue to silence suggests a breakdown in reciprocal communication, where young people no longer perceive discussion as meaningful or productive. In this context, digital devices may also function as emotional outlets, providing an alternative space for coping and expression when family-based communication is constrained.

Nevertheless, a subset of participants expressed dissatisfaction with restrictive parental practices, particularly when limitations on gaming time were perceived as overly stringent or socially embarrassing. In such cases, compliance does not equate to acceptance, and negative emotions may persist beneath surface-level obedience. As one interviewee described:

> Although our PCRs don't want us to play mobile games, they occasionally let us play mobile games after we finish our homework, but the time is too short, less than 20 minutes and then the mobile phone is taken away; I am still chatting with my classmates while playing games, feeling very face-less, even if they take the mobile phone away, I can only silently accept it. But it must be uncomfortable. My sister and I had our toys thrown away at home by my grandmother because she thought we were too old to play with toys like cars.
>
> (girl, 11 years old, twin with elder sister)

This narrative highlights the social dimension of gaming, where participation is closely tied to peer interaction and identity construction. Restrictions that appear reasonable from a parental perspective may be experienced by young people as socially limiting or even humiliating, particularly when they disrupt real-time interaction with peers. The notion of “losing face” underscores the importance of maintaining social presence within peer networks, suggesting that gaming is not only a leisure activity but also a means of sustaining social belonging. When parental rules fail to account for this

dimension, they may inadvertently generate emotional discomfort and dissatisfaction, even in the absence of overt resistance. Additionally, the reference to the removal of toys indicates a broader pattern of age-based regulation, where youth's interests are dismissed as inappropriate, further contributing to feelings of being misunderstood or controlled.

These findings illustrate a complex dynamic in which regulatory avoidance, limited communication, and perceived unfair restrictions intersect. While some families maintain functional relationships through negotiation and adaptation, others experience latent tensions shaped by control, resistance, and unmet emotional needs.

5.2.2 PCR interviews

This section explores how participants describe their attitudes towards youth gaming, whether PCRs have gaming experience and how this affects family relationships. First, when PCRs and youth have gaming experience, family relationships can remain positive. Second, when PCRs and youth have no gaming experience due to parental intervention, family relationships tend to be good. Third, if PCRs have no gaming experience but the youth does, a lack of communication or effective problem-solving between the two will lead to deterioration in family relationships. Table 5.3 highlights the situation depending on gaming experience from PCRs and potential family relationships.

Table 5.3 The situation about family discord and PCRs' perspective

Theme	PCRs' Perspective	Interaction Pattern	Outcome
Addiction	Gaming leads to loss of control and dependency	Parents impose strict limits; youth may resist or hide behaviour	Conflict over control and autonomy
Optical Health	Screen exposure damages eyesight and reduces physical activity	Parents justify restriction using health concerns; youth feel misunderstood	Breakdown in mutual understanding
Academic Performance	Gaming causes decline in grades and distracts from study	Parents prioritise study and enforce rules; youth negotiate or comply reluctantly	Tension around academic priorities

5.2.2.1 PCR Interviews – with Gaming Experience

Few PCRs with gaming experience will have a positive view of gaming and will support their youth's mobile gaming behaviour to some extent. This kind of family atmosphere will support youth gaming behaviour on the one hand and create a good family communication environment where both parties can actively share their experiences or difficulties in gaming or life and then discuss the best solutions.

In such contexts, gaming operates as a shared cultural practice that facilitates intergenerational connection rather than division. When PCRs draw on their own gaming experiences, they are better able to contextualise youth engagement, distinguishing between recreational use and problematic behaviour. This enables a more balanced form of behavioural guidance, where rules are negotiated rather than imposed. Moreover, shared gaming can function as a site of informal learning and emotional exchange, where discussions extend beyond the game itself to broader aspects of daily life, including school, friendships, and personal challenges. As a result, the family environment becomes more dialogic, characterised by openness, trust, and mutual recognition, which strengthens overall family cohesion.

> My father also loves to play games. Before I came home from school, he asked me to finish my homework quickly so we could play games together afterwards. Sometimes, my mother wouldn't let me watch TV,

> which meant I had more time to play games with my father before my mother got off work and returned home. Therefore, for my son, I'm okay with playing games with him, as long as I allow him to study hard and play harder.
>
> (40 years old, mother of a 10-year-old boy)

This example also illustrates how gaming can be integrated into family routines as a structured reward system, reinforcing both academic responsibility and leisure enjoyment. Rather than viewing gaming as inherently disruptive, PCRs with relevant experience may incorporate it into a broader framework of discipline and motivation. This reflects a more flexible approach to behaviour control, where boundaries are maintained but adapted to the needs and interests of the youth. Importantly, such arrangements may enhance intrinsic motivation, as young people associate gaming not with restriction or conflict, but with achievement and shared enjoyment.

Some PCRs also use their past gaming experience as a reward mechanism to urge young people to learn, just based on their personal experience:

> So, my family's opinion on study and play is that, as long as the study is good, you can play casually; it is not so restricted. Then, as long as I can play and learn quickly, my idea is to play, so I have to hurry to learn, so it touches my study quickly and I want to test first. I play and my family will not restrict me. But if the test score is not high, I may come back to get a scolding. So, from third grade onward, I did not take second place; I was always first. Then, when I play, you will feel great; I will take the first and then I can be casual.
>
> (36 years old, mother of a 9-year-old boy)

Gaming is positioned within a conditional framework that links leisure to performance, reflecting a merit-based approach to parenting. While this may be effective in encouraging academic achievement, it also introduces a performance-oriented dynamic into the family relationship, where access to leisure is contingent upon measurable success. This can create both motivation and pressure, as young people internalise expectations around achievement. Nevertheless, compared to purely restrictive

approaches, this model still allows for negotiation and flexibility, as it acknowledges the value of gaming while maintaining clear boundaries.

As for PCRs who have no experience playing games, they basically think that games are just a way to relax and have no benefit for youth growth. Because during their childhood, the development of electronic products was not as rapid as it is now, PCRs' understanding of them was relatively one-sided. At the same time, the promotion of electronic games on social media is mostly negative, which, to a certain extent, aggravates PCRs' prejudice against mobile games. This has led PCRs in this group to strengthen supervision of their youth's mobile games, but given the youth's varied attitudes towards games, it has also led to varied family relationships.

This lack of experiential knowledge contributes to a reliance on external narratives, particularly those emphasising the risks and negative consequences of gaming. As a result, PCRs may adopt a precautionary stance, prioritising control and restriction over engagement and understanding. While such approaches are often motivated by concern for the youth's wellbeing, they may inadvertently limit opportunities for constructive dialogue. Without a shared frame of reference, discussions about gaming can become polarised, with PCRs focusing on potential harms and youth emphasising enjoyment and social benefits. This divergence can create persistent tension, particularly when rules are perceived as disproportionate or lacking justification.

> In my opinion, playing games is not good for youth. I didn't play these games when I was a youth, nor did I get involved in activities such as billiards. I still think my childhood experience is rich.
>
> (38 years old, father of a 9-year-old boy)

Similarly, another parent observed behavioural changes linked to gaming:

> For example, there is a youth who used to be willing to go out with friends to play or ride bicycles. Now he only plays with his mobile phone at home. Even when his friends invite him out, he is unwilling to play. He just looks everywhere for his mobile phone, always trying to steal it. Go and play.

(45 years old, father of a 9-year-old girl)

These accounts illustrate how parental concerns about gaming are often framed around perceived reductions in physical activity and social interaction. However, such concerns can also intensify intergenerational tensions, particularly when PCRs and young people hold divergent views on the role of gaming in everyday life.

Importantly, these tensions are not solely the result of gaming itself but arise from differences in interpretation, expectation, and communication. When PCRs and youth are unable to reconcile these differences, everyday interactions around gaming may become sites of conflict, reflecting broader struggles over authority, autonomy, and lifestyle choices. In this sense, gaming serves as a focal point through which deeper relational dynamics are expressed and negotiated.

These conflicts highlight breakdowns in problem-solving and communication clarity. As a dimension of family functioning theory, effective problem-solving involves identifying issues, discussing them constructively and implementing solutions acceptable to all. Differing perspectives often strain this process unless mediated by mutual respect and flexibility.

Where such mediation is absent, problem-solving processes may become fragmented or ineffective, with each party adhering to their own perspective without reaching a shared resolution. This can result in repeated conflicts over the same issues, as underlying disagreements remain unresolved. Over time, this may reduce the family's capacity to adapt to new challenges, particularly those introduced by rapidly evolving digital environments.

Furthermore, these dynamics reveal limitations in communication clarity within the family. Differences rooted in generational experiences and social contexts can hinder mutual understanding, with young people feeling misunderstood or constrained, while PCRs may perceive resistance as disobedience or disrespect. For PCRs with different experiences, mobile games are indeed difficult for all PCRs to quickly adapt to their frequency and rhythm, but conflicts between PCRs and the youth's opinions on mobile games can challenge the family's ability to solve problems effectively. According to

the Family Function Theory, effective problem-solving involves identifying issues, discussing them constructively and implementing solutions acceptable to all. Differing perspectives often strain this process unless mediated by mutual respect and flexibility.

This also points to the importance of communication style, not just content. Authoritarian or dismissive communication may close down opportunities for dialogue, while open and empathetic communication can facilitate mutual understanding even in the presence of disagreement. The ability to listen, validate, and respond appropriately to each other's perspectives is therefore central to maintaining functional family relationships in the context of digital media use.

Disagreements between family members may stem from differences in social environments and eras. In the families I studied, some PCRs found it difficult to communicate effectively with their youth and lacked effective problem-solving methods. At the same time, different perspectives often highlight the lack of clear, open communication. Youth may feel misunderstood or suppressed, while PCRs may feel disrespected or ignored. The theory emphasises that functional families should use direct, honest and age-appropriate communication styles. Poor communication or authoritarian communication styles can lead to alienation and increase conflict.

This underscores the affective responsiveness gap: when PCRs lack empathy toward the youth's digital leisure, emotional bonding weakens and behavioural control becomes punitive rather than guiding.

5.2.2.2 PCR Interviews – Family Discord

PCRs and young people have different views on games. Since PCRs and their youth live in different times and need more communication, they will have different views on games, which leads to conflict.

This generational divergence is not only a difference in preference but reflects deeper contrasts in values, life experiences, and social environments. PCRs' perceptions are often shaped by a context in which leisure was limited and strongly subordinated to academic and social responsibilities, whereas young people grow up in a digitally

saturated environment where gaming is embedded in everyday communication, identity formation, and peer interaction. As a result, gaming carries different meanings for each group: for PCRs, it is often associated with risk and distraction, while for youth it represents relaxation, social belonging, and self-expression. Without sufficient dialogue to reconcile these meanings, gaming becomes a symbolic site of intergenerational misunderstanding and conflict.

In this interview, participants suggest that most PCRs do not support their youth in playing mobile phone games because they believe that mobile phone games will cause addiction and have a significant impact on eye health.

> I will not support him playing mobile games because the first point is that electronic devices are very harmful to young people's eyes, as they are now exposed to too many devices at school or wherever. The youth remains in a sitting position all day, significantly reducing his outdoor activity. His schoolwork is busy and he uses games and electronic devices to occupy some of his time. The youth has no outdoor exercise.
>
> (43 years old, mother of a 11-year-old girl)

These concerns illustrate how PCRs tend to frame gaming within a health-risk discourse, focusing on physical consequences such as eye strain, sedentary behaviour, and reduced outdoor activity. While these concerns are grounded in observable behaviours, they often overlook the broader social and psychological functions of gaming for youth. This risk-oriented framing can lead to a narrowing of parental responses, where control and restriction become the primary strategies, rather than engagement and guidance. Consequently, the complexity of youth gaming practices is reduced to a set of perceived harms, limiting opportunities for more balanced and informed family discussions.

Furthermore, most PCRs' feedback is starkly at odds with young people's academic performance before and after playing mobile games, especially the decline in academic performance after playing mobile phone games.

> I have a lot of friends whose kids played games in junior high school. For example, if you do well in the exam this time, your PCRs will give

> you a computer or a mobile phone as a reward, hoping that you will continue to do well in the next exam. But as schools reopened, kids' academic performance plummeted and some students basically went back to school, didn't go to class at all, didn't study, but played games and played well.
>
> (41 years old, father of a 10-year-old girl)

Such narratives often rely on anecdotal evidence and peer comparisons, which can amplify parental anxiety and reinforce negative assumptions about gaming. The perceived link between gaming and academic decline may not always be directly causal, but it becomes a powerful interpretive framework through which PCRs evaluate their own youth's behaviour. This can lead to heightened vigilance and stricter regulation, even in cases where the youth's academic performance remains stable. In turn, young people may perceive these responses as unfair or exaggerated, further widening the gap between parental expectations and youth experiences.

This reflects a failure in problem-solving and affective involvement. PCRs focus on risks without engaging in the youth's perspective, leading to *communication breakdown* and *emotional withdrawal*.

From a family functioning perspective, this indicates a disruption in the reciprocal nature of communication, where one party dominates the interpretive framework while the other is marginalised. Effective problem-solving requires not only identifying risks but also understanding motivations and contextual factors influencing behaviour. When PCRs prioritise control over understanding, young people may disengage emotionally, reducing the likelihood of collaborative solutions and increasing the probability of resistance or withdrawal.

Communicating the problem to the appropriate resource stage involves determining who to inform about the identified difficulties and whether the resource is appropriate. As the four styles of Epstein et al. (1978), PCRs used reasons such as academic performance, addiction and vision protection as reasons. Although these reasons may seem clear to the PCRs, these reasons are unclear without direct communication; The

PCRs may lack effective understanding of the reasons for gaming, and they impose their own biases and misunderstandings about games and communicate in ways that are not conducive to good family relationships. This situation not only leads to a lack of communication among family members but also to ineffective problem-solving methods and emotional reactions.

This suggests that the issue is not the absence of reasoning but the absence of shared reasoning. PCRs' arguments are often internally coherent but externally unconvincing to youth because they are not grounded in the youth's lived experience. Without mutual validation, communication becomes directive rather than dialogic, reducing its effectiveness. As a result, even well-intentioned parental guidance may fail to achieve its intended outcomes, highlighting the importance of aligning communication strategies with the perspectives of all family members.

Learning from different perspectives within the family can help members build better coping strategies. Family members may have experienced similar challenges and can share their own plans for coping with unhappiness. This collective wisdom can be invaluable in developing resilience and emotional intelligence.

In this sense, the family can function as a collaborative learning environment, where diverse experiences are integrated to develop adaptive coping mechanisms. When PCRs and youth engage in mutual sharing, they create opportunities for perspective-taking and empathy, which are essential for effective conflict resolution. Such processes not only address immediate issues but also contribute to the long-term development of interpersonal skills and emotional resilience among all family members.

During the interviews, I found that only a few PCRs wanted to listen to the youth's experiences, concerns and suggestions for potential solutions. From the PCRs' perspective, active listening was crucial for fostering empathy and ensuring that every family member felt heard and acknowledged. This open dialogue helped uncover underlying issues and provided valuable insights into the family's diverse viewpoints. It was essential to approach this phase collaboratively, recognising that everyone's input was valuable in crafting a resolution. They discussed the feasibility and potential impact of each suggestion, considering both short- and long-term implications. A few PCRs

discussed communicating with their families from the perspective of life and work pressure to resolve the negative emotions, which will make them feel more comfortable. At the same time, they also observed the emotional changes of their family members.

However, for most participants, the youth and PCRs who have experience in gaming often prefer gaming and not communicating with their families, especially when they think they are unhappy. Responses offered many perspectives and insights into their lives when they are facing challenges or problems. Sometimes, unhappiness stems from misunderstandings or miscommunication. In some families, by opening up, PCRs allow youth to provide their insights and explanations, shedding light on aspects of the situation that PCRs might not have considered or had fully experienced. This process of sharing and learning from different perspectives can be a valuable tool for personal growth and self-awareness. Among most of the families who participated in the interview, a vast majority of them believed that it is difficult for them to communicate effectively with family members, especially when they are unhappy, other families members often refuse to communicate or reject this and then family members will use methods other than communication to resolve their negative emotions, for PCRs, they may have many strategies to cope, such as playing games, watching TV series and smoking.

In addition, most Chinese PCRs need a sense of responsibility and time to fulfil their responsibilities. In the beginning, mobile phones were regarded as a substitute for PCRs keeping their youth company. With the help of the Internet, mobile phones can be integrated into young people's lives.

This historical shift in the role of mobile devices—from a supportive tool to a perceived threat—illustrates how technological integration can reshape family dynamics. Initially, mobile phones may have alleviated parental absence by providing entertainment and connection, but as usage intensified, they became associated with overdependence and loss of control. This transformation reflects changing expectations around parenting, where the balance between supervision and autonomy becomes increasingly difficult to maintain.

Integration of mobile phones, the role of mobile phones has changed from a substitute for PCRs' companionship at the beginning to becoming a kind of 'enemy' as young people spend much of their time on mobile games or short videos (such as TikTok), which gradually affect their daily lives and becomes the critical factor for PCRs to judge mobile use as an 'addiction'. However, compared with short videos on mobile phones, mobile games require youth to spend time and involve them in investing money in the game, drawing cards or buying in-game equipment and PCRs still need to discover these situations. Therefore, for PCRs and youth, mobile phones, especially mobile phone games, pose increasing challenges.

This evolving perception intensifies parental concerns and reinforces the tendency to equate frequency of use with problematic behaviour. At the same time, the economic dimension of gaming—such as in-game purchases—introduces additional layers of anxiety, as it involves financial risk alongside time investment. These factors contribute to a more complex regulatory environment within the family, where multiple concerns intersect and amplify one another.

Allocating time for personal pursuits allows family members to indulge in their passions and hobbies. Similar to reading, painting, or engaging in a favourite sport, gaming can be an activity that contributes to personal fulfilment and happiness. And from the interviewees' point of view, giving yourself some time to do things you like can relieve the pressure of the external world and, at the same time, satisfy and enrich your life.

> On the one hand, I let my youth play games on my account to monitor his consumption; on the other hand, he does not have his ID card, so verifying his identity is difficult. He can also help me get the game rewards and gifts, but it also encourages communication between the youth and me. By the way, I can use the equipment in the game to find the youth's affection for me.
>
> (36 years old, father of a 9-year-old boy)

Of course, some PCRs will help their youth escape the anti-addiction system and use their account information to let the youth play games:

> If you do not log in with an adult ID, you may only be able to play for an hour or two and then you will be forced to log off. Furthermore, the state forces all game makers in China to do so. However, that parent will take the initiative to complete the identification [during log-in] to make the youth happy. After the youth has experienced it, he will continue to let his PCRs help with authentication. He will also go online to buy identity verification information for more than 10 CMY [about 1 GBP].
>
> (38 years old, father of a 9-year-old boy)

In some cases, parental facilitation of gaming is framed as a temporary or compensatory measure, particularly in response to academic pressure:

> For example, his father, to teach the youth, rarely plays games, but before there was an account, he let the youth use it to play. Let him use his father's account to play a few times and experience it, but I also hope he can take a break from the heavy studying.
>
> (37 years old, mother of 11-year-old boy)

Despite these varied strategies, communication between PCRs and youth often remains asymmetrical. Although some PCRs report engaging in discussions after conflicts arise, these interactions are frequently described as 'semi-mandatory', with youth expected to comply rather than negotiate. Consequently, while overt conflict may be temporarily resolved, underlying tensions persist, reflecting broader issues of authority, autonomy, and limited dialogic engagement within family relationships. In the interview, some PCRs also said that they had disagreements and arguments with their youth because of mobile games:

> Sometimes the youth emphasises that he is playing the last game and after a long time, he knows that he has played two more games and his father will scold him about bad time control, but especially sometimes he loses too much time in the game in one day, he will hide the tablet and play in the dark side without control and the contradictions between youth and his father are verbal.

(43 years old, father of a 12-year-old boy)

More broadly, conflicts are not always rooted in fundamentally opposing views about gaming, but rather in differing perceptions of what constitutes an appropriate level of use. As one parent noted, both parties may share similar general attitudes, yet disagreement emerges around the "scale" or limits of acceptable playtime. In such situations, youth responses are often characterised by reluctant compliance rather than genuine agreement:

> Like he plays for a while, right? But it's right to say you can only play at certain times. Or maybe he relaxes a little bit sometimes and says he played a little bit longer, or whatever, or how many times you played. Then I, like, just be. In fact, everyone's general opinion is the same, but the scale is not the same. The contradiction lies in the scale, then the youth, because this scale may be everyone's view and views are different, then the youth's reaction is, generally, this helpless acceptance. He must be hoping that he can play a little more.
>
> (43 years old, father of a 10-year-old boy)

Despite these tensions, some families demonstrate efforts to manage conflict through guidance and subsequent dialogue. Rather than escalating disputes, PCRs may prioritise maintaining overall family harmony by encouraging self-regulation and engaging in reflective conversations after disagreements:

> There were arguments, but we didn't have much of a quarrel; the youth's mother and I tried to lead most of the time, hoping to let him restrain himself. After a certain amount of time has passed, people will sit down and exchange their views and ideas.
>
> (45 years old, father of a 10-year-old boy)

In other cases, more negotiated and flexible approaches are evident, where parental authority is combined with responsiveness to the child's requests. This conditional flexibility can foster cooperation and strengthen trust, as youth are given limited autonomy within agreed boundaries:

> My youth and I will talk about [conflict things]. For example, if he wants to play the game, I will say, "Because you promised your mother to return in one hour, I think you should keep your word; if you do not end the game in the stipulated time, we will not play in the future. My youth, he is quite obedient and may occasionally say, ‘Mom, give me another ten minutes and I will immediately quit. I said OK and then I can basically follow [his suggestion], can give him a while longer, maybe 10 minutes or 15 minutes and when he is finished, he will take the initiative and hand over the phone.
>
> (38 years old, mother of a 12-year-old boy)

Conflicts surrounding mobile gaming are less about absolute opposition and more about negotiation over control, time, and autonomy. While some interactions are characterised by monitoring and restriction, others reflect emerging forms of communication and compromise, illustrating the dynamic and evolving nature of family relationships in the context of youth digital practices.

There are several reasons why there will be disputes between PCRs and youth over mobile games:

Firstly, PCRs have different views of mobile games. PCRs who have gaming experience usually choose games for communication with friends or for reminiscing about past memories. Most PCRs play mobile games for relaxation and decompression, but very few PCRs follow the trend. On the one hand, the reasons young people play on mobile phones are the same as their PCRs' – to decompress and relax; on the other hand, they want to play with friends so they can integrate into communication with classmates at school and not be left behind or isolated.

Secondly, PCRs’ power management is an important factor. Most PCRs think mobile games are a hazard and a waste of time, especially those with no gaming experience, but they also think they are an ‘unforgivable’ evil. They control their youth as if in a subordinate relationship, controlling all of their youth's behaviours, including mobile games.

> I don't usually play mobile games. I just don't think mobile games are helpful for youth. Maybe some games may contain some small knowledge. However, I think it still does more harm than good. It is time-consuming and not good for the youth's eyes, so I don't want him playing. He hasn't had much exposure to mobile games and I haven't seen him play any. If he does, I won't allow him to play. Because I am worried that this will affect his attitude towards learning and I think youths of their age still have poor self-control.
>
> (45 years old, mother of 11-year-old son)

> I think youth can't learn much knowledge by playing games. I hope he can learn some useful things from books. If he wants to play games, he will become addicted. In short, I don't think there's anything beneficial about mobile games.
>
> (45 years old, mother of 12-year-old daughter)

In the current education environment in China, youth enter a busy six-year period after junior high school, during which they take entrance examinations. Moreover, PCRs hope that their youth will achieve the best results and be admitted to better universities because, in China's current education system, the high school entrance examination and even the college entrance examination after that are the most convenient opportunities for students to change their lives. PCRs want their youth to take advantage of this opportunity.

From Family Function Theory, its strength is that when family members disagree, especially across generations, role expectations and power dynamics are brought into question. PCRs might expect obedience, while youths increasingly demand autonomy. In the family environment in China, PCRs mostly want their youth to follow their orders without any doubts, rather than sit around, talk and listen. Effective communication with PCRs is hard for youth, so they sometimes turn to their grandparents as a buffer: if they want to say something to their PCRs, they ask their grandparents to convey the message. The presence of elders and grandparents makes management gradually more difficult for PCRs. At present, Chinese families typically have only one child, leading elders to depend on the youngest child. As long as the requirements put forward by the

youth can be met, the elders will basically meet them and the PCRs will obey the elders, which makes the elders become a protective umbrella for the youth. The youth will ask the elders to play more games when they are at home, but the elders will generally agree and not regulate the youth's mobile phone games. As the PCRs said in the interview:

> When her grandfather came to live in the family, she had a mobile phone and played with it every day and then she didn't read books or eat until later; she became near-sighted, which affected her daily life.
>
> (45 years old, mother of a 9-year-old girl)

Most PCRs want to avoid talking with their youth to work out the best solution to the problem. The common practice among PCRs is to directly manage and arrange according to their own wishes, because they believe that mobile games are a kind of 'spiritual opium' that is not conducive to the formation of good values and social concepts among youth. At the same time, they need to be fully aware of the risks of excessive consumption, which can lead to youth spending too much money on mobile games, but this example is rare among the study's participants.

At the same time, in the eyes of PCRs, mobile games are a waste of time because in the current high-pressure learning environment in China, although the national government has formulated corresponding policies to ease study pressure in students, due to the imperfect social security system in China and the establishment of China's higher examination system, students can only have the time within the unit to obtain the maximum knowledge. Such an external environment makes it difficult for students to balance study and social life and PCRs would rather have their youth read more books and do more exercise than spend a second on their mobile phones. This has something to do with China's current gaming system. Since the Chinese government issued a ban on game consoles in 2005, its attitude towards games has been one of resistance, meaning PCRs are affected by national policies from the beginning, before the influence spreads to PCRs' behaviour towards youth gaming. China's network platform needs to be standardised at this stage. Although China's internet development time has been shorter than that of countries in Europe and the United States, its development speed and progress are comparable to those of developed countries and even exceed those of Europe and the US in some fields. A large influx of content means both good

and bad content appear on everyone's mobile phone simultaneously. Such information will indeed affect the physical and mental development of young people. For example, the appearance of some undesirable words will mean young people demonstrate a tendency to be too mature, as one parent said in an interview:

> Throughout the school, some Chinese elementary school students now say things like 'you bastard', or some of these bad words, it's all from mobile phones and they're catching on really fast, or it's something like playing with [*PUBG Mobile*] or some kind of gun or some kind of thing. There are violent messages being sent between youth who play this game.
>
> (31 years old, father of a 9-year-old girl)

From the research, participants suggest that, for most PCRs, whether they share their identities or use mobile games to control their youth, the main problem is problem-solving skills. From Family Function Theory, effective problem-solving involves identifying issues, discussing them constructively and implementing solutions acceptable to all. In Chinese families, PCRs recognise that mobile games are now a problem; they initially thought the problem lay with the youth rather than themselves. Then they find it hard to communicate with their youth and share their opinions and ideas with them. The solution to the problem only suits the PCRs, not the youth. Core contribution to Family Function Theory: digital leisure introduces new role conflicts and communication barriers that challenge traditional problem-solving and affective involvement patterns, particularly in collectivist cultures like China.

5.2.3 Theoretical interpretation of the findings

The findings of this study can be interpreted through the theoretical lens of Family Function Theory, which conceptualises the family as a dynamic social system composed of interrelated functional dimensions. Within this framework, family communication, emotional support, behavioural control, role allocation, problem-solving and value transmission collectively shape how family members interact and regulate behaviour. Applying this framework to the context of youth online gaming

allows the present research to move beyond individualistic explanations and instead situate gaming behaviour within broader patterns of family interaction.

First, the results highlight the central importance of family communication in mediating young people's gaming behaviour. Families characterised by open communication appear better able to negotiate gaming rules and expectations, reducing potential conflict between PCRs and youth. This finding aligns with family systems theory, which emphasises communication as a fundamental mechanism through which family members coordinate behaviour and maintain relational stability. In the context of digital gaming, communication functions not only as a regulatory tool but also as a mechanism for mutual understanding between generations. Rather than relying solely on authority-based restrictions, families that engage in dialogue about gaming practices are more likely to develop shared norms regarding appropriate gaming behaviour.

Second, the findings related to emotional support further demonstrate the relational nature of gaming practices. Emotional support within the family has been widely recognised as a key dimension of healthy family functioning. The present study suggests that when family emotional support is strong, young people are less likely to rely on digital gaming as a primary means of emotional escape or compensation. Conversely, when emotional support is perceived as limited, gaming may serve as an alternative space for emotional engagement and social connection. This observation resonates with broader sociological perspectives on digital media, which view online environments as spaces where individuals may seek recognition, belonging, or autonomy when these needs are not fully satisfied within offline relationships.

Third, the dimension of behavioural control offers insight into the mechanisms through which families regulate young people's digital activities. Traditional models of parental authority emphasise direct supervision and rule enforcement. However, the findings of this research indicate that behavioural control in contemporary digital environments often involves negotiation rather than unilateral enforcement. Families that combine supervision with communication tend to achieve more cooperative outcomes than those that rely exclusively on strict restrictions. This reflects the changing nature of parenting in the digital age, where young people possess increasing technological knowledge and

autonomy. As a result, effective parental governance may depend less on rigid control and more on the establishment of trust-based relationships.

The findings also contribute to theoretical discussions surrounding the governance of youth digital practices. The regulatory context of online gaming in China provides a particularly relevant setting for examining the interaction between institutional regulation and family authority. Policies such as the Youth Protection Mode constitute state-level digital governance aimed at limiting minors' gaming time. However, empirical evidence suggests that these policies are largely implemented within the family context. PCRs interpret, adapt and enforce regulatory rules in ways that align with their own parenting styles and family values.

This dynamic illustrates a form of multi-layered governance, in which regulatory authority is distributed across both institutional and familial structures. Rather than replacing parental authority, state regulation often reinforces or legitimises existing family rules. At the same time, young people actively respond to these forms of control, negotiating gaming time or seeking ways to circumvent restrictions. This interaction highlights the agency of young people within regulatory environments and demonstrates that digital governance is not a purely top-down process but a relational negotiation between multiple actors.

From a broader theoretical perspective, these findings suggest that youth gaming behaviour should be understood as a socially embedded practice shaped by the interaction between individual agency, family relationships and institutional regulation. Digital gaming is, therefore, not simply a leisure activity but a site where generational expectations, cultural norms and regulatory structures intersect. By situating gaming behaviour within the family function framework, the present study contributes to a more comprehensive understanding of how digital practices are integrated into everyday family life.

Overall, the theoretical interpretation of the findings emphasises that effective governance of youth gaming behaviour depends not only on formal regulation but also on the quality of family relationships and communication. Families serve as a crucial intermediary between institutional policies and young people’s everyday practices.

Recognising this relational dimension may therefore provide a more balanced perspective on the challenges and opportunities associated with youth digital gaming.

5.3 Discussion

The findings reveal that differences in gaming experience and perceptions between PCRs and youth constitute a central source of tension within family relationships. While both groups engage with the same technological environment, they interpret mobile gaming through distinct experiential and generational lenses. Youth, who are often more familiar with both gaming practices and anti-addiction policies, demonstrate a higher level of adaptive awareness, enabling them to navigate and, at times, circumvent regulatory constraints. In contrast, PCRs, who may lack direct gaming experience or a detailed understanding of policy, tend to respond through indirect strategies, such as substituting mobile devices for direct companionship. This dynamic reflects a broader pattern in which mobile phones simultaneously serve as tools for emotional compensation and sources of conflict, particularly when youth use PCRs' personal information to extend gaming time. As a result, the same technological medium that facilitates connection also undermines trust and authority, intensifying relational strain.

This pattern can be understood through Family Function Theory, particularly in relation to role complementarity and the construction of shared reality when PCRs and youth share similar experiences or attitudes toward gaming, a common interpretive framework emerges, enabling clearer communication and more effective negotiation of expectations. Conversely, when such alignment is absent—especially when youth have gaming experience but PCRs do not—communication becomes fragmented. Each party interprets behaviours based on different assumptions, leading to misunderstandings, reduced affective involvement, and weakened problem-solving capacity. Over time, this misalignment disrupts role clarity, shifting expectations from complementary to conflicting, thereby undermining the family system's cohesion.

Empirical findings further support this distinction. Family relationships tend to be more stable when PCRs and youth share similar gaming experiences, whether both engage with games or both abstain. In contrast, when PCRs lack gaming experience while

youth are actively involved, family interactions are more likely to be characterised by ineffective communication and unresolved conflict. PCRs' concerns—particularly regarding academic performance and physical health—are often framed through risk-oriented perspectives, reflecting both protective intentions and limited experiential understanding. However, youth responses indicate that these concerns do not necessarily lead to resistance against parental authority per se, but rather to dissatisfaction with how authority is exercised. Youth are willing to accept regulation when it is accompanied by dialogue, recognition, and mutual understanding.

This apparent paradox highlights the importance of communication quality over behavioural control. While PCRs' regulatory intentions are grounded in care and responsibility, their effectiveness depends on whether they are communicated in ways that acknowledge youth agency. When communication is directive and unilateral, rules may be perceived as restrictive, leading to concealment behaviours and reduced willingness to engage. In contrast, when PCRs adopt a dialogic approach and incorporate youth perspectives, mobile gaming can be integrated into family life in a balanced way, allowing leisure and academic responsibilities to coexist. This suggests that conflict is less about gaming itself and more about the relational processes through which gaming is managed.

Importantly, the breakdown of family relationships in this context should be understood as a gradual process rather than a single outcome. Repeated cycles of miscommunication, unmet expectations, and ineffective problem-solving accumulate over time, leading to youth withdrawal and reduced interaction. As communication becomes less meaningful, opportunities for negotiation diminish, reinforcing a cycle of misunderstanding and conflict. This dynamic underscores the need for early intervention in family communication practices and highlights the importance of flexible, responsive approaches to youth digital behaviour.

Chapter 6. Role of Youth and PCRs and Anti-Panopticon Theory

Chapter 4 primarily uses quantitative research methods to analyse the views of youth and PCRs on mobile gaming based on their gaming experience, and how these views affect family relationships, using family function tests to determine the similarities and differences in attitudes among different family members towards the same family issues. **Chapter 5** uses quantitative methods to analyse the different types of family relationships resulting from the different mobile gaming experiences of PCRs and youth in the same family environment, and what kind of family environment these relationships lead to.

This chapter integrates qualitative and quantitative data and uses the "Anti-Panopticon" theory to analyse more deeply on how PCRs' concerns about rights, the online environment, and the balance between gaming and health affect current views of PCRs and youth on mobile gaming in family relationships.

In this chapter, I will discuss the basic rights of youth and PCRs, the distribution of rights in the family and the issues that arise regarding rights in mobile games. I will briefly explain Foucault's Panopticon theory (1995) and propose the anti-Panopticon theory to emphasise the current deterioration of family relationships between youth and PCRs.

Using mixed-methods in this research, the quantitative method is mainly used for collecting overview data (such as PCRs and youth's views and reactions to mobile games, PCRs and youth's views and opinions on the current situation of the family), while the qualitative method focuses on in-depth research to find out the motivations and reasons for behaviour (such as how PCRs supervise youth's mobile game behaviour and whether youth are aware of it, what behaviours youth will have and how these behaviours affect/do not affect family relationships).

More specifically, the quantitative findings identify recurring patterns in knowledge, attitudes, and behaviour, such as PCRs' limited understanding of anti-addiction policy,

youth's self-reported confidence in controlling their gaming, and differences between PCR and youth views on whether gaming is harmful. The qualitative findings deepen these results by showing that such patterns are embedded in unequal power relations, weak communication, and conflicting understandings of protection, autonomy, and responsibility. Taken together, the two datasets suggest that family conflict over mobile gaming is not simply caused by gaming itself, but by the way gaming becomes a site where wider struggles over control, trust, and rights are enacted.

The multiple datasets gathered and analysed in this thesis – both quantitative and qualitative – provide an understanding of how the gaming experience from both youth and PCRs can affect the family relationship.

About the reasons, the quantitative method mainly emphasises that differences in social needs and PCRs avoid responsibility by relieving excessive stress and underestimating adolescent rebellion, causing the breakdown of family relationships. The qualitative method refers to the lack of communication and struggle with their personal ideas, making the family relationships imbalanced.

From the mixed-method, I found that the lack of understanding and acknowledgement of policy and parental rights makes PCRs more confused about their ability and definition of "parents", which led them to abuse their power. Deeply find the reasons, PCRs have more concern about issues such as the unsafe online environment and cyberbullying may impact mental health, and sometimes the lack of understanding between educational tools and games on mobile also increases their concern. More importantly, opinions differ drastically about the balance between using mobile games for relaxation and their impact on health.

6.1 The framework of panopticon and anti-panopticon

The panopticon is an institutional building design with an inbuilt system of control, originated by the English philosopher and social theorist Jeremy Bentham (1787). The concept allows a single corrections officer to observe all prisoners in an institution without the inmates knowing whether they are being watched.

Michel Foucault's concept of the Panopticon, derived from Jeremy Bentham's architectural design, serves as a metaphor for modern surveillance and disciplinary mechanisms. Foucault's interpretation extends beyond physical structures to encompass societal control through observation, where individuals internalise surveillance, leading to self-regulation. The panopticon is depicted as a circular building or a ring of cells with an observation tower at its centre. ‘All that is needed, then, is to place a supervisor in a central tower and to shut up in each cell… a worker or a schoolboy… One can observe from the tower, standing out precisely against the light, small captive shadows in the cells of the periphery (Foucault, 1995, p. 200). For Foucault, the real danger was not necessarily that the social order represses individuals, but that they are "carefully fabricated in it" and that power penetrates their behaviour. Foucault used the panopticon as a metaphor for modern disciplinary societies, where surveillance extends beyond prisons into schools, factories, hospitals and other institutions. Power becomes more efficient through the mechanisms of observation, with knowledge following suit, always searching for "new objects of knowledge over all the surfaces on which power is exercised" (1977). The Panopticon, which is a reflection of the Enlightenment mind, obtains information about the individual through examination and surveillance in institutions in which the individual's life is enclosed; they are classified, observed and recorded and their behaviours are analysed comparatively (Gücüyener, 2011). In other words, the panopticon takes advantage of the uncertainty experienced by those who have been shut down for being disciplined (Lyon, 1994).

This idea is relevant to the present study because both the quantitative and qualitative findings point to the importance of observation, monitoring, and behaviour control in family life. At the survey level, PCRs express strong concerns about youth gaming, time use, health, and self-control. At the interview level, these concerns become concrete practices: checking devices, limiting playtime, entering rooms unexpectedly, or monitoring digital behaviour indirectly. The quantitative data establish the prevalence of concern, while the qualitative data reveal the interpersonal mechanics of surveillance. Together, they show that mobile gaming becomes one of the main sites through which disciplinary power is exercised in the family.

Imagining the prison design of a panopticon, it is not hard to say that there is a similarity between the panopticon and family rooms. Housing designs make it difficult for PCRs to supervise their youth's daily lives. At the same time, the portability and touchscreen features of mobile phones and other electronic devices make it difficult for PCRs to detect whether their youth are studying or using electronic devices for entertainment in the room. But at the same time, how to supervise youth has become a problem for PCRs. Sometimes they quietly open their youth's door to check what their youth are doing, or some PCRs will knock on the door in advance and enter only after their youth gives them permission. This requires assistance from two aspects to some extent: mutual trust between PCRs and youth and the youth's self-discipline (Nelsen, 2011).

Unlike the Hawthorne Effect approaches that emphasise meeting expectations, performing well and responding positively (Sedgwick and Greenwood, 2015), the Anti-Panopticon theory emphasises that within a regulatory cycle, the regulated party's response can change from good to bad, thereby affecting their relationship with the regulator.

The Anti-Panopticon developed in this chapter (see Figure 6.1) extends Foucault’s concept by focusing not simply on surveillance, but on the unstable cycle that emerges when the regulated party becomes aware of supervision and responds strategically. The quantitative findings suggest broad disagreement between PCRs and youth on issues such as control, harm, and self-regulation. The qualitative findings show how these disagreements are enacted in practice: youth may hide their gaming, switch screens, lock phones, or perform compliance when PCRs are nearby, while PCRs may believe their supervision is effective until trust is suddenly broken. This creates a cycle in which apparent discipline is temporary, and the collapse of trust produces sharper conflict.

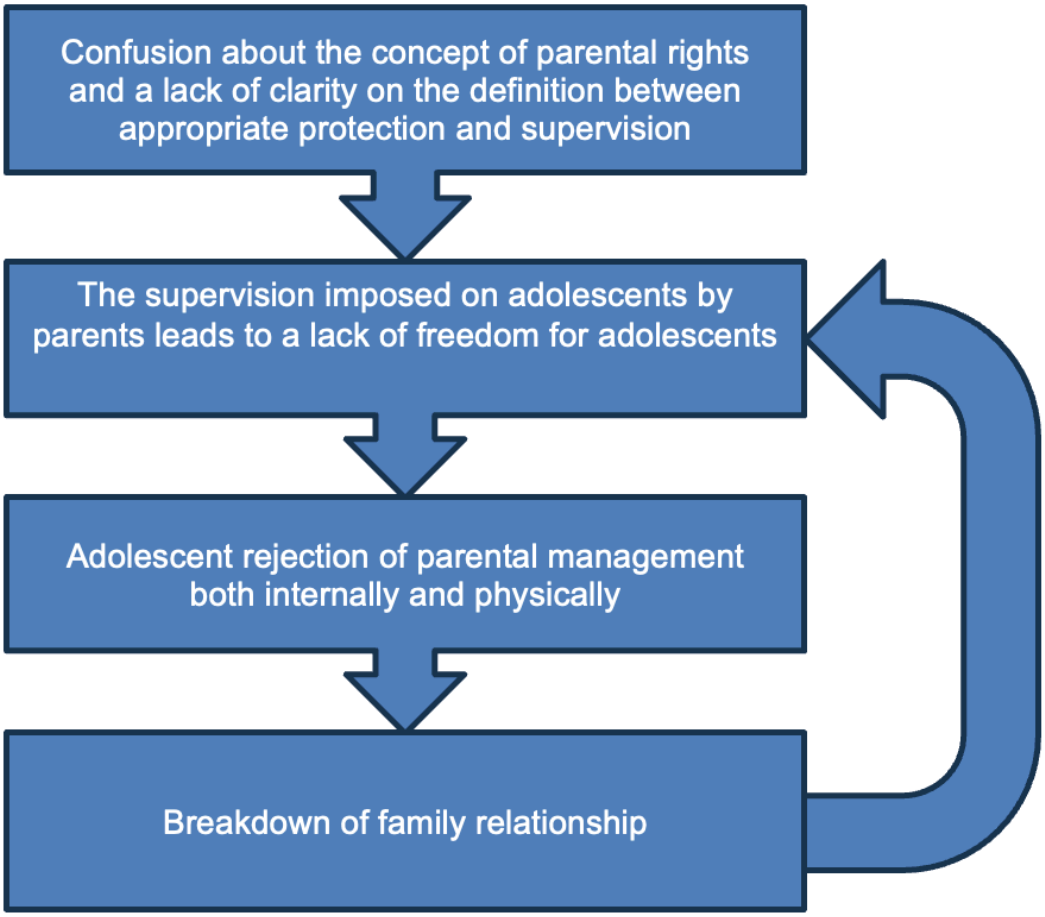


Figure 6.1 The framework of Anti-Panopticon Theory

With the unexpected surveillance from PCRs, especially at the start of puberty, youth may experience rejection in physical and psychological aspects; they tend to hide their motivations, deceiving their PCRs, even against their PCRs, which leads to a broken relationship with their PCRs.

Taking youth mobile gaming behaviour, parental supervision and family relationships as an example, PCRs will ask their youth not to play mobile games at specific times (such as studying, eating and sleeping) and PCRs will not take back their youth's mobile phones at the beginning to build trust between the two parties. However, due to the youth's lack of self-discipline to a certain extent, they will play mobile games during the above-mentioned specific periods and when they notice their PCRs' arrival, they will immediately put their phones in a secret place or lock the screen to prove to their PCRs that their learning behaviour is in line with their PCRs' expectations. They will know for a while that their PCRs will no longer supervise their mobile gaming

behaviour, thus ensuring their mobile gaming experience for a while. However, sudden parental supervision will leave the youth unaware and unable to deal with it. This situation will negatively impact the trust between PCRs and youth and cause serious problems in the relationship between youth and their PCRs.

6.2 Understanding of China's Anti-addiction policy on gaming

The qualitative interviews help explain this pattern. PCRs repeatedly described receiving little direct guidance from either schools or government, meaning that understanding the policy depended largely on PCRs' own initiative, time, and interest. Interview accounts suggest that schools often communicated the policy only at the beginning of implementation and did not continue sustained promotion afterwards. This helps explain why the survey data show low levels of policy knowledge: limited institutional communication left many PCRs insufficiently informed about both the purpose and the practical operation of the anti-addiction system.

Neither the school nor the government has sent targeted information to PCRs, so PCRs need to take the time to understand national policies on their own. Most schools did not carry out targeted publicity but only informed PCRs at an early stage of the policy's promotion and did not conduct further publicity because of changes in the year the policy was implemented and the student group. In the policy, the authorities ask schools to cooperate with PCRs, including communicating with them, to collaborate on control and limit the amount of time and money young students can spend on mobile games:

> Strict on-campus education management. Local education administrative departments should guide schools to implement unified management of mobile phones and other terminal devices brought to campus upon application and strictly prohibit their use in the classroom. Schools providing internet access services should install network protection software for minors or implement other security measures. When school faculty and staff notice that students are entering the premises for Internet access, they should promptly stop them and

> educate them. Schools should organise a wide range of cultural and sports activities to help students cultivate interests and hobbies and to consciously avoid harmful internet temptations. It is necessary to adopt various forms to strengthen publicity and education on internet literacy and to adopt scientific and reasonable methods to prevent and intervene in primary and secondary school students' addiction to the Internet and to guide primary and secondary students to correctly understand, treat scientifically and rationally use the Internet.
>
> Promote home-school collaboration. Local education administrative departments and schools should strengthen communication between home and school, provide effective family education guidance, guide PCRs to fully understand the dangers of online game addiction and the need to strengthen management and foster joint efforts between home and school in educating people. PCRs should be urged to fulfil their guardianship responsibilities, serve as good role models, arrange their youth's daily study and life and consciously encourage their youth to take on more household chores, outdoor activities and physical exercise to help them develop a healthy lifestyle. When schools and PCRs discover signs that students are addicted to online games and over-consumption, they must inform each other, jointly provide education and guidance, correct bad behaviours in a timely manner and help them return to normal study and life.
>
> (Ministry of Education of the People's Republic of China, 2021)

This gap between policy and understanding is significant because it creates conditions for family tension. Quantitatively, the data indicate that many PCRs lack clear policy knowledge; qualitatively, the interviews show that this uncertainty often translates into inconsistent or improvised forms of regulation at home. As a result, youth and PCRs may both encounter the anti-addiction system without fully understanding it, increasing the possibility of misunderstanding, conflict, and attempts to bypass regulation. In this sense, the mixed-methods findings suggest that policy knowledge is not simply an informational issue but a relational one: weak understanding at the family level can intensify disputes over gaming time, identity verification, and parental authority.

The policy itself clearly places responsibility on both schools and PCRs to regulate youth digital behaviour, especially by controlling access, limiting time and spending, and strengthening home-school cooperation. However, when this responsibility is not matched by effective communication and practical guidance, it can become another source of pressure within the family. Thus, the quantitative data reveal the scale of weak policy awareness, while the qualitative data demonstrate how that weak awareness becomes embedded in everyday family practice and contributes to conflict over mobile gaming.

6.3 Anti-panopticon with different situations

The main argument is that Anti-Panopticon theory can offer a framework for understanding the use of surveillance devices in family relationships, particularly regarding the balance between youth rights and parental supervision. In this discussion, I will explore how the rights of youth and PCRs, youth behaviour and parental feedback interact within this context.

Firstly, regarding the rights of youth and PCRs, everyone has their own rights and obligations, whether to society or to their family. A youth's rights are necessary, but also relatively basic. Compared with youth, PCRs or adults have correspondingly greater rights, obligations and responsibilities, but most PCRs confuse the distinction between rights and responsibilities; they tend to treat responsibilities as rights. The incompatibilities between parental surveillance and protection and between freedom and monitoring, will make some contradictions more prominent or obvious. Taking mobile games as an example, I will consider whether PCRs' behaviour in mobile game situations in the research violates the basic rights of youth and, during the supervision process, rights and family relationships, what the connections between the three are and how to use Anti-Panopticon to explain them. In this section, I will mainly discuss several reasons that confuse PCRs about their rights and trigger a chain of reactions: infringement of freedom and monitoring, youth rejection and strained family relationships. From the data collection period, participants suggest that the convergence is mainly for PCRs who are knowledgeable, the concern on the environment of the

website and cyberbullying for youth, there are also divergences from PCRs on youth mobile gaming in using games as education tools and the understanding of a balance between game play and health.

6.3.1 The knowledge of rights

A lack of understanding of the game and youth rights leads more PCRs to resort to inappropriate methods to control and monitor their youth.

This lack of understanding is not simply about unfamiliarity with game mechanics but also reflects a broader gap in digital literacy and rights awareness. Many PCRs interpret mobile gaming primarily through a lens of risk—addiction, academic decline, or moral concern—rather than as a legitimate form of socialisation, identity construction, and leisure for youth. As a result, their responses tend to prioritise restriction over guidance. This imbalance contributes to a governance approach within families that is reactive rather than dialogic, where control replaces communication and surveillance substitutes for trust.

Firstly, the youth rights are fundamental principles that recognise their inherent dignity and ensure their well-being, protection and development. These rights are enshrined in various international instruments, most notably the United Nations Convention on the Rights of the Child (CRC), adopted in 1989 and considered the most widely ratified human rights treaty in history.

Importantly, the CRC does not merely provide abstract legal protections but establishes a normative framework through which youth should be understood as active social agents rather than passive recipients of care. In the context of digital environments such as mobile gaming, these rights become increasingly significant, as youth are engaging in spaces that blur boundaries between play, communication, and learning. Therefore, applying CRC principles to digital practices highlights the need to reconsider how authority, autonomy, and protection are negotiated within contemporary families.

The CRC outlines a comprehensive set of rights for youth, covering civil, political, economic, social and cultural aspects of their lives. These rights can be broadly

categorised into six main principles: non-discrimination, best interests of the youth, right to life, survival, development and respect for the views of the youth. I will mainly discuss two of them: the interests of youth and respect for their views. The best interests of the youth principle requires that the youth's best interests be a primary consideration in all actions. This principle recognises youth vulnerability and underscores the importance of decisions and actions that promote their overall well-being and development. Acknowledging the perspectives of youth is essential to recognising them as individuals with developing capacities. The CRC highlights the youth's right to express their views and to have these considered in issues that affect them, taking into account their age and maturity. This principle fosters a sense of autonomy and encourages participation in decision-making processes (Biggeri et al., 2019).

However, in practice, these two principles often come into tension within family settings. PCRs may prioritise "best interests" in a protective sense, interpreting it as justification for restriction, while overlooking the equally important requirement to respect youth voices. This imbalance can result in a paternalistic dynamic, where decisions are made unilaterally, limiting opportunities for youth to develop autonomy, negotiation skills, and digital responsibility. In the context of mobile gaming, this tension is particularly visible, as youth often possess greater technical competence, yet lack decision-making power.

From CRC, three main rights should be strengthened. First, youth have the right to protection from content that may harm their physical, mental, or emotional well-being. Mobile games should be designed and regulated to ensure that their content is age-appropriate and does not expose youth to violence, explicit material, or other inappropriate content. Second, youth have the right to disconnect from digital devices. Mobile games should not encourage addictive behaviour and developers should incorporate features that let players easily manage their time spent playing. Third, youth have the right to be safe online. Mobile games should incorporate features that protect youth from online predators, cyberbullying and inappropriate communication. Developers should implement effective reporting and moderation systems to address any inappropriate behaviour within the gaming community. Protection from harmful content in youth mobile gaming is paramount to ensure young players' well-being, safety and healthy development. Exposure to inappropriate content, such as violence,

explicit material and other harmful themes, can negatively impact youth's mental health and behaviour. Consequently, various strategies have been implemented to mitigate these risks and safeguard young gamers.

These three rights also illustrate how protection in digital environments must extend beyond simple restriction of access. Instead, it requires a combination of technological design, regulatory enforcement, and educational support. Without this multi-layered approach, responsibility is disproportionately shifted onto families, placing PCRs in a position where they must manage risks without sufficient knowledge or tools. This structural gap reinforces overprotective practices and intensifies family-level tensions.

PCRs hold significant rights and responsibilities regarding their youth's mobile gaming behaviours, particularly in monitoring, setting boundaries and protecting their well-being. These rights are grounded in the broader legal and moral framework that recognises PCRs as the primary caregivers and decision-makers for minors (Livingstone and Byrne, 2018). Parental control over gaming is often justified by concerns over screen time, exposure to inappropriate content and the impact on academic performance and family relationships. However, exercising these rights can lead to conflict, especially as adolescents assert their autonomy and digital competence. As such, a balance must be struck between parental oversight and the youth’s right to digital participation and privacy (Third et al., 2014).

In reality, achieving this balance is highly complex, particularly in contexts where rapid technological change outpaces parental adaptation. Youth often develop advanced digital skills earlier than PCRs, which can invert traditional knowledge hierarchies within families. This shift challenges conventional authority structures, making it more difficult for PCRs to exercise control in ways that are perceived as legitimate by youth, thereby increasing the likelihood of resistance and conflict.

The rights of youth in the context of mobile games are essential to ensure their well-being, safety and healthy development in the digital environment. As youth increasingly engage with mobile games, it becomes crucial to address a range of rights-related issues in this digital space. However, the vague boundaries for defining the best

interests of youth and for respecting their views will create a vicious cycle. On the one hand, these vague boundaries will increase PCRs' desire to protect as much as possible.

> "At this stage of social development, it is impossible to prevent youth from playing mobile games at all. However, there are all kinds of information on the internet and youth themselves do not have much ability to distinguish. As PCRs, it is difficult for us to check what our youth are doing on their phones all the time. We don't want our youth to be isolated by their friends and students without any contact with electronic products, nor do we want them to spend too much time playing mobile games."
>
> (39 years old, mother of a 10-year-old girl)

This quotation highlights the ambivalence experienced by PCRs, who must navigate competing pressures between protection and inclusion. It reflects a broader structural dilemma: digital participation is both necessary for social integration and a potential source of harm. As a result, PCRs are often caught between conflicting responsibilities, leading to inconsistent or reactive parenting strategies that may unintentionally exacerbate tensions.

Such excessive control may lead to supervision and monitoring of youth. Such supervision will foster a sense of rejection among the youth group. Such a psychological state will cause them to engage in rebellious behaviours. Such behaviours are very likely to break trust and goodwill among family members, thereby creating poor family relationships. Such bad relationships will lead PCRs to resort to more radical "protection measures" than before, further aggravating the deterioration of family relationships.

This escalating dynamic can be understood through a feedback loop in which control generates resistance, and resistance justifies further control. Over time, this cycle undermines emotional bonds and erodes mutual trust, transforming the family from a supportive environment into a site of surveillance and contestation. This process closely aligns with the transition toward an anti-panopticon condition, where monitoring loses its regulatory effectiveness and instead produces dysfunction.

> "Sometimes I know that my PCRs are watching me play mobile games, so I will play secretly. When I realise that they are coming, I put my phone under the books or in the drawer and pretend to play while studying. Sometimes I feel very tired after studying all day, so I just want to play games to relax... But sometimes my PCRs will see me playing with my phone, then they will take my phone away and will not listen to my explanations and ideas."
>
> (12-year-old boy)

This account illustrates how surveillance reshapes youth behaviour, encouraging concealment rather than compliance. Instead of fostering self-regulation, monitoring practices lead youth to develop strategies of evasion, which further weaken communication and transparency within the family. The absence of dialogue in such situations reinforces feelings of injustice and frustration among youth, intensifying emotional distance.

During the research, participants suggested that the vast majority of underage players did not use their identities to authenticate in the game, even if they were aware of the anti-addiction policy. PCRs sometimes provided their identity information to youth to allow them to evade the system's supervision. Most PCRs knew nothing about the specific content of the anti-addiction system and policy.

Protecting youth from harmful content in mobile gaming involves a multifaceted approach that includes regulatory measures, parental controls, responsible game design and adherence to industry standards. Collectively, these efforts help create a safer, more positive gaming environment for youth, supporting their healthy development in the digital age.

However, the success of these measures depends on the degree of alignment between institutional frameworks and family practices. Without effective communication and shared understanding, even well-designed systems may fail to achieve their intended outcomes, highlighting the importance of integrating macro-level governance with micro-level family engagement. Through my research, I realised that parental

involvement and control in youth mobile gaming are critical to ensuring that youth engage with digital content safely and responsibly. As mobile gaming becomes increasingly popular among young audiences, PCRs need practical tools and strategies to monitor and guide their youth's gaming activities. Indeed, active parental involvement in youth's gaming can lead to healthier gaming habits and better overall digital literacy. According to the American Academy of Paediatrics (AAP), PCRs who engage in their youth's gaming activities can help mitigate potential adverse effects, such as excessive screen time and exposure to inappropriate content, by setting boundaries and discussing gaming experiences (2016). PCRs can model healthy gaming behaviour by demonstrating balanced screen time and prioritising activities like outdoor play, reading and family time. By showing that gaming is just one of many enjoyable activities, PCRs can help their youth develop a more balanced approach to leisure and digital entertainment. Beyond technical controls, PCRs should regularly discuss gaming with their youth. PCRs try to regulate their youth's media use, hoping to maximise the advantages of today's media-rich environment for their youth and to minimise the disadvantages (Livingstone and Helsper, 2008). Discussing the types of games they play, the time they spend gaming and the social interactions they have while gaming can provide valuable insights and help PCRs guide their youth toward healthier gaming habits. Encouraging youth to think critically about the games they play can also foster better decision-making skills and digital literacy (Common Sense Media, 2021).

Parental involvement and control in youth mobile gaming are essential for fostering a safe and balanced gaming environment. By utilising parental control tools, setting clear guidelines, engaging in meaningful conversations, modelling healthy behaviour and staying informed through educational resources, PCRs can help their youth enjoy the benefits of gaming while minimising potential risks. Most Chinese PCRs do not have the time or interest to discuss their youth's gaming behaviour, as they use busyness or work as an excuse (Young, 2009). This highlights a key structural limitation within family governance, where the ideal of active mediation is constrained by socioeconomic realities. As a result, the gap between recommended parenting practices and actual behaviour further contributes to misunderstandings and ineffective regulation.

Other reasons that trigger PCRs in China, such as confusion about rights, stem from their feeling that the current internet environment is unsafe. From my research, most of PCRs feel that young people's privacy can be easily compromised by others, leading to losses. The proliferation of mobile games has transformed the way youth interact with digital media, raising significant concerns about their rights and well-being. As youth become avid mobile game users, it is imperative to safeguard their rights by addressing issues such as privacy, safety, age-appropriate content and the prevention of exploitation. Sometimes, from the perspective of youth, especially in interviews, the protection PCRs think they provide may turn into a kind of supervision that is worrying and burdensome. The impact of this supervision is often negative and the overprotection of PCRs causes the relationship between family members to gradually enter the initial stage of Anti-Panopticon, namely, confusion over rights. At this stage, PCRs may overprotect their youth and struggle to communicate effectively with them. This situation leads PCRs to fail to understand the needs of youth or to know how to exercise their rights while properly balancing the youth's rights.

Secondly, educational initiatives aimed at youth and PCRs are also vital. Educating young players about the importance of privacy and the protection of their personal information online can make them more vigilant and responsible digital citizens. Similarly, providing resources and guidance to PCRs can help them better navigate privacy settings and ensure their youth's data is protected. However, currently, PCRs can only find relevant guidance links when logging into the game, but since the prompts for those links are not clear, most PCRs will just click quickly to confirm. In this situation, more PCRs would like to use protection as an excuse to monitor the youth's behaviour.

6.3.2 Unsafe online environment

One of the foremost concerns is protecting the youth's privacy. During my data collection with PCRs, I found that mobile games often collect extensive personal data, including device information, location data and even behavioural patterns. This extensive data collection reflects the data-driven business models underpinning many mobile games, where user engagement and monetisation are closely linked to tracking behaviour. For youth, who may lack awareness of how their data is collected and used,

this creates a heightened vulnerability. PCRs' concerns therefore extend beyond immediate safety risks to broader issues of long-term data security, profiling, and potential misuse. In this sense, privacy is not only a technical issue but also a relational one, shaping how trust is negotiated between youth, PCRs, and digital platforms.

From my interview data collection, participants suggest that most PCRs are concerned and push for robust protection in the design of mobile games. The design of many mobile games includes in-app purchases and microtransactions, which can lead to the financial exploitation of youth; this should be considered. These games often utilise persuasive design techniques, such as loot boxes and timed rewards, which can encourage youth to spend money without fully understanding the financial implications (Uddin, 2021). Globally, regulatory bodies such as the UK's Office of Fair Trading and the European Commission have called for clearer guidelines and protections to prevent such exploitation, advocating transparency in how in-app purchases are presented and implemented. Moreover, parental controls have become a standard feature in mobile gaming platforms. These controls enable PCRs to monitor and restrict access to specific games or features, such as in-app purchases or online interactions. For example, Apple's Screen Time and Google's Family Link allow PCRs to set time limits, block inappropriate content and approve or disapprove app installations, thereby giving them greater oversight of their youth's gaming activities.

According to the PCRs' opinions in the interview, they believed youth have the right to privacy and that mobile game developers must implement robust measures to protect youth's personal information. Apps should adhere to strict privacy policies, obtain parental consent when necessary and refrain from collecting unnecessary data. Additionally, education for youth and PCRs is vital for promoting online safety. Youth need to be taught about the potential dangers of interacting with strangers online, the importance of not sharing personal information and how to recognise and report inappropriate behaviour. Similarly, PCRs should be educated on the tools and strategies available to protect their youth in the digital world. Privacy and data protection in youth mobile gaming are critical to safeguarding young players' personal information and ensuring a secure online environment. As youth increasingly engage with mobile games, the need for stringent privacy measures becomes more pronounced to prevent

unauthorised data collection, misuse of personal information and potential privacy breaches.

Beyond technical safeguards, these concerns also highlight how commercial design practices intersect with youth vulnerability. Persuasive design does not operate in isolation; it actively shapes user behaviour, often exploiting cognitive immaturity and limited financial awareness. As a result, PCRs' demand for stronger protections reflects not only concerns about safety but also a broader critique of platform accountability. At the same time, the reliance on parental control tools indicates a shift of responsibility from developers to families, reinforcing the co-governance dynamic in which regulation is shared—but unevenly distributed—between institutional actors and households.

In the global context, another key aspect of privacy and data protection in youth mobile gaming is compliance with regulations such as the Children's Online Privacy Protection Act (COPPA) in the United States and the General Data Protection Regulation (GDPR) in Europe. These laws require game developers to obtain verifiable parental consent before collecting personal information from youth under 13. Additionally, they require developers to provide clear, concise privacy policies that explain what data is collected, how it is used and with whom it is shared. Another reason PCRs may wish to broaden their monitoring of youth behaviour is the intolerance shown by developers in their games. Game developers should create games with integrated protections against harmful content. This involves using content filters to block explicit language and images and developing gameplay mechanics that discourage aggressive or violent behaviour. Moreover, some developers are adding educational and pro-social themes to their games to foster positive behaviour and enhance learning outcomes. In China, the Law on the Protection of Minors (2020) and the Regulations on the Protection of Minors on the internet (2024) emphasised the protection of minors' privacy and rights. These documents emphasise the obligations of guardians to educate and guide minors to enhance their awareness and ability to protect personal information and to guide minors in exercising relevant rights. At the same time, they also put forward requirements for personal information processors to strictly set access rights to minors' personal information and conduct personal information compliance audits.

While these regulatory frameworks provide important legal safeguards, their practical effectiveness depends heavily on enforcement and user awareness. Many PCRs and youth remain unfamiliar with the specific protections afforded by such regulations, limiting their ability to exercise these rights in practice. Furthermore, differences in regulatory environments across countries create uneven levels of protection, particularly for globally distributed games. This regulatory fragmentation reinforces the reliance on family-level monitoring, as PCRs attempt to compensate for perceived gaps in institutional protection.

> "Game developers need robust technical solutions for youth data protection. These measures include encryption, anonymisation and secure data storage. Developers should only collect necessary data to minimise the risk of misuse. Advertising remains a concern; frequent ads can be hard to skip for both PCRs and youth."
>
> (45 years old, father of a 9-year-old girl)

This perspective illustrates how PCRs are increasingly aware of the technical dimensions of data protection, even if their understanding remains partial. It also highlights concerns about commercial pressures embedded within games, where advertising and monetisation strategies may conflict with youth-friendly design principles. Such tensions further complicate the role of PCRs, who must navigate not only behavioural risks but also structural features of the digital economy.

According to the PCRs who participated in this research, game developers should ensure a secure gaming environment. This involves integrating safety features, such as automated filters that identify and prevent toxic language and offering clear guidelines and resources to help users stay safe during gameplay. Additionally, transparency about user data management and the enforcement of robust data protection strategies are essential for fostering trust and security. Furthermore, industry standards and guidelines, such as those from the International Game Developers Association (IGDA), emphasise the importance of creating youth-friendly content and environments within games. These guidelines advocate ethical game design practices that prioritise the safety and well-being of young players, including avoiding addictive mechanics and promoting positive social interactions.

6.3.3 Cyberbullying in mobile games increase the concern by PCRs

PCRs are increasingly uneasy about the risks of bullying or cyber violence in the online environment. Online safety in youth mobile gaming is a critical issue that PCRs are most concerned about. Comprehensive strategies are needed to protect young players from potential threats such as cyberbullying, online predators and inappropriate content. As youth engage more with mobile games, ensuring their online safety becomes increasingly important to foster a secure and positive gaming environment.

This growing concern reflects a broader transformation in how risk is perceived in digital environments. Unlike traditional offline risks, online harms are often invisible, unpredictable, and difficult for PCRs to monitor directly. As a result, anxiety is amplified not only by actual incidents but also by uncertainty and lack of control. This uncertainty contributes to heightened vigilance among PCRs, who may perceive even ordinary gaming interactions as potentially harmful, thereby intensifying protective behaviours within the family context.

> The internet's content is much richer than before and there is also a lot of content about cyberbullying. Youth also encounter many adults when playing games. When youths are not good at playing games and their poor performance affects the team's chances of winning, some adult players say negative things about them. As a parent, I still feel very uncomfortable when I see my youth being said so or see related videos on the Internet.
>
> (37 years old, father of an 11-year-old boy)

The transcript highlights how competitive gaming environments can expose youth to harsh social interactions, particularly when skill disparities exist between younger and older players. Such interactions are not only about gameplay but also reflect broader social hierarchies and norms within online communities. For youth, these experiences can shape self-esteem and emotional well-being, while for PCRs, witnessing or

imagining such situations reinforces their perception of the online world as hostile and unsafe.

The anonymity of the internet plays a significant role in encouraging negative behaviour among players. To address this, many games now include robust reporting and moderation systems that allow players to report bullying or harassment. Moderators can review these reports and take appropriate action, such as issuing warnings, suspending accounts, or banning users who violate community guidelines.

A comprehensive strategy is essential to ensure online safety for youth in mobile gaming. This includes integrating safety features by developers, utilising parental controls and providing educational resources for both youth and their PCRs. By promoting a secure online environment, the gaming industry can safeguard young players from potential dangers, thereby enabling a positive, safe gaming experience.

From my research, participants suggest that PCRs are increasingly worried about the risks of their youth interacting with online predators. Mobile games with chat features or multiplayer options can expose young players to strangers who may have malicious motives. In response, game developers are introducing safety measures such as restricted chat capabilities, reliance on approved messaging language and mechanisms for reporting and blocking suspicious users. PCRs are entitled to participate in their youth's digital activities. Game developers must offer parental control options that enable PCRs to impose restrictions on content, communication and in-app purchases. In China, all companies must comply with government regulations and make the necessary adjustments to ensure the system meets the basic needs of the group. However, PCRs have the right and the obligation to decide whether to use the platform's functions. Information about these features should be clearly accessible.

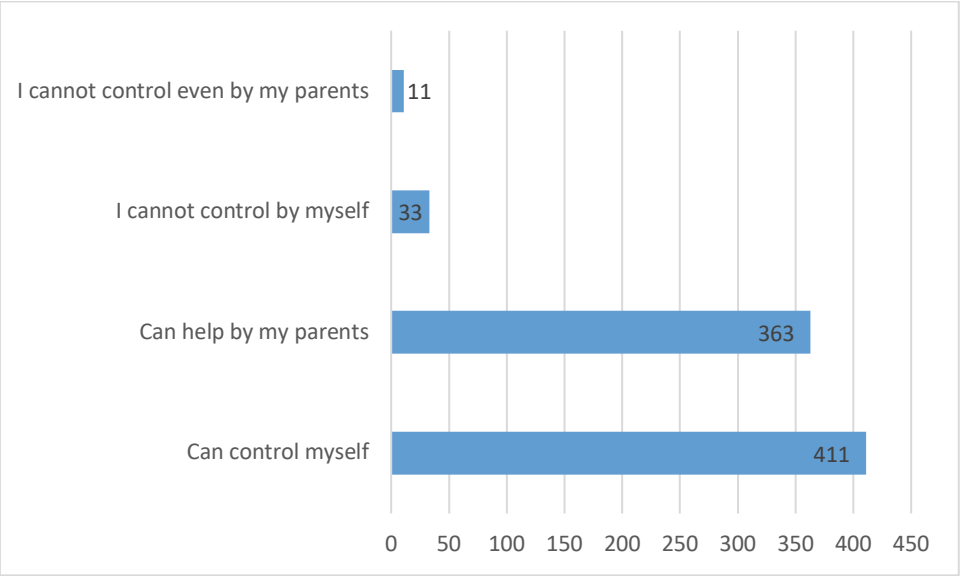
Despite these efforts, the usability and visibility of safety tools remain critical challenges. If parental controls and safety features are difficult to access or understand, they are unlikely to be used effectively. This gap between availability and usability further reinforces PCRs' reliance on direct monitoring and restriction, rather than collaborative or educational approaches.

Consistent with the situation described in privacy, an unsafe online environment prompts PCRs to have more protective desires and this excessive protective desire will affect the physical and mental health of youth to a certain extent and will also bring infringement of freedom and unbalanced supervision to the youth group, which will make youth feel uneasy. In my research, many young people said their PCRs' oversight led to unnecessary arguments and tension. They felt that their PCRs did not grasp their perspectives on gaming or the reasons behind those views, instead blindly assuming that mobile games negatively influenced their daily lives and studies. Such effects become especially noticeable when communication with their PCRs is lacking.

This demonstrates how perceived risk can reshape family dynamics, transforming protective intentions into sources of conflict. When youth feel misunderstood or unfairly restricted, they are more likely to resist or disengage, which in turn reinforces PCRs' concerns and justifies further control. This cyclical pattern illustrates the relational consequences of risk perception in digital parenting.

Youths were asked a series of questions as to their opinions on self-control their mobile gaming behaviour.

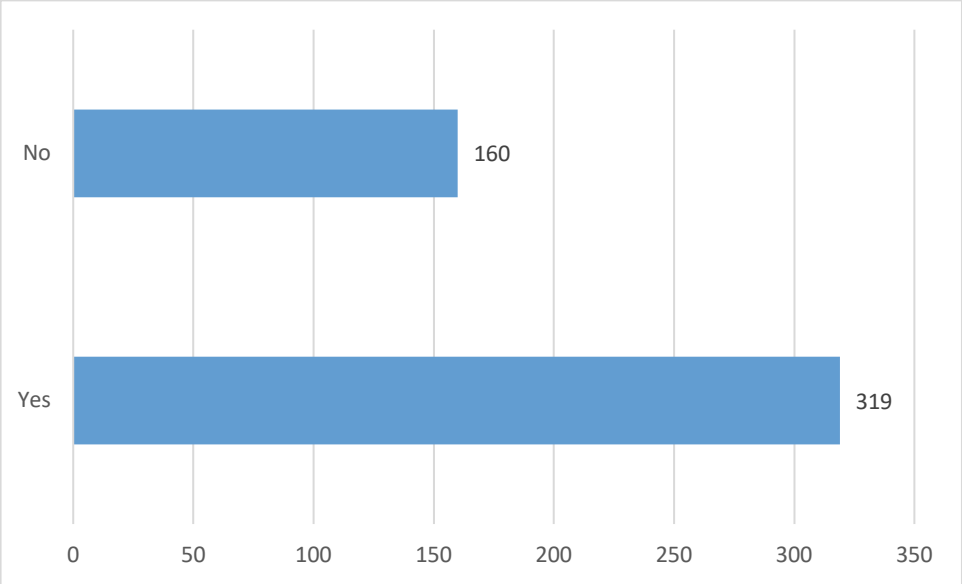
Figure 6.2 Youth's opinions on control on playing mobile games



With the discussion about the opinion from youth about self-control and think back on mobile games, in the survey, I found that many young people believed they could

control their gaming behaviour (Figure 6.2). Although they thought they would want to continue playing games after stopping (*n*=319), they believed they could still control it as much as possible without affecting their daily life or studies (Figure 6.3).

Figure 6.3 Does the youth wish to play previous game or look forward to playing again



This finding suggests a divergence between youth self-perception and parental assumptions. While youth emphasise their capacity for self-regulation, PCRs tend to focus on potential risks and loss of control. This mismatch in perception contributes to disagreements over appropriate levels of supervision and autonomy, highlighting the importance of incorporating youth perspectives into family decision-making processes. Further discuss about the reasons from youth about self-mobile gaming control and parental supervision, they feel parents may reject rather than approve. As one interviewee said:

> "I feel that my PCRs don't understand why I play mobile games, which sometimes makes me feel helpless. Sometimes I really want to communicate with them, let them know why I play mobile games and let them know that I can control myself when playing mobile games, even though such control seems childish to PCRs."
>
> (11-year-old boy)

This account reflects the emotional dimension of the conflict, where youth seek recognition and validation rather than simply freedom. The perceived dismissal of their views can lead to frustration and reduced willingness to engage in open communication, further widening the gap between PCRs and youth.

The cornerstone of effective family collaboration is open communication, which becomes even more crucial in times of crisis or significant life changes, such as illness, loss, or relocation. Supporting each other emotionally, dividing responsibilities and adapting together to new circumstances help the family navigate challenging periods with resilience and unity. Collaborative efforts during crises foster a sense of solidarity that becomes a source of strength for each family member. During my research, I found that the communication among participants is not really open: most of them still prefer to listen to orders from PCRs and decision-making is always made by PCRs, not shared with the youth or elders. Establishing an equal space where every family member feels heard and valued is paramount. Listening to diverse perspectives, encouraging the open expression of thoughts and feelings and cultivating a non-judgmental atmosphere create a foundation for healthy dialogue. Regular family meetings provide a structured platform for these conversations, ensuring that concerns are addressed promptly and constructively.

Such a situation creates a gap between PCRs and youth often attribute these problems to mobile games rather than to self-reflection. Moreover, the shirking of responsibility for problems and the attribution of them to technological development make it difficult for most PCRs to recognise their own deficiencies, leading them to adopt more radical methods to address problems as they arise, thereby exacerbating the problems. This tendency to externalise blame onto technology obscures the relational dimensions of the issue, limiting opportunities for constructive change within the family. By focusing solely on the risks of mobile games, PCRs may overlook the importance of communication, trust, and mutual understanding in shaping youth behaviour.

Building on these challenges, fair treatment and inclusive design in youth mobile gaming are also crucial for creating an equitable and engaging experience for all players. These principles ensure that games are accessible, representative and free from discrimination, fostering a positive environment that respects and celebrates diversity.

Inclusive design is not only a matter of representation but also of participation, ensuring that all players—regardless of age, gender, or ability—can engage in gaming environments without fear of exclusion or harassment. This is particularly important for youth, whose identities and social experiences are still developing.

In addition to fair treatment, representation is another critical aspect of inclusive design. Games with diverse characters and storylines can help promote empathy and understanding among young players. Titles like "*Animal Crossing: New Horizons*" allow players to customise their avatars with various skin tones, hairstyles and clothing options, reflecting various ethnicities and cultural backgrounds. This representation is essential not only for players to see themselves reflected in their games but also for fostering a more inclusive mindset among all players (Clark, 2020).

Fair treatment in mobile gaming also involves avoiding harmful stereotypes and ensuring that all characters are portrayed with depth and authenticity. For example, the game Celeste features a main character who faces mental health challenges and is depicted in a sensitive and realistic manner. Such portrayals can help reduce stigma and encourage a more nuanced understanding of life experience. Of course, this kind of fair treatment not only refers to the fairness that must be maintained during the game development phase, but also to improving the matching mechanism between adult and underage players in the game environment. This is particularly important for several of China's most popular MOBA games. It is precisely because of the imperfect matching mechanism that young people are easily insulted by adult players in the game. This highlights how technical design decisions, such as matchmaking systems, have direct social consequences. Poorly designed systems can unintentionally expose youth to inappropriate interactions, reinforcing the need for age-sensitive design considerations within gaming platforms.

> “Youth should not face discrimination or unfair treatment in mobile games. Game developers should design inclusive games that cater to a diverse audience, considering factors such as gender, ethnicity and ability. Avoiding stereotypes and promoting positive representations is crucial.”
>
> (34 years old, mother of a 9-year-old boy)

This perspective underscores the expectation that developers play an active role in shaping not only gameplay but also social norms within gaming communities.

The inclusion of diverse development teams can significantly enhance the fairness and inclusivity of game design (Tomé Klock et al., 2024). Various perspectives within development teams can lead to more innovative and culturally sensitive game content. Encouraging diversity within the gaming industry is essential to creating games that resonate with a global audience. Diversity at the production level thus becomes a key mechanism for addressing inequality at the user level, linking industry practices with user experiences in meaningful ways.

Regulatory bodies and industry organisations promote fair and inclusive design. The International Game Developers Association (IGDA) sets guidelines for inclusivity across character representation and accessibility features, driving industry improvements (IGDA, 2021). Educational initiatives teach developers the value of diversity through workshops and courses that provide training and essential resources. These institutional efforts demonstrate an increasing recognition of the ethical responsibilities associated with game design, although their impact depends on consistent implementation across the industry.

In light of these industry efforts, fair treatment and inclusive design in youth mobile gaming are essential for creating an environment where all players feel respected and valued. Through accessible design features, diverse representation, the inclusion of varied development perspectives and adherence to industry guidelines, the gaming industry can foster a more inclusive and positive gaming experience for young players. Ultimately, these measures contribute not only to individual well-being but also to healthier digital ecosystems, where positive interactions are encouraged and harmful behaviours are minimised.

> “Youth have the right to a balanced lifestyle, including sufficient time for play, education and physical activity. Game developers should design games that encourage healthy gaming habits, with features such as time limits and break reminders to prevent excessive screen time. As

> a parent, based on the interview, I have strong opinions about how to guide and balance youth gaming behaviour and exercise… Youth have limited self-control and need proper guidance from their PCRs. Electronic products have many other functions besides playing games. If a youth is already addicted to games, I will take him on a trip to reduce his gaming time, divert his attention and help him find sports and interests that he likes. ”
>
> (36 years old, mother of a 9-year-old girl)

This statement reflects an attempt to move beyond restrictive control toward more holistic guidance, where alternative activities and balanced routines are used to support youth development. It illustrates how family practices can evolve toward more constructive forms of engagement, aligning protection with empowerment rather than surveillance alone.

Furthermore, from the interview, participants suggest that several PCRs are confused about the clear line between being a parent and being a friend to their youth. And what is the gap between surveillance and protection for youth? Is it okay to give young people some time to take care of themselves? Because of several questions, PCRs would like to increase their supervision and monitor their youth's behaviour without considering the youth's opinion. This situation leads most youth to feel unfree and uncomfortable; even worse, they have no clear sense of their lives as they grow up.

6.3.4 Mobile games as educational tools

Furthermore, mobile games can sometimes serve as educational tools and youth have the right to access quality educational content. Game developers should create games that contribute positively to youth's learning and development, promoting problem-solving, creativity and critical thinking skills. This perspective reflects a shift from viewing mobile games purely as sources of risk to recognising their potential as developmental resources. In this sense, access to educational content through gaming can be understood as part of youth’s broader digital rights, where participation in digital environments includes opportunities for learning and self-improvement. However, the

extent to which games fulfil this potential depends heavily on design quality, user engagement, and the surrounding support provided by PCRs and educators.

However, Bakhmat and Smorgun (2022) emphasise that youth mobile gaming is emerging as a crucial platform for improving education and development (2022). Educational mobile games can effectively foster cognitive skills, creativity and critical thinking and serve as valuable supplements to conventional teaching methods. Especially during specific periods, such as the pandemic from 2020-2022, online study is the only way to transfer knowledge to students; mobile games can be the best option for schools, PCRs and youth to deliver information more effectively and faster, or to keep students stable (Pereira and Rodrigues 2013). Educational mobile games are designed to engage youth in learning through interactive and enjoyable experiences. They cover a wide range of subjects, including mathematics, science, language arts, history and are often structured to align with educational curricula. For instance, games like *Dragon Box Algebra* and *Endless Alphabet*, playful and engaging methods to teach complex concepts, making learning fun and accessible for youth of different ages. This illustrates how educational gaming became particularly significant during periods of disruption, when traditional learning structures were weakened. In such contexts, mobile games function not only as supplementary tools but also as alternative learning environments, supporting continuity in education and emotional stability. Their interactive nature allows for experiential learning, which can enhance retention and engagement compared to passive instructional methods.

A key advantage of educational mobile games is their capacity to deliver personalised learning experiences. Numerous educational games adapt to learners' pace and present tailored challenges that align with individual needs and progress. These customs and approaches keep learners engaged and motivated, resulting in a more effective learning experience than traditional one-size-fits-all methods. Moreover, mobile games can help develop important life skills such as problem-solving, critical thinking and creativity. Games like *Minecraft*, the education edition encourage youth to think critically and solve problems by building and creating in a virtual world. Such games as *Kingsoft Typing Game* to practice typing skills on a computer foster creativity and innovation, which are invaluable skills in the modern world. Personalisation is particularly important in addressing diverse learning needs, as it allows youth to progress at their

own pace and receive immediate feedback. This aligns with contemporary educational theories that emphasise learner-centred approaches. At the same time, the integration of skill development within gameplay demonstrates how learning can be embedded in meaningful contexts, making knowledge more applicable and transferable to real-life situations.

Mobile educational games can foster cognitive abilities as well as social learning and collaboration. Games designed for multiplayer engagement or featuring cooperative tasks motivate young people to collaborate, exchange ideas and learn together. This type of social interaction boosts communication skills and teamwork, both of which are crucial for success in personal and professional realms. Such collaborative features also mirror real-world social dynamics, allowing youth to practice negotiation, leadership, and collective problem-solving in low-risk environments. These experiences can contribute to the development of social competence, particularly in digitally mediated contexts where teamwork increasingly occurs online.

To fully leverage the educational benefits of mobile games, it is essential to guarantee high-quality, age-appropriate content. PCRs and educators should choose games that provide accurate information and align with educational objectives. Resources such as Common Sense Media provide reviews and ratings of educational games, helping PCRs and educators make well-informed decisions. However, in the eyes of PCRs, some games with educational attributes are essentially games and their purpose is to entertain youth rather than to learn. At the same time, access to academic content through mobile gaming also addresses educational equity by providing learning opportunities to youth who may not have access to traditional educational resources. Mobile devices are widely available and many educational games are either free or low-cost, making them accessible to a broad audience.

This tension between education and entertainment highlights a key limitation of educational games: engagement does not always guarantee learning outcomes. PCRs' scepticism reflects concerns about whether knowledge gained in game contexts can be effectively transferred to academic settings. At the same time, the accessibility of mobile gaming platforms presents a significant opportunity to reduce educational

inequalities, particularly in under-resourced contexts where traditional learning materials may be limited.

> "Although I have found that some learning software has some ways to encourage youth to learn, I think these methods are mainly for entertainment. Although these methods can stimulate the youth's learning enthusiasm and interest to a certain extent, after a period of time, the youth will only remember the game scenes, not the knowledge points."
>
> (36 years old, father of a 9-year-old boy)

This viewpoint underscores a critical challenge in educational game design: balancing engagement with meaningful knowledge acquisition. While games can successfully capture attention and motivate learners, ensuring long-term retention and conceptual understanding requires careful integration of pedagogical principles. Without this balance, educational games risk being perceived as superficial or ineffective by PCRs.

Accessing education and information via youth mobile gaming offers a significant chance to boost learning and development. Educational mobile games deliver engaging, personalised and interactive experiences that can enhance traditional education. By thoughtfully selecting high-quality educational games, PCRs and educators can leverage mobile gaming to cultivate a range of cognitive and social skills in young people. The educational potential of mobile gaming depends on the alignment between design, usage, and support. When combined with active guidance from PCRs and educators, mobile games can move beyond entertainment to become meaningful tools for learning, contributing to a more holistic model of youth development in the digital age.

6.3.5 Definition on balanced gameplay and health

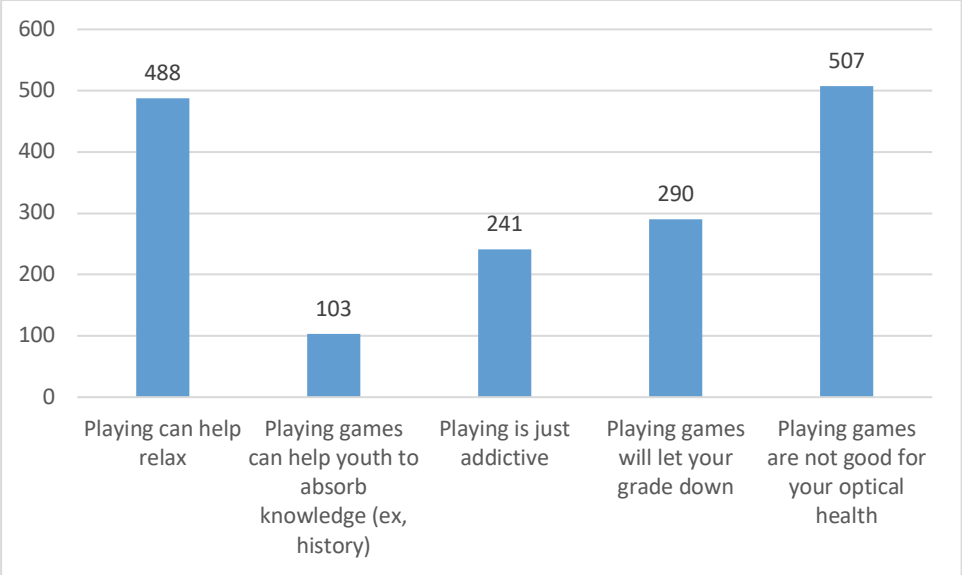
In this final section, I will discuss the different definitions of balanced gameplay and the health and rights of both youth and PCRs. Balanced gameplay and health are critical considerations in youth mobile gaming. Excessive gaming can lead to physical, mental and social health issues, making it essential to promote a balanced approach to gaming.

This notion of "balance" is not fixed but socially constructed, often shaped by cultural expectations, parental values, and institutional discourses. For PCRs, balance is frequently equated with limitation and control, whereas youth may interpret it as the ability to self-regulate while still enjoying gaming. This divergence in definitions further contributes to misunderstandings within families, reinforcing tensions over what constitutes "appropriate" gaming behaviour.

Excessive screen time poses significant risks to physical health, potentially causing problems like eye strain, poor posture and sedentary lifestyles, all of which can lead to obesity and associated health issues. The American Academy of Paediatrics advises PCRs to establish reasonable limits on screen time, including gaming, to foster a healthy mix of activities. It is crucial to promote breaks during gaming sessions and encourage physical activities outside of gaming to safeguard physical health (2016). However, as suggested by youth perspectives, these health concerns are often experienced differently in everyday life. Screen exposure is not limited to gaming but extends to academic activities, particularly in high-pressure educational contexts. This complicates PCRs' tendency to attribute physical health issues solely to gaming, indicating that broader lifestyle patterns must be considered when evaluating health risks.

PCRs were asked a question as to their perceptions of gaming mobile games.

Figure 6.4 The PCRs' opinion about youth playing mobile games



In Figure 6.4, it is clear how Chinese PCRs are concerned about how games affect the optical health of youth, even though the youth claim that playing games may not impact their optical health, but overloaded homework and unhealthy sitting posture are bigger concerns. This contrast highlights a key perceptual gap, where PCRs focus on visible and controllable factors such as gaming, while youth emphasise structural and less controllable pressures such as schooling demands. Such differences in attribution reveal how responsibility for health outcomes is negotiated within the family, often leading to simplified or one-sided explanations:

> "I think the reason for myopia is that I spend up to 3 hours a day in front of my phone or electronic screen, which is much less than the time I spend on homework at school. In addition, we are not supervised or corrected on correct sitting posture at school. These situations are the real reasons for my myopia."
>
> (10-year-old boy)

This statement demonstrates youth's awareness of multiple contributing factors to health issues, challenging the dominant narrative that gaming is the primary cause. It also reflects a degree of reflexivity among youth, who actively interpret and evaluate their own behaviours within broader social contexts.

In the survey of PCRs (Figure 6.5), when asked whether young people spending excessive time on mobile games should be considered a disease, the vast majority of PCRs agreed, whereas the youth did not support the PCRs' view (Figure 6.6). This disagreement further illustrates the divergence in perceptions of risk and control. PCRs' responses are often shaped by precautionary principles, while youth responses are grounded in lived experience and self-assessment. This mismatch contributes to ongoing disputes over regulation and autonomy within the household.

Figure 6.5 PCRs about whether youth spending a lot of time on mobile games should be considered a disease

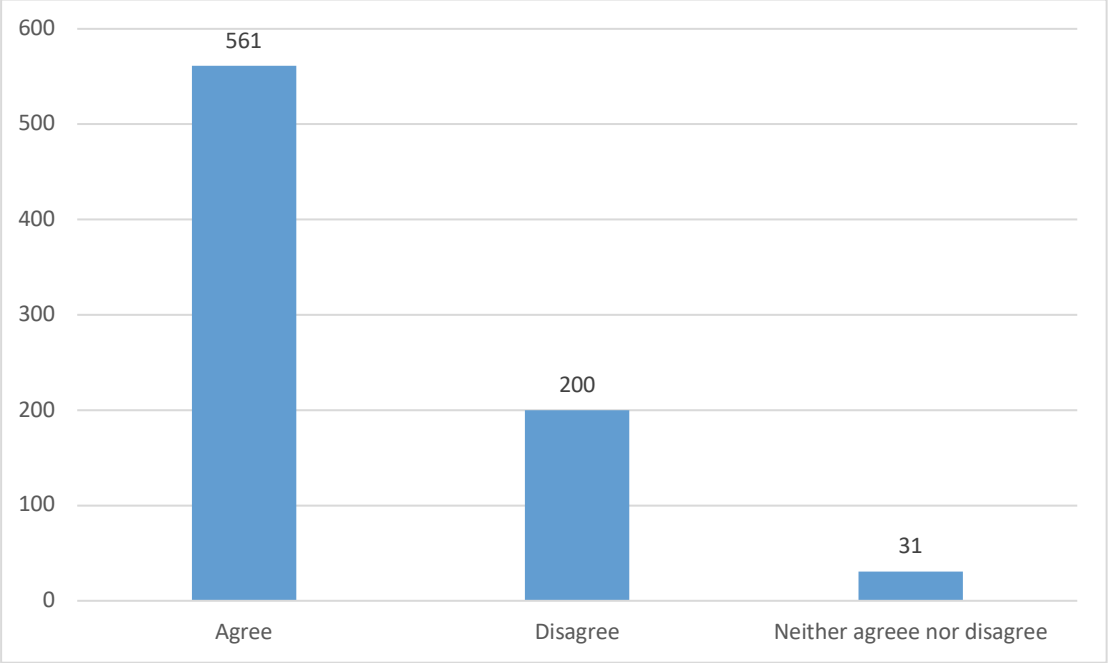
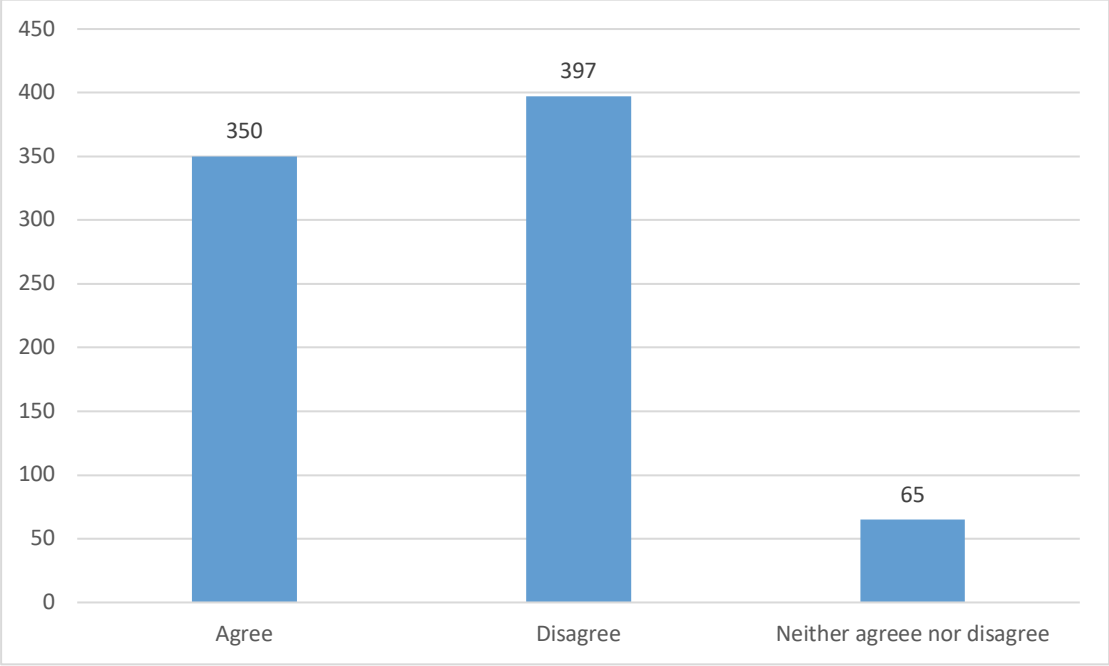


Figure 6.6 Youth about whether youth spending a lot of time on mobile games should be considered a disease



While gaming can have positive effects such as improving cognitive skills and providing entertainment, it can also negatively impact mental health if not managed properly. WHO has recognised gaming disorder as a mental health condition

characterised by impaired control over gaming, increased priority given to gaming over other activities and continued gaming despite negative consequences. To mitigate these risks, games can include features that promote mental well-being, such as reminders to take breaks, tools to track and limit playtime and educational content about healthy gaming habits (WHO, 2018).

The classification of gaming disorder also reflects a medicalisation of excessive gaming, which can influence how PCRs interpret youth behaviour. While this framework can be useful for identifying problematic patterns, it may also contribute to overgeneralisation, where normal gaming behaviour is perceived as pathological, thereby intensifying parental concern.

Balancing gameplay is also vital for maintaining healthy social relationships. Excessive gaming can interfere with family time, friendships and academic responsibilities. Parental involvement is crucial in helping youth balance gaming with other aspects of life. Game developers play a significant role in promoting balanced gameplay and healthy outcomes. Incorporating features that encourage regular breaks, offering parental controls and designing games that do not encourage addictive behaviours are essential practices. For example, the game "*Pokémon GO*" encourages physical activity by requiring players to walk to different locations to capture Pokémon, thereby integrating physical exercise into the gaming experience. This example illustrates how design can actively shape behaviour, demonstrating that balance is not solely an individual responsibility but also a product of technological affordances. Games that integrate physical or social activities can help bridge the gap between digital and offline life, supporting more holistic forms of engagement.

The right to disconnect in youth mobile gaming is crucial to ensuring a balanced, healthy relationship with digital technologies. As gaming becomes an integral part of young people's lives, it is essential to provide mechanisms that encourage and facilitate disconnection, allowing them to spend time away from screens to engage in other activities and maintain overall well-being. Constant connectivity and prolonged gaming sessions can negatively affect physical, mental and social health. WHO has recognised the importance of managing screen time to prevent issues such as digital addiction, eye strain, sleep disturbances and reduced physical activity (2018). Ensuring youth have the

right to disconnection helps mitigate these risks and promotes a healthier lifestyle. Importantly, the right to disconnect reframes the issue from one of restriction to one of empowerment, emphasising youth's ability to manage their own digital engagement. This aligns with broader rights-based approaches that prioritise autonomy alongside protection. Balancing gameplay and health in youth mobile gaming is essential to promoting young players' overall well-being. By setting reasonable limits on screen time, encouraging physical and social activities and implementing responsible game design practices, the gaming industry, PCRs and educators can help ensure that gaming remains a positive and enriching part of youth's lives.

Transparent monetisation practices in youth mobile gaming are crucial for protecting young players and ensuring that PCRs are fully aware of the financial aspects involved in the games their youth play. Young people and their PCRs deserve clear information about in-app purchases and monetisation practices. Developers must explicitly disclose any costs associated with the game and protect youth from being misled or prompted to make unauthorised purchases. With the increasing prevalence of in-app purchases and other monetisation strategies, it is essential that these practices are transparent, fair and well-regulated. By clearly communicating costs, implementing robust parental controls, avoiding predatory practices, educating consumers, offering transparent refund policies and making ethical design choices, the gaming industry can foster trust and promote responsible spending habits among its youngest users.

Game developers must communicate the costs associated with in-app purchases, subscriptions and other forms of monetisation. This includes providing upfront information about potential expenses and ensuring players and their PCRs understand what they are paying for. For example, games like "Fortnite" and "Roblox" clearly display the prices of virtual items and currency, helping users make informed decisions (Clark, 2020). Implementing robust parental controls is essential to prevent unauthorised purchases by youth. Platforms like Apple's App Store offer parental control features that allow PCRs to set spending limits, require parental approval for purchases and monitor spending activity. These tools help ensure PCRs can manage and control their youth's spending within games.

It is crucial to educate both PCRs and youth about the risks and responsibilities associated with in-app purchases. PCRs should be aware of how to use parental controls and discuss with their youth the importance of making informed decisions about spending money on games. Resources and guides from organisations like Common Sense Media can help PCRs understand and manage in-app purchases effectively.

The Anti-Panopticon emphasises that, within a certain period of time, when one party intends to supervise the other, the supervised party will notice the arrival of the supervisor and then behave in accordance with the supervisor's wishes. At the same time, the supervisor will be unaware of this situation and believe that the supervised party can maintain discipline. During this period, the two parties will maintain a relatively stable relationship and build mutual trust. During this period of time, the supervisor will give up supervision of the supervised party within the unit time; But after the unit time, when the supervisor finds that the supervised party violates the supervisor's wishes and does things that the supervisor believes are beyond the line or have broken mutual trust, the relationship between the two will suddenly collapse, directly leading to the deterioration of the relationship between the two and the generation of conflicts. This conceptualisation captures the fragile and dynamic nature of trust within family governance of gaming. It illustrates how apparent compliance may mask underlying resistance, and how sudden breakdowns in trust can escalate conflicts rapidly. In this sense, balanced gameplay is not only about managing time and behaviour but also about sustaining relational stability, where trust, communication, and mutual understanding are continuously negotiated.

6.4 Discussion

The findings of this study reveal that youth mobile gaming is not merely an issue of behaviour regulation, but a complex interaction between youth rights, parental control, digital risk, and family relationships. A central problem identified is the lack of understanding among PCRs regarding both mobile games and youth rights. This lack of understanding extends beyond unfamiliarity with specific games and reflects a broader gap in digital literacy, communication, and awareness of youth as active participants in digital environments. As a result, PCRs tend to interpret mobile gaming

primarily through a risk-oriented perspective, focusing on addiction, academic decline, health concerns, and unsafe online interactions. While these concerns are legitimate, they often lead to an overreliance on restrictive strategies that prioritise control rather than guidance.

Within family contexts, this creates a governance approach that is reactive rather than dialogic. Instead of engaging youth in discussions about their gaming practices, PCRs frequently impose rules unilaterally, limiting opportunities for youth to express their views or develop self-regulation. The findings suggest that youth are not passive recipients of these restrictions; rather, they actively interpret, negotiate, and sometimes resist them. This reflects a fundamental tension between protection and autonomy. PCRs often justify their actions as being in the best interests of youth, particularly in relation to safety and development. However, youth perspectives indicate that this protection is frequently experienced as excessive, especially when their voices are not acknowledged. This imbalance produces a paternalistic dynamic within families, where decisions are made without meaningful consultation, ultimately weakening trust and mutual understanding.

The research further demonstrates that unclear boundaries between protection and surveillance contribute to a cycle of misunderstanding and conflict. Faced with uncertainty about how to manage digital risks, PCRs tend to increase monitoring. However, youth often interpret this monitoring as intrusive, leading to discomfort and resistance. Rather than fostering compliance, increased surveillance encourages concealment. Youth develop strategies to hide their gaming behaviour, particularly when they feel that open communication is ineffective or that their perspectives are dismissed. This behaviour reflects a broader relational pattern in which control generates resistance, and resistance in turn justifies further control. Over time, this feedback loop erodes trust, as PCRs interpret concealment as evidence of problematic behaviour, while youth perceive increased monitoring as unfair and restrictive. The quantitative findings reinforce this interpretation by showing that family intervention is associated with changes across multiple dimensions of youth experience, including personality, daily routines, sense of identity, personal well-being, stress relief, and family harmony. This suggests that parental control is not limited to managing gaming behaviour but has broader implications for youth development and self-perception. At

the same time, family arguments are more strongly associated with emotional and relational dimensions, particularly well-being and stress relief, indicating that conflict around gaming has significant psychological consequences. These findings highlight that mobile gaming is a relational issue within families, shaping communication patterns, emotional dynamics, and perceptions of identity, rather than an isolated activity.

Another key finding is that PCRs' desire for control is strongly influenced by their perception of the online environment as unsafe. PCRs express concerns about privacy, cyberbullying, interaction with strangers, and financial risks associated with in-app purchases. These concerns are intensified by uncertainty and limited understanding of how digital systems operate. For PCRs, the online environment appears unpredictable and difficult to regulate, leading to heightened vigilance. As a result, even ordinary gaming activities may be interpreted as risky, reinforcing restrictive parenting practices. In contrast, youth tend to emphasise the benefits of gaming, such as relaxation, social interaction, and enjoyment. This creates a perceptual gap between PCRs and youth, where the same activity is understood in fundamentally different ways. This mismatch in perception is a key source of conflict, as PCRs focus on potential harm while youth focus on lived experience and personal meaning.

The findings also show that increased monitoring does not necessarily produce better behavioural outcomes. Instead, it often leads to superficial compliance. Youth may adjust their behaviour temporarily when they are aware of being observed but revert to their preferred practices once surveillance is removed. This indicates that control-based strategies fail to promote genuine self-regulation. Over time, the discovery of concealed behaviour can trigger a sudden breakdown of trust, leading PCRs to impose stricter controls and youth to respond with further resistance. This dynamic reflects the Anti-Panopticon process identified in this research. While initial monitoring may appear effective, it ultimately undermines itself by producing concealment and instability. Rather than sustaining discipline, surveillance creates conditions for conflict, highlighting the limitations of control-based family governance. In addition to these relational dynamics, the findings suggest that PCRs often overlook the developmental and educational potential of mobile games. Youth report using games for stress relief, problem-solving, and social engagement, indicating that gaming can serve important

psychological and social functions. However, PCRs frequently remain sceptical of these benefits, viewing games primarily as sources of entertainment rather than as potential learning tools. This scepticism reflects a broader tension between engagement and perceived educational value. As a result, opportunities to integrate gaming into constructive family practices are limited. Instead of becoming a shared activity that facilitates communication, gaming becomes a point of conflict and misunderstanding.

The concept of balanced gameplay further illustrates the divergence between PCR and youth perspectives. PCRs tend to define balance in terms of restriction and limitation, focusing on reducing screen time and preventing harm. In contrast, youth often define balance as the ability to manage gaming alongside other responsibilities without external interference. This difference in interpretation contributes to ongoing disagreements over what constitutes appropriate gaming behaviour. The findings also reveal that PCRs may oversimplify the causes of health issues by attributing them primarily to gaming. At the same time, youth highlight broader factors such as academic workload and overall screen exposure. This indicates that perceptions of risk are shaped not only by actual behaviour but also by underlying assumptions about responsibility and control.

The findings demonstrate that youth mobile gaming should be understood as a relational and rights-based issue rather than solely as a behavioural problem. The lack of understanding of youth rights and digital environments leads PCRs to rely on surveillance and restriction, which in turn generate resistance and weaken family relationships. The Anti-Panopticon framework provides a useful lens for understanding how these dynamics unfold, showing that excessive monitoring can produce concealment and conflict rather than discipline. To address these challenges, a shift in family governance is necessary. Effective management of youth mobile gaming requires moving from control to communication. PCRs need to engage more actively with youth perspectives, recognising their capacity for self-regulation and their need for autonomy. At the same time, youth should be encouraged to take responsibility for their behaviour and participate in decision-making processes. Without this balance, attempts at protection are likely to become overprotection, reinforcing cycles of conflict and mistrust. In conclusion, mobile gaming is not inherently harmful or conflict-prone. Rather, it becomes problematic when embedded within a context of misunderstanding,

unequal power dynamics, and limited communication. By adopting a more balanced approach that integrates protection with respect for youth agency, families can transform mobile gaming from a site of tension into an opportunity for connection, learning, and mutual understanding.

Chapter 7. Discussion and Conclusion

7.1 Overview

Recent policy developments demonstrate that the findings of this thesis extend beyond the Chinese context and contribute to an increasingly important international debate concerning the governance of young people's digital lives. In response to growing concerns regarding youth mental health, online safety, problematic gaming and excessive digital engagement, governments across a number of countries have introduced or proposed legislation to restrict young people's access to digital platforms and online content. Australia's Online Safety Amendment (Social Media Minimum Age) Act 2024, for example, introduced a minimum age requirement for designated social media services, while comparable regulatory initiatives are being debated across Europe, the United Kingdom and North America. These developments reflect a broader shift towards greater state intervention in children's digital environments, recognising that digital platforms have become central contexts for young people's social participation, identity development and emotional well-being. At the same time, contemporary scholarship argues that digital governance should move beyond protection-oriented approaches to balance children's rights to safety with their rights to participation, autonomy and digital inclusion (Helsper et al., 2024). Recent studies further suggest that effective regulation requires shared responsibility among governments, technology companies, schools and families rather than relying solely on legislative restrictions or platform-based age verification mechanisms (Keenan, 2024).

Recent policy developments suggest that concerns regarding children's engagement with digital media have become a global issue rather than one confined to Western countries. Governments across the Asia-Pacific region have increasingly adopted age-based regulatory approaches to reduce young people's exposure to potential online harms, including cyberbullying, harmful content, excessive screen time, and adverse mental health outcomes. Australia has introduced legislation prohibiting children under the age of 16 from accessing social media platforms, reflecting a shift towards stronger state intervention in children's digital lives. Similar developments are evident in Southeast Asia. In Malaysia, the Online Safety Act 2025 and accompanying Child

Protection Code require social media providers to implement age-verification measures and enhanced protections for users under 16. Likewise, Indonesia introduced Government Regulation No. 17 of 2025 (PP TUNAS), which establishes age-appropriate digital services, strengthens parental oversight, and places greater legal responsibility on digital platforms to safeguard users under the age of 18. Collectively, these policy developments illustrate an emerging international consensus that protecting children online requires not only legislative restrictions but also greater collaboration among governments, technology companies, schools, and families. In this context, the findings of the present study reinforce the importance of complementing regulatory interventions with effective parent-child communication and family support, enabling young people to navigate evolving digital environments in ways that promote both their safety and their cognitive and psychosocial development.

The findings of this thesis suggest that legislation alone is unlikely to achieve its intended outcomes unless accompanied by interventions that strengthen communication between young people and parents-caregivers. Rather than viewing young people as passive recipients of regulation, this research demonstrates that parental/caregiver communication, mutual trust and negotiated family relationships are central to how digital policies are interpreted and implemented within everyday family life. This finding is supported by recent evidence showing that parents' digital skills, confidence and perceptions of online risks are stronger predictors of effective parental mediation than restrictive monitoring alone (Helsper et al., 2024). Likewise, longitudinal research has shown that restrictive mediation and adolescents' problematic digital behaviours influence one another over time, suggesting that rules imposed without mutual understanding may have only limited long-term effectiveness (Geurts et al., 2024). Other recent studies have demonstrated that many parents intentionally avoid restrictive monitoring because they wish to preserve trust, support adolescents' autonomy and minimise family conflict (Young et al., 2024), while qualitative research highlights that successful parental mediation depends on family communication, digital literacy and the wider social context rather than parental control alone (García-Ruiz and Gallego-Arrufat, 2024). Similarly, research on Australian families has found that conflicts surrounding digital media frequently arise from competing expectations of trust, independence and parental authority rather than disagreements about technology itself (Page Jeffery, 2024). Collectively, these findings reinforce the central argument

of this thesis that future digital governance should complement legislative measures with family-centred communication support, digital literacy education and parent/caregiver and youth support initiatives. Such an approach is likely to facilitate the implementation of digital policies while reducing intergenerational conflict and promoting young people's responsible digital citizenship, thereby producing more sustainable outcomes than regulation alone.

This thesis investigated the relationship between youth online gaming behaviour and family dynamics in contemporary China, with particular attention to the influence of national regulatory policies such as the Youth Protection Mode. As digital gaming has become an increasingly significant part of young people's daily lives, it has also sparked widespread debate about its potential social and psychological effects. Much of the existing literature has focused primarily on individual behavioural outcomes, such as gaming addiction or psychological well-being. However, relatively little attention has been paid to the broader social environments in which gaming takes place, particularly the role of family relationships and domestic governance.

To address this gap, the present research explored how family functions shape young people's gaming practices and how these family dynamics interact with broader regulatory frameworks. The study adopted a mixed-methods research design that combined quantitative survey data with qualitative interview evidence. The survey collected responses from both young people and adults, enabling the study to capture multiple perspectives on gaming behaviour and family interaction. Qualitative interviews further explored participants' lived experiences and provided a deeper understanding of how gaming practices are negotiated within everyday family life.

The literature reviewed collectively demonstrates that youth mobile gaming is a complex, multidimensional phenomenon situated at the intersection of developmental processes, technological affordances, family dynamics, and broader socio-political structures. Youth, as a transitional life stage characterised by identity formation, autonomy-seeking, and expanding peer relationships (Jones, 2002; Evans, 2008; Gill, 2012), are particularly drawn to mobile gaming environments that offer opportunities for exploration, achievement, and social interaction. Within this context, gaming serves both functional and symbolic roles, supporting cognitive development, problem-

solving skills, and stress relief (Gee, 2003; Bavelier et al., 2012; Chuang and Chen, 2007), while also raising concerns related to excessive use, social withdrawal, and potential behavioural risks (Kuss and Griffiths, 2012; Kim and Haridakis, 2009).

However, the literature increasingly challenges deterministic or pathologising perspectives, arguing that outcomes are contingent upon patterns of use, individual differences, and social contexts rather than gaming itself (Przybylski et al., 2010). This is particularly evident in debates surrounding the concept of "addiction," where clinical definitions emphasise impairment and loss of control (WHO, 2019), yet critical scholars caution against overextending addiction frameworks to normative high-frequency behaviours, suggesting instead that problematic gaming may reflect underlying psychosocial conditions rather than constituting a distinct disorder (Ferguson et al., 2011).

At the family level, gaming emerges as both a source of cohesion and a source of conflict. On the one hand, co-playing practices can strengthen family relationships, enhance communication, and facilitate shared experiences, even enabling forms of "reverse socialisation" in which youth guide PCRs (Coyne et al., 2011; Wang et al., 2018; Chambers, 2012). On the other hand, disagreements over time use, perceived risks, and parental control frequently generate tension, particularly when gaming becomes an individualised activity that reduces face-to-face interaction (Aarsand and Aronsson, 2009). Importantly, the literature suggests that these outcomes are mediated by parenting styles, with autonomy-supportive approaches producing more positive relational outcomes than restrictive or punitive strategies (Livingstone and Helsper, 2008). In some cases, gaming functions as a "safe house" (Bonnaire et al., 2020), offering emotional refuge and alternative social spaces for youth experiencing weak family cohesion, although this compensatory role may simultaneously reinforce disengagement from offline relationships. These dynamics highlight that gaming behaviour is often relationally embedded, reflecting broader family communication patterns rather than acting as an isolated causal factor.

At a macro level, globalisation and technological advancement have transformed mobile gaming into a pervasive global youth culture, supported by widespread smartphone adoption, cross-cultural content exchange, and evolving economic models

such as free-to-play systems and e-sports (Newzoo, 2023; Consalvo, 2017). While these developments expand opportunities for connection and participation, they also introduce challenges related to inequality, cultural sensitivity, and regulatory governance. In response, governments—particularly in China—have implemented anti-addiction policies to restrict gaming time and expenditure. Although such policies seek to protect youth well-being, the literature indicates that they may produce unintended consequences, including behavioural concealment, increased resistance, and heightened family conflict, suggesting that external control mechanisms alone are insufficient to address underlying motivations for gaming (Pan, 2016).

This tension can be further understood through the lens of the Panopticon, where parental monitoring operates as a form of disciplinary power that may encourage self-regulation but also provoke strategic resistance and erode trust when perceived as excessive (Foucault, 1995; Smetana, 2017). Finally, a rights-based perspective, informed by the United Nations Convention on the Rights of the Child, underscores the need to balance protection with youth autonomy, particularly in digital environments where issues of privacy, participation, and well-being intersect. The literature thus reveals a fundamental tension between state regulation, parental authority, and youth agency, forming a triadic governance structure in which gaming practices are continuously negotiated.

Despite extensive research, significant gaps remain, including an overemphasis on medicalised addiction models, limited attention to family relational processes beyond conflict, and insufficient integration of micro-level family dynamics with macro-level policy frameworks. Overall, the literature supports the view that youth mobile gaming should not be understood in isolation, but rather as a socially embedded practice shaped by ongoing negotiations between individuals, families, and institutional structures.

The study's analytical framework was based on six key dimensions of family function: communication, emotional support, behavioural control, role allocation, problem-solving and value transmission. These dimensions provided a structured lens through which to examine the interaction between gaming behaviour and family relationships. At the same time, the research examined how state regulation influences these

interactions, recognising that family governance and institutional policy operate simultaneously to shape youth digital practices.

A critical divergence was identified between the generally positive survey responses and the nuanced criticism found in the interviews. While a majority of participants quantitatively reported higher engagement, qualitative data revealed that this engagement was often perceived as superficial. For example, one interviewee stated, "*I have more surveillance actions for my youth on mobile games, but I am not sure whether it is useful to maintain our relationship*". This divergence is meaningful as it suggests that the survey item "made learning more engaging" may have captured an initial reaction to novelty rather than a deep, cognitive engagement. Therefore, the finding of "increased engagement" must be qualified: the platform succeeded in generating behavioural interaction but may have failed to foster the deeper, cognitive engagement that is the goal of the intervention.

The thesis also contributes methodologically by demonstrating the value of integrating quantitative and qualitative approaches in the study of youth digital culture. The survey data provided a broad empirical overview of gaming behaviours and family relationships, while the interviews offered deeper insight into the lived experiences and negotiations that occur within family life.

This mixed-methods design allowed the research to capture both structural patterns and subjective meanings, producing a more comprehensive understanding of the research topic.

Overall, the thesis aimed to develop a more socially contextualised understanding of youth gaming behaviour by situating it within the interconnected structures of family relationships and regulatory governance.

7.2 Interventions for youth with mobile gaming addiction

Although the use of video games, a hobby for many young people in their leisure time, has brought with it a new potential for concerns as gaming disorder, it may include the use of video games, both online and offline. Consequences of gaming disorder may include introversion, social anxiety, mood swings, loneliness, sleep problems, behavioural problems, depression, low self-esteem and increased violence.

In the contemporary digital landscape, PCRs believe mobile games can help them find peace, relax and even manage their bad moods. Youth mobile gaming is a dynamic force shaping adolescents' emotional well-being worldwide. With the ubiquity of smartphones and the proliferation of gaming apps, youth believe mobile gaming has transcended mere entertainment to become a powerful medium for fostering emotional resilience, social connectedness and cognitive development. At its core, mobile gaming serves as a conduit for self-expression, exploration and mastery, offering youth a platform to navigate virtual worlds, confront challenges and realise their potential (Ryan et al., 2006). Through immersive gameplay experiences, youth can cultivate essential skills such as problem-solving, strategic thinking and creativity, thereby enhancing their sense of competence, autonomy and self-worth. Moreover, mobile gaming fosters a sense of belonging and community, with multiplayer games enabling youth to collaborate, communicate and forge meaningful relationships with peers across geographical boundaries (Kowert et al., 2014). By participating in shared experiences and cooperative endeavours, youth cultivate empathy, cooperation and mutual support, thereby bolstering their emotional resilience and social skills. Furthermore, mobile gaming serves as a potent tool for stress relief and relaxation, offering youth a reprieve from the pressures and anxieties of everyday life (Raj et al., 2024). Whether through immersive narratives, engaging puzzles, or competitive challenges, gaming provides a sanctuary where youth can unwind, recharge and rejuvenate their spirits. In essence, youth mobile gaming emerges as a multifaceted phenomenon that not only entertains but also empowers, enriches and uplifts the emotional well-being of today's adolescents.

Currently, pharmacological and non-pharmacological interventions (NPIs) are the existing treatments for internet addiction. In contrast to NPIs, pharmacological treatments for internet addiction (Dai et al., 2017), such as sertraline and buspirone, have limited efficacy and are likely to have side effects and complications (Dongerkery, 2017).

At present, the neurobiological and pharmacological work on addiction allows us to remove the emphasis on substance use and include behavioural activities as well as to acknowledge the powerful behavioural dimension of substance addiction. The study of behavioural addictions, meaning syndromes analogous to substance addiction but with a behavioural focus other than ingestion of a psychoactive substance, is driving a new wave of research and revising how scientists and clinicians think about addiction. Several behaviours, besides psychoactive substance ingestion, produce short-term rewards that may engender persistent behaviour, despite knowledge of adverse consequences (Grant et al., 2010).

The Non-pharmacological interventions (NPIs) included group counselling, cognitive behavioural therapy, sports intervention, combined interventions, eHealth, educational intervention, positive psychology intervention, sand play intervention and electrotherapy. Winkler et al. (2013, p. 317) concluded that "effect sizes were high, robust and maintained over follow-up" for both psychological and pharmacological treatments for internet addiction (both gaming and non-gaming internet activities), although they caution that these results should be considered preliminary. Raising awareness about the potential risks and consequences of mobile gaming addiction is crucial. Educational programmes in schools and communities can help individuals, PCRs and educators understand the signs of addiction and promote responsible gaming habits.

Successful educational interventions typically involve theoretical planning (Robinson et al., 2021). The use of behaviour change models/theories may help in recognising the factors affecting behaviour change and facilitating successful intervention (Sleet and Gielen, 2015). The transtheoretical model (TTM) is widely employed (Tseng et al., 2017) and focuses on explaining how to change behaviour over time (Prochaska and Velicer, 1997). This model has many applications for behavioural change, including

physical activity, smoking cessation, alcohol withdrawal and IGD among adolescents, youth and adults (Lee and Park, 2004).

Family is significant to the growth and development of youth and adolescents, providing emotional connections and behavioural constraints (Liu et al., 2015). Furthermore, PCRs play a vital role in mitigating mobile gaming addiction among youths. Monitoring and setting limits on screen time, encouraging alternative activities and fostering open communication can help create a healthy balance between gaming and other aspects of life.

Open communication is the key to a healthy family relationship. When unhappiness results from a member's actions, addressing it honestly is essential, though difficult. Honesty, empathy and a desire for common ground are vital. Furthermore, communication is the cornerstone of any healthy relationship and in family relationships, addressing concerns openly and constructively is crucial. Suppose someone is personally unhappy with a family member's behaviour; it is essential to approach the situation with honesty and a genuine desire for resolution. Initiating a conversation about feelings requires a thoughtful and strategic approach. Choosing an appropriate time and setting is crucial to ensure a timely exchange. Selecting a calm moment sets the stage for a more receptive and focused discussion. Some youth would like to start the conversation by expressing their emotions using "I" statements, which can help prevent the other person from feeling attacked or defensive. For instance, youth might begin with, "I've been feeling unhappy about a certain behaviour and I wanted to talk to you about it." Moreover, young people learn such communication skills and methods from their PCRs. Most PCRs have asked them this question, so they hope to improve their communication with their PCRs.

It's important to emphasise that the purpose of the conversation is not to assign blame but rather to foster understanding and seek solutions collaboratively. Acknowledge that everyone has their perspective and by creating a safe space for open dialogue, each family member can find a way to engage in a more constructive exchange of thoughts and feelings. A family that communicates openly about unhappiness creates a supportive environment defined by trust, empathy and unconditional love. Knowing they can share without fear encourages members to seek help when needed.

A supportive family environment benefits not only individuals but also the family as a whole. It sets the stage for healthy, honest discussions, making it easier to address problems, conflicts and misunderstandings. This can prevent issues from festering and escalating, leading to a more harmonious family life.

Of course, sometimes PCRs will make only broad accusations rather than point out the significant impact in specific situations. This behaviour will not only fail to help the other party understand the point of view more clearly but also make it impossible for both parties to discuss and find practical solutions in a focused manner. Although some PCRs find it difficult to identify more serious problems with youth during the survey, they would rather blame the youth when they find problems, explain the situation and what PCRs expect the youth to do. However, youth are more likely to believe that PCRs lack understanding of the current stage of their group and use the experience of PCRs at the same stage to provide advice to youth, which is no longer of reference value in the eyes of youth; consider the other party's point of view and be willing to understand their feelings and motivations. Cultivating empathy can foster a more collaborative atmosphere in which both parties work to solve problems rather than engage in aggressive exchanges.

Suggesting ways to improve the relationship is a proactive step towards finding common ground. Propose specific actions or changes that could positively impact the situation. For example, if the issue revolves around communication, suggest regular family meetings to discuss concerns openly and find collective solutions. If the problem is more personal, such as respecting personal boundaries, propose guidelines that both parties can agree on. Flexibility and a willingness to compromise are critical aspects of effective conflict resolution. Acknowledge that finding common ground may require adjustments from both parties. Be receptive to the other person's suggestions and work together to find the middle ground that accommodates both of your needs. Setting realistic expectations is also crucial. Change takes time and both parties may need to make a conscious effort to implement new behaviours. Patience and persistence are virtues in navigating these situations. Celebrate small victories and progress and support each other's efforts to improve the relationship.

Ultimately, addressing unhappiness with a family member's behaviour requires a delicate balance of honesty, empathy and a commitment to finding constructive solutions. By fostering open communication, understanding each other's perspectives and working collaboratively towards positive change, strengthening the family bonds and creating a more harmonious and fulfilling relationship are necessary for working on each family member. Family dynamics are complex; navigating them requires effort, patience and a genuine desire for mutual understanding and growth.

Parenting styles, familial relationships and familial functioning are all vital considerations for adolescent behaviours such as internet addiction. Adolescents who do not receive adequate attention and support from their PCRs are more likely to develop psychological problems, which may lead to them using the Internet excessively to escape negative feelings about their home situations. A lower risk of developing internet addiction was linked to good family functioning (Yu and Shek, 2013); thus, family factors may be crucial internet addiction intervention targets.

The development of new technologies frequently brings new challenges for maintaining, enhancing and recovering mental health and well-being, but they also open up the possibility of new, successful interventions. Digital-based intervention is one of the most promising interventions in digital (internet, smartphone, computer, tablets, etc.) addictions.

“Digital-based” refers to those cutting-edge solutions that use digital platforms to provide assessment, prevention and intervention. Approaches such as web-based tools, mobile applications, wearables and virtual reality platforms effectively evaluate and treat a wide range of mental health disorders, particularly depression, anxiety and substance and behavioural addiction (Ebert et al., 2015). For example, Chau and other researchers implemented a Wise IT-use program (combined online training and offline workshop) among 7–13-year-old adolescent youth and found that in 2-month follow-up assessments, internet gaming addiction symptoms and the percentage of students at risk for the condition decreased after the program (2019). This program was designed based on three fundamental components: assimilation, interaction and reflection. First, the learning principles and materials on safe and healthy online behaviours were created to be “injected” or assimilated into games for the assimilation component so that players

learn while immersed in the games. Second, through the play-based activities incorporated into the learning sessions, students were encouraged to interact with and learn from one another as part of the interaction component. Third, the program made sure that students would be led by facilitators through a variety of activities that required them to reflect on their prior online experiences for the reflection part of the curriculum. Deep learning and knowledge retention are made possible by such engagement and reflection.

Developers and device manufacturers can implement features that allow users to set time limits on gaming sessions. Parental control tools can empower PCRs to monitor and manage their youth's gaming activities, ensuring responsible usage.

7.2 Summary of key findings

The findings of the thesis – across multiple quantitative and qualitative datasets – deepens the understanding of the three main research questions (RQs):

(i) What are the problems, if any, of young people's online mobile gaming behaviours and parental and state interventions in China?
(ii) What are the reasons for problems, if any and how are family relationships affected?
(iii) What are the potential solutions, if any are required, to promote better family relationships and an appropriate level of intervention in young people's gaming?

The findings of this research demonstrate that youth gaming behaviour is closely embedded in family dynamics rather than being solely an individual activity.

For RQ (i), I found significant differences between the youth and PCR in their gaming or non-gaming experience, and in their perceptions of personal importance, knowledge of policy, the situation, arguments, concealment, parental supervision and control, and test control. From the interview dataset, I recognise a specific relationship between the youth's gaming experience and their parents'. According to the Family Function Theory,

it is clear that youth and PCRs have a complicated relationship with the use of mobile phones and playing mobile games.

For the RQ (ii), in survey data, I realised that opinions such as social needs, purpose of accomplishment claimed from mobile games, the different opinion on adolescent behaviour and ineffective family communication skills and method make the relationships complicated; from the interview datasets, we extricate that the negligence of parents and society play a crucial role and how it can affect the youth mobile gaming behaviour, then further impact the family relationship around communication, engagement, and potential family balance.

From RQ (iii), as solutions, I suggest that PCRs should understand the policy better, start communicating with their youth, and try to understand their opinions by increasing family activities and encouraging the youth's experiences. Understanding rights and duties and providing more space for family members will be better for family relationships.

There are several topics that should be noticed. First, family communication emerged as a central factor shaping gaming behaviour. Families characterised by open and frequent communication about gaming were more likely to establish mutually understood rules regarding gaming time and content. In these contexts, conflicts surrounding gaming were generally less intense and young people expressed greater willingness to comply with parental expectations. This finding highlights the importance of dialogue and negotiation within family governance.

Second, family emotional support was found to influence how young people engage with gaming. Participants who reported higher levels of parental emotional support were less likely to rely on gaming as a primary source of emotional coping. Conversely, weaker emotional support was associated with greater gaming engagement, suggesting that digital gaming may serve as an alternative emotional space when familial support is limited.

Third, the behavioural control dimension revealed significant variation in parental regulatory strategies. Some families relied heavily on strict monitoring and time

restrictions, while others adopted more flexible approaches that emphasised negotiation and trust. The findings indicate that rigid forms of control may encourage concealment or resistance among young people, whereas balanced approaches combining supervision with communication appear to foster more cooperative behaviours.

Fourth, gender differences were observed in both gaming practices and parental supervision. Male participants generally reported longer gaming durations and greater autonomy in gaming activities, while female participants often experienced closer parental monitoring. These patterns suggest that gender norms within families may influence expectations surrounding leisure activities and digital engagement.

Finally, the study highlighted the role of national gaming regulations in shaping family governance. Policies such as the Youth Protection Mode provide an institutional framework for limiting minors' gaming time. However, the findings demonstrate that the practical implementation of these regulations largely depends on family interpretation and enforcement. In many cases, state regulation functions as a supportive mechanism that reinforces parental authority rather than replacing it.

Together, these findings illustrate that gaming behaviour is shaped by ongoing interactions among individual agency, family relationships and institutional regulation.

7.3 Original contribution to knowledge

This thesis makes several original contributions to the study of youth digital culture and family sociology.

First, the research extends Family Function Theory into the domain of digital gaming. While gaming has often been framed within psychological and behavioural paradigms (Griffiths, 2010; Kowert and Quandt, 2020), this study demonstrates that gaming practices are embedded within family systems. Drawing on the McMaster model (Epstein et al., 1978), the six-dimensional framework (problem-solving, communication, roles, affective responsiveness, affective involvement, and behaviour control) provides a structured lens to examine how family dynamics shape youth digital

engagement. This responds to calls within family sociology to better integrate digital practices into analyses of everyday family functioning (Livingstone and Helsper, 2008).

Second, the thesis contributes to the literature on digital governance by examining the interaction between state regulation and family authority. Existing research on Chinese gaming regulation highlights the strength of state intervention (Feng et al., 2021) yet often under-theorises how such policies are enacted in everyday life. This study shows that families act as interpretive agents, translating regulatory frameworks into lived practices through parental mediation strategies (Livingstone and Helsper, 2008). In doing so, it aligns with broader governance scholarship that emphasises the role of "soft" regulatory mechanisms and intermediary actors in shaping behavioural outcomes.

Third, the research introduces a relational perspective on youth digital practices that emphasises negotiation and agency. Rather than viewing young people as passive subjects of regulation, the study demonstrates how they actively interpret, adapt to and sometimes circumvent gaming restrictions. This finding can be further illuminated through engagement with panopticon literature, particularly Foucault's (1977) conceptualisation of disciplinary power, where surveillance operates not only through direct control but through the internalisation of monitoring. In the context of youth gaming, parental controls, state regulations, and platform governance can be understood as forming a diffuse "digital panopticon," in which young people are aware of being potentially observed and thus adjust their behaviours accordingly. However, consistent with critiques and extensions of panoptic theory (Lyon, 2007), the findings suggest that surveillance is neither total nor unidirectional. Instead, young people engage in what might be conceptualised as "anti-panoptic" practices—strategic compliance, selective visibility, and technological workarounds—that disrupt the assumed asymmetry of power.

Moreover, this relational dynamic resonates with contemporary reworkings of panopticons that emphasise negotiation, resistance, and mutual visibility within digital environments. For instance, rather than simply being objects of surveillance, youth may also monitor parental expectations, conceal certain practices, or exploit gaps in regulatory systems, thereby reshaping the power relations embedded in family and state interventions. This aligns with a more networked understanding of surveillance, where

power is distributed across actors and technologies rather than located solely within authoritative institutions. Consequently, the study contributes to panopticon literature by demonstrating how disciplinary power in digital gaming contexts is continuously reconstituted through everyday family interactions, highlighting the co-production of regulation, resistance, and agency. This perspective challenges simplistic narratives of digital control and highlights the dynamic interactions between young people, families and regulatory systems.

Fourth, the study contributes empirical evidence to debates on digital culture in contemporary China by providing detailed insights into how national gaming policies are experienced within everyday family life. In doing so, the research bridges the gap between macro-level policy analysis and micro-level family practices.

7.4 Conceptual synthesis: family–state co-governance of youth gaming

A key theoretical insight emerging from this research is that youth gaming behaviour is governed by a dual regulatory structure comprising both family authority and institutional policy.

At the macro level, the state establishes formal regulations designed to protect young people from excessive gaming, often justified through discourses of risk, wellbeing, and moral development (Livingstone and Helsper, 2008; Montag and Diefenbach, 2018). In contexts such as China, these interventions have taken highly structured forms, including playtime restrictions, identity verification systems, and platform accountability mechanisms, reflecting what has been described as a model of state-mediated digital paternalism (Kowert and Quandt, 2020; Feng et al., 2021). However, as Livingstone (2009) argues, policy frameworks alone cannot determine youth's digital practices; instead, their effects are mediated through the social environments in which young people are embedded.

At the micro level, families interpret and implement these regulations through everyday parenting practices. Studies distinguish between restrictive mediation, active mediation,

and co-use, each producing different outcomes for youth's autonomy, risk perception, and digital skills (Livingstone and Helsper, 2008; Nikken and Jansz, 2014). Importantly, parenting practices are not merely extensions of state authority but are shaped by family dynamics, cultural expectations, and resource constraints. This reflects the insights of family systems theory, where regulation is embedded within patterns of communication, emotional bonding, and role negotiation rather than imposed unilaterally. Consequently, PCRs may reinterpret, soften, or intensify state rules depending on their own beliefs and relational contexts.

Young people, meanwhile, navigate these overlapping forms of control through negotiation, adaptation and sometimes resistance. Consistent with research on youth agency in digital environments (Ito et al., 2010), they do not simply comply with regulatory frameworks but actively engage with them—finding loopholes, negotiating screen time, or strategically complying to maintain autonomy. This highlights that governance is not a one-way process but a relational field of interaction, where authority is continuously contested and reconfigured.

This interaction can be conceptualised as a family–state co-governance model of youth digital behaviour, in which regulatory authority is distributed across multiple social actors. Within this model, the effectiveness of gaming regulation depends not only on policy design but also on the quality of family communication, emotional relationships and household governance practices. Empirical studies suggest that supportive family environments and open communication are more strongly associated with healthy digital behaviours than purely restrictive controls (Nikken and Schols, 2015).

By conceptualising gaming regulation as a relational and multi-layered process, the thesis provides a framework for understanding how digital behaviour is shaped by both institutional structures and everyday social interactions.

7.5 Policy and practical implications

The findings of this research have several implications for policymakers, educators and families.

For policymakers, the study suggests that regulatory interventions should recognise the central role of families in mediating youth gaming behaviour. Policies may therefore benefit from incorporating family education initiatives that support PCRs in developing effective communication and supervision strategies. The local authority should relax specific time restrictions on mobile games and develop and implement educational programs to raise awareness about the potential risks of mobile game addiction. Working with schools can integrate digital literacy and responsible gaming education into the curriculum and providing resources and support for PCRs will help them understand the signs of addiction and strategies for managing their youth's gaming habits. The government should encourage developers to create parenting workshops or online resources on responsible gaming, invest in research to better understand the impact of mobile game addiction on young people's mental health and use data collection to identify trends and patterns related to gaming habits and addiction. Developing and funding programmes that provide counselling and support for individuals and families affected by mobile game addiction and collaborating with mental health professionals to offer resources and treatment options for those struggling with addiction would also help address the problems. It is important for the government to collaborate with various stakeholders to develop a comprehensive, sustainable approach to address mobile game addiction among young people, balancing the promotion of healthy gaming habits with the protection of their well-being.

For families, the findings highlight the importance of balanced approaches to gaming governance. Rather than relying solely on strict restrictions, PCRs may achieve more positive outcomes through open communication and collaborative rule-setting. Such strategies can help reduce conflict and encourage responsible gaming habits. PCRs should take the initiative to understand the content of policies for youth, actively communicate with them on mobile phones, computers and other electronic devices, encouraging youth not to use their PCRs' identity information for game authentication, which will relatively increase the youth's extracurricular activities. When problems arise, PCRs should choose communication over coercive measures and teach young people about the importance of self-gaming control, including taking breaks and understanding the impact of excessive screen time. PCRs should also model healthy device use by managing screen time and engaging in non-screen activities.

For educators and community organisations, the research emphasises the need to view gaming as a socially embedded activity rather than simply a behavioural problem. Educational programmes focusing on digital literacy and responsible gaming practices may provide valuable support for both young people and PCRs. Schools can strengthen parent contact, install wireless base stations within the school and emphasise the issue of mobile games with PCRs before the holidays. Maintaining open communication with PCRs about students' digital habits and working together to establish healthy screen-time guidelines would also be an effective strategy.

7.6 Limitations and future recommendations

Despite its contributions, the study has several limitations. The reliance on self-reported data introduces the possibility of reporting bias, as participants may underreport behaviours perceived as socially undesirable. In addition, the research is situated within China's specific cultural and regulatory context, which may limit the direct generalisability of the findings to other national settings. Furthermore, the cross-sectional nature of the survey data limits the ability to examine changes in gaming behaviour and family relationships over time. Ethical concerns arise when manipulating gaming exposure, as increasing or restricting playtime may negatively affect youth's well-being or limit their autonomy. The controlled nature of an RCT (Randomised Control Trial) also reduces ecological validity, since gaming practices are embedded in everyday family interactions that cannot be fully replicated in experimental settings. Issues of compliance are likely, as youth may circumvent imposed conditions through concealment or alternative accounts, weakening internal validity. In addition, many important outcomes—such as family harmony, trust, and identity—are difficult to measure objectively and often rely on self-report data. RCTs are also constrained temporally: short-term designs cannot capture long-term developmental or relational effects, while long-term studies face attrition challenges. Furthermore, findings may have limited generalisability across different cultural and policy contexts, particularly where governance systems differ. Finally, macro-level outcomes, such as attitudes toward regulation or broader social norms, are difficult to isolate within an experimental framework.

Future research could expand on this study's findings by conducting longitudinal investigations into the evolving relationship between gaming behaviour and family dynamics. Comparative studies across different cultural contexts would also provide valuable insight into how variations in family structures and regulatory frameworks influence youth digital practices. It also should adopt more flexible and context-sensitive designs to address these limitations. Longitudinal and mixed-method RCTs are recommended to capture both short- and long-term effects while integrating quantitative trends with qualitative insights. Rather than directly manipulating gaming time, studies should focus on intervention-based approaches, such as parental mediation strategies or digital literacy programmes, which are more ethically appropriate and theoretically meaningful. Multi-level analytical frameworks should also be employed to examine interactions across individual, family, and policy levels. To improve measurement validity, researchers should combine self-reported data with objective behavioural indicators, such as screen-time records. Embedding qualitative methods, including interviews or diaries, can further explain how and why behavioural changes occur within families. Cross-cultural comparative studies are also important to account for differences in regulatory environments. Finally, adaptive behaviours such as concealment should be treated as meaningful outcomes rather than methodological problems, offering deeper insight into youth agency and family dynamics.

Additionally, further research could explore the perspectives of other stakeholders, including educators, policymakers and game developers, in order to better understand the broader ecosystem surrounding youth gaming regulation.

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Appendices

Appendix I -- Ethics Application

University of Glasgow

College of Social Sciences

College Research Ethics Committee for Non-Clinical Research involving Human Participants/Data

Staff and Postgraduate Research Students: Application Form for ethical approval

Before completing this form, refer to the guidance notes available at College ethics information and Ethics Information for Applicants. Completed, typed forms (with supporting documents) should be submitted electronically via the Research Ethics System. Submit applications **at least 6 weeks in advance** of the intended data collection start date, allowing time for applications to be reviewed and any recommended amendments to be made.

Applications requiring PVG Clearance/permissions to access participants will not be approved until evidence of this is received by Ethics Administrator. Guidance is available at PVG Guidance.

Staff Research Project ☐

Staff Scholarship of Teaching and Learning Project ☐

Postgraduate Student Research Project ☒

Name of Applicant Dajun Wang

Student ID/Staff Number xxxxxxx

School and Subject (Cluster/RKT group) Urban Studies

PGR Programme Title (Where applicable) PhD in Urban Studies

Project Title Family and state intervention in young people's gaming behaviours and its effect on family relationships

Data Collection Start Date 16/01/2023

Proposed Project End Date 30/06/2024

Is this application being submitted to another ethics committee, or has it been previously submitted to another ethics committee?

Yes ☐ No ☒

Is the research subject to external funding? (i.e. a sponsor or funding body)

Yes ☐ No ☒

Does the research involve using networked or electronic data such as internet platforms, apps, social media, secondary data, Big Data?

Yes ☐ No ☒

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1 Description of project Give a brief description of the project.

Chinese media metaphorically frame online games as internet opium or electronic heroin, especially for young people who are more vulnerable (Jiang and Leung, 2012). The reason for this definition is similar to the potential harms of drugs, smoking and alcohol abuse (Weinberg, 2002; Levine 1978).

The Chinese government launched a mandatory online game anti-addiction system in August 2021, targeting the age group under 18. The system monitors and will send reminders if a player's game time is close to three hours per week. If they play for more than three hours, the system will continue to warn gamers not to continue playing. At the same time, within three to five hours, any gains in the gameplay (including experience points, treasure drop rates, honour points and reputation points) will drop by 50% and be wholly lost after five hours. Each player's account must also go through a cumulative interval of five hours of offline time before being re-activated. Such interventions from the government in young people's online gaming were controversial and some PCRs in China are concerned that the measures are not necessarily strict enough.

PCRs can try to contact young people at any time, or they can try to consult their digital footprint (Boyd and Hargittai, 2013). In Lachance's (2019) interview with 16 French youth, he emphasised how youth can change their behaviour to adapt to their parent's behaviour. At the same time, in the current online world, such as some applications, youth protection models, or parental control have emerged for young people.

Furthermore, some media companies focus on adolescence, such as YouTube, by creating YouTube Kids, mainly designed for kids below 12. However, due to the different countries' definitions of the age of young people and the different perspectives of PCRs, it is hard to explain what a kids' mode of the social platform is valid.

China's model is proposed to balance the young people's playtime and the condition of control and intervention. At the same time, the insights from this study can provide suggestions and

new perspectives on developing healthy family relationships around young people's gaming behaviours.

Therefore, in view of China's online game anti-addition system for young people, this research will examine the response of both adolescents and their family members, the potential use of surveillance methods by PCRs to monitor and how to better optimize this system to balance the relationship between PCRs and their youth and between family and the government and enterprises.

! Application will be returned if Ethical Risks section is incomplete !

PGR Applications – **Supervisors** must complete and sign this section, approving submission for ethical review.

2 Ethical Risks Comment on any potential research ethics risks involved in the project and any steps taken to mitigate these risks. Risk Guidance Document is available at Ethics Forms

The ethical risks have been considered and addressed appropriately and sensitively by the student, especially regarding researching on young people at age 9-12 as well as conducting research in China.

For participant recruitment, the advert and documentation will be written in plain Chinese in order to inform potential participants about the nature of the research and Dajun will appeal directly to the young people (who would then need parental / adult permission to participate) and PCRs.

Recruitment of all participants will take place at three schools and the recruitment of study subjects will be approved by the school administrator prior to the notification sent by the school to youth and their PCRs (The approval letter will be presented to the committee before the beginning of the fieldwork, once approval is granted). When participants get in contact, they will be informed of the voluntary character of their participation and their right to withdraw at any point in the process. Participants will also be given an information sheet with details of the project and the supervisor's contact details. Young people aged 9-12 will be recruited with the consent of their PCRs and their names will be reflected in the thesis in an anonymous form.

All fieldwork will be conducted online at a place of their choice based on their needs. Qualtrics, an online survey platform recommended and hosted by the University, will be used as the platform to collect quantitative data. All recorded information will be anonymised in the research output and confidential information(e.g., names) will not be disclosed.

Participation in the interview will be completely voluntary and initiated by the participants. Interviews will be conducted on a one-to-one basis. They will be conducted in Chinese and audio and visual data will be recorded. For transcription and coding, Dajun will initially do the interviews and coding in Chinese, then translate into English language (for transparency). Participants will be fully informed about the research purpose and data collection process. They can also opt out of the interview at any time and their data will no longer be used in any way.

As a part of the research, young people aged between 9 and 12 will be asked to take part in the research. Also, as a vulnerable group, they will be allowed to participate in the study only with parental knowledge and approval. PCRs will note that a pseudonym will replace the youth's name during the fieldwork. Regarding the youth's consent form, he will need dual signatures from both PCRs and youth to confirm that the PCRs understand the study and agree to their child's participation and that the young people are giving informed consent themselves. The participation information sheet and consent forms have been produced in a child-friendly plain language for young people. During the interviews, especially for youth, Dajun will use simple language structures to help young people fully understand various materials and get the best data. After the paper is submitted, all collected data will be backed up.

X xxxxxx

X 23/11/2022

3 Names of Researchers/Supervisors

3.1 All Researchers including research assistants and transcribers where appropriate

Title	First and Surname	Telephone	Email (usually UofG)
	DAJUN WANG		d.wang.5@research.gla.ac.uk

3.2 All Supervisors Principal Supervisor first where applicable

First and Surname	Telephone	Email (usually UofG)
Mark Wong		Mark.Wong@glasgow.ac.uk
Christopher Hand		christopher.hand@glasgow.ac.uk

4 Justification for the research

Why is this research **significant** to the wider community? What might be the **impact** on your practice or on the practice of others? How will the *possible **benefits** to researchers, participants and others, realised from the project justify any risks or discomfort involved?*

Despite the emergence of these measures to protect young people's online safety, the potential tensive relationship between young people and their PCRs also needs to be considered under these models. How can family relations be improved during the implementation of these protection mechanisms?

The whole project is to explore the anti-addiction policy intervention on youth online gaming behaviour in the context of China. In the transparent or semi-transparent monitoring of PCRs, what problems exist in the relationship between youth and PCRs and which aspects should be improved? In the future, PCRs can use the software's youth protection mode to protect and supervise their youth, while at the same time balancing family relationships.

5 Research Methodology and Data Collection

5.1 Method of data collection You are **required to provide** *indicative themes/questions in separate documents, in sufficient detail to present a clear view of the project and its ethical implications.*

Select all that apply

Method	**Selected**
5.1a Face to face or telephone interview	☐
5.1b Online interview, for example using Teams or Zoom	☒
5.1c Focus group	☐
5.1d Survey	☐

5.1e Online survey Provide indicative *electronic copy with application pending online version*	☒
5.1f Participant observation *Provide an observation proforma*	☐
5.1g Audio or video-recording interviewees, focus groups or events Provide evidence of p*ermission* on the consent form. Details should be provided, either in theme/question information or separately.	☒
5.1h Other methodology	☐
If **Other** selected above, provide details here:	

5.2 Research Methods

Explain the reasons for the chosen method/s, the estimated time commitment required of participants and how the data will be analysed. Include reference to methods of providing confidentiality as indicated below.

This model is proposed to balance the young people's playtime and the condition of control and intervention. At the same time, the insights from this study can provide suggestions and new perspectives on how to develop healthy family relationships around young people's gaming behaviours, following research questions will be raised:

(i) What are the current situations of young people's online gaming behaviours and parental and state interventions in China?

(ii) What are the reasons for these problems and how family relationships affected?

(iii) What are the potential solutions, if any required, to promote better family relationships and appropriate level of intervention in young people's gaming?

Qualitative and quantitative components were considered equally important and I will conduct the quantitative phase first followed by the qualitative phase. Specifically, the quantitative phase will be performed, where themes and statements to be derived from potential qualitative data will be tested on a larger sample to provide evidence of both gender and age information from young people and their PCRs, their gaming habit and to assess the influence of gaming policy from local authority on family relationship; then, the qualitative phase will identify the preliminary demand factors and different opinions from young people and their PCRs via semi-structured interviews. More details are provided below.

To closely understand the participants' views, a series of semi- structured interviews with young people will be conducted (Marshall and Rossman, 2015: 18) as well as their PCRs. The participant-centred approach is suited to query how the young people around 9-12 perceived their social interactions and sociality, instead of assuming they were isolated and "withdrawn" (Kimberly, 2009), only play games in their bedroom without communication.

In fieldwork, I will randomly select three primary schools in Shahekou, a district of Dalian, China. The choice of these three primary schools reflect the differences in the occupational groups in the society: the PCRs of one school are from high-income classes and most of the PCRs of the other primary school are farmers and workers and the PCRs of the final one are mainly from government staff. After obtaining the permission of the school's headmaster, I will recruit young people from the school (the head will approve all work within the school and Agree), then I will contact the PCRs of young people from the school, let them know about the fieldwork and get the PCRs' knowledge and consent, if their child decide to participate or if they are willing to participate as PCRs. Then I will conduct the survey and interview as research methods.

The fieldwork will begin by sending a survey link, containing a survey to obtain quantitative data and then I will select 30 families from the students and PCRs who participated in the survey to conduct an interview.

PCRs will be informed to participate in the next phase of the fieldwork and be Involved as a family. Each family be required to participate in interview twice (at timepoint 1 and timepoint 2; approximately one month apart) ; each interview is approximately 45 minutes in total (30 minutes for PCRs + 15 minutes for youth). Their youth will be asked to conduct separate interviews with PCRs to ensure the authenticity of the interview data. PCRs and young people have the right to terminate participation in the study.

All information will be anonymised in the research output and confidential information(names) will not be disclosed. The anonymised data will be publicly available via an online data repository. Regarding the youth's consent form, I will need dual signatures from both PCRs and youth to confirm that the PCRs understand the study and agree to their child's participation. During the interviews, especially for youth, I will use simple language structures to help them fully understand various materials and get the best data.

6 Confidentiality and Data Handling

6.1 Will the research involve: (Click to right of **S*elect method*** *at top of column to indicate method and* ***select all that apply****)*

	QUESTIONNAIRE	INTERVIEW
Degree of Anonymity		
6.1a De-identified samples or data (i.e. a **reversible** process whereby identifiers are replaced by a code, to which the researcher retains the key, in a secure location?	☐	☐
6.1b Anonymised samples or data (i.e. an **irreversible** process whereby identifiers are removed from data and replaced by a code, with no record retained of how the code relates to the identifiers. It is then impossible to identify the individual to whom the sample of information relates)?	☒	☒
6.1c Complete anonymity of participants (i.e. researchers will not meet, or know the identity of participants, as participants are part of a random sample and are required to return responses with no form of personal identification)?	☐	☐
Use of Names		
6.1d Subject being referred to by pseudonym in any publication arising from the research?	☐	☒
6.1e Participants consent to being named?	☐	☐
6.1g Participants being made aware that confidentiality may be impossible to guarantee; for example, in the event of **disclosure of harm or danger** to participants or others	☐	☒

6.1h Participants being made aware that confidentiality may be impossible to guarantee; for example, due to **size of sample, particular locations** etc.?	☐	☒
6.1i Participants being made aware that data may be shared/archived or re-used in accordance with Data Sharing Guidance provided on Participant Information Sheet?	☒	☒
6.1f Any other methods of protecting the privacy of participants? (e.g., use of direct quotes with specific, written permission only; use of real name with specific, written permission only):	☐	☒

6.2 The following methods of assuring confidentiality of data will be implemented:

Select all that apply

6.2a Data will be stored at University of Glasgow	
* **Paper** (kept secure in locked facility/cabinet)	☐
* **Electronic** (files to be available by password only **and** data encrypted; see UofG/IT/InformationSecurity/ConfidentialData for guidance)	☒
6.2b Data will be stored at another site provide details/address below	
* **Paper** (kept secure in locked facility/cabinet)	☐
* **Electronic** (files to be available by password only **and** data encrypted; see UofG/IT/InformationSecurity/ConfidentialData for guidance)	☐
6.2c Other (other methods of securing confidentiality of data in transmission, access and storage) (e.g.,, data to be encrypted for transmission/security measures if data sent outside UK; cloud storage and access) See UofG Data management support and link given above.	☒

7 Access to data

7.1 Will anyone other than those named above (researchers, supervisors, examiners, research assistants, Heads of Department, transcribers) **access the research data?**

Yes ☒ **No** ☐

If YES please provide details below. If e.g.,, transcribers or research assistants are not known at this time, please forward details to Ethics Administrator when available.

The anonymised data will be made publicly available with open access via an online data repository, such as Enlighten, Open Science Framework, or UK Data Service.

7.2 Retention and disposal of PERSONAL data

Explain/justify your proposals for retention and disposal of any PERSONAL data to be collected. The definition of personal data is available at UofG GDPR Changes. Further information on GDPR is available at UofG GDPR Guidance)

All personal data related to the research of the thesis will not be exposed during the process of the research.

However, identifiable information will be collected in the survey period. In addition, during the interview, I will anonymize it and swap it out with pseudonyms. At the end of the paper, the valuable materials of interviews will be shared with other researchers and they will be made available via a data repository.

During the fieldwork, all data will be kept on the researcher's hard drive and University's OneDrive cloud storage and the folder where the data is kept will be encrypted.

7.3 Retention and disposal of RESEARCH data

Explain/justify your proposals for retention and disposal of RESEARCH data to be collected. PGR/Staff research data is expected to be retained for 10 years. Further guidance is available in Code of Good Practice in Research. For Data Management Support, visit Data Management

The anonymised research data will be made available through a data repository and fieldwork data will be destroyed on the researcher's hard drive and OneDrive after 10 years.

Only the researcher can access data at various stages and all the data will be stored in the researcher's personal hard drive and University's OneDrive cloud storage. No one else will be allowed to access them during the period of fieldwork. All data collected and stored in my computer will have to be in a password-protected folder and files will be encrypted manually.

8 Dissemination of results:

(select all that apply)

Method	Participants	Peers/Colleagues
8.1a Dissertation	☐	☒
8.1b Thesis (e.g.,, PhD)	☐	☒
8.1c Journal Articles	☐	☒
8.1d Conference Papers	☐	☒
8.1e Written summary of results to all if requested	☐	☒
8.1f Other or none of the above	☒	☐

9 Datasets suitable for future re-use will be:

9.1a Openly available via data repository (UKDA, Enlighten, Research Data)	☒
9.1b Available via a data repository but with restricted access	☐
9.1c Available from researchers by personal request	☒
9.1d None of the data will be suitable for future access/reuse	☐
9.1e Other or none of the above	☐

10 Participants

10.1 How do you intend to recruit participants? Provide as much detail as you can, including what age/type of group will be used for each research activity involved, e.g., interviews.

All participants will be recruited from their schools. I will randomly select three primary schools in Shahekou, a district of Dalian, China. Students and their PCRs from grades 4 to 6 will be invited to participate and the number of students in this population is approximately 2,400.

In the fieldwork, I will recruit participants through the school. Before the beginning of the research, I will contact the school headteacher to get permission for the research (The approval letter will be provided before the beginning of the fieldwork). After getting their permission, I will contact both young people and their PCRs to inform them about the fieldwork and get the PCRs' approval on the premise of informed consent for survey and interview. This will be achieved by asking schools / headteachers to disseminate research materials (information sheets and researcher contact details) via typical school communication channels.

For the quantitative study, I will recruit almost 200 participants including young students ranging in age from 9 to 12 years and their PCRs (100 young people + 100 PCRs). The sample will provide a source of data to gain the PCRs' and young people's views about online games. To participate, PCRs must have youth with experience playing mobile video games for at least one month before the study. Similarly, young people must have played mobile video games for at least one month before the study.

All assessments except for open-ended response variables are presented with Likert scales. Scales and items in the survey are presented randomly for each participant. In cases where the participant responded to items referencing their favourite game, the instructions will guide them to reflect on their experiences in the past week of play.

In the qualitative work, I will focus on selecting students and PCRs from grades 4 to 6 in one of the schools that participated in the survey.

A total of 30 families will be interviewed; I will include ten families from fourth, fifth and sixth grade in a selected primary school. The questions asked in the interviews centre around themes including:

1. PCRs' perspectives on the impact of the parent intervention on young people and family relationships before and after the emergence of China's anti-addiction system;

2. 9-12 years old youth's views on parental interventions on gaming;

3. Young people's views on family relations before and after the emergence of the Chinese anti-addiction system；

4. How different ages of PCRs perceive parental intervention differently and how this affects young people and family relationships.

The purpose of the sampling is to select young people and their PCRs who are under the management of the government's online gaming protection mechanism. The sample will also include participants with different demographics, including 9- to 12-year-olds, young people of different genders and PCRs from different socioeconomic backgrounds.

10.2 Target Participant Group Guidance on the age of legal capacity available on Age of Legal Capacity (Scotland) and also Principles of Consent (England, Wales and Northern Ireland)

Select all that apply

10.2a Students * or Staff of the University of Glasgow (* See Working with Glasgow University Students)	☐
10.2b Adults (over 18 years old **and competent** to give consent)	☒
10.2c Adults (over 18 years old who **may not** be competent to give consent)	☐
10.2d Young people ages 16-17 years old	☐
10.2e Youth under 16 years old	☒

10.3 Will financial inducements/incentives, other than reasonable expenses and compensation for time, be offered to participants?

Yes ☐ **No** ☒

10.4 Number of participants *Give details of different age groups/activities involved* ***for each method of data collection***

I will recruit approximately 200 (100 young people and 100 PCRs) in the survey method. The sample will provide answers about mobile video games and parental interventions. In the interview method, 30 families will be interviewed online; ten families in fourth, fifth and sixth grade in a selected primary school. Families will be interviewed at two timepoints – approximately one month apart.

10.5 Are any of the participants in a dependent relationship with any of the investigators, particularly those involved in recruiting for or conducting the project? i.e. student/teacher, employee/employer, patient/doctor, student/supervisor etc.

Yes ☐ **No** ☒

11 Location of research participants

11a University of Glasgow	☐
11b Outside location/s provide details/address below In the survey section, I will randomly select three primary schools in Shahekou, a district of Dalian, China. Students from grades 4 to 6 and their PCRs will be invited to participate and the number of students in this population is approximately 2,400. In the interview session, I will focus on selecting students and PCRs from grades 4 to 6 in one of the schools that participated in the survey. About 30 people will participate in this fieldwork.	☒

12 Permissions to access participants

12.1 Do you require permission to gain access to research participants within an organisation? e.g., Academic institution, **including University of Glasgow**, Private Company; school; Local Authority; Voluntary Organisation; Overseas institution. **Yes** ☒ **No** ☐

12.2 If YES is evidence of this permission provided with this application?

Yes ☐ **No** ☒

NB: S*eparate permission to survey students must be obtained, usually from the appropriate authority, prior to any such survey being undertaken once ethical approval has been granted. Once obtained, proof of permission must be forwarded to the Ethics Administrator. More details available on* Information for Applicants. See Working with Glasgow University Students

12.3 If applicable, list the University of Glasgow students that you intend to contact 30 students from X course. Information for Applicants has guidance.

12.4 If NO to either of the above questions, explain why permission is NOT required, or why evidence is not provided with this application:

The approval from school headmasters is in progress and will be provided to the Ethics Committee before the fieldwork begins.

13 Informed Consent Consult the guidance on Ethics Forms page to understand what you are required to provide in the Participant Information Sheet (a written 'plain language' statement that explains your project and invites participation)

Participant Information	**YES**	**NO**
13a Have you attached your Participant Information Sheet?	☒	☐
13b Will a copy of the Participant Information Sheet be offered to participants to keep?	☒	☐
13c Are any participants likely to require special consideration in the preparation of the Participant Information Sheet, to ensure informed consent? e.g. use of child friendly language, English as a second language	☒	☐
If **YES to 13c** above, please give details here: All participants will use Chinese as the priority language in the process of research. During the research with young people, I will use child-friendly language and presenting the documents in child-friendly way as well.		

14 How will informed consent by individual participants or guardians be evidenced? Written evidence of informed consent is normally obtained and retained using a formal consent form, with copies provided for review

select all that apply

Participant Consent	
14a Signed consent form	☒
14b Recorded verbal consent	☒
14c Confirmed by return of survey (evidence of clear agreement of consent to use participant data must be provided at start of survey e.g. by use of tick box)	☒

15 Justification, if **written** evidence of informed consent will **NOT** be obtained and retained:

16 Monitoring

16 How will the project be monitored to ensure that the research is being carried out as approved *e.g. give details of regular meetings/skype/email contact.*

During the survey period, I will use the online survey system to count the number of completed surveys and maintain the frequency of checking them once a day.During the semi-structured interview, I will personally participate in each meeting to ensure that the research proceeds at the normal pace. Meetings with supervisors will be conducted in Glasgow/online once a month to monitor the progress.

17 Health and Safety/Risk

17 Will the project have any personal safety implications for you, all other researchers and participants involved in the research? (This should include risks associated with COVID-19 but **other** than lone fieldwork – refer to Section 18 for this)

Yes ☐ **No** ☒

18 Risk

18.1 Does the activity Involve Lone Field Work, lone working, or travel to unfamiliar places? See Information for Applicants, Lone Working

Yes ☐ **No** ☒

18.2 Does this research include any sensitive topics or vulnerable groups? Risk guidance is available at Ethics Forms

Yes ☒ **No** ☐

If YES, please explain the reason for including these and how the sensitivity will be managed

The fieldwork will involve youth aged 9-12 years old. The reason why people from this age group will be used in the fieldwork is to examine the responses of young people of this age group and PCRs in parent intervention and control of online games and what positive or negative effects these responses have on family relationships.

In order to manage sensitivity, first of all, the interviews and surveys will avoid asking questions that are likely to make the participants uncomfortable during the research process; and considering the relationship and potential tensions between PCRs and young people, they

will be interviewed separately, while ensuring the richness of the data, to avoid the occurrence of discomfort of participants

18.3 How will you ensure that you minimise any possible **distress** caused to any **participants** by the research process? Consider potential disruption or negative consequences that could cause emotional, social or economic distress.

In order to minimise distress, the questions from the interviews and surveys are designed with sensitivity to avoid making judgement on participants' behaviour, especially on young people's gaming and different interventions from PCRs. PCRs and youth will be interviewed separately to avoid potential conflicts or tension arising during the research.

Furthermore, during the fieldwork, if the participants experience discomfort, mood swings and other adverse emotions, the fieldwork will be suspended directly until the participants resume or quit the fieldwork.

18.4 What procedures are in place for the appropriate referral of a study **participant** who discloses an **emotional, psychological, health, education**, or **other issue** during the course of the research or is identified by the researcher to have such a need?

During the fieldwork, participants may be anxious, hesitant, or refuse to answer the questions in the fieldwork. For these potential situations, I will adjust the questioning method as much as possible before the fieldwork to avoid causing the participant's discomfort and participants will be allowed to not answer questions that they do not wish to.

If the participant discloses some emotional or health problems, such as problems related to the research topic, the researchers put the participant's emotions first. I will adjust the fieldwork process appropriately or even delay the fieldwork time.

18.5 Does this project require Protection of Vulnerable Groups (PVG) clearance? Guidance available at UofG Protection of Vulnerable Groups and additionally at: MyGov Types of Disclosure)

Yes ☐ **No** ☒ Click on box to select

19 Please provide additional details if the proposed research involves:

- Work involving the use of research participants outside GB, NI, the Channel Islands, or the Isle of Man
- The use of hazardous materials
- Non CE marked medical devices
- Molecules or compounds developed and manufactured at the UofG
- Number of participants in excess of 5000
- Work involving research participants known to be pregnant at the time of the project

Activity involving any of the above may require additional insurance cover to be put in place. **See** Insurance Guidance. Please contact debra.stuart@glasgow.ac.uk for further information regarding additional insurance requirements

If applicable, please provide details

The research will be held in Dalian, a city in China and during the research process, my research interest is in Chinese policy and the PCRs of 9-12 years-old youth. Nevertheless,

all research will be done online; the researcher will still stay in Glasgow. No additional insurance will be required in the research.

20 Government Legislation further information available at Information for Applicants

Click on box to select

20.1 Have you made yourself familiar with the requirements of the following legislation?	**YES**	**NO**
General Data Protection Regulation (GDPR) (May 2018)	☒	☐
Freedom of Information (Scotland) Act 2002	☒	☐

21 Declaration by Researchers And Supervisors

! Application will be returned if declaration is not signed and dated !

- The information contained herein is, to the best of my knowledge and belief, accurate.
- I have read the University's current human ethics guidelines and accept responsibility for the conduct of the procedures set out in the attached application in accordance with the guidelines, the University's Code of Conduct for Research and any other condition laid down by the University of Glasgow Ethics Committee and the College of Social Sciences Research Ethics Committee.
- I and my co-researcher/s or supporting staff have the appropriate qualifications, experience and facilities to conduct the research set out in the attached application and to deal effectively with any emergencies and contingencies related to the research that may arise.
- I understand that **no** research work involving human participants or data collection can commence until I have been granted full ethical approval by the College of Social Sciences Research Ethics Committee.

Applicant/Researcher/s

X Dajun Wang (xxxxxxx)

X 07/06/2022

Supervisor/s

(Where Applicant Is Student)

X xxxxxx

X 01/12/2022

For Supervisors – Please note that by submitting this application the supervisor confirms that:

- The student is aware of the College ethics requirements.
- The topic merits further research.
- The student has the relevant skills to begin research.
- If interviewing, the student has produced an appropriate information sheet for participants.
- The procedures for recruitment and obtaining informed consent are appropriate.

End Of Application Form

Appendix II -- Information sheet for PCRs

Participant Information Sheet

Family and state intervention in young people's gaming behaviours and its effect on family relationship

Researcher: Dajun Wang (Dajun.Wang@glasgow.ac.uk)

Supervisors: Mark Wong (Mark.Wong@glasgow.ac.uk)

Christopher Hand (Christopher.Hand@glasgow.ac.uk)

About the survey

You are being invited to take part in a research study. Before you decide to take part, it is important for you to understand why the research is being done and what it will involve. Please read the following information carefully and discuss it with others if you wish. Ask the researcher/s if there is anything that is not clear or if you would like more information. Take some time to decide whether you wish to take part.

Thank you for reading this.

What is the purpose of the study?

The anti-addiction of online gaming was published in from September 2021, it is aimed to restrict both time and money that young people under 18 spend on mobile online games, especially on mobile phones. The Chinese government launched an online game anti-addiction system in August 2021. It is required that the system will give a reminder if it monitors that the player's game time is close to three hours. If more than three hours, the system will continue to warn gamers not to continue playing.

This thesis aims to find out, from the selected experimental data, the responses of youth and PCRs in parent intervention and control of mobile online games and what positive or negative effects these responses have on family relationships. Moreover, based on these data, a corresponding model is proposed to balance the youth's playtime and the condition of control and intervention. At the same time, it can provide suggestions and new perspectives on how to develop healthy family relationships around youth's gaming behaviours, answering the research questions:

(i) What is the current situation of youth's online gaming behaviours and parental and state interventions?

(ii) What are the reasons for these situations and how are family relationships affected? (semi-structured interview)

(iii) What are the potential solutions, if any required, to promote better family relationships and appropriate level of intervention in youth's gaming?

Survey will focus on question(i) and semi-structured interview will focus on question (ii).

What will happen to me if I take part?

Survey part will take about 25 minutes, asking you to answer several questions.

The interview will only be two interviews, about one month apart. In each interview, the child part of the interview will take about 15 mins, the parent part about 30 mins. I will record your answers on my computer so that afterwards I can listen carefully to what you said. The interview will take place online using MS Teams or Zoom, as the transcript can be recorded and transcribed.

Why have I been chosen?

This study looks at the views and attitudes of youth and PCRs towards online gaming behaviours and parental issues.

You have been selected to take part in this study as a participant who interacts with online game and/or the online game anti-addiction system in China. Your opinion is of great value and is critical to the success of this research. The study will consist of about 1700 people who will be surveyed and 20 families who will be interviewed.

Do I have to take part?

Whether you take part or not is entirely your decision. There will be no repercussions if you wish to not take part, nor will there be if you do.

If you do, you are free to withdraw at any time throughout the study and do not need to provide any reason for this. Any previously data you have supplied will be destroyed. This study is entirely voluntary.

Will my taking part in this study be kept confidential?

In the whole research process, participant's personal details will be kept confidential and anonymous, no personal information and message will be shown in the research data and allocation of id numbers/pseudonyms will replace personal data in the whole research process and final data discussion.

Please note that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm is uncovered. In such cases the University may be obliged to contact relevant statutory bodies/agencies.

Please note that confidentiality will be maintained as far as it possible, unless during our conversation I hear anything which makes me worried that someone might be in danger of harm, I might have to inform relevant agencies of this.

The research can be used in Chinese and English; you can choose which language you prefer to use during the research process.

What will happen to the results of the research study?

Survey will be conducted through Qualtrics, an online survey platform.

During the interview investigation, I will use MS Teams or Zoom, as the transcript can be recorded and transcribed.

Qualtrics is compliant to the UK GDPR regulations and your data will be store securely in a university server. The data collected will be used for scientific research purpose of this study. Any information that is gathered (e.g., raw data from interview responses) will be retained for 10 years and will be destroyed securely after 10 years of the completion of the study.

It is important to highlight that the completed project will not contain any information which will relate back to you and your information will be protected against being personally identifiable. Throughout the duration of the entire study and in the final thesis, all participant's real identities will not be identifiable.

The anonymised data may be used in future research and be cited and discussed in future publications, both print and online.

The data collected will be used for the PhD paper writing, the production of conference papers and journals.

In the whole process of data collecting. All information will be stored in personal disk with password protection.

After the finish of PhD paper writing, the data will be reused by researcher alone.

Who has reviewed the study?

The project has been reviewed and approved by members of the College of Social Sciences Research Ethics Committee.

How can I access information relating to me or complain if I suspect information has been misused/ used for purposes other than I agreed to?

You can contact the researcher in the first instance if you have any concerns.

Where there appear to have been problems, you can – and indeed may be advised to – submit an 'access request' or an objection to the use of data. As part of the University's obligations under UK General Data Protection Regulation (UK GDPR), participants retain the rights to access and objection with regard to the use of non-anonymised data for research purposes.

No further organisation fund in the whole research.

To pursue any complaint about the conduct of the research: contact the College of Social Sciences Lead for Ethical Review, Dr Susan Batchelor: email socsci-ethics-lead@glasgow.ac.uk

_____End of Participant Information Sheet_____

Appendix Ⅲ -- Consent Form for PCRs

University of Glasgow

College of Social Sciences

Consent Form (For PCRs)

About the survey

Fieldwork title:	Family and state intervention in young people's gaming behaviours and its effect on family relationships
Researcher:	Dajun Wang
Supervisor:	Dr Mark Wong, Dr Christopher Hand

You are being asked to take part in a research study. Before you decide whether you would like to participate, it is important that you understand why the research is being carried out and what it will involve. Please take your time to read the following information carefully and if you have any questions or would like more information, do not hesitate to get in touch. Thank you.

Contact for Further Information

Name: Dajun Wang

Contact Information: Dajun.Wang@glasgow.ac.uk

Thank you and please confirm below that you are happy to participate in the study.

Consent

I confirm that I have read and understood the Participant Information Sheet for the above study and have had the opportunity to ask questions.

- I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
- I acknowledge that participants will be referred to by pseudonym.
- I acknowledge that participants will NOT be identified by name in any publications arising from the research.
    - All names and other material likely to identify individuals will be anonymised.
    - The material will be retained in secure storage for use in future academic research
    - The anonymised material may be used in future publications; both print and online.

- I understand that submitting a response indicates that I consent to take part in the survey and that I agree to the terms for data processing as outlined above.
- I confirm I have been given information on how to exercise my rights of access and objection.
- I understand that I may withdraw from the study at any time without any penalty

- I consent for my anonymised data to be shared with other researchers via, for example, the Open Science Framework (a reputable and secure resource)
- I acknowledge the provision of a Privacy Notice in relation to this research project.

- I consent / do not consent (delete as applicable) to interviews being audio-recorded.
    - I agree to take part in this research study ☐
    - I do not agree to take part in this research study ☐
    - I will allow my child(ren) participate in this fieldwork ☐

Name ……..

Signature ……..

Date ……..

Name of Researcher: Dajun Wang

Signature: Dajun Wang

Date: 03/08/2022

Appendix IV -- PCRs Interview Questions of Family and state intervention in young people's gaming behaviours and its effect on family relationships

Personal Information

- How old are you?
- What gender(s) do you identify with?
- What grade is your child studying in? Which school is your child in?
- What is your type of job? (e.g. Civil servants, businessmen, farmer)
- Have you had any recent experience of playing mobile games, in the last month? If so, what kind?
- Do you play mobile games with your child?

• *Opinion about Anti-addiction system and youth gaming experience*

- What is your understanding of the "anti-addiction system" in China introduced in Aug 2021?
- What is your opinion about your child play mobile games? Why do you think that?
- What is your opinion about the anti-addiction policy? What advantages and disadvantages are there about the policy?
- Has this policy affected your youth gaming?
- If so, how? / If not, why not?

• *Policy and family relationship*

- Before the policy was implemented, have you ever been concerned or had an argument with your child over gaming? What did you do if you were concerned? How did that make you feel?
- Since the implementation of the anti-addiction system, has it changed how much you feel concerned or when you challenge your child's gaming behaviour? Has this affected or changed your relationship with your child? If so, how?
- If there has been a change since the implementation of the policy, what happened when you challenged your child's gaming behaviour? How did that make you feel?
- [If there has been no change, what do you think the reason for that is? How did that make you feel?]
- Do you think the current anti-addiction policy is effective? Does it match up to your expectations? why？
- What do you think needs to be adjusted in the current policy?

• *Family intervention and family relationships*

- In what ways are you interfering / monitoring your child's gaming? Has this changed since the anti-addiction system been introduced? If so, in what ways?
- How did your child respond to your interventions?
- What are your reasons for intervening and not intervening and when to intervene?
- What is your opinion about PCRs should surveillance youth playing mobile games?
- How do you feel about monitoring or interfering with your child's gaming?
- What kind of change would you like to see in how your monitor or talk to your child about their gaming?
- If there has been concern or tension, what actions might help improve the relationship with your child?

Appendix V -- Parent Survey questions

Survey of Family and state intervention in young people's gaming behaviours and its effect on family relationships

Personal information (These questions relate to you as a person)

Q1a Type your age _____

Q1b Type your Gender _____

Q1C Which school are your child(ren) study in? _____

Preferences (These questions relate to your own personal tastes)

Q2a What kind of mobile video game(s) did you like to play last month?) (select all that apply)

Adventure(1)

Sports(football, basketball, etc) (2)

Shooting (Such as Call Of Duty, Apex, etc) (3)

MMORPG (4)

FPS

Battle Royale (5)

MOBA (6)

Puzzle (7)

Role-playing (Such as Genshin Impact) (8)

Digital Card (9)

Others (10)

Don't know / can't recall(if you choose here, please jump into Q6) (11) _____

Not applicable - I have not played any mobile games in the last week (12)

Q2b Which are the top three mobile games you spent most time on (enter none, if you don't play any mobile games)?_____

Q3 In an average month, approximately how much money do you spend on mobile games before the policy is published? (In GBP, I GBP = 8 CNY)

None at all (1)

Under 100 Yuan (2)

100-300 Yuan (3)

300-500 Yuan (4)

More Than 500 Yuan (5)

Click to write Choice 6 (6)

Q4 How long did you spend on mobile games last week?

_____

Q5 How important is video game to each of the following?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
1 Personal mood					
2 Daily routine					
3 Sense of identity					
4 Personal wellbeing					
5 Stress relief					
6 'Happiness					

Q6 Why do you play mobile games? (Select all that apply)

Kill time

Have fun

Work in teams/friends

Escape the real world

Stress relief

Competition

Occupy mind

Make friends

I do not play mobile games

Others_____

Q7 What is your opinion of playing mobile games?

Novelty

Competency or Mastery

Exploration (Internal or External)

Risk Taking (Competitive, Quest, Social)

A Safe Place to Fail

Competition

Building Relationships

Relaxation or Excitement

Escape from People or current situation

Autonomy or Independence

Collecting items in games

Q8 How much would you say you know about China's anti-addiction policy?

A great deal (1)

A fair amount (2)

Not very much (3)

Nothing at all (4)

Q9 How concerned are you about the impacts of anti-addiction policy?

Very concerned (1)

Fairly concerned (2)

Not very concerned (3)

Not at all concerned (4)

Q10 how often does video gaming take priority over the following activities ?Sort the answers from most-likely to least-likely

personal hygiene

laundry

household chores

spending time with family in real life (e.g. travel with family)

spending time with friends in real life

doing sports

watching films

Q11 To what extent do you agree with the following statement: "problematic gaming behaviours of young people should be defined as a disease"?

Strong agree (1)

Agree (2)

Neither agree nor disagree (3)

Disagree

Strong disagree

Q12 Thinking about anti-addiction which ONE, of the following statements comes closest to your view?

Limiting the time and money spent on gaming should be a top priority now, above other issues, such as health issues (1)

It is no necessary to restrict young people's time on playing mobile games, they can handle it (2)

Limiting the time and money should be a priority at some point in the future, but there are other issues that that should take priority now, such as health issues and pressure of studying (3)

Don't know (4)

Q13 Thinking about the game making changes to child's lifestyle which ONE, is the closest to your view?

Games have already made changes to child's lifestyle to let the game as a part of their lives and have positive results (1)

Games have interrupted the daily routine of youth now and will be worse in the future (3)

Games are not changing the life of youth right now and it will not affect the future (4)

Don't know (5)

Q14 Do you think you are interfering your child's action on gaming？

Definitely not (1)

Probably not (2)

Neutral / Unsure (3)

Probably yes (4)

Definitely yes (5)

If you have experience about it, how often are you interfering with? _____

Q15 Have you ever had an argument with your child(ren) over the game?

Yes (1) Why? _____

No (2) Why not? _____

Q16 What is your child(ren) reaction after your interference in monitoring gaming?

Follow your instruction (1)

Argue or against (2)

Others (3) _____

Q17 What actions do you have on your child(ren) mobile games actions, (choose as many as you want)

limit or control time when child(ren) spend on game (1)

limit or control money w when child(ren) spend on game (2)

Monitoring how long child(ren) spend on the mobile games (3)

Neither control or surveillance (4)

Others (5) _____

Q18 Which of the following is close to your opinion about your child(youth) have about playing mobile games? (Choose all that apply)

playing is just addictive (1)

playing games will let your grade down (2)

playing games is not good for your physical health (optical, obesity) (3)

Others (4) _____

Family function assessment

Q19 Select the part which is the most suitable for your family situation

	Agree	Neutral	Disagree
In our home it is difficult to decide how to solve a problem because we never agree about anything.			
It is important that everyone in the family has time for themselves			
I can talk with my family about the things that make me unhappy.			
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better			
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped			
In the family we collaborate together to find the best way to solve our problems			
Despite many problems I have to deal to deal with in my family, I always find a little time for myself			
When I am angry with someone in the family, I tend not to speak to him/her			

If you would like to attend the follow-up interview, please leave your contact number or email below.

_____

Appendix VI – Youth Consent Form

Title of Project: Family and state intervention in young people's gaming behaviours and its effect on family relationship

Name of Researcher: Dajun Wang (Dajun.wang@glasgow,ac.uk)

I confirm that I have read and understood the Participant Information Sheet for the above study and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

I understand that my real name will not be used in this study or any papers or books that are written based on this study.

- All names and other material likely to identify you will be removed.
- The answers will be kept in secure storage for use in future academic research
- The material may be used in future publications; both print and online.

I acknowledge the provision of a Privacy Notice in relation to this research project.

I consent / do not consent (delete as applicable) to interviews being audio-recorded.

I agree to take part in this research study ☐

I do not agree to take part in this research study ☐

Name of Participant …… Signature ……

Date ……

Name of Parent/Guardian …… Signature ……

Date ……

Name of Researcher Dajun Wang Signature Dajun Wang

Date 03/08/2022

Appendix VII – Interview Questions of Family and State intervention in young people's gaming behaviours and its effect on family relationship

Personal Information

How old are you?

What grade are you studying in currently?

What gender(s) do you identify with?

What kind of mobile games have you played in the last month?

How much time do you spend gaming and what days/time do you play mobile games in an average week?

Opinion about the "Anti-addiction system"

Tell me the reason why you would like to play mobile games?

What is your understanding of the "anti-addiction system" in China introduced in Aug 2021?

Has this policy affected your gaming?

If so, how? / If not, why not?

Tell me how it affected your daily routine?

(e.g., not allowed to play more than 3 hours a week, points systems stop functioning, locked out of gaming after 5 hours, etc.).

What is your opinion about this system? What advantages and disadvantages are there about the system?

Do you think the current policy is limiting your play time and gaming behaviour / the difference between your previous experience with mobile games?

Policy and family relationship

Before the policy, has any of your family members been concerned about your gaming behaviour? If so, why?

If there have been concerns about gaming behaviour, how did you respond to those concerns?

What did you do if a family member challenged your gaming behaviour?

How did you feel about being challenged?

After the anti-addiction policy did it affect or change your relationship with your PCRs or family members? If so, how?

If there has been a change in family members' challenging your gaming behaviour, what has happened and how did you respond? How did that make you feel?

[If there has been no change, what do you think the reason is for that? How did that make you feel?]

Family Intervention and family relationships

In what ways do your family member(s)/parent(s) monitor or interfere with your gaming behaviour? Has this changed since the anti-addition system been introduced? If so, in what ways?

How do you feel about your gaming behaviour being monitored or controlled by your family member(s)/parent(s)?

What kind of change would you like to see in how they monitor or react to your gaming?

If there has been concern or tension, what might help improve the relationship with your family member(s)/parent(s)?

Appendix VIII – Youth Survey of Family and state intervention in young people's gaming behaviours and its effect on family relationships

Personal information (These questions relate to you as a person)

Q1 Type your age _____

Q2 Type your Gender _____

Preferences (These questions relate to your own personal tastes)

Q3 What kind of mobile video game(s) did you play last month? (select all that apply)

Adventure(1)

Sports(football, basketball, etc) (2)

Shooting (Such as Call Of Duty, Apex, etc) (3)

MMORPG (4)

FPS

Battle Royale (5)

MOBA (6)

Puzzle (7)

Role-playing (Such as Genshin Impact) (8)

Digital Card (9)

Others (10)

Don't know / can't recall(if you choose here, please jump into Q6) (11) _____

Not applicable - I have not played any mobile games in the last week (12)

Q4 In an average month, approximately how much money do you spend on mobile online games before the anti-addiction policy was published? (8 CNY = I GBP)

None at all (1)

Under 100 Yuan (2)

100-300 Yuan (3)

More Than 300 Yuan (4)

Q5 How many hours do you spend playing mobile games before the anti-addiction was published each day (mobile phones.)? Type your answer below

_____

Q6 What are the most important things about mobile games for you? Select as many as you like (put these in order of importance)

Kill time

Have fun

Work in teams/friends

Escape the real world

Stress relief

Competition

Occupy mind

Make friends

Others_____

Q7 How important, is mobile game to each of the following?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
1 Personal mood 2 Daily routine 3 Sense of identity 4 Personal wellbeing 5 Stress relief 6 Happiness					

Q8 Which actions have you neglected other activities(work/social/study) because of mobile games? （multiple）

personal hygiene

laundry

household chores

homework

spending time with family in real life (travel with family)

spending time with friends in real life

doing sports

watching films

Q9 Which opinion is suit for you about continuing playing even though it's causing harm to you (failing in studies, Insomnia, being late to work, relationship problems etc)

I will continue to play even it harms to me and I trap into it and cannot fix by myself

I am continuing to play but I can fix it by myself

I can control myself so I do not face the situation like this

Others_____

Q10 Have you ever had to conceal or lie to your family members about the extent of your playing time?

Yes Why? _____

No

Idea about anti-addiction policy (These questions relate to your personal opinion about anti-addiction policy)

Q11 How much would you say you know about anti-addiction policy issues? (Published in September 2021, aiming to restrict time the youth can spend on mobile games)

Know it clearly and fully (1)

A fair amount about it (2)

Not very much (3)

Nothing at all (4)

Q12 How are you concerned about the impacts of anti-addiction policy?

Very concerned (1)

Fairly concerned (2)

Not very concerned (3)

Not at all concerned (4)

Q13 How do you think about <u>The current situation about spending more time on mobile games with youth gaming should be defined as a disease</u>？

Strong agree (1)

Agree (2)

Neither agree nor disagree (3)

Disagree

Strong disagree

Q14 What is your opinion about there is an anti-addiction policy for youth? (Choose the MOST suit one)

It can limit the time spent gaming

Aim to limit the cost / money spent

It will improve time spent doing school work

It may help to Improve time spent with family offline

It can improve health and wellbeing

Q15 Thinking about mobile games make changes to your lifestyle now and future which ONE, of the following statements, comes closest to your view?

I want to play games a lot more current and choose a job related to playing games in the future (1)

I want to play a bit more, but not i will choose a job not related to playing games (2)

Gaming gets no change in my life (3)

I tend to playing games a little less (4)

I tend to play games a lot less and reduce the time further

Don't know currently (5)

Q16 Do you agree with this statement: Family members are interfering with my gaming

Strongly Disagree

Somewhat Disagree

Neither Disagree nor Agree

Somewhat Agree

Strongly Agree

(if participants choose answers related to disagree, they will jump into Q17)

FOLLOW UP TEXT-ENTRY – If you feel that family members are interfering in your gaming, then who? _____

Q17 How often do you argue with your family members over your gaming?

All the time

Often

Sometimes

Rarely

Almost Never

Q18 What controlling behaviour do you think your family exists on your mobile game-playing experience? SELECT AS MANY AS YOU LIKE

limit or control your time when you spend on game (1)

limit or control your money when you spend on game (2)

Monitoring how long you spend on the mobile games (3)

Others (4) _____

Q19 Which opinion is suit for your family members in regards to gaming? SELECT AS MANY AS YOU LIKE

playing is just addictive (1)

playing games will let your grade down (2)

playing games are not good for your optical health (3)

Others (4) _____

Family function assessment

Q20 Select the part which is the most suitable for your family situation

	Agree	Neutral	Disagree
In our home it is difficult to decide how to solve a problem because we never agree about anything.			
It is important that everyone in the family has time for themselves			
I can talk with my family about the things that make me unhappy.			
If I am unhappy with the behaviour of someone in my family, I tell them and suggest some ways that we can get along better			
When we have dealt with a problem in the family, we usually discuss what we have done and whether it helped			
In the family we collaborate together to find the best way to solve our problems			
Despite many problems I have to deal to deal with in my family, I always find a little time for myself			
When I am angry with someone in the family, I tend not to speak to him/her			

Appendix IX – Interviews: Participant Information

#	Parent	Age	Sex	Work General	Marital Status	Game Experience?	Child(ren) Sex	Age	Game Experience
1	Father	52	Male	Government Of Education	Remarried	No	Male	11	Yes
2	Father	45	Male	Government Of Traffic	Married	Poker Mobile Game	Female	11	Yes
	Mother	39	Female	State-Owned Enterprises	Married	No			
3	Father	36	Male	Government Of Traffic	Married	Yes	Male	9	Yes
	Mother	36	Female	Work In Hospital	Married	Switch Games			
4	Father	45	Male	Government Of Education	Married	Poker Mobile Game	Female	9	Yes
	Mother	44	Female	Teacher	Married	No			
5	Father	44	Male	Government Of Education	Married	Switch Games	Male	12	Yes
	Mother	43	Female	Government	Married	No			
6	Father	47	Male	Work In Primary School	Married	Yes (Mobile Games)	Male	12	Yes
	Mother	40	Female	Private-State Company	Married	No			
7	Father	43	Male	Work In Primary School	Married	Yes (Mobile Games)	Female	11	Yes
	Mother	37	Female	Government	Married	Yes (Mobile Games)			
8	Father	41	Male	Private-State Company	Married	No	Female	10	No
	Mother	39	Female	Foreign Company	Married	No			
9	Father	43	Male	Private-State Company	Divorced	No	Male	10	Yes
10	Father	43	Male	State-Owned Enterprises	Married	Yes (Mobile Games)	Male	12	Yes
	Mother	40	Female	Government	Married	No			
11	Mother	33	Female	Government	Married	No	Female	9	Yes
	Father	36	Male	Government	Married	Yes (Mobile Games)			

12	Mother	34	Female	Private-Owned Company	Married	No	Male	9	Yes
	Father	35	Male	Private-Owned Company	Married	Yes (Mobile Games)			
13	Father	34	Male	Work In Primary School	Married	Yes (Poker)	Male	9	No
	Mother	31	Female	Work In Primary School	Married	Yes (Wechat Program Game)			
14	Father	45	Male	Investment	Married	No	Male	10	Only In Vacation
	Mother	40	Female	Ngo	Married	Yes (Poker)			
15	Mother	45	Female	Private-State Company	Married	No	Female	10	No
	Father	41	Male	Private-State Company	Married	No			
16	Mother	37	Female	Teacher In Nursery School	Married	Yes (COD)	Male	11	No
	Father	38	Male	Teacher In Primary School	Married	Yes (Online Games)			
17	Mother	38	Female	Work In Nursery School	Married	No	Male	12	Yes
	Father	40	Male	Work In School	Married	No			
18	Mother	44	Female	Work In Nursery School	Married	No	Male	11	Yes
	Father	49	Male	Private-Owned Company	Married	Yes (Metal Slug)			
19	Father	46	Male	Private-Owned Company	Married	No	Female	11	No
	Mother	43	Female	Private-Owned Company	Married	Yes (Small Game)			
20	Mother	45	Female	Civil Servant	Married	No	Male	11	Yes
	Father	45	Male	Civil Servant	Married	No			
21	Father	45	Male	State-Owned Company	Married	During School Time	Female	12	Yes
	Mother	45	Female	State-Owned Company	Married	No			