“THIS WILL NEVER HAPPEN IN REAL LIFE”: CAPE TOWN TWEENS’ RESPONSES TO REPRESENTED VIOLENCE IN DIGITAL GAMES

by

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Declaration: I, Muya Nzo'ola John Koloko, hereby declare that the work on which this thesis is based is my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree in this or any other university. I authorise the University to reproduce for the purpose of research either the whole or any portion of the contents in any manner whatsoever.

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Dedication

This work is dedicated to the memory of my beloved parents. These lines are the hardest part of this entire work to write because I wish with all my heart that you could have been here with me at the end of this journey. The question I would ask if given the chance would be:

Have I honoured you, my heroes?

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Abstract

This dissertation explores how South African children aged between ten and twelve respond to video game violence, and to retaliatory violence in particular. Many video game narratives present retaliation by the playable character as necessary and justified within the narrative and ludus rules of the game. Children's own perspectives on video game violence are rarely examined, especially in the Global South. Using a sequential exploratory mixed methods design, this dissertation investigates to what extent children's understandings of violence in video games are congruent with their understandings of violence in their diverse South African life-worlds. This study argues that South African children have high exposure to violence in both their life-worlds and video games, but that locally-situated gaming practices provide contexts that allow children to differentiate between violence in video games and in their life-worlds. Qualitative observations and interviews in Rondebosch (n = 17) and Khayelitsha (n = 12) showed how participants gained their understandings of video game violence from the ludic and narrative norms in video games; norms presented by parents and other authorities; and the playground norms of their peer groups. Participants drew clear distinctions between representations of violence in video games, and the violence some directly experienced, witnessed, or had heard about. Violence in video games was accepted as fictional and justified by the narrative and rules in the video game, which often included a backstory justifying retaliatory violence. A larger sample of children (n = 217) were surveyed on the potential congruence between support for retaliatory violence in video games and in their life-worlds. A moderate positive correlation (r = 0.424; $p < 0.01$) was found between support for retaliatory violence in video games and in real life. Despite the narrative resonance of stories involving violent retaliation, and regardless of their socioeconomic background, only children with the highest scores supporting retaliatory violence in video games also supported retaliatory violence in everyday life. This result suggests that the ideas of acceptability of violence presented in video games are not internalised by most children. Overall, children's experiences with video game violence are nuanced and contextual cues from games, peers and caregivers all shape how children perceive video game violence.

Chapter One: Introduction

Video games have been entangled in controversy almost since their inception. Particularly, video games with representations of violence have often been mentioned in news reports when mass shootings occur, e.g., the 1999 Columbine and 2019 El Paso school shootings in the USA. Given the global popularity of video games, researchers have also sought insights into links between exposure to representations of violence in video games, and players behaving violently in their social environments. Over the decades, research has emerged on the topic, mainly using quantitative research methods. Recent studies have tried to incorporate the importance of context, examine links between players' exposure to violence in their surroundings, and players' engagement with violence in video games. While children are often presented as being more at risk of being negatively influenced by video games, most studies focus on young adult players. Additionally, the "tween" age group (10 to 12) is still largely ignored in studies on children's engagements with video games and video game violence.

Gaming culture is a worldwide phenomenon (Penix-Tadsen, 2019). Still, countries in the Global South[1], such as South Africa, are scarcely represented in research on video games and video game violence despite video games having proliferated in the Global South (Penix-Tadsen, 2019; Walton & Pallitt, 2013). Most research is situated in the USA (e.g. Markey, et al., 2020), UK (Przybylski & Weinstein, 2019) and Western Europe (Krahé, 2014; Hasan, et al., 2013). Yet the Global South has higher rates of children experiencing violence in their actual life-worlds[2] than the Global North (World Health Organisation, 2020; Global Peace Index, 2018; Hills, et al., 2016). Additionally, improved access to mobile devices and casual games has led to a diversification of audiences in the Global South (Penix-Tadsen, 2019). Given that children in the same city can have different perceptions of representations in video games (DeVane & Squire, 2008), it can be expected that children in the Global South may have different perceptions of video games and representations of violence in video games to those of children in the Global North. DeVane and Squire's (2008) study examined race and the locally-situated video game play practices of gamers in a mid-Western town in the United States. Locally-situated play

[1] The Global South includes countries undergoing economic development and structural transformation (Horner & Nadri, 2018). Countries in the Global South include all African, Latin American, and Caribbean countries, as well as developing Asian countries (i.e. excluding countries such as Japan and South Korea) (Horner & Nadri, 2018).
[2] A life-world is the context in which life occurs (Luft, 2004; Sandberg & Dall'Alba, 2009).

practices are the play practices determined by context. In DeVane and Squire's (2008) study these included the players' access to video games and other entertainment media, time playing video games, and exposure to violence and racism. Children living in Cape Town, South Africa have varying degrees of access to video games (South African Audience Research Foundation, 2019), and exposure to violence in their surroundings (SAPS, 2019; Times Live, 2019). However, there remains a gap in the literature on how local children perceive violence presented in video games. Literature points to violence in both children's life-worlds and video games being causally linked to children's aggression. The nuances in the relationship between children's life-worlds and the games they play have yet to be explored, especially in the Global South, where exposure to violence and other cultural and environmental influences are likely to be quite different (including in their effects) than in the Global North. Using a mixed methods design to study South Africa tweens' perceptions of retaliatory violence in video games, this thesis aims to address this gap in the literature by exploring how cultural norms and expectations can influence gaming cultures in different regions (Penix-Tadsen, 2019).

Video games are multifaceted as evidenced by their diverse definitions including mechanical, narrative, ludic and social aspects. Violence is also complex both in how it is defined, and how it is represented in media such as video games. As such, defining video game violence has been part of a larger debate about whether video game combat (i.e. representations of interpersonal or large-scale conflict) can be harmful to players. In particular, children are presented in research as being at risk of potential harm from video games (Markey, et al., 2020; Haasan, 2017; Kirsh, 2003), but studies involving children, particularly in a South African context, are lacking.

Video games interact with players' sociocultural contexts (Bayeck, 2020). Video game violence is perceived in relation to social norms, one's personal values, and the video game content (Gunter & Harrison, 1998). As such, there may be differences in how players engage with and respond to video games (Bayeck, 2020) or elements within them. There is a dearth of studies related to video game violence in areas with high rates of interpersonal violence, e.g. South Africa. With the high rates of violent crime, related economic inequality in the country, and other factors that may influence both how children behave and how they view violence in video games, it is important to investigate how children growing up in such conditions understand video game violence. Children entering adolescence especially are in the age group

most likely to support physical retaliation (Padmanabhanunni & Gerbrandt, 2018; Kirsh, 2003). The general concern is that children with high exposure to violence in their life-worlds, and who play video games with frequent representations of violence, could play a role in children becoming violent. Economic inequality not only informs the access children may have to video games, but also how much parental supervision the children may receive. Economic and time constraints, especially in low-income communities, reduce how much supervision South African parents are able to provide their children (Simons, et al., 2018). This thesis explores children's responses to video game violence as an indication of differences between how they understand interpersonal violence in their life-worlds versus in their interactions with characters in a video game. It also examines how the children's locally-situated play practices inform their perceptions of violence.

I will argue that children engage with video game violence according to norms set by the video game itself, their parents, and peers. Children in this study understood video game violence as a part of the game and viewed it as serving functions such as progressing in a video game, and raising social capital[3] in one's peer group by displaying mastery. The interactions between players, video games, parents and other players create an environment wherein children grasp the concept of norms surrounding violence in video games being distinct from the norms surrounding violence in the form of gang violence and interpersonal fights in their life-worlds. In particular, I argue that despite video games presenting violence as justified when in retaliation to an attack or in order to protect someone, the children demonstrated only weak support for retaliatory violence in video games, and were not supportive of retaliatory violence in their interpersonal spaces.

This chapter presents the basic premises of the thesis. Definitions of video games, violence, and tweens are provided. Also, contextual information about South Africa highlights nuances that add layers of complexity to studying children's perceptions of video game violence. An exposition of the remaining chapters will close the chapter.

[3] Social capital refers to an aggregation of personal and community resources drawn from group membership (Magdol & Bessel, 2003; Bourdieu, 1986).

Research Questions

This thesis initially had one set of qualitative research questions which investigated how tweens[4] from two research sites in Cape Town interpreted video game violence, i.e., what sense children aged 10 to 12 made of represented violence in video games in terms of what it is, and when it is appropriate. The two research sites were a homework group in a middle socioeconomic status (SES) primary[5] school (Fountain School[6]) in the suburb of Rondebosch, and a video game room in Lumumba Library[7] in the low SES township[8] of Khayelitsha. A range of definitions and perceptions of 'video game violence' in the South African context were explored through observations of play, focus groups, and stimulated recall discussions. Examining the children's perceptions of violence in video games addressed by the following questions:

> How do children between 10 and 12 perceive violence in video games?
>
> - How do they interpret the representations of violence in age-appropriate video games?
> - What is the significance of such representations of violence within the children's peer groups?
> - What sense do the children make of represented violence in video games which they play, but which are not considered age-appropriate by the Film and Publication Board?

The results stemming from these initial research questions showed that children responded to both age-appropriate and age-inappropriate violence in video games as something distinct from the interpersonal violence they could experience in their life-worlds. The norms applied to video game play in their peer groups and family units helped draw this distinction in conjunction with the video games also providing cues to the appropriateness of violence through narrative and

[4] "Tweens" are described as children between the ages of ten and twelve years old (Andersen, et al., 2007).
[5] Equivalent to elementary school. Primary school includes grades one through seven.
[6] Pseudonym used to maintain the school and participants' anonymity.
[7] Pseudonym used to maintain library and participants' anonymity.
[8] Expansive peri-urban settlement established during the forced removals of people of colour from around the city centre during Apartheid (Standing, 2003). Khayelitsha had 391,749 residents in 118,810 households during the census prior to data collection (Statistics South Africa, 2011). However, the population has grown to over 1.2 million since then (Pijper, Breetzke, & Edelstein, 2020).

rules. In particular, the participants felt that violence was often unavoidable in games, and narrative elements pointed to retaliatory violence being necessary. These results raised a research question best addressed through quantitative methods. As such, the research became sequential exploratory mixed methods research (Barnes, 2012). Further investigation into the children's beliefs about the appropriateness of using violence in video games and in their life-worlds was conducted through a questionnaire completed by two hundred and seventeen tweens from four primary schools (two middle SES schools and two low SES schools) to address the following question:

> How do the beliefs of children, between the ages of 10 and 12, about retaliatory violence in video games compare to their beliefs about retaliatory violence in their life-worlds?

Therefore, my studies investigated children's interactions with video game violence to establish what definitions they ascribe to it and how they make sense of it. Further, their beliefs about the appropriateness of retaliation in video games versus children's life-worlds were also investigated. The children in the qualitative study were engaged during play and in familiar social contexts to provide ecologically valid data. So far studies in general, but particularly in South Africa, have not pursued the questions posed in this research using a mixed methods approach. How children perceive video game violence is a research topic which requires both contextualised views, and broad generalised data.

Mixed methods merge the strengths of qualitative and quantitative research, and therefore allow for detailed insights into the meaning of a concept for individuals while also being able to generalise findings (Creswell, 2003). Qualitative research methods yield in-depth data which can be used to inform quantitative research questions whose answers can describe broader patterns in the target population. The qualitative methods in my study examined the subjective meanings that participants formed through their social interactions with peers, and the social and historical norms of their life-worlds (Creswell, 2003). I then sought to explore the generality of data gained from the detailed views provided by my qualitative participants by using quantitative methods.

As such, this research on how children (particularly tweens) respond to video game violence makes a notable contribution to the body of literature on children's gaming, and video game violence in the following ways:

- By applying a sequential exploratory mixed methods design it highlights that there can be numerous qualitative differences in data even when quantitative data appears homogeneous.
- It adds to the body of research on video games in the Global South by examining how contexts of play inform children's play practices, and perceptions of representations of violence.
- It further explores the nuances found in the perceptions of representations of violence.
- It also integrates ideas from media studies, cultural studies and psychology to provide an interdisciplinary perspective on South African children's gaming.
- It adds to literature on children and violence, as well as on play.

Video Game Definition

For this thesis, South Africa's Film and Publication Board's (FPB) definition of a video game serves as a starting point for defining video games. The FPB was initially established under the Film and Publications Act (1996) to regulate the production and distribution of films and publications including cinematic releases, home videos, mobile and internet content and video games (Film and Publication Board, 2019). The Film and Publications Amendment Act (2019) defines a video game as "a computer game, video game or other interactive computer software for interactive game playing, including games accessed or played using the internet, where the results achieved at various stages of the game are determined in response to the decisions, inputs and direct involvement of the game player or players" (p. 4). This definition includes console, PC, internet and mobile gaming, and was developed by the FPB for the purposes of regulation. The definition therefore speaks to the mechanics of a video game.

Video games have, however, been recognized as being more than their mechanics. They are a largely hybrid medium containing play and story/narrative elements (De Grove, et al., 2014). They are traditionally a source of entertainment (De Grove, et al., 2014; Garris, et al., 2002), and have gained popularity the world over. "Contemporary play exists not only in physical playgrounds, but increasingly also in globalised 'virtual playgrounds'" (Potter & Cowan, 2020, p. 259). Play takes many forms including console, mobile, PC, individual, communal, competitive, in-person, and online. The online aspect means that play groups are not necessarily bound by physical spaces. The "magic circle" video games have is therefore varied

and informed by local play practices. As such, video games are resources which form part of children's cultural practices (Burn, 2013), interacted with as social endeavours (Bowman, et al., 2013), being gendered spaces (Pallitt & Walton, 2015), and being games (Prensky, 2001).

Video games as games

A game (any game, not necessarily video games) may be defined as "a voluntary activity or occupation executed within certain fixed limits of time and space, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy, and the consciousness that it is "different" from "ordinary life" (Huizinga, 1949, p. 28). This difference is managed by games having what is called the "magic circle". The magic circle (as defined by Huizinga, 1949) is the space in which the game happens (Salen & Zimmerman, 2004). It separates the in-game world from the real world, i.e. "the border between the context in which a game is played and what is outside that context" (Juul, 2005, p. 164). The magic circle in video games is well defined due to the game occurring on a screen and using a control device rather than in the rest of the world (Juul, 2005). The magic circle acknowledges that games are governed by rules and states that "rules separate the game from the rest of the world by carving out an area where the rules apply" (Juul, 2005, p. 164). The magic circle therefore allows players to escape the social constraints of general society (Crawford, 2015). Furthermore, a game is also organised play, comprising six elements, namely: rules, goals and objectives, outcomes and feedback, conflict/ challenge/ competition/ opposition, interaction, and representation/story (Prensky, 2001).

These six elements have a complex interplay, and this interplay among narrative, mechanics and context, shapes meaningful experiences in playing games, with the game mechanics defining the interaction with the game content (Elson, et al., 2014). These rules and norms define the game as a space in which the usual social constraints of society might not apply, including to combat, or actions which are enjoyable within the game, but which might be considered norm-breaking 'violence' in other contexts (Crawford, 2015; Huizinga, 1949). While players play video games, they must submit to the game's rule-making systems (Burn & Schott, 2004). However, players may control their in-game character differently to how they as a person would behave outside of the gaming environment (Dhiaa & Tawfeeq, 2016; DeVane & Squire, 2008). Video games bind players to rules that may not always be the same as societal norms,

therefore video game rules can be set apart from societal norms. For example, while using physical violence against antagonists is essential for progression in some video games, most societal norms would advocate for finding a peaceful solution to the conflict. While still operating within the rules of a video game, a player is given sufficient freedom of action to use norm-breaking behaviours, i.e. behaviours that break societal norms (Happ, et al., 2013). As such, video games allow for children to mimic adult behaviours in playfully transgressive and parodic ways (Pallitt, 2013).

In general, games can be placed on a continuum between *paidia* (free play/ play with simple rules) and *ludus* (play with complex rules) (Caillois, 1967; Caillois, 2001). The distinction between *ludus* and *paidia* is that *ludus* rules are binary, i.e. tend to be about how one wins or loses the game, while *paidia* rules allow for options beyond winning and losing (Frasca, 2003). An example of a *ludus* rule is taking a player's king in chess or defeating the final boss in a video game, i.e., an enemy-based challenge which is the construction by *ludus* rules of an enemy who must be defeated in order to achieve completion of the game (El-Sattar, 2008). Examples of *paidia* rules are the rules stating how each chess piece can move, or rules allowing for different weapons/strategies to be used in eliminating targets in video games such as *Hitman* (IO Interactive, 2016). Those rules, while necessary, do not provide a condition for ending the game (Frasca, 2001).

Frasca (2003) further expanded on the various types of rules in games, proposing three rule types: goal rules (what players must do to win), game/manipulation rules (what players can do in the game), and meta-rules (players change the source code to change the rules of the game, e.g. using cheats such as making the playable character invincible against attacks). Within these types, *ludus* rules include goal rules and meta-rules, while game/manipulation rules form *paidia* rules. These rules present the norms of a video game to the player. If one does not kill in certain video games, one cannot proceed to the next level, for example. Another example is that killing the wrong characters, usually innocent bystanders, ends the game or leads to penalties. The *Grand Theft Auto* (Rockstar Games, 1997) series has been criticised because game/manipulation rules allow players to kill innocent bystanders. Doing so leads to the police chasing the playable character, which usually ends in mission failure though. As such, if engaging in the set *ludus* of the game, a player must not kill innocent characters. However, if engaging in *paidia* or creating one's own *ludus*, a player can kill those characters, but must face the cost. Video games also alert

players as to whom to kill through their narrative elements.

Players understand the rules of a video game partly because of the fictional narrative of the game (Juul, 2003). Most video games have narrative elements, and the fictional narrative of the game provides reasons for the rules. For example, Po the Panda in *Kung Fu Panda 2* (THQ, 2011) can fight and defeat enemy characters because they are invading his village, but he cannot attack his fellow villagers because he is meant to protect them. The narrative elements therefore provide justification for certain actions, including violent ones (Klimmt, et al., 2006). Elements such as cut-scenes (videos usually in between levels provided for expositional purposes) and character dialogue are ways of accessing the narrative fiction of the games (Klevjer, 2014; Ip, 2011). These elements usually provide details on the motivations of the playable character, and the greater story behind the game (Ip, 2011). Usually packaging also includes details on the backstory of the game (Ip, 2011). Playable characters are usually positioned as heroes acting in defence of others. Their narrative function in the game is that of the typical hero found in popular narratives, including folklore (Burn & Schott, 2004). As such, the hero is attractive, capable and has some mystery or supernatural features (Burn & Schott, 2004). For example, Po the Panda in *Kung Fu Panda 2* is a defender of his village in the Valley of Peace and must stop invaders from destroying the village and its way of life. Po's journey is one where he becomes the capable "warrior of black and white" who defends the village and is liked, accepted, and respected by his fellow warriors and villagers.

Video game play requires players to negotiate an intricate interplay between the rules within a game, and the wide range of social rules and norms which govern play in different contexts such as peer groups, families, or among any groups of players. The high degree of freedom of action means that players can perform actions in video games without the negative social consequences said actions would receive if done in their life-worlds (Happ, Melzer, & Steffgen, 2013). Peer norms help establish what actions will receive positive or negative consequences when performed in players' life-worlds (Palacios & Berger, 2016). As such, actions in video games can be treated differently if players try to imitate them in their life-worlds. The social engagement in gaming can assist in guiding players on what is appropriate in and outside of play.

Video games as social endeavours

Although being stereotyped as a solitary activity (Latinsky & Ueno, 2020; Giddings, 2014; Kowert, & Oldmeadow, 2012), video gaming includes a substantial social component which is integral to the gaming experience (Markey, et al., 2020; Danby, et al., 2018; Bowman, et al., 2013). Sociability is often a motivation for video game play (De Grove, et al., 2014; Thornham, 2008; Carr, et al., 2003). For example, Leonhardt and Overå (2021) suggest that children's gaming is crucial in some of their friendships and peer groups. It is common for children to play video games with family members or friends, for example (Shoshani & Krauskopf, 2021). Players will discuss video games and share information with each other in person or online even when they can only play a video game alone (Markey, et al., 2020; Squire, 2006; Ruggles, et al., 2005; Sørensen & Jessen, 2000). As such, gaming communities are formed in both physical and online contexts and have cultural practices based on fandom and peer contexts.

Peer contexts involving gaming may develop standards/norms around what is good or bad in video games (Nikken & Jansz, 2007). These peer norms may be contrary to players' family norms around what is acceptable in games. Also, peer comments about what is acceptable in video games are taken more seriously than parental comments as children enter adolescence (Nikken & Jansz, 2007). Skotnes-Brown's (2019) work demonstrated that gaming communities can sometimes isolate themselves, and condone bigoted practices which would be otherwise shunned externally. Skotnes-Brown (2019) argues that the ludic features of the game the community engaged in promoted an environment wherein prejudice could emerge. The community was also influenced by its greater societal context and the social identities of the players (Skotnes-Brown, 2019). Video game norms are therefore provided by the video game itself and a player's various social contexts.

For example, video game violence can be celebrated in peer groups in ways antisocial behaviour such as fighting on the playground may not be, as games are understood as spaces where the norms of everyday life do not apply (Dhiaa & Tawfeeq, 2016; DeVane & Squire, 2008). Using violence where it is required in video games becomes a display of expertise, and that expertise rather than the violence gets celebrated. Skill in video games has been found to be social capital among children (Orme, 2021; Gentile & Gentile, 2008). The social capital gained from displaying expertise in video games (which sometimes means being an efficient killer in the game-space) makes performing in-game violent actions attractive. Children may well mimic

similar combat actions in the playground for theatrical or playful effect because playground practices and video games inform each other in a dynamic relationship (Burn, 2013; Burn, 2008). The mimicry leverages players' understanding of the fictional nature of the actions, and the actions not having consequences in the life-world (Burn, 2008), e.g. pretending a stick is a rifle and firing it at a friend does not lead to the friend being injured. The play therefore serves as a form of ritual combat (Burn, 2013). At the same time, a child who actually uses combat (for instance, in a physical fight with peers in the playground) would be socially sanctioned. Thus the context of an action transforms it from enjoyable, playful combat to violence or bullying.

Even when an action is labelled as violent in a peer group, the peer norms will determine the appropriateness of the action (Palacios & Berger, 2016). For example, research (Palacios & Berger, 2016) has shown that adolescents are less likely to use aggression and have normative beliefs supporting aggression where the peer group does not value aggression. Children risk being ostracised by their peer groups if they fight in the playgrounds. They can, however, gain status and admiration in their peer groups by discussing how they used certain weapons or methods to defeat a character in a video game, or got a high score for their efficiency in dispatching enemies in the game. Children's uses and appropriations of video games have led to scholars (e.g. Aarsand, 2012; Burn, 2013) acknowledging video game play as a cultural practice.

Video games as cultural practice

Video game culture forms a significant part of children's media cultures such that it feeds into their playground practices (Potter & Cowan, 2020; Burn, 2013). Whether based on self-contained ideas or film/television, video games reference existing tropes, narratives and rules. "Video games emerge from and intersect with the established forms and channels of children's culture in a complicated ecosystem" (Giddings, 2014, p. 67). They draw from existing cultures as narrative and ludic resources to create culture (Penix-Tadsen, 2016). Players draw from their media experiences when playing video games but also on the playground. As such, video games can inform playground play practices, but also, playground practices can be applied to how children play video games. Playing video games is a cultural practice at the centre of the lives of children living in the Western world (Aarsand, 2012). Playground studies in the United Kingdom suggest that video games are used as a resource for physical play and discussions on playgrounds, thus making them part of the cultural practices of play (Potter & Cowan, 2020;

Burn, 2013). Children can identify as gamers, and this audience identity becomes a cultural signifier[9] (Fenton, 2007). Video games forming part of children's culture means that children develop norms, beliefs, values and expressive symbols based on video game and video game play (Shaw, 2010).

The increase of mobile gaming to a near hundred-billion-dollar industry (Bradshaw, 2020) also points to gaming being ubiquitous for both children and adults (Kaschula & Mostert, 2010). Video games are popular among children in South Africa (Film and Publication Board, 2017; Basson, 2009). They have become more accessible to children than previously despite the economic inequalities in the country because games can be played on cellphones and other mobile devices (Gadget, 2019). Walton and Pallitt (2012) found that gaming is a "popular local appropriation of mobile phones" (p. 9) in South Africa. While more local data is needed on video games as a cultural practice for children, the different forms of access children have to games suggests that their norms and values have subtle differences informed by locally-situated play practices.

There are various childhoods in Africa (Twum-Danso Imoh, 2016): Childhood in Africa is usually characterised in media and some research by what children lack. Numerous studies focus on children living in dire circumstances, and how they work to survive. However, there is no simple story when discussing children in sub-Saharan Africa (Twum-Danso Imoh, 2016). Inequality, differences in access, and exposure to violence are part of a host of factors which all inform how children interact with video games. This dissertation begins to examine childhoods in Cape Town, South Africa in relation to how children respond to video game violence. Furthermore, South African children have been observed as also using video games as a resource in their gender performance, as they engage in playground games and relationships (Pallitt and Walton, 2015). Video games, especially video games containing violence, are usually perceived as having male[10] and masculine ideals as their norms (Gallelli & Fanelli, 2010).

[9] An element which reflects cultural dimensions, e.g. race and gender (Zahedi & Bansal, 2011).

[10] Uses of the terms "male" and "female" will only appear wherein they were used in works referenced. When referring to gender, I refer to social roles. The terms "boys" and "girls" will be used when referring to participants because those were the social roles they embodied during my interactions with them. I recognize that gender is a complex construct and am not endorsing gender binaries.

Video games as gendered spaces

As with other social activities, video game play is gendered. Playing video games is often perceived as a boy's activity (Leonhardt & Overå, 2021; Paaßen, et al., 2017; Thornham, 2008). Recent data show more girls playing, but the games they play are moderated by gender stereotypes (Bergstrom, 2022). Data concerning gender and gaming in a South African context are emerging, but they have so far shown boys and young men being more likely to play video games more frequently than girls and women (Palen, et al., 2010; Walton & Pallitt, 2013). International data also suggest that girls spend less time playing video games than boys do, and tend to lose interest in video games after the age of twelve (Leonhardt & Overå, 2021; Cunningham, 2018; Jansz, et al., 2010). Pallitt and Walton (2015) suggest that these play preferences are informed by the gendered market in children's media. Marketing assists in player's genre choice, and gendered marketing is therefore linked to social gaming being full of gender stereotypes (Paaßen, et al., 2017; Thornham, 2008). Gender portrayals in video games tend to reinforce stereotypes such as the hypermasculine hero character, and the damsel in distress (Jansz & Martis, 2007). Paaßen and colleagues (2017) argue that most video game developers lean towards developing games meant to appeal to boys. Even the use of colours on game packaging shows the gendered marketing of video games, e.g. games "for girls" will have pink or similar colours prominently displayed, such as *My Little Riding Champion* (TopLitz Productions, 2018), whereas games such as *Ratchet & Clank* (Sony Interactive Entertainment, 2016) will feature blue and other darker colours.

Notwithstanding the gendered marketing of video games, the diversification of video games (e.g. video games being more available on mobile devices, and greater diversity of video game characters) means that the gendered landscape of gaming is becoming one wherein video games are a more integrated part of girls' lives (Cunningham, 2018). However, boys are still reported as being more likely to play violent video games (Ybarra, et al., 2014; Cunningham, 2018). Video games, particularly those with vivid representations of violence, have been the subject of research due to societal concerns over how the video games might affect players, especially children.

The Concern over Video Game Violence

Most popular games feature representations of some form of violence, albeit in differing amounts and contexts, such that violence is an integral part of the video game industry (Maxwell, 2019; Kirk, 2014). Video games that feature frequent displays of violent content are extremely popular (Coyne & Stockdale, 2021; von Salisch, et al., 2011; Beukman, 2000). By 2020, 85% of games sold included violence (American Psychological Association, 2020). The American Psychological Association (2020) defined violence as extreme aggression or the use of power/psychical strength intended to cause harm. Even as early as 1991, the vast majority of popular games were reported as being "violent in nature" (Dill & Dill, 1998), and this trend persists to this day (Coyne & Stockdale, 2021; Hartmann, et al., 2015; Gitter et al, 2013).

The public debate about video game violence links into the bigger picture of media violence. On the one hand media violence, and in particular video game violence, is popularly seen as being one of the potential causes of mass shootings such as the 1999 Columbine, and 2019 El Paso shootings in the USA, while on the other hand it is seen as artistic expression that has been part of most cultures for centuries (Media Awareness Network, 2010). In the United States, at least eight states have tried to pass legislation to restrict sales of video games featuring violence, and similar trends have been followed in Europe and Australia (Puri & Pugliese, 2012).

The concern suggested by researchers and lobbyists is that video game violence is associated with aggression in players: an accumulation of studies in the media effects tradition suggests that video game violence may be a causal factor, or at the very least a potent risk factor, for aggression in players (Chen, et al., 2022; Bushman & Anderson, 2015). Further, it is suggested that children are more at risk for larger long-term effects from exposure to violent media than adults are (Hasan, 2017). However, the evidence is not clear, and recent studies suggest that players may not be uniformly negatively affected by experiencing violence in video games (Kühn, et al., 2019; Przybylski & Weinstein, 2019; Ferguson, et al., 2017). The use of lab studies and the ambiguity between aggression and competitiveness in the outcome tasks in various studies has been criticised for not giving a representative picture of how players would behave in their life-worlds (Przybylski & Weinstein, 2019; Ferguson, et al., 2017). Additionally, interpretations of positive correlations between video game violence exposure and aggression have been contested (Ferguson & Wang, 2019). Despite these critiques the debate on the effects of video game violence continues, as will be discussed in the next chapter. Nonetheless, at least

one study suggests that children's interest in violent media increases when violence in their life-world is salient (Whitaker, 2013). South Africa has high levels of interpersonal violence, and many children witness or experience the violence (Sanders-Phillips, & Kliewer, 2019). Still, there is a dearth of local studies on video game violence.

Violence Definition

The most influential current public health definition of violence is "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation" (World Health Organisation, 2002, p. 4). Much as this definition was well researched, there still is cultural contingency in the definition of violence (Walker, 2001), i.e. there are differences in what violence means between cultures, and sometimes even within the same culture (Walker, 2003). For example, Israeli children added "cursing" as a type of violence to which children could be exposed, to a measure of violence developed in the United States (Raviv, et al., 1998 in Raviv et al., 1999). The types of violence that may be common in each city, country or region will also potentially differ. So too will the responses to violence in different areas.

Instrumental and Retaliatory Violence

In the fields of forensic psychology and violence studies, two distinct forms of violence have been recognized: instrumental violence and reactive/retaliatory violence (Tapscott, et al., 2012; Cornell, et al., 1996). The key difference between instrumental violence and reactive/retaliatory violence is that the former is a means to an end, while the latter is an end in itself or a way of restoring balance (Tapscott, et al., 2012). Instrumental violence is planned and goal-directed behaviour aimed at attaining something other than harming the victim (Tapscott, et al., 2012; Cornell, et al., 1996), e.g. a perpetrator shooting a victim in an armed robbery. The violence is conducted with another purpose, such as, for example, stealing money or valuables. Reactive violence is perpetrated to defend against a threat or in response to provocation (Tapscott, et al., 2012; Cornell, et al., 1996). Retaliatory violence is a form of retaliation, i.e. an act of revenge that goes beyond an action of self-defence (Leisring & Grigorian, 2016). While self-defence is motivated by protecting oneself from imminent harm, retaliation is more based on retribution for

a wrong committed by another (Leisring & Grigorian, 2016). The prevalence of instrumental and retaliatory violence in societies differ according to contexts. South Africa has high levels of both instrumental violence and retaliatory violence (Oosterwyk & Kabiawu, 2016; Strebel, et al., 2006).

Violence in South Africa

South African society is notorious for high levels of violent crime, and interpersonal violence (Kempen, 2018; Kyobe, Oosterwyk & Kabiawu, 2016; Shields, et al., 2008). Homicide is reported as the most common cause of injury-related deaths in the country, and the homicide rate is six times higher than the global average (Associated Press, 2024; Matzopoulos, 2016). The levels of homicide and violence are so high that Thomson (2004) argues that South Africans have a culture of violence stemming from their acceptance of violence. As will be discussed further in the next chapter, violence in South Africa appears to be fueled by the historic and present economic inequalities in the country coupled with high rates of gang activity and alcohol abuse being involved in violence being a prominent feature (Glaser, 2008; Thomson, 2004; Barbarin, et al., 2001).

The Western Cape, the province where Cape Town is located, is ranked second in the frequency of violent crime in the country (South African Police Service [SAPS], 2019; Kyobe, et al., 2016). The SAPS (2019) statistics rank the Western Cape third in number of murders, attempted murders and assaults with intent to cause grievous harm, and second in assaults out of the nine provinces in South Africa. The main causative factor of murder in the Western Cape, unlike any other local province, is gang activity (SAPS, 2019).

Gang violence in South Africa dates back as early as the 1880s with the most prolific gang, the Ninevites and their leader Nongoloza, having their criminal exploits reach cult status and inform the development of what came to be called the “Number” gangs (so-called because their names are 26, 27 and 28) in local prisons (Kynoch, 2008; Steinberg, 2004). Kynoch (2008) notes that colonial administration and then Apartheid tried to limit and control Black urbanisation, and this contributed to the rise of gang culture in the country. Prison gangs began to flourish as young men of colour were imprisoned for petty offences, e.g. 700,000 men were

arrested per year in the 1970s for not carrying a pass[11] (Kynoch, 2008). From these origins, prison and street gangs began to link and gang culture has proliferated in the country. Recent data shows that 808 murders in the Western Cape in 2018 were the result of gang violence (Kempen, 2018). As Kynoch (2008, p. 635) noted, "gang culture is more prevalent on the Cape Flats[12] than anywhere else in contemporary South Africa".

The levels of violence in South Africa are such that many children are likely to experience violence in their life-world. The concept of a life-world comes from phenomenology and describes the everyday contexts people inhabit (Sandberg & Dall'Alba, 2009). In the case of participants in this study, a life-world would include their immediate communities, i.e., neighbourhoods, school and public spaces such as local libraries. Given the inequalities in South African society, these life-worlds are marked by differences in exposure to violence in the life-world, time spent at home, who provides care/supervision, access to video games, and how video games are played.

In addition, violent aspects of South Africa were experienced by the children through news reports and stories by family members who have experienced violence. Low socio-economic status (SES) areas have particularly high rates of violence against children (Herrero Romero, et al., 2019) and even in more privileged contexts, South Africa has a high prevalence of children witnessing/experiencing interpersonal violence (Sanders-Phillips, & Kliewer, 2019). For instance, nationally representative data from the Centre for Justice and Crime Prevention's (2015) Optimus Study revealed that two or more out of five children in South Africa would have witnessed someone being attacked with or without a weapon by the time they were fifteen years old.

Hearing about violence is quite common for South African children, and researchers have found that hearing about violence leads to as much distress for children as actually witnessing the violence might, in that even hearing about violence makes children feel unsafe (Shields, et al., 2008). Apart from distress, another consequence of exposure to violence is that it predisposes children to act aggressively (Padmanabhanunni & Gerbrandt, 2019; Kirk & Hardy, 2012).

[11] Pass laws restricted freedom of movement for people of colour from as early as 1760 in South Africa (Savage, 1986). They required people of colour to carry a pass with them which granted them access to White areas, usually to serve as labour (Savage, 1986).

[12] Expansive peri-urban area established during the forced removals of people of colour from around the city centre during Apartheid (Standing, 2003).

Aggressive behaviour by adolescents is a growing problem in South Africa, especially in low socioeconomic settings such as townships (Padmanabhanunni & Gerbrandt, 2018). Unfortunately, there is also a high prevalence of child perpetrators of violent crime in South Africa, with *Times Live* (2019) reporting 736 murders being committed by children between 2018 and 2019. Of that figure, 170 were committed in the Western Cape, where this study took place (Times Live, 2019). Further, violence between learners at schools has also been highlighted as a big problem in both public and private schools (Fumhe & Naidoo, 2015).

High exposure to interpersonal violence predicts normative beliefs that support the use of aggression because children may view aggressive behaviour as a way of solving problems (Padmanabhanunni & Gerbrandt, 2019; Padmanabhanunni & Gerbrandt, 2018). Local research, like that of Padmanabhanunni and Gerbrandt (2018) with adolescents from a low-income township in Cape Town, has shown that South African adolescents support using physical retaliation as a response to provocation. Further, physical retaliation had a stronger endorsement from younger adolescents (Padmanabhanunni & Gerbrandt, 2018). Similar results have been found in places with high rates of violence such as Ardila-Rey and colleagues' (2009) study with children displaced by violence in Colombia. Children aged between six and twelve who had high exposure to violence found physical retaliation to provocation more acceptable than children with lower exposure to violence (Ardila-Rey, et al., 2009). Killen & Smetana (2015) refer to data showing Colombian children with high exposure to violence endorsing hurting others in an act of revenge. However, there have only been a few studies investigating children's perceptions of retaliatory violence. One study on the multiple meanings of violence given by South African children showed that children aged 8 to 13 viewed retaliatory violence as a form of justice (Parkes, 2007). It is also unclear whether local children feel similarly about, i.e. have congruence between, the representations of retaliatory violence in video games, and the retaliatory violence they experience in their life-worlds.

Representations of Violence

The meanings children make of media and media elements such as violence are often assumed and not studied (Giddings, 2014). Much as levels of violence differ in different contexts, be it neighbourhoods, cities or countries, perceptions of violence also differ in different contexts. More specifically, even representations of violence in the media will be perceived differently by

different people in different contexts, e.g. the participants in DeVane and Squire's (2008) study being from different communities in the same town and having different perceptions of the violence portrayed in *Grand Theft Auto: San Andreas* (Rockstar Games, 2004). The meanings attached to violence are situated in a player's context. As such, cultural representations of violence must be included in the examination of how people perceive representations of violence. As Heelas (1982 in Krohn-Hansen, 1994) states: "what counts as violence is organised and articulated culturally" (p. 368). This cultural articulation, he proposes, is constructed through systems of meaning. As such, he argues that it is pointless to describe something as violent without the participants consenting to that definition. This need for participant involvement in developing definitions of violence is also true for video game violence – perhaps even more so, since, as previously noted, video game violence is represented violence, not life-world violence, and therefore may be more susceptible to layers of meaning.

When exploring video game violence it is worthwhile to note what players define as violence and what systems of meaning play a role as they develop their definitions. Players' definitions of video game violence are informed by video game violence forming part of play and having social aspects (Goldstein, 2005). The definitions and social aspects of video game violence held by South African children have yet to be investigated.

Video Game Violence Definition

There are different perspectives on what constitutes violence in a video game. One perspective provides a broad definition which is not limited to physical acts, while another perspective calls for the application of contextual factors in each game when determining if it contains violence. Video game violence is defined as a subset of media violence. Researchers and policymakers have struggled to produce a consistent definition of media violence (Beukman & Olivier, 2000; Olivier, 2000). A definition of media violence (including video game violence) used in media effects research is any media which depicts characters intentionally trying to harm other characters (Plante & Anderson, 2017; Prot, et al., 2017). The violence in the above definition includes not only graphic representations of violence, e.g. when consequences such as blood splatter are shown when a character is wounded, but also includes intentionally acting in any way that will harm another character (human or otherwise) who does not want to be harmed (Anderson, 2016; Krahe, 2014).

The media violence definition is broader than the violence definition provided by the World Health Organisation because it does not require the use of physical force/power. This definition of media violence is closer to a definition of aggression used in media effects research: representations of behaviour intended to harm another person who does not want to be harmed (Anderson, 2016). The psychological definition of aggression is any behaviour performed with the intent to harm a target who is motivated to avoid the behaviour (Grigg, 2010). Violence, according to the above definition of aggression, is the most extreme version of aggression and leads to serious injury or death (Anderson & Bushman, 2018). As such, all violent acts are aggressive, but not all aggressive acts are violent (Anderson & Bushman, 2018). Jansz and van Rooij (2012) state that violence in video games amounts to the frequent and vivid displays of characters intentionally harming other game characters (human, human-like or animal) and/or the destruction of objects. The use of such a broad definition means that most video games, even those appropriate for young children, contain some form of violence. So, even where players may not view some representations of injury or death (e.g. a character flashing red or vanishing) as violent, researchers might do so.

This definition of media violence is the result of corrections to previous oversights in the definition, e.g. who the victims are, and whether the harm was intentional. Research into children and media has lacked a consistent definition of violence (Olson, 2004). The inclusion of the word "character" in the definition provided by Anderson (2016) specifies the target of the violence to avoid the definition being too narrow because harming a sentient non-human-like creature would not count as a violent act. Similarly, for the definition not to be too broad, the concept of intent is included in the definition of video game violence. Earlier research by Jansz (2005) supported the inclusion of intent in definitions of video game violence because the mention of intent would exclude sports games but include games like those in the *Grand Theft Auto* series (Rockstar Games, 1997). However, even sports games based on football/soccer, which does not contain a lot of aggressive physical contact, have controls that allow for a hard tackle that usually injures the opposition character. This means that while being used as a part of the game (albeit an illegal part) the tackle is used with the intent to harm the opposition, and violence should then be included in the video game's rating. Similarly, a game such as *Wii Sports Boxing* (Nintendo, 2006) includes striking an opponent till they are knocked out (as is the

nature of the sport of Boxing). An alternative perspective on defining media violence has suggested defining media violence according to eight factors rather than a blanket approach.

James Potter (2005) notes that the public definition of media violence (including video game violence) in the USA is the graphic depiction of the infliction of harm that evokes a negative reaction in the viewer and is not humorous. This definition is very subjective since different people will find different things humorous or offensive (Potter, 2005). He suggests a broader definition be developed around eight factors: who inflicts the violence, on whom, whether it is intentional, results in harm, is visible or implied, is physical or verbal, part of fantasy, and is humorous (Potter, 2005). Applying these factors to two scenarios in video games used in my study shows that the factors provide a level of nuance in rating violence even in video games with the same age rating. In *LEGO Pirates of the Caribbean* (Disney Interactive Studios, 2011), for instance, there is a mechanism wherein if the player is controlling Jack Sparrow and Jack bumps into a non-playable female character, the woman character slaps Jack. The slap does not happen to any other character in similar circumstances.

Applying the eight factors, the slap is not violent because Jack Sparrow is a playfully roguish pirate being physically slapped by a bystander woman, his character is not harmed (does not lose life or points), and it is humorous and in a fantasy setting. Conversely, Po the panda from *Kung Fu Panda 2* defeating the non-playable antagonist characters in *Kung Fu Panda 2* is violent because: Po is a defender of the village, the antagonists are invaders, they flash red and vanish when defeated (i.e. they die), and while fight is part of fantasy it is not humorous. Recognition of an act in a video game as violent is thus nuanced by what happens and how an act is presented. However, how an act is received will further nuance the recognition of an act as violent. As such, studying video game violence by exploring the locally-situated practices of players becomes vital in providing more accurate definitions of video game violence and how it is perceived by players.

The debate around the definition of video game violence stems from the body of research around the effects of video games, and video game violence on players, i.e. the media effects tradition. The debate will be discussed in more detail in the next chapter. Defining video game violence has formed part of a larger debate around if video game violence can be harmful to players. Numerous countries have developed their definitions and guidelines concerning video game violence.

Local Definition of Video Game Violence

Locally, recent data show 65% of games classified have violence as a classifiable element (Film and Publication Board, 2019). The FPB defines violence as "any physical, psychological or verbal abuse whether self-inflicted, interpersonal or collective, including gender-based violence" (Film and Publications Amendment Act, 2012, p. 10). This definition is used when applying a violence advisory to all the media they regulate. However, the FPB's classification of video games involves rating video games according to themes as well as content. The Film and Publications Amendment Act (2019) defines themes as messages and/or ideas conveyed by the classifiable content in media. In using themes as part of the classification process, the FPB makes moral judgments on media content. The Film and Publications Amendment Act (2019) uses the examples of male violence being used to establish a pecking order, and violence being used to solve problems, as problematic themes. The justification supplied by the FPB is that these uses of violence are examples of social irresponsibility and show a lack of respect for basic human rights. The FPB rates content not just on the actions but on the narrative elements involved in the actions.

Thus, games in the *Grand Theft Auto*[13] (Rockstar Games, 1997) series tend to carry higher FPB ratings than some first person shooters despite the FPB stating that third person video games are less interactive than first person, and their use of this observation in their classification of video games (Film and Publications Amendment Act, 2012). *Grand Theft Auto* games thus carry a higher rating than, for instance, *Call of Duty* (Activision, 2003) games or video games with protagonists working in law enforcement. One may speculate that in this case the game narratives are viewed as problematic and counter to the moral norms of the country because the protagonists are engaging in non-sanctioned interpersonal violence, i.e. violence not in defence of one's self, others or country, nor violence in the service of one's country as part of law enforcement or the military. The FPB's moral judgements therefore generally place representations of instrumental violence as more problematic than retaliatory violence, provided the retaliatory violence is sanctioned by in-game authorities, e.g. killing enemy soldiers in *Call of Duty* (Activision, 2003) games. The FPB's moral judgments are meant to reflect the moral norms of the country, although it is not clear how the body would verify such a correspondence.

[13] Grand Theft Auto 5, for example, is rated 18 by the FPB.

The FPB argues that themes may be threatening, disturbing or harmful to children, and could also cause moral harm to them (Film and Publications Amendment Act, 2019). The Film and Publications Amendment Act (2019) defines moral harm as distorting a child's sense of right and wrong, desensitisation to violence, diminished empathy and compassion, a dehumanised view of others, and the suppression of pro-social attitudes coupled with the encouraging of anti-social attitudes. The definition, like the FPB ratings, is informed by the community norms of South Africa (Chetty & Basson, 2007). The Film and Publications Amendment Act (2019) also precludes the distribution of games or any media that would incite imminent violence or depicts violence against children as part of its regulations as a way of promoting constitutional principles and acting against the social ills of the country. In a similar fashion, the following content categories have been added to the traditional categories (language, sex and violence) as they are against the moral norms of the country: imitable acts/ criminal techniques, drugs, and prejudice. The FPB also holds that violence must always be classified regardless of the age restriction of the content (Film and Publications Amendment Act, 2012). In 2019, the FPB classified violence in 65% of the video games they rated in the year (Film & Publication Board, 2019).

The FPB's age ratings range from Parental Guidance (PG) to 18 (see Table 1 for comparison with other rating systems). The age rating aimed at children about to enter adolescence is the 10-12PG rating. The inclusion of this rating has increased the regulation for younger children. Previously, the video game ratings were focused more on teens (Walton, et al., 2011). Parents of younger children were only informed by the PG rating which spanned all ages up to 12 (Walton, et al, 2011). The 10-12PG rating for video games allows for the video games to have limited occurrences of classifiable elements, provided the occurrences are not realistic and do not include rewards or incentives for using actions in the video game that fall under the classifiable elements. No criminal acts may be included in games rated 10-12PG, and violence can only be mild or moderate. More specifically, the Film and Publications Amendment Act (2019) states games rated 10-12PG can contain "only mild impact violence in first person game play and moderate impact violence in third-person game play. If there are scenes of domestic violence, they must be justified within context, and the content must convey a strong message against it" (p. 47). The Act further stipulates that games rated 10-12PG should not contain any detailed (verbal or visual), close-up or slow-motion depictions of violence. (Film and Publications Amendment Act, 2019). The wording of the guidelines further suggests that not all

forms of violence are held as equal by the FPB.

Table 1

Age ratings of the Film and Publication Board (FPB), Entertainment Software Rating Board (ESRB) and Pan European Game Information (PEGI)

Film and Publication Board (FPB)	**Entertainment Software Rating Board (ESRB)**	**Pan European Game Information (PEGI)**
Parental Guidance (PG)	Everyone	3
7-9PG		7
10-12PG	Everyone 10+	12
13	Teen	
16	Mature 17+	16
18	Adults Only	18

Retaliatory Violence in Video Games

Retaliatory violence in video games is usually preceded by an antagonist transgressing by attacking or threatening the protagonist or those close to the protagonist. Retaliatory violence ends up being used to retaliate against transgressive violence used by the antagonists on the game and stop further transgressive violence by said antagonists (Krishnamurthy, 2024; Krahé, 2014; Duncum, 2006). The transgression is unpleasant because it lacks moral justification, e.g., it is instrumental to the antagonist gaining riches or taking over the world. However, the retaliation usually leads to a happy ending and is therefore enjoyed by players and perceived as less violent than the transgression (Waddell, et al., 2019; Samson & Potter, 2016). Conversely, retaliatory violence tends to be more severe than instrumental violence outside of fictional contexts, i.e. when people retaliate against violence in their life-worlds, the retaliation tends to be more violent than the initial attack being retaliated against (Tapscott, et al., 2012). So, the retaliation perpetrated by the playable character is viewed as justified because it is meant to protect others

who cannot protect themselves from the villains or restore equity (Cote, et al., 2021; Hartmann, et al., 2014). Playable characters are also portrayed as only using violence and being aggressive to protect themselves and others from the antagonists (Samson & Potter, 2016). Such character portrayals are common in video games, television shows and movies catering to both young and old. From as young as seven years old, children enjoy retaliation portrayed in fictional media when the retaliation by the protagonists is equal to the transgression committed by the antagonists (Grizzard, et al., 2020).

Most action/adventure video games, even those meant for younger children, contain retaliatory violence. For example, the PG (ESRB - 7; PEGI - E10+) rated *Kung Fu Panda 2* (one of the games played during my qualitative study) features the protagonist, Po the Panda, and his village in the Valley of Peace celebrating the victory over the antagonists of the previous game when said antagonists reappear and attack the village. The narrative implies that the only practical way of preventing harm to the village and its inhabitants is for the protagonist (who knows Kung Fu) to vanquish the antagonists in Kung Fu combat, i.e. the only way to solve the problem is to retaliate. The narrative interacts with the rules of the game to set the boundaries of what can and should be done, e.g. to defend the village one must fight and defeat the invaders while not attacking fellow villagers. As such, the players' actions in the game are constrained by the fictional narrative occurring in the game (Barnett & Sharp, 2015). The mechanics of only being able to harm certain characters are supplemented by the story of the game justifying harming the characters who can be harmed (because they have transgressed and only retaliation can resolve the situation and prevent further harm being done by the transgressors). In this way, video games operate as narrative systems that often justify the use of violence (Klimmt, et al., 2006).

Similarly, the game *Call of Duty: Modern Warfare* (Activision, 2019) was rated 18 (ESRB - M; PEGI - 18) and has players control British soldiers, American special agents, and Middle Eastern freedom fighters. The story revolves around special forces groups and freedom fighters joining forces to retrieve stolen chemical weapons and prevent a full-scale global war. The playable characters are told that the world will look to them to "do what needs to be done" (https://www.callofduty.com/modernwarfare/campaign), i.e. retaliate against the antagonists, to prevent war. Consequences such as the mercenaries' loved ones having lost someone, or the cost to repair all the property your character destroyed, are not shown. Narrative elements also guide

action through telling players what they must do in the game, and how. Therefore, the narrative elements suggest that the player should retaliate, who should be retaliated against, why, and how the retaliation should take place.

Instrumental versus Retaliatory Violence in Video Games

As video games involve an interplay between narrative and rule-based actions, the violence in video games is also governed by the rules of the game being played. The violence players control is actually instrumental because it is a means to an end (Tapscott, et al., 2012), the end being completing/winning the game. Therefore, the violence players use in video games forms part of the game/ludus rules, i.e. how one wins the game (Frasca, 2003).

Although the violence is instrumental (used as a means to an end, e.g. progressing in the game) in the game, it is usually framed as retaliation (defending against a threat or provocation made towards the playable character) by the narrative. Players understand the rules of a video game partly because of the fiction of the game (Juul, 2003). Elements such as cut-scenes (videos usually in between levels provided for expositional purposes) and character dialogue usually provide details on the motivations of the playable character, and the greater story behind the game. The narratives of most action video games, for example, present a conflict which is unavoidable, and include fictional stakes such as saving the world or restoring balance to the need to win the game (and the conflict therein).

Violence in video games is thus both instrumental in action, and retaliatory in narrative, and this duality speaks back to the complex interplay between narrative and mechanics in video games (Elson, et al., 2014). It is unclear how players engage with the interplay between narrative and mechanics in representations of violence in video games. Studies such as those of Schnieder and colleagues (2004), Klimmt and colleagues (2006), and Barnett and Sharp (2015) point to the narrative aspects being crucial to how players perceive the violence, but more research is needed. In particular, more research is needed in countries like South Africa wherein apart from high rates of instrumental violence through violent crime (Kempen, 2018), there are reports of physical retaliation to provocation being supported by young adolescents (Padmanabhanunni & Gerbrandt, 2018).

Tween Definition

"Tweens" are described as children between the ages of ten and twelve years old (Andersen, et al., 2007). The term tween is often used in marketing but is now also used in academic circles including media research (Andersen, et al., 2007; Buckingham, 2007). It refers to children who are "in-between" being children and being teenagers/adolescents (Prince & Martin, 2012, p. 32).

Children form an important segment of the consumer market because they appropriate and use consumer products as part of constructing and defining their own identities (Buckingham, 2006). From the 1970s media producers and marketers have been marketing products to children between the ages of eight and twelve years old (Kasser & Linn, 2016). As children get older, they gain more access to a greater variety of consumer products. Coupled with this greater access, their interest in video games also increases as they approach adolescence (von Salisch, et al., 2011). Tweens in particular are perceived to have more influence on their parents' buying habits than younger children and may also have more pocket money to begin their own spending habits (Kasser & Linn, 2016; Andersen, et al., 2007). Play is often how children appropriate commodities but there are still knowledge gaps in the literature on these appropriations (Buckingham, 2006).

Tweens are important research subjects because they are more autonomous than younger children (Fikkers, et al., 2017), and are in the process of undergoing important social and developmental changes wherein parental input is still important, but at the same time tweens are beginning to develop their own perspectives on what they want (Shin, et al., 2012). As tweens develop their own perspectives, they pay more attention to peer opinions over parental opinions (Defoe, et al., 2018; Nikken & Jansz, 2007; Beukman & Olivier, 2000).

Even though the majority of media effects research and rating systems seek to protect children from the potential harmful effects of exposure to representations of violence in video games, pre-adolescent children (including tweens) are seldom studied (Lobel, et al., 2017). This is a serious gap in the knowledge because, as Nikken and Jansz (2007) and Brooks and colleagues (2016), among others, report, gaming in children peaks between the ages of 10 and 14. Despite video games becoming an instrumental part of childhood development, there is still a need for studies involving children and tweens. A meta-analysis by Burkhardt and Lenhard (2021) found effect sizes in the relationship between violent video game play and physical aggression peaked in the same age range. Dhiaa and Tawfeeq (2016), and Nikken and Jansz

(2007) also report that in this age group children play age-inappropriate video games more often than younger children. Additionally, data from the United States and Japan showed that tweens mostly prefer violent games (Buckley & Anderson, 2006).

In South Africa, the FPB guidelines assume parents will be supervising and guiding their children's video game play (Walton, et al., 2011). The local PG (Parental Guidance) covers all children from birth to twelve years. As is the case with the ESRB and PEGI, this category further differentiates between media appropriate for appropriately supervised children around primary and middle school age (or tweens), namely PG, 7-9PG, and 10-12PG. Further, the FPB ratings are used for films as well, so the rating categories might have been defined this way primarily to keep ratings consistent across media. However, the Film and Publications Act (1996) states that video games rated 10-12PG must be mild and contain content that is not threatening, harmful or disturbing. The occurrences of classifiable elements such as violence must be sparse, not realistic, and not be encouraged within the game by rewards or incentives (Film and Publications Act, 1996). Nonetheless, the category 10-12PG exists in the local ratings and includes an age cohort that has high interest in gaming, therefore making it prudent to investigate the age group.

Furthermore, both North American and European literature suggests that this age group has less parental oversight than younger children (Olson, et al., 2007; Lobel, et al., 2017; Defoe, et al., 2018). For example, Krantz and colleagues (2017) reported video games to be the second least (television being the least) monitored media behaviour children participate in in the United States. While the levels of parental oversight may be different in South Africa, local research suggests that children distance themselves from parents and other caregivers as they approach adolescence and so have less parental oversight (Padmanabhanunni, 2019). Parental supervision of children in South Africa is also sometimes constrained by parents needing to attend to work (or looking for work), household chores, and more especially in low-income communities, being unable to find alternative supervision for the children (Simons, et al., 2018). International studies such as Dodge and colleagues' (2008) study have linked reduced parental oversight to children associating with aggressive peers and being aggressive themselves. The lack of parental oversight some South Africans tweens experience positions them to associate with aggressive peers. This association can lead to children approving of violence (Padmanabhanunni & Gerbrandt, 2018), and thus exposure to life-world and to video-game violence might have similar pathways.

Also, local and international studies have shown that some parents do not always pay attention to the video game rating guidelines because video games appear animated and are perceived to be for children (Basson. 2015; Becker-Olsen & Nordberg, 2010). The reduced oversight means that these children may be more likely to play age-inappropriate games and discuss their perceptions of violence in both age-appropriate and age-inappropriate games without ethically compromising the study by introducing the children to age-inappropriate games. It is widely believed that most South African children play age-inappropriate video games (Basson, 2015). Additionally, media effects researchers suggest that this age group is important to study because children in this age range are at a stage of cognitive, emotional and social development where they are thought to be potentially more vulnerable to the influence of violent content and will be more likely to act aggressively (Hasan, 2017; Kirsh, 2003).

A further concern about violence exposure in this age-group is that tweens are the age group most likely to support physical retaliation (Padmanabhanunni & Gerbrandt, 2018; Kirsh, 2003). For example, a study on local children found that while they denounced gang violence and violent crime, they positioned retaliatory violence as a form of justice (Parkes, 2007). As they are still cognitively developing, tweens may act without thorough cognitive evaluation in stressful situations such as aggressive provocation (Kirsh, 2003). Kirsh (2003) suggests that the lack of cognitive evaluation when stressed explains why tweens are more at risk of acting aggressively after video game play. Combat in video games can be emotionally laden and stressful, and if a player is provoked while still aroused after play, they may act aggressively (Kirsh, 2003). However, there are other explanations given for why tweens support physical retaliation. One explanation is that tweens are at a stage of moral development wherein retaliation can make sense as a way of establishing justice where they have high exposure to violence (Killen & Smetana, 2015).

Kohlberg's stages of moral reasoning provide an explanatory theory for the development of moral behaviour in children, and thus for the support for physical retaliation. Despite critiques of Kohlberg's (1976) theory on the grounds of gender (Bajovic, 2012; Gilligan, 1977) and being very Western (Gibbs, et al., 2007), it is widely used in video game research because children's moral development is influenced by their roles in their social contexts (Bajovic, 2012; Kohlberg, 1976). Video games form a social context for children wherein role modelling takes place (Bajovic, 2012). Between ages 10 and 12 moral reasoning tends to become more relativistic as

children enter the general stage of formal operations which includes being in the conventional level of moral reasoning (Baldwin, 2018; Kohlberg, 1976). The conventional level consists of conformity and maintaining social order (Kohlberg, 1976). In this stage, children will perceive actions leading to approval as just, and will act out of obligations of duty (Hahn, 2022). The conventional level tends to be when children really approve of the punishment fitting the crime. As such, equitable retaliation is viewed as more acceptable than increased retaliation by this age cohort (Killen & Smetana, 2015). Desires for retaliation are part of children's psychological development (Recchia, et al., 2019). More so, as children reach early adolescence, they are more likely to act out their retaliatory desires (Recchia, et al., 2019; Kirsh, 2003). The retaliatory action is usually goal directed, with the goal being to teach the other party a lesson (Recchia, et al., 2019).

During this developmental period, children also play video games more (Kirsh, 2003). Additionally, during this stage of development, children enjoy fictional portrayals of equitable retaliation in media including video games (Grizzard, et al., 2020). Equitable retaliation is considered as justice in these media portrayals (Grizzard, et al., 2020). German children entering their tween years have been shown to become more interested in combat based video games as part of their experimentation with gaming preferences (von Salisch, et al., 2011). However, there is still uncertainty over how children perceive violence in video games, and more especially there is a lack of research on tweens' gaming and perceptions in the Global South.

Thesis Argument

This thesis investigates children's perceptions of video game violence in a South African context. The following chapters will discuss the nuances found in how children describe video game violence and perceive it in relation to the rest of their video game play, and their life-worlds. They seemingly differentiate between violence in video games and violence in their life-worlds with the differentiation being informed in part by contextualisation by their caregivers and peers.

Chapter Exposition

Chapter Two reviews literature outlining the history of the public debate on the effects of video game violence, and the two research traditions stemming from the debate: Media Effects, and Cultural Studies. It concludes by presenting that both traditions speak to aspects of players'

experiences with video game violence and noting the importance of social contexts when researching their experiences with video game violence.

Chapter Three outlines the designs, sampling techniques, materials, and data analysis techniques used in the qualitative and quantitative studies of this thesis. The qualitative study made use of constant comparative analysis to compare the qualitative data in terms of similarities and differences between participants (Glaser & Strauss, 1967). This comparison allowed me to develop conceptualisations of the possible relations between the pieces of data, and revealed discrepancies required further probing through the quantitative methods (Glaser & Strauss, 1967; Tremblay, 1957). The chapter discusses the participants and ethical considerations of the qualitative study. The procedure of the qualitative study as well as the participants, ethical considerations and procedure of the quantitative study were included in the two separate chapters on the qualitative and quantitative studies for ease of reading.

Chapter Four describes the procedure used in the qualitative study, which was the first part of this study. Results are then discussed, highlighting how the participants' perceptions of retaliatory violence in video games are informed by video games, parents, peers and age ratings. In line with using the sequential exploratory mixed methods design, the qualitative exploration led to the formation of the quantitative research question (Barnes, 2012) examined in chapter five.

Chapter Five describes the participants, ethical considerations and procedure used in the quantitative study. The results presented further corroborate the qualitative results.

In chapter Six, the findings of the quantitative study are merged with the qualitative data. The chapter expands on the contributions of this thesis: adding to the literature on play (specifically video game play in the Global South), providing an interdisciplinary perspective on children's gaming in South Africa by applying a sequential exploratory mixed methods design, and examining how contexts of play inform children's play practices and perceptions of representations of violence. The norms within video games and in the children's environments help scaffold the distinction they draw between violence in video games as a representation of violence, and interpersonal violence they may experience in their life-worlds. As such, children's experiences of video game violence are shaped by context.

Chapter Two: Literature Review

Research on violence in video games has been spurred on by parental concerns about the influence the violence may have on players, particularly children. Two prominent research streams have developed: media effects research, and cultural studies. The two streams differ in method (being chiefly quantitative and qualitative, respectively) and the scope of their findings, i.e. media effects research reports on general patterns while cultural studies focuses on individual contexts and how those contexts inform meanings during play. Media effects research suggests that there are links, possibly causal links, between interacting with the violence featured in video games, and aggression in one's life-world. Cultural studies research suggests that players actively create meaning from their interactions with video games and their contents, and that the way the messages encoded in the video games, e.g. how they portray violence, are decoded is influenced by social locations. Both streams have produced credible research, but largely have not capitalised on the opportunity to combine the strengths of each of their research methods to further the field despite calls for combining the approaches (Livingstone, 2016).

Also, most research is based in the Global North. While the Global South is often characterised in terms of what children lack, there are a multitude of childhoods and therefore no single story can be told about the range of diverse contexts and inequalities (Twum-Danso Imoh, 2016). Of particular interest is whether violent video games inevitably lead to general violent/destructive cognition and behaviour in players, especially children, and in the very different contexts of the Global South. Specifically, South Africa's economic inequalities mean that both access to gaming and exposure to violence in one's life-world are informed by socioeconomic context. As such, how children from varying local contexts understand the representations of violence in video games may be different.

In this chapter, I trace the history of the debates and critiques levelled against each research stream. I also present the opportunity to combine the strengths of the streams before presenting the particular contextual features of South Africa that make it an ideal location to further the field.

Public debates on Video Game Violence

Along with popularity, video games have attracted controversy. Video games, particularly those featuring vivid representations of violence, have been presented in the media as a risk for

aggression. Parents and policymakers fear that children acquire behavioural cues from video games and begin to exhibit similar attitudes and behaviours in their day-to-day lives. The extremes of this, it is claimed, would be mass shooters supposedly emulating what they played in a first person shooter video game, e.g. the 1999 Columbine, and 2019 El Paso school shootings in the USA, being attributed to the perpetrators having played video games depicting violence (Washington Post, 2019). Games such as *Grand Theft Auto: San Andreas*, *Manhunt 2* (Rockstar Games, 2007) and *Call of Duty: Modern Warfare 2* (Activision, 2009) have been the subject of public debate in the media owing to the in-game violence and the positive narrative consequences that the violence brings for the in-game character.

Adolescents themselves sometimes make this link between in-game violence and violence in various life-worlds. For instance, an adolescent in the USA associated the game *25 to Life* (Eidos, 2006) with his murder of 3 police officers (Anderson, 2005). The suggested associations between depictions of violence in video games and players perpetrating violence have made violent video games and their possible effects the subject of research, particularly in the Global North. Media effects research focussing on video games has been encouraged by some parents and policymakers' vocal resistance to the depictions of violence in video games (Williams, 2005). For example, legislators in the USA became concerned with the increasing popularity, graphical realism, and depictions of violence in video games through the 1980s into the 1990s (Funk, 1993). The legislators warned that either manufacturers would have to somehow rate the games or else leave the government to create its own rating system (Funk, et al., 1999). Video game manufacturers responded to the ultimatum by forming two rating systems for games in the USA, namely the Entertainment Software Ratings Board (ESRB), and the Recreational Software Advisory Council (RSAC). The RSAC focussed on personal computer (PC) games and later internet content, while the ESRB's main focus was console games, though it has since expanded to include PC games.

Even with the formation of rating bodies, parents, and policymakers' resistance to depictions of violence in video games include calling for certain games to be banned. The *Grand Theft Auto* games series has had parents and institutions calling for the games to be banned for presenting a positive view of crime and gratuitous violence, and rewarding the committing of these acts (Farrell, 2005). Parental concerns remain consistent, and so research that addresses the parental concerns will be given more attention in the mainstream media.

Concerns over how media affect people, particularly children, are not unique to video games. Such concerns about the media negatively influencing children especially have been present every time a new medium or culture develops, and are socially constructed and developed because of adult anxieties about children's activities and cultures (Laor, et al., 2022; Buckingham & Jensen, 2012; Sefton-Green, 2004).

Parental resistance to depictions of violence in video games bears close resemblance to a moral panic: when a person, condition, group or episode becomes defined as a threat to societal values and interests (Cohen, 1972 in Goode & Ben-Yehuda, 1994). Goode & Ben-Yehuda (1994) add that "In a moral panic, the reactions of the media, law enforcement, politicians, action groups, and the general public are out of proportion to the real and present danger a given threat poses to the society" (p. 156). Parents demand that such research be carried out due to their concern about the effects new media will have on their children (Williams, 2005). There have been several congressional hearings and investigations into video game violence, how video games are marketed to children, and how video games link to mass shootings and other violent instances. The parental pressure behind such investigations stems from a conservative cultural component of society, and thus "if media can be shown to be harmful, they can be regulated and the content controlled by dominant groups" (Williams, 2005, p. 4). Also, policy makers and politicians do not always accept scientific evidence, and this leads to miscommunication and effects being claimed that have not actually been proven (Strasburger & Donnerstein, 2014). As such, the public debate on video game violence effects has informed an academic debate in which two prominent schools of thought have developed: media effects, and cultural studies.

Academic Debate on Video Game Violence

Two of the prominent schools of thought that have emerged in the study of video games are the media effects tradition, and cultural studies. Two key differences in how the two schools view audiences are homogeneity and activity in interpretation of media. Media effects research, in looking for broad patterns, tends to treat media audiences as homogenous and unthinking, while cultural studies tends to treat audiences as being heterogenous and constructing meanings according to their specific contexts (Livingstone, 2019). As such, the media effects tradition is concerned with what *video games do to people*, while cultural studies is concerned with what *people do with video games* (Berry, et al., 2014; Stevens, et al., 2008). What people do with

games involves how they make meanings from the content of games and the context of their play. Meanings will emerge during play according to how a player is socially, psychologically and culturally situated (Carr, 2006). However, the meanings that players can derive from game content are limited by the game's restrictions and possibilities (Muriel & Crawford, 2020). Therefore, players have some agency during gameplay. *i.e., their agency*. Player agency involves being able to produce changes and transformations in an environment (Muriel & Crawford, 2020) and is a key area where the two traditions differ.

Media effects research views players, particularly children, as products of external forces including media influences (Livingstone, 2016), while cultural studies views players as active in their media consumption (Shaw, 2010). The agency of video game players involves them choosing what to play (Ferguson, et al., 2017), and actively constructing meanings in video games they play (Mäyrä, 2008) and the choices they make in those video games (Richards & Nicholas Graham, 2016). Agency allows for freedoms and creativity within the game space while being constrained by the restrictions and possibilities of the game (Muriel & Crawford, 2020). Apart from the two traditions differing on the role of agency in play, they also generally use different research methods.

The media effects tradition tends to use quantitative measures for research, while cultural studies tends to use qualitative methods (Livingstone, 2016; Ivory, 2013). While there have been more measured stances from the two more recently (e.g. Muriel & Crawford, 2020; Plante & Anderson, 2017; Gentile, 2016), the media effects and cultural studies traditions have generally been on opposite sides of the academic debate on video game violence. Players have been considered as homogenous and unthinking in media effects research as opposed to heterogenous and constructing meanings according to their specific contexts in cultural studies (Livingstone, 2019).

Media Effects Tradition

The terms aggression and violence are key in media effects research. Aggression (including in life outside video games) is defined as behaviour intended to harm a person or character who does not wish to be harmed, while violence is defined as an extreme form of aggression which could lead to injury or death of a person/character (Anderson & Bushman, 2018). Media effects research acknowledges aggression as multicausal and needing to be considered within a context

of risk and protective factors (Gentile, 2016). When measuring the effects of media and violence, researchers use measures of aggression rather than measures of violence (Ferguson, 2020). These measures of aggression tend to use prank-level proxies for aggression such as giving hot sauce to a person who does not like spicy food, or making a person submerge their hand in ice-cold water (Ferguson, 2020). Other ways of measuring aggression include self-report measures, and caregiver reports on how aggressively child participants behave.

Media effects research analyses the consequences of media exposure for the attitudes, beliefs, and behaviours of audiences (Livingstone, 2016). The media effects tradition is an umbrella term for what was formerly known as mass communication research (Valkenburg, et al., 2016). Mass communication research emerged in the 1920s but rose to prominence in the 1950s with the rise of television as a medium (Valkenburg, et al, 2016). Mass communication research dealt with the effects of large-audience media (such as newspapers, radio, and film) on audiences (Valkenburg, et al., 2016). There was already a large body of empirical research on the effects of media on audiences by the 1980s (Valkenburg, et al., 2016).

Concerns about media violence date as far back as the 19th century with novels, comic books, music and eventually film/television and video games being scrutinised for potentially corrupting children (Olson, 2004). In the 1960s Bandura's famous Bobo Doll study (Bandura, et al., 1961) led to the development of Social Learning Theory, and branches of work on media violence. Some children in the study observed a same-sex or opposite sex adult model exhibiting either violent or non-violent behaviour towards a doll. The control group had no model exposure. All the participants were then provided with frustration arousal (by being told the toys in the room they were placed in were meant for other children) and placed in a room with a similar doll. The group that had observed violent play towards the doll spontaneously imitated the modelled behaviour and even took it further, while children who had observed non-violent play were not violent towards the doll (Bandura, et al., 1961). The authors therefore concluded that observation of aggression was sufficient to produce imitative aggressive behaviour in children. A model's behaviour is more potent as an influence when said behaviour is seen to establish the model as a successful individual (Bandura, 1977). Video games provide opportunities for observational learning as well as direct experience with aggression and how and when it is reinforced or punished (Kirsh, 2006). This learning potential of video games has been concerning to researchers in that a player is more of an active agent than an observer. They may

therefore more readily produce imitative aggressive behaviour (Anderson & Dill, 2000; Silvern & Williamson, 1987).

George Gerbner developed Cultivation Theory which posits that the more television people watch, the more their world views and conceptions of reality will match what they have viewed on television (Lett, et al., 2004). Therefore, viewers who frequently watch television will have a view of social reality that is more similar to the portrayals on television than reality compared to viewers who seldom watch (Chong, et al., 2012). When applied to video games the theory proposes that continuous exposure to video games will lead to players' views of their life-world being similar to the in-game worlds to which they have been exposed (Chong, et al., 2012). Cultivation Theory has been supported through correlational and experimental studies involving long-term video game play (Chong, et al., 2012). However, it is possible that the media reinforces existing ideas in players rather than cultivates them. Therefore, the transfer of ideas and meaning from video games to players is more complex than initially believed. Media effects research has developed understandings of some of this complexity as the tradition has developed.

Studies have mainly been experimental and correlational and have involved samples ranging from adults to young children. The media effects tradition chiefly uses quantitative research designs to study what positive and negative effects video game play has on child and adult participants. While most studies are cross-sectional, there have also been some longitudinal studies (e.g. Krahé, 2014). The main topics addressed are the effects of video game violence on aggression (e.g. Breuer, et al., 2015), pro-social behaviour (e.g. Adachi & Willoughby, 2012), and empathy (e.g. Kobach & Weaver, 2012); effects of video games on spatial navigation (e.g. Connors, et al., 2014); and moral reasoning (e.g. Krcmar & Cingel, 2016). Media effects research argues that children will experience larger long-term effects from exposure to violent media than adults will because the repeated activation of aggressive thoughts can lead to the activation becoming automatic, especially in children (Hasan, 2017). The main theoretical model used in media effects research on video games and aggression is the General Aggression Model.

General Aggression Model

The most common model to account for violent behaviour used in media effects research is the General Aggression Model (Anderson & Bushman, 2018; Anderson, 2004). The General Aggression Model is a general model to account for aggressive behaviour and so is not exclusive

to media effects research (Plante & Anderson, 2017). The General Aggression Model comprehensively theorises aggression because it acknowledges the overlap between biological, social-cognitive and personality factors in an individual (Groves & Anderson, 2015), thus including the individual and socio-cultural context. In addition, it combines major social-cognitive frameworks including Social Learning Theory, Excitation Transfer Theory, and desensitisation (Plante & Anderson, 2017; Anderson & Bushman, 2018).

Social Learning Theory posits that behaviour is learned both through observational learning and through direct experience, with reinforcement and punishment determining what is learned/maintained (Bandura, 1986). A model's behaviour is more potent as an influence when their behaviour is seen to establish the model as a successful individual (Bandura, 1977). It is suggested that video games provide opportunities for both observational learning and direct experience with aggression and how and when it is reinforced or punished (Kirsh, 2006), and that a player is more of an active agent than an observer, which may therefore more readily produce imitative aggressive behaviour (Anderson & Dill, 2000; Silvern & Williamson, 1987).

Excitation Transfer Theory (Zillmann, 1971) suggests that there is residual excitement after a person has been exposed to something arousing, and this residual excitement can intensify a subsequent emotional state (Meston & Frohlich, 2003). The residual excitement is misattributed to the second event and leads to a stronger emotional response to the second event than would have been experienced if the second event occurred in isolation (Shafer, 2014). An example application of the theory to video games would be a player being excited from playing an intense action sequence in a game and acting more aggressively to provocation by someone after play (Huesmann, 2007).

Desensitisation is the process whereby an individual habituates to a stimulus and so is not influenced by it to the same degree as they were when it was first presented (Groves & Anderson, 2015). For instance, engaging with violent imagery in a video game might have been shocking and anxiety-provoking to a player initially, but the more they play, the less shocking it becomes. It is argued that from this, the player's inhibitions toward violence are also reduced due to the lack of internal aversive responses to violence, and therefore their aggressive thoughts and behaviours increase (Groves & Anderson, 2015). Drawing from these theories and concepts in terms of media violence research, the General Aggression Model seeks to describe how aggressive behaviour is influenced by exposure to media violence.

In terms of media effects the General Aggression Model is “a social cognitive model that describes the short- and long-term effects of exposure to media violence on aggressive behaviour” (Exelmans, et al., 2015, p. 2). The model purports that “repeated confrontation with violence in the media reduces emotional responsiveness to the observation of violence through a process of habituation” (Krahe & Moller, 2010, p. 402). It also posits that the repeated exposure to violence also leads to greater incorporation of aggressive thoughts/behaviour into an individual’s everyday life, i.e. priming or transfer (Stevens, et al., 2008; Anderson, 2004).

The General Aggression Model holds that an aggressive episode begins with the person (their biological predispositions, personality characteristics, and internalised cultural norms) and the situation as inputs (Groves & Anderson, 2015). The inputs influence arousal, affect and cognitions, i.e. the individual’s internal states. Internal states may reinforce or inhibit each other. This means that, depending on the person and the situation, a person may think and feel aggressively without acting aggressively, or may act more or less aggressively. The possibility of feeling aggressive without acting aggressively, or of producing different levels of aggression, occurs in part because aggressive behaviour in one's life-world is constrained by circumstance (Slater, et al., 2003). The internal states lead to situation appraisal and decision-making. If initial appraisal is enough, impulsive action is used. If not (and time and cognitive resources allow), reappraisal is carried out (Groves & Anderson, 2015). The chosen action (whether impulsive or not) forms part of the next input, i.e. how aggressively a person feels when next a similar situation to one appraised occurs (Exelmans, et al., 2015).

For instance, a boy with high testosterone levels (biological), and supportive beliefs about violence (personality) has someone bump into him in a wide hallway (situation). He feels angry because he thinks it was not an accident (affect and cognition) and his heart rate increases (arousal), so he hits back. Similarly, it is argued that repeated exposure to aggression related stimuli, e.g. video game violence, can lead to the development and reinforcement of aggression related knowledge structures (e.g. supportive beliefs about violence), which if activated often can lead to their being used more in social situations (Exelmans, et al., 2015).

Recent research calls for investigation into the role of developmental changes in children in their interactions with video game violence (Breuer, et al., 2015). Furthermore, moderator variables such as family/community violence should also be considered in video game violence research (Breuer, et al., 2015). Parental mediation, i.e. parental strategies to minimise harmful

media influences while maximising media benefits (Jiow, et al., 2017), has also been identified as a key influencer of children's exposure and reactions to video game violence (Livingstone, 2016).

Parental Mediation

Parental mediation theory emerged from media effects paradigms in the 1980s and explores parental interventions on children's television viewing (Jiow, et al., 2017). It has subsequently included video games and other forms of media in its scope (Jiow, et al., 2017). The forms of parental mediation identified thus far are restrictive, active, and co-viewing/playing (Jiow, et al., 2017; Nikken, et al., 2007). Mediation strategies are often limited by how much time parents can spare to mediate (Buckingham, 2007).

Restrictive mediation practices such as parental gatekeeping and applying content restrictions, e.g. children cannot watch/play anything featuring nudity, can be an attractive option for parental mediation where parents do not have time to engage with media with their children. Gatekeeping, in the context of video games, is parents/caregivers controlling children's access and use of digital technologies (Dias, et al., 2016). However, parents are not always aware of what games their children are playing owing to the rise of mobile devices and play in private spaces such as children's bedrooms and friend's homes (Nikken, et al., 2007). Therefore, restrictive mediation is not always reliable.

Restrictive mediation requires ratings to provide enough information for choices to be made without being time consuming (Nikken, et al., 2007). Restrictive mediation also requires parents to understand the ratings system, and to be concerned enough with the ratings and content of entertainment to make decisions on what content is appropriate for their children to engage with. The Film and Publication Board (2008) notes that the biggest constraint to their effectiveness is consumers' lack of awareness of the FPB ratings. Some South African parents do not pay much attention to video game ratings because they equate the animated graphics of video games to children's cartoons (Basson, 2015). Given the time constraints parents have in balancing work and home responsibilities (Kasser & Linn, 2016), it makes sense that some parents would make quick judgement calls on what seems suitable for their children. Additionally, as children age, they pay less attention to parental opinions (Defoe, et al., 2018; Nikken & Jansz, 2007).

Restrictive mediation can be met with resistance and rebellion by children (Cote, et al., 2021; Schaan and Melzer, 2015). As an alternative, most parents in Schaan and Melzer's (2015) German tween sample incorporated active mediation measures by explaining to their children that entertainment media were different from reality. Active mediation involves critical discussion about media content and parental endorsement, or rejection of certain ideologies or content presented (Nikken, et al., 2007). Active mediation is parental communication about the tone and content of a video game and the actions (e.g. violence and sex) within the video game (Martins, et al., 2015). This communication can be endorsement, rejection, or merely providing information about the video game (Martins, et al., 2015). Nikken and Jansz (2007) suggest that active mediation can encourage the third person effect in some children, i.e. it could make children feel like they are immune to any potential negative effects of media while other children are in danger of being affected. Parents with liberal views on the negative effects of video game play tend to use a combination of restrictive and active mediation (Nikken, et al., 2007).

Challenges in using active mediation in South Africa are time (Simons, et al., 2018) and having sufficient knowledge of the content and ratings (Basson, 2015). Many parents balance job seeking or long working hours and household chores with supervising children (Simons, et al., 2018). Given the economic inequality in the country, even where parents are employed, the time that can be given to supervise children's game play is often limited, and it is not financially feasible to pay for childcare (Simons, et al., 2018). There is a poverty of time for most caregivers, especially since 40% of the population lives below the poverty line in the country (Shung-King, et al., 2019). These time and expertise challenges also apply to co-playing.

Co-playing is where parents consume the media with their children, i.e. watching their child play video games or playing with them. Co-playing can either be deliberate (consciously being there to watch/play alongside the child) or coincidental (happening to sit down while the child is playing), and is strongly linked to parents' own gaming practices, and positive views on the effects of video games (Nikken, et al., 2007). Both co-playing and active mediation allow for children to access age-inappropriate content at the parents' discretion, and therefore some parents allow their children to play age-inappropriate video games but mediate this play. Nikken and Jansz (2007) found positive correlations between these forms of mediation and children playing age-inappropriate video games. Children can thus gain information about video game content and ratings without having formal knowledge of them. However, some children resist co-

playing when they feel their parents are hampering their gameplay (Jiow, et al, 2017). At present there have been no studies that begin to explore children's interactions with video game ratings in South Africa and what roles parental mediation may play in their understandings of video game violence and video game ratings.

Recent Findings

Media effects research is now also trying to investigate what effects video game violence has on other anti-social behaviours (e.g. harassment and bullying), as well as aggression (Jelinek & Květon, 2016). In addressing these questions there has been a shift to considering video game violence as more of a risk factor than the cause of violence in players (Coyne, et al., 2023; Bushman & Anderson, 2015), i.e., a factor that, among others, makes violence more likely but is not the sole or sufficient cause on its own. While most studies remain cross-sectional, there have been recent longitudinal studies, e.g. Coyne and colleagues (2023), Kühn and colleagues (2019), and Breuer and colleagues (2015).

Recent longitudinal studies like that by Kühn and colleagues (2019) found no effects on aggression in adult samples. Kühn and colleagues (2019) reported no significant difference in aggression scores before and after German adults played *Grand Theft Auto 5* (Rockstar Games, 2013) for two months. Rather than giving a cross section of players' aggression a few minutes after play, this study had players play games like they ordinarily would over a long period of time to see if players would become more aggressive over time. Kuhn and colleagues (2019) note that similar studies will need to be conducted with children. A British study by Przybylski and Weinstein (2019) used caregiver assessments of the adolescents' behaviour in the month leading up to participation to gain their data. They found no evidence of adolescents engaging in violent acts in video games being related to aggressive behaviour (Przybylski & Weinstein, 2019). They suggest more exploratory studies be conducted as a way of examining pathways that might exist between video game violence and real-world aggression in some people.

However, meta-analyses have suggested links between exposure to media violence, and increases in aggression (Anderson, et al., 2010; Bushman & Anderson, 2001). Meta-analytic reviews on video games and aggression have found identical effect sizes in the small to medium range (Prot, et al., 2014). The links found were marginally weaker than the links reported between smoking and lung cancer (Bushman & Anderson, 2001). Early meta-analytic reviews

reported significant positive relations between media violence exposure and increases in aggression (Bushman & Anderson, 2001). Aggression has many influencing factors and so no one single factor can be singled out for it, but small effects can still have large consequences (Prot, et al., 2014). For example, one study found an effect size [the strength of the effect] of video game violence on aggression (r = 0.152) to be similar to that of poverty, substance abuse and abusive households on aggression (Prot, et al., 2014). A more recent meta-analysis on studies measuring changes in overt aggression over months or years found a significant meta-analytic effect, suggesting that there is indeed a link between video game violence and overt physical aggressive behaviours by players over time (Prescott, et al., 2018), even if the effect sizes are small to moderate.

A key contribution of media effects research is the outlook that aggression is multicausal in nature and needs to be considered within a context of a plethora of risk, protective, mediating and moderating factors (Gentile, 2016). Social and psychological variables have been proposed as the key moderators of media effects (Williams, 2005). Recent research has also begun to develop a more nuanced understanding of how users select the media they interact with (Fikkers & Piotrowski, 2020). Media effects research remains concerned with broad patterns (Williams, 2005), but has begun to address individual difference and nuance in more recent studies (Bender, et al., 2017).

While there have been mixed results, studies mostly show that there are links between exposure to video game violence and aggression in players. Broad patterns have been observed using different research methods. However, the precise nature of the links is still being uncovered. Much as more recent studies have begun to address individual difference and nuance (Bender, et al., 2017), more research which includes contextual aspects of play is needed. Further, most media effects research takes place in the Global North, and there is still a need for more studies on children and adolescents. The need for more studies with children is highlighted by Kasser and Linn's (2016) report that media, including video games with frequent displays of violence, are often marketed to children. Studies with children that also address the contexts in which play takes place will begin to address the critiques against media effects research.

Critique of the Media Effects Tradition

One prominent critique of media effects research hinges on its use of laboratory studies. It is difficult to measure actual violence in laboratory studies because it would be unethical and illegal to make participants behave violently (Ferguson, 2020). Due to this difficulty, media effects studies usually implement proxy measures, which are essentially prank-level measures of aggression. Prank-level aggression measures include blasting an air horn at another participant, or adding hot sauce to their food (Ferguson, 2020). The measures are not actions that people are likely to carry out if tempers flared in an everyday situation. While using proxy measures of aggression can be useful, the main problem with using them is their external validity when it comes to violence. An example of this is Anderson & Dill's (2000) study, wherein aggression after violent/non-violent game play was measured by how loud and long a noise blast the participant used against a supposed opponent as a consequence of losing a competitive reaction time test. Much as it was claimed that the study provided compelling evidence that aggression was increased by violent video game play, no links have been shown between these findings and actual criminal behaviour (Ferguson, 2007; 2020).

As such, even where studies find links between engaging with representations of violence in video games, and aggression in one's life-world, the links are too complex to simply claim that video games can cause players to behave violently. However, that is not to say that aggressive behaviours have not been shown and/or are worth trying to reduce. There have also been reports of video game violence being linked to increases in aggressive thoughts and affect in players (Prot, et al., 2014). Studying beliefs about aggression might provide better evidence of the potential of children for perpetrating physical aggression than reports of prior physical aggression (Slater, et al., 2003). Slater and colleagues (2003) explain that violent behaviour is circumstantial, and thus promote the importance of researching violent attitudes/beliefs about the justification of violence. An example of violent behaviour being circumstantial is that most school shooters did not have prior records of aggressive behaviour, but they had aggressive cognition, and beliefs justifying aggression (Slater, et al., 2003). The shooters did not act on their beliefs and cognitions overtly until their final shooting, and access to weapons provided them an opportunity to do so.

As a consequence of the concern around the effects of video game violence, some researchers (e.g. Williams, 2005; Oswald, et al., 2014; Ferguson, 2020) argue that the media

effects tradition diverts other questions around video games and video game violence from the public eye. This view was supported when Ferguson (2007, 2020) revealed publication bias in literature surrounding video game violence. His meta-analysis suggests that researchers tend to focus on proving ill-effects and at times use methods that seem poorly related to real-world outcomes. Ferguson (2020) also criticised the overemphasis of meta-analytic results in media effects research. Although meta-analyses are useful in showing why effect sizes will be higher in some studies and lower in others, they cannot reveal what the true population effect size is and so should be used with caution (Ferguson, 2020). Meta-analyses show that the relationship between video game violence and aggressive thoughts and behaviours is generally very small but are interpreted as strong evidence for media effects due to their persistent, consistent statistical significance (Ferguson, 2020).

Meanwhile, Squire (2002) suggests that the concerns over video game violence effects draw attention away from the broader social and cultural roles and contexts of gaming. Examples of other areas of research that needed more attention at the start of my study included the educational potential of video games (e.g. Rüth & Kaspar, 2021), empowerment through video game violence (e.g. Jones, 2002), adjustment of cultural norms (e.g. Nakamura, 2001), and examining user experience rather than game content (e.g. Oswald, et al., 2014). This narrow focus on negative effects is also noted in Sefton-Green's (2004) mention of adult anxieties about children's activities and cultures often over-determining the directions of research and Ivory's (2013) assertion that negative effects results may be overstated. Ignoring the positive potential of practices such as play marginalises essential facets of childhood (Benwell, 2009). Focusing on selected (usually negative) aspects of childhood furthers this marginalisation (Benwell, 2009). Additionally, the differences in how players play have not been well addressed in media effects research.

Breuer and colleagues (2015) suggest that there should be models that view users as active and individual. They argue that the current models do not give users and effects enough credit on their individuality (Breuer et al., 2015). Current models are more concerned with general patterns than individual difference. However, some more recent studies have taken individuality into account. Taking individuality and player agency into account, Ferguson and colleagues' (2017) work addressed the problem of player agency in selecting video games when taking part in effects studies. They argued that since most video game players choose the video

games they play, it is important for external validity to include a condition wherein players could make a choice (Ferguson, et al., 2017).

Players choosing their video games was an important consideration because previous research has pointed to what is known as the Reverse Hypothesis/ Selective Exposure Theory which states that people high in trait aggression will choose violent video games, and not that violent video games will increase trait aggression (Kirsh, 2006). Ferguson and colleagues (2017) randomised their participants into a violent video game play group, non-violent video game play group, and a group where they could choose between the two types of games. When participants were tested for aggressive behaviour post-play, they found no evidence of video games contributing to aggressive behaviour in their participants (Ferguson, et al., 2017). Other more recent studies (e.g. Kühn, et al., 2019 and Przybylski & Weinstein, 2019) have also found null effects when researching the influence of video games on aggression.

That Ferguson and colleagues' (2017) and other studies found little to no effects links to the view in cultural studies that children have agency in their consumption of media and therefore may have alternate interpretations of what they are viewing/experiencing (Livingstone, 2007). However, most studies focus on older children, and/or the negative and socially deviant aspects of games (Shoshani & Krauskopf, 2021). Studies on children's meaning-making in games can yield in-depth data on how they understand games and game content.

An example of children's locally situated meaning making in their consumption is how children from a community with a high crime rate held in-game violence in *Grand Theft Auto: San Andreas* as unrealistic when compared to what they may witness or experience at any moment in their community (DeVane & Squire, 2008). This was found as part of DeVane & Squire's (2008) focus group study on how high-risk youths (aged 9 - 18) in the Midwest of the USA play and understand *Grand Theft Auto: San Andreas*. Three groups of participants discussed how they understood the world of *Grand Theft Auto: San Andreas*. When examining the game as a part of their context, children had differing understandings of the game to children from other areas (DeVane & Squire, 2008). Despite contradictory evidence, media effects research showing links between video game violence and aggression in players are more prominent in the press, possibly to pander to the moral panic around violence in video games.

Media effects research is often under pressure to promote research consistent with the moral panic (Bean, et al., 2017). Parental pressure for more research on topics that concern the

well-being of their children may be a cause of the publication bias for statistically significant findings found by Ferguson (2007). Therefore, it is possible that a skewed portrait of the supposed effects of video game violence has been presented. Parental concerns remain consistent, and so research that addresses the parental concerns will be given more attention in the mainstream media. This attention draws more researchers to study the effects parents are most concerned about. Still, while the search for effects can sometimes hide deeper social issues, it does not mean that the effects are unworthy of testing (Williams, 2005).

Moreover, Livingstone (2007) holds that "the task for those concerned with media harm is to identify and contextualise the role of the media within that array in order to permit a balanced judgement of the role played by the media, if any" (p. 9). Livingstone's (2007) statement echoes statements in an article by the Media Awareness Network (2010) discussing the debates on media violence. This contends that video games are used by developers as symbols of expression (Salamanca, 2005): the symbols can be of anger, joy, fear or other emotions. However it is not the symbols of expression used to discuss experiences that should be looked into as the problem; it is the negative social experiences that players may experience themselves, e.g. being a victim of violent crime. Gee (2007) presents a similar view, proposing that if policy makers want to lower violence their concern should be on the problematic contexts that extend beyond playing violent video games.

Also, some researchers from cultural studies argue that the transfer proposed in the General Aggression Model is not as simple as presented. For example, according to Sharon and Wooley's (2004) findings and findings of previous research, children can make the distinction between reality and fantasy by age five. More recently, Bösche (2010), while supporting the General Aggression Model, referenced Klimmt and colleagues (2006) in conceding that "It is conceivable that a player understands aggressive stimuli as being "not for real" or not really hazardous, but rather virtual, and habitual violent video game players often emphasise the idea of a game-reality distinction" (p. 140). In their ethnographic study on how and what American children (9-15) learn from video game play, Stevens and colleagues (2008) noted that the children compared the in-game actions and consequences to the "consequences, and morality, of those actions in the real world" (p. 62). Children therefore do not just receive a direct transfer from video games. Video games intertwine with children's other cultural practices, and children use the cultural resources around them to learn what is acceptable when. From this Stevens and

colleagues (2008) conclude that transfer is an active process in which children analyse reality and fantasy and choose what is applicable to what scenario.

Alongside the possibility that children actively engage with reality and fantasy, it is also possible that there are other factors involved in the act of play, but so far the research has not filled these gaps. For example, the susceptibility to the effects of media violence may be linked to how a person makes sense of the rules and consequences of actions in the game and their life-world. Players as audience members actively receive messages from video games and choose what to do with those messages during and after gameplay (Eichner, 2014). It is this active engagement with content that informs cultural studies.

Cultural Studies

Cultural Studies borrows from other disciplines, e.g. anthropology, psychology, and media studies, to examine culture as a process (Tilsen & Nylund, 2016; Shaw, 2010). Moreover, culture is intertwined with issues of power such as who is represented and how (Tilsen & Nylund, 2016; Eichner, 2014; Shaw, 2010). Cultural Studies addresses these issues of power and investigates audiences as active in their media consumption, the encoding and decoding of media messages, and why cultures have the labels they have (Eichner, 2014; Shaw, 2010). Cultural Studies presents the media as a part of a person's context including how the media is produced, what meanings are encoded in them, and what meanings consumers draw from the media (Tilsen & Nylund, 2016). These contextual differences means that ideas can sometimes be interpreted differently than intended within reason (Croteau & Hoynes, 2018).

Research in cultural studies makes use of qualitative methods of inquiry such as ethnography (Hung, 2007), focus groups (DeVane & Squire, 2008) and individual interviews (Schroder, et al., 2003). These qualitative techniques are also used in audience reception studies: the interdisciplinary exploration of social meaning making in encounters with media discourses (Schroder, et al., 2003, p. 147). Reception studies acknowledge the situational and social contexts of the reception of media as a part of the sense and meaning making processes. However, reception studies have traditionally been conducted with adults (Livingstone, 1998), with very little focusing on how children receive and interpret media, particularly video games.

Within a cultural studies framework, video games are viewed as games, i.e. fictional rule-based forms of entertainment (Juul, 2003). They can be analysed in terms of the three conceptual

frames of game analysis proposed by Salen & Zimmerman (2004): rules (of the game), play (i.e. interactions between the player, the game and other players) and culture (context in which play takes place). Playing games has always been a part of children's culture and this now manifests itself in video games (Mäyrä, 2008). Video game play is entwined with family relations, learning and identity (Stevens, et al., 2008). Players' prior experiences in their life-worlds and with other games also help shape their gaming preferences (Carr, 2005). As such, video games are a form of cultural capital for children (Bourdieu, 1986). Cultural capital is the "resource that participants develop and acquire in the form of competencies and credentials and that they also invest in valued cultural objects, or artefacts" (Malaby, 2006, p. 146). A participant in Stevens, and colleagues' (2008) ethnographic study in the United States claimed that gaming (playing video games) is "what we [children] do" (p. 63). So, video games have developed into a key part of childhood for many children around the world (Pallitt & Walton, 2015; Burn, 2013;Arsand, 2012). The concept that video games play a key part of childhood links with Storey's (2000) notion that "culture is not something ready-made which we consume; culture is what we make in the practices of consumption" (p. 59).

The view that culture develops from practices of consumption acknowledges the "capabilities of children as well as adults as critical and discerning media users, who actively construct meanings in media" (Mäyrä, 2008, p. 91). Among the subjects it explores, cultural studies looks at video game violence in terms of what role it plays in people's lives and cultural settings. It therefore acknowledges the agency of audience members to receive messages from video games and choose what to do with those messages while engaging with the game and outside of the game (Eichner, 2014). Therefore, other factors such as contexts are involved with any effects the media (in this instance video games) can have. Furthermore, a person's context will inform how they respond to violence in video games and in their life-worlds. Gee (2007) proposes that video games are and do different things in different family, social and cultural contexts. The encoded messages in video games are decoded through the implicit knowledge of the players, and this implicit knowledge is influenced by the players' social locations (Croteau & Hoynes, 2018). It is therefore crucial to not treat all forms of game play as equivalent, but rather to acknowledge and study players' unique play practices (DeVane & Squire, 2008). Part of understanding video games in a player's context involves holding the video games as a media practice.

Media practice includes "an array of actions that are linked by certain understandings, but also by being governed by common rules and by shared emotions, ends, projects and beliefs" (Couldry, 2004, p. 8). Holding video games as a media practice attends to not only the consumption of the games (i.e. playing), but also the relations between gaming and other media practices, as well as the social organisation of gaming (Roig, et al., 2009). Media practice linking to the social organisation of gaming was displayed in how children from a community with a high crime rate in the United States called the in-game violence in *Grand Theft Auto: San Andreas* unrealistic compared to their social context (DeVane & Squire, 2008). When examining the game as a part of their context, their experience differed from children from other areas. The children approached gameplay differently in terms of turn taking, tactics, and interpretations of the game content (DeVane & Squire, 2008). The differences found between children in different contexts highlights that children have agency in their consumption of media as evidenced by their different approaches to interacting with the game. Therefore, players may have alternate interpretations of what they are viewing/experiencing, i.e. they may give their experiences different meanings (Livingstone, 2007).

Meaning is presented as socially constructed and negotiated in a cultural context (Linell, 1998). Play itself is a socially situated sign-making activity (Potter & Cowan, 2020). Players consolidate their social experiences, including play practices and media, to represent the meanings they wish to convey (Potter & Cowan, 2020). It is argued, however, that the significance of images can be individual and private (Jenkins, 1999). Further, images can then be used differently: that is, images are semiotic resources, connecting representational resources (actions, materials and artefacts used for communicative purposes) and how they are used (Jewitt, 2009). So, for example, a child can play a game to be immersed in its story and be the main character, or play the game as a way of learning, or even play as a show of agency and mastery. Linking back to Penix-Tadsen's (2019) call for more game studies in the Global South, cultural expectations and norms can influence game culture, and therefore how gaming resources are used and interpreted.

As early as the 1980s scholars like Bourdieu (1986) have described video games as a form of cultural capital. This means that for children video games function as a resource developed and acquired through gaining competencies and credentials (Malaby, 2006). Van Leeuwen (2005 in Jewitt, 2009) states that semiotic resources have meaning potential based on

their past uses and a set of affordances based on their possible uses. He further states that actualization of the resources occurs in concrete social contexts wherein their use is subject to a form of semiotic regime (Van Leeuwen, 2005 in Jewitt, 2009). Despite these resources having histories, some freedom exists in semiotic productions within smaller groups (Jewitt, 2009). Therefore, just because elements of a game have had certain meanings for a player previously, does not mean that those meanings are fixed.

How children make sense of meanings that are not fixed is important especially when considering Hall's (1981) view that meanings generated by a viewer/player depend both on how the makers structured the programme/game and what codes of interpretation the viewer/player uses, i.e. what is encoded in the game and what players decode from the game. This interplay between the meanings generated and the codes of interpretation used to interpret those meanings forms the encoding/decoding model. In this model, media are decoded in a dominant-hegemonic, negotiated, or oppositional way in relation to how it is encoded (Ivala, 2007). The person decoding it may decode it exactly as it was encoded (hegemonic), or make alterations despite legitimating the encoded hegemonic (negotiated), or reject the hegemonic altogether and decode in contrary ways (oppositional) (Ivala, 2007).

One of the most crucial contributions cultural studies has made is the acknowledgement of polysemy, i.e. multiple interpretations of a text (Livingstone, 2019; Williams, 2005). Audiences are active and reflexive in their interpretation of media messages, but are also not homogeneous (Livingstone, 2019). While media effects research is more focused on broad patterns and generalisability, cultural studies examines individual contexts (Williams, 2005). There are, however, constraints on how a person decodes media messages because there are media specific cues, e.g. music, and broader cultural cues, e.g. socioeconomic relations, which limit the possible decodings (Croteau & Hoynes, 2018). Still, social locations influence the decoding of media messages by providing discursive tools to audiences (Croteau & Hoynes, 2018). This is an important consideration when dealing with small groups such as school classes or circles of friends because people's small everyday practices inform how the media connect to the people's life-worlds (Eichner, 2014). DeVane and Squire's (2008) study provides an example of players' different life-worlds informing their meaning-making processes when gaming even when the players live in the same city. Indeed, the study of meaning is informed by the individual's context, and this is something that was borne in mind during this study.

Critique of Cultural Studies

While Cultural Studies highlight the importance of context and consumer agency, the approach also suffers from some shortfalls. Firstly, if taken as a part of a broader genre of game studies, the tradition has the problem of being part of a developing field wherein various schools of thought (e.g. game design, ludology, and narratology) try to assert themselves as the dominant influence in the field of game studies (Deterding, 2017). This siloed approach has led to the various schools not benefitting from each other as much as they could with more integration (Jones, 2008). Furthermore, as a part of this development, games are still being looked at as if they are literature or cinematic films while what video games are in terms of art/cultural practices is still being determined (Deterding, 2017). Still, Deterding (2017) notes that even when video games are examined as part of cultural practices, there are still many different theories and methods that lack integrated objectives.

Secondly, more research is needed in the tradition. With so many facets within the game studies, more interdisciplinary studies would enhance the body of literature around games. However, interdisciplinary studies are still lacking in part due to incompatibilities between the different disciplines involved in the study of video games (Deterding, 2017). Cultural Studies historically had similar problems around defining concepts to those of the media effects tradition. Some work appears to be dedicated to criticising the media effects tradition rather than to add to the body of knowledge around games (Mäyrä, 2008). This has been facilitated by reports being very selective (as in the media effects tradition as well), possibly since researchers are part of the cultures they study and thus may try to legitimise the cultural practices through research (Deterding, 2017). From these attempts, some research becomes too focused on defending gaming from claims pathologizing it. There have also been criticisms of the methods used by both traditions.

While laboratory research has greater control over variables it is criticised as often being artificial (McCarthy & Elson, 2018; Sherry, 2001). Field research, while having participants in their natural settings, has a lack of control over the variables (Jones, 2002). Laboratory research has been the mainstay of the media effects tradition, while cultural studies has often used field research. So far South Africa has not produced much research around video game violence, though some laboratory experiments have been conducted, with varying results, e.g. Koloko

(2010), and Fumhe and Naidoo (2015). The subject of media violence has attracted more interest though. The most famous subject of this research was the television show *Yizo Yizo*. This merits discussion as it highlights the public debate on media violence in a South African context.

Yizo Yizo was a television series produced in the late 1990s to produce public debate about the education system and various social issues in the country (particularly in low-income areas), one of which was violence (Barnett, 2002). The series centred around a township[14] high school trying to rebuild itself after being infiltrated by criminality in the form of gangs (Modisane, 2010). The television drama was developed with support from South Africa's Department of Education to address a range of social problems, and was aimed at Black youth, teachers, and parents in the country (Modisane, 2010). In terms of the violence, two views developed: that the show presented life as it was (Barnett, 2007), on the one side, and that the show was promoting copy-cat behaviour of violence on the other (e.g. Oppelt, 1999). Barnett (2002) attributes the success of the show to it being "premised on the assumption that children have the ability to distinguish between representations of reality and reality itself" (p. 102).

Furthermore, Barnett (2002) notes that the show acknowledged the existence of multiple youth audiences equipped with sophisticated cultural literacies. This acknowledgement of children as active subjects who can assess complex issues helped the show have a further two seasons and also highlights the importance of acknowledging child agency in media use. South African studies on video games that acknowledge the 'media competent child', i.e. a child who knows the difference between fact and fiction and has agency in his/her media use (Johansson, 2000 in Linderoth, et al., 2002) are still scarce. Studies by Venter (2012) and Walton and Pallitt (2013) have made vital strides in developing the body of knowledge but more is still needed. Also, studies that bridge the gap between media effects research and cultural studies are needed.

Another aspect of studying young media users that needs to be addressed further in cultural studies is age. Cultural studies tends to celebrate children's wisdom, but in doing so tends to ignore the importance of their development over time (Livingstone, 2007). Children's interpretations and understandings of media content and influences will vary as they grow older, for example, children aged 4 years old sometimes experience confusion between imagination and reality when dealing with fiction, but by age 6, contextual cues help guide children in distinguishing between reality and imagination (Weisberg, 2013). However, admitting that

[14] Largely informal peri-urban settlement.

children may become more sophisticated in their understandings as they age can lead to suggestions that younger children are more vulnerable to media influences (Livingstone, 2007). Younger children below the age of 10 have been found to have more media-related nightmares, for example (Owens, et al., 1999). The differences in children as they age are important because children's contexts differ as they develop. For instance, younger children may not physically retaliate when provoked out of fear of punishment or hurting the other person, whereas late adolescents may not retaliate more out of self-preservation, i.e. they are worried they would lose (Recchia, et al., 2019).

As children reach their tweens, i.e. between the ages of ten and twelve years old (Andersen, et al., 2007), they start to pay more attention to peer opinions over parental opinions (Paljušaj, 2020; Defoe, et al., 2018; Nikken & Jansz, 2007), play more age-inappropriate video games (Nikken and Jansz, 2007), and are more likely to support physical retaliation (Padmanabhanunni & Gerbrandt, 2018; Kirsh, 2003). It is not prudent to overgeneralise tween behaviour to all children just as it would not be prudent to claim that because children aged 4 years old sometimes experience confusion between imagination and reality when dealing with fiction (Weisberg, 2013), all children experience similar challenges.

Opportunity for Interdisciplinary Research

There is scope for combining the strengths of both media effects tradition and cultural studies by using mixed methods studies. There have been recent calls for such a plurality of approaches (Livingstone, 2016). Proponents of such interdisciplinary approaches argue that the study of video games, including video game violence, is young enough for traditional paths to not be followed (Williams, 2005). Therefore, the use of both quantitative and qualitative research is encouraged to reach a balance between context and generalisability. More cohesion of methods is needed to develop the body of knowledge around video games (Jones, 2002). Qualitative studies often produce small scale data that cannot be generalised, but quantitative data often ignores context when making its generalisations. At the time of his article Jones (2002) claimed that "by using loose language or ignoring an issue altogether each group attempts to imply that its conclusions should be the be-all and end-all of any research stream" (p.10). Essentially, games research is not about a method (Jones, 2002). This idea has also been proposed by other researchers.

Leonhardt and Overå (2021) propose the use of multiple methods in researching games and children as the different approaches can provide a nuanced picture of childhood. Williams (2005) supports this by suggesting that being set in one camp (media effects or cultural studies) or method limits researchers' abilities to understand the nuances in video games. A further suggestion of using qualitative data to establish contexts and then developing quantitative measures from the contextual data were given. Researchers such as DeVane and Squire (2008) also highlight the importance of attending to context while undertaking empirical examinations of games and gamers. Lastly, Olson's (2010) survey and qualitative focus group study on the motivations of video game play gives a good example of using multiple methods to find answers with both depth (context) and breadth (external validity) and is held as a big step forward in finding comprehensive answers about video game play (Oswald, et al., 2014).

This combination of methods also presents an opportunity to address problems in both traditions. Firstly, in the media effects tradition, the use of violent and non-violent games tends to lead to games vastly different from each other in aspects other than violence being used. This means that the games are not comparable. Gentile and Anderson (2003) therefore conclude that when a fast-paced game with violence is played, in contrast to a slow-paced game with no violence, players may note enjoying the violent game not because of the violence but rather because of the fast pace. Graybill and colleagues (1987) provided the best example of game use when they used 6 games that were rated the same in excitement, difficulty and enjoyment, but not violence. Since then, studies have been seen to fall short of this standard (Freedman, 2002). Furthermore, Ferguson (2007) notes that most studies will have multiple measures for their dependent constructs, but only find statistically significant results in one or some.

Secondly, broad, and usually vague definitions of violence tend to be used in media effects research, if the violence is defined at all. The definitions players would provide are also ignored when defining video game violence. Also, a lack of ecological validity has been noted in the use of laboratory experiments since the tasks are often not in an everyday context (Stevens, et al., 2008). Notwithstanding the critiques presented in cultural studies, more research is needed in it to gain better insight into how people, particularly children, experience, understand and use media and/or specific aspects of it (Boyle & Hibberd, 2005 in Franklin, 2007).

There have been recent calls for a moderate stance in the media violence debate (Plante & Anderson, 2017). Plante and Anderson (2017) argue that there should be no fear mongering or

censorship from supporters of media effects research, but also that there should not be denial of positive findings by opponents of media effects research. There are multiple reasonable views on the links between video game violence and aggression in players (Gentile, 2016). Media effects research acknowledges the multicausal nature of aggression and agrees that aggression must be considered in a context of risk and protective factors for players (Gentile, 2016). Similarly, cultural studies recognises how players engage with games to form their own interpretations of the content, including violence. A player's social context can influence how they interact with video games (Croteau & Hoynes, 2018).

Landscape of play in South Africa

South Africa is a country with high levels of economic inequality (Herrero Romero, et al., 2019). Much as it already existed, racial inequality was formalised under Apartheid with the Population Act of 1950 establishing four racial categories, namely Black, White, Coloured (i.e. mixed-race including Africa, European, and/or Asian ancestry)[15], and Indian (Palen, et al., 2010). Legislation also determined where one could live and work, and one's access to government resources (Coovadia, et al., 2009). Under the Group Areas Act (41 of 1950), the best locations were granted to White people while people classified as Black and Coloured were forcibly moved to less favourable locations (South African History Online, 2016). Labour policies also privileged White workers through job reservation while restrictions on movement, and inferior education, were imposed on the other race groups (Wollard, 2002). These policies meant race and class had considerable overlap (Whitehead, 2013). The continuing legacy of Apartheid in South Africa keeps unequal access to resources for the historically designated race groups (McKay, 2019; Lemon & Battersby-Lennard, 2009; Woolard, 2002). In relation to the current study, these historical inequalities remain apparent in the differences between the sites used in the qualitative and quantitative studies. In the qualitative study the suburb of Rondebosch is predominantly White, middle SES and English speaking while the township of Khayelitsha is Black, low SES and isiXhosa speaking (Statistics South Africa, 2019). In the quantitative study the suburb of Grassy Park was included. Grassy Park is mainly Coloured middle SES and English speaking (Statistics South Africa, 2019).

[15] The racial category Coloured persists from the Apartheid era, but no longer carries the legal meaning it had (Shields, et al. 2008). Use of racial categories in this thesis does not indicate support for them.

According to the most recent census at the time of data collection (Census, 2011) the Cape Town suburb of Rondebosch housed 19,554 residents in 6,990 households, and 83.4% of the community spoke English. Grassy Park had 82,199 residents in 19,447 households and was also mostly (58%) an English speaking community (Statistics South Africa, 2019). Khayelitsha is a township that had a population of 391,749 in 118,810 households (Statistics South Africa, 2020). IsiXhosa was the most common spoken language in the area with 90% of the community speaking it (Statistics South Africa, 2020). The areas have socioeconomic differences with the two suburbs (Rondebosch & Grassy Park) having the majority of household incomes being above R38,200 (USD2,247) per month, while the nearly half of households in Khayelitsha earned a maximum of R19,600 (USD1,152) per month (Statistics South Africa, 2020). Although Rondebosch and Grassy Park are more affluent than Khayelitsha, there is also a socioeconomic gap between Rondebosch and Grassy Park with average annual incomes of R230,700 (USD13,570) and R57,300 (USD3,370) respectively (Wazimap, 2020).

While Rondebosch had more internet home connections, half the residents in Grassy Park (51.9%) and most in Khayelitsha (66.8%) did not have access to the internet except via the cellphone network (Statistics South Africa, 2020), thus making their mobile phones their primary means of internet access (Statistics South Africa, 2019). Despite the inequalities, access to video games was widespread, but took different shapes. At the time of my data collection (2012-2015), suburbs such as Rondebosch made up the 1,884,998 households who reported playing games, mostly on the internet (South African Audience Research Foundation, 2014). Mobile gaming was more popular in South Africa and provided cheaper alternatives for play.

Gaming in South Africa has historically been considered a White hobby (Skotnes-Brown, 2019). There are however ever increasing numbers of gamers of colour. The proliferation of mobile phones has led to greater accessibility to video games across economic brackets. The proliferation means that video games can still form part of everyday life for a person even where there is a digital divide due to socio-economic status (South African Audience Research Foundation, 2019; Gadget, 2019). Recent local data shows that only 12% of the population has access to computer games, while 8% has access to gaming consoles (Marketing Research Foundation, 2020). Furthermore, traditional gaming through consoles and PC has now been overtaken by mobile gaming with the former accounting for 46% of video game revenue while the latter now accounts for 52% in the country (Gadget, 2019). Walton and Pallitt (2013) state

that gaming is a “popular local appropriation of mobile phones” (p. 9) in South Africa. The relatively high cost of console hardware and software together with most mobile games having a zero-cost point of entry explain this recent trend (PricewaterhouseCoopers, 2018). The most recent survey data shows 79% of mobile phone users used their phones to play games (South African Audience Research Foundation, 2019). Therefore, video gaming in South Africa is widespread even with the economic inequalities in the country.

Children from low SES communities do not only have access to video games through mobile phones. In Cape Town, a small number of public spaces such as libraries provide children with opportunities for internet gaming, and in some instances console gaming. Recent research from the United States suggests that more libraries are trying to include video games as part of their set up (Boyle, 2018; Miltenoff, 2015). The potential benefits of including video games are firstly that more patrons will use the space (Boyle, 2018). In some cases it can also function almost as a day care facility where children have a safe place to play/interact with each other, and even have small bits of physical exercise, e.g. through the use of the Nintendo Wii (Adams, 2009). The library functions as an informal day care facility in South Africa because many schools do not offer extra-mural activities or other aftercare facilities to keep children occupied while caregivers are at work (Donner & Walton, 2013). For example, the video game room at the Lumumba Library in Khayelitsha, where I collected data, was established partly to provide safe environments for users, especially children (Hardy, 2011).

Internationally, adult fears about child safety have led to limited opportunities for children to have unsupervised adventurous play outside (Barron, et al., 2021; Singer, et al., 2009). Indoor play, including video game play is therefore promoted. Low SES communities in South Africa lack safe outdoor spaces for children to play in (Adams & Savahl, 2015). Parental fears about safety extend into suburban contexts as well. An earlier study of children’s lives in South Africa suggested that suburban children’s activities are kept in safe places where possible, e.g. friends will play video games at one person's house while waiting to be taken home by a parent, rather than playing in the street (Bray, et al., 2011). Adult decisions and routines then act as a determinant of children's play (Bray, et al., 2011).

In public spaces such as libraries adult control includes the video games being chosen by librarians, and a librarian monitoring the turn taking as the children play. However, when playing in private spaces, children can have more control over what they play and how turns are taken.

Private gaming will be subject to different forms of parental mediation. Where parents have time and sufficient knowledge, they will engage in restrictive, active or co-playing mediation of their children's media practices (Simons, et al., 2018; Basson, 2015).

While libraries and similar public spaces can provide supervision for children, not all South African parents are able to find such alternative forms of supervision. Parents who are working, seeking work, or attending to household responsibilities are limited in terms of how much parental supervision can be given to children's video game play (Simons, et al., 2018). Additionally, some parents do not pay attention to the age ratings of video games (Basson, 2015), so even when there is parental gatekeeping, it may not always be well informed. Such lack of attention is not isolated to South Africa, as Orr (2006) found that ESRB ratings in the USA were overlooked by adult shoppers.

In South Africa, despite the FPB suggesting that video games can include content that can "threaten a child's sense of security or well-being" (Department of Home Affairs, 2009, p. 17), children are not always aware of video game ratings (Basson, 2015). This lack of awareness suggests that children might not always receive rating information either from the FPB stickers or their parents. As such, most South African children who play video games are believed to play age-inappropriate video games (Basson, 2015). Children sometimes rely on their peers for information, and having knowledge about video games can be a source of cultural capital with one's peers (Malaby, 2006).

Peer acceptance is a developmental goal during tween years into adolescence (Paljušaj, 2020; Palacios & Berger, 2016). Cultural artefacts such as video games are used as social currency during this developmental period. Cultural capital is a resource invested in cultural objects and/or artefacts (Malaby, 2006). Local data shows that children use knowledge of video games as cultural capital (Walton & Pallitt, 2012). The meanings and understandings children attach to ratings and content in video games can therefore be shaped by their peer groups. Even within peer groups, access to games, genre preferences, and gendered practices combine to inform each player's perceptions of video games and video game content, e.g. violence.

While both boys and girls in South Africa enjoy playing video games there are still some gendered play practices and preferences present (Amory & Molomo, 2012). Gender inequalities are still prominent (Graaff & Heinecken, 2017) and sometimes filter down to how much leisure time children may have, e.g. girls are more often required to assist with housework than boys. As

such, some boys will have more leisure time for video games. Some parents may also lean into the idea that video games, or some video game genres, are better suited for boys.

In Amory and Molomo's (2012) study with South African children and young adults (aged 14-24), boys and men rated a hyper-masculine first person shooter game more favourably than women did. Amory and Molomo's (2012) study also found that boys and men had more of a preference for competitive games than girls and women did. Hypermasculinity is an exaggeration of cultural male stereotypes and can include overemphasising male physical characteristics and behaviours while being hostile towards displays of femininity (Salter & Blodgett, 2012). Male characters in video games tend to appear muscular, dominant and aggressive. Violence is sometimes also presented as a problem solution. South African children are also exposed to the idea of violence being a problem solution through witnessing or hearing reports of violence in different communities. Some of the violence they encounter in their life-worlds links strongly to patriarchy in the country. Patriarchy is also prominent and experienced by all racial and ethnic groups (Mudau & Obadire, 2017).

Linked to patriarchy and gender inequality in South Africa are high levels of gender-based violence (Graaff & Heinecken, 2017). The increase to already high levels of gender-based violence in the country in recent years is explained by factors including the normalisation of violence from Apartheid, income inequalities (men cannot live up to the masculine ideal of being the economic provider), and gender inequality. South African children are therefore presented with examples of violence in their life-worlds to varying degrees.

It is likely that the characteristics of a person and their social influences will affect the role media content plays in their lives in terms of violence and aggression (Huesmann & Taylor, 2006). As such, differences in children's rates of exposure to violence in their life-worlds could be linked to different roles or meanings being assigned to violence in video games. Per Goldstein (1998), "the attraction to violence is best examined by analysing its portrayal and its audience. And we must examine it also on a 'macro' level by considering the context in which it is witnessed and the times in which it is experienced" (p. 214). Therefore, examining how children make sense of the visual representations and narratives of violence in video games may clarify some aspects of their attraction to video game violence.

Goldstein (1998, 2005), among others, also suggests that violence in media may not be enjoyed in and of itself and that players have "overriding reasons for engaging with violent

themes" (Goldstein, 2005, p. 353). If this claim is true then investigating what sense children make of video game violence is all the more important, because it may clarify the positive and negative aspects found in the violence that lead to its enjoyment. It will also acknowledge the social aspects of play that sometimes lead to children choosing games that will expose them to video game violence. Video game violence cannot be understood without considering the social aspects around game play (Sørensen & Jessen, 2000).

Conclusion

The literature presents an interesting gap around what games South African children actually play. The FPB thinks that South African children mostly play age-inappropriate games, but more research is needed. It is also unclear what sense local children make of video game violence. It is in this light that this dissertation sets out to fill the gap in the research by conducting sequential exploratory mixed methods research (Mayring, 2007) that deals with definitions and meanings of video game violence made by children as well as the congruence between their beliefs about retaliatory violence in video game and real life. The dissertation is underpinned by the view of video games being games (rule-based systems of play which are distinct from players' life-worlds), and a part of most children's lives in South Africa. The sub-studies within the dissertation use observation, qualitative interviews and a quantitative questionnaire to draw out definitions and meanings of video game violence held by children between 10 and 12, and whether their beliefs on the justification of retaliatory violence in video games is the same as for real life. Some of the children's data will be compared to findings relating to authoritative (i.e. the FPB) views on video game violence (e.g. Chetty & Basson, 2007).

Chapter Three: Method

Video game research in South Africa is young enough that there are many opportunities for mixed methods research. Children have different forms of access to video games, and different experiences of interpersonal violence according to their socioeconomic status. Given the diverse landscape of play in the country, individual contexts must be studied to draw out the nuances of how players interact with video games. The depth of the data around the nuances can be accentuated by studying the broad patterns of play. Combining the two forms of data will provide a holistic picture of children's perceptions of retaliatory violence in video games. Using mixed methods research when investigating video games taps into the strong influence players' social settings and personal traits have on how they interact with video games (Olson, 2010). Using mixed methods allows a researcher to engage with more specific aspects of players' interactions with video games using qualitative methods while also being able to draw broader patterns using quantitative methods.

Sequential exploratory mixed methods research (Creswell, 2009) was implemented to tackle my research questions. Qualitative methods were used to explore the definitions and meanings children gave to video game violence. Through the qualitative research, a quantitative research question arose: How do the beliefs of children, between the ages of 10 and 12, about retaliatory violence in video games compare to their beliefs about retaliatory violence in their life-worlds? A survey was selected as the most appropriate method for testing the resultant hypothesis as it would allow for a larger body of data than obtained in the qualitative study to be collected quickly. It also allowed for descriptive and comparative statistics to be used when analysing the data.

The inequalities in South Africa and Cape Town specifically meant that play would happen in different contexts, e.g. some children mainly played games under strict turn taking rules at a library, while others in higher SES settings played on consoles at home. Getting the general patterns through quantitative research alone would be limiting because there could be qualitative differences in how children engage with violence in video games based on their access to games, locally-situated play practices, and exposure to violence in their life-worlds. Mixed methods also allowed for my arguments to be based not just on self-report measures (which must be age-appropriate to be valid, but still run the risk of inaccurate responses) but

observations of play as well. This approach sought to address the gaps in current local and international literature and provide a more holistic and robust picture of how tweens perceive violence in video games.

Context and research sites

My studies took place in the context of post-Apartheid South Africa (2012-2013, and 2015). High economic inequality along racial lines was (and remains) the norm. These socioeconomic differences between areas of Cape Town acted as determinants of access to gaming, but also provided context for why and how video games are played. Children from low SES areas had opportunities for gaming through mobile phones and in some cases the use of libraries. Levels of exposure to violence were also different according to location. Following from Barbarin, Richter & de Wet's (2001) work, more recent research suggests that more densely populated urban areas such as Khayelitsha experience more violent crime than suburbs like Rondebosch (CrimeStats SA, 2019). CrimeStats SA (2019) statistics show 48 contact crimes, i.e. crimes against a person such as assault, attempted murder and murder, being reported in Rondebosch in 2019. Harare, a sub-district within Khayelitsha had 1,772 contact crimes reported in the same period (CrimeStats SA, 2019). Additionally, there have been three reported mass shootings in Khayelitsha in 2022 (Pijoos, 2022). During the data collection period Khayelitsha was the third highest precinct in the province for murder, fourth for sexual offences and robbery with aggravating circumstances, and fifth for assault (CrimeStats SA, 2016). There was a stark difference in in these statistics compared to Rondebosch: Murder – 166 (Harare) vs 2 (Rondebosch), Sexual Offences – 211 (Harare) vs 12 (Rondebosch), Robbery with Aggravating Circumstances – 924 (Harare) vs 132 (Rondebosch), and Assault – 890 (Harare) vs 38 (Rondebosch) (CrimeStats SA, 2016).

The Fountain School was chosen as one field site because it has cooperated with similar studies. Further, most of the children there have gaming consoles in their homes (Pallitt, 2013). Grades have approximately 35 pupils in them, and the school has a compulsory extra-mural period for its pupils which presented a good opportunity for space and time to conduct this study.

Lumumba Library was chosen as a second field site because it has a dedicated gaming space, and the head librarian had an existing relationship with the University's Centre for Film and Media Studies. It also provided a good opportunity to work with a generally socially marginalised group of children who potentially had different access to games, but also who may

have had more exposure to violence in their life-worlds than the Fountain School participants, given that as Khayelitsha had some of the highest instances of violent crime in Cape Town at that time (SAPS, 2015).

Even as far back as the 1800s some Western libraries have had gaming rooms/spaces providing users a safe space to play games with each other. However, the types of games have changed over time and now include video games (Nicholson, 2013). Recent research suggests that more libraries are trying to include video games as part of their facilities (Miltenoff, 2015). The potential benefits of including video games include more patrons using the space. In some cases in South Africa, libraries are *de facto* day care facilities where children have a safe place to play/interact with each other. Gaming facilities, including three Nintendo Wiis and three PCs, were provided to Lumumba Library by the Carnegie Corporation of New York in conjunction with the Violence Prevention Through Urban Upgrading, the Neighbourhood Development Partnership Grant, and Provincial Grant funding (Hardy 2011). The Violence Prevention through Urban Upgrading sought to provide safe environments for community residents through such initiatives (Hardy, 2011). The library's informal function as a day care facility is important when schools do not offer extra-mural activities similar to those available at the Fountain School or other aftercare facilities. Gaming assists the library in being a community hub by bringing children together for a shared activity (Nicholson, 2016). Furthermore, research suggests that video game play in libraries can have similar benefits to recreational reading while also aiding in keeping patrons up to date with some technological advances, whether or not they own their own video game consoles (Adams, 2009). This last point ties into an especially important function that games can serve in the library, namely, building literacy.

The video game room at the library attracted children as young as 6 and as old as 17, and since its core purpose is gaming it provided a space wherein research could be conducted safely while not creating a spectacle, under normal gaming conditions for these children. Though necessarily different to the suburban setting, the library nonetheless provided a context broadly comparable to the Fountain School, where small class sizes, and the availability of a homework club made it well-suited to data collection.

The Fountain School (384 learners) was also used in my quantitative study along with the Grassy Park School[16]. Although bigger than the Fountain School, the Grassy Park School (938)

[16] Pseudonym

had similar class sizes and various extracurricular activities available for its learners. Two schools in Khayelitsha were also used as research sites: St Francis[17], and Khaya[18]. St Francis is a small religious school (197 learners) catering to middle to low SES families in the area. Khaya is a large school (833) catering to mainly low SES families.

Mixed methods research

Mixed methods research incorporates the strengths of qualitative and quantitative research primarily to broaden the understanding of a topic by integrating the two methods (Creswell, 2009; Axinn & Pearce, 2006). The greatest benefit of using mixed methods is that mixing the methods allows for more robust conclusions to be developed (Leonhardt & Overå, 2021; Wilkins & Woodgate, 2008), and for said conclusions to be generalisable. Furthermore, it allows for the data of the initial study to inform the secondary study, and in turn the secondary study elaborates on or clarifies results from the initial study (Wilkins & Woodgate, 2008). The pragmatic approach to mixed methods research, which holds practical issues as more important than theoretical ones (Doyle, et al., 2009), was applied to this study. So, choosing methods was done according to the research questions rather than by paradigm (Mitrofan, 2010) because doing so helped address the practicalities of answering the research questions, as will be shown. A mixed methods approach was also utilised to gain a more general picture of the subject matter, and to reach a balance between the subjects' perspectives in the qualitative section, and my specific interests as a researcher in the quantitative section (Punch, 2005).

As qualitative methods can be used to generate hypotheses (Sofaer, 1999), and usually use smaller samples (Mitrofan, 2010), they can be – and were, in this instance - used to generate a quantitative research question with a larger sample. A strength of mixed methods research is that it can simultaneously answer exploratory and confirmatory questions while differing viewpoints can be expressed through divergent findings (Bajovic, 2013). For the purposes of this study, the qualitative methods answered the exploratory questions and established the question to be answered by the confirmatory quantitative methods. Using mixed methods in research on video games is a relatively new practice but is supported as a way of gaining more comprehensive information from participants and target populations (Reinhard, 2010).

[17] Pseudonym
[18] Pseudonym

Mixed methods research on video games

The study of video games, including video game violence, is young enough for more exploratory approaches to be needed (Koskela, 2017; Williams, 2005). Jones (2002) concurs that games research is not about a particular method, but that more cohesion of methods is needed to develop the body of knowledge. Qualitative studies, he suggests, often produce small scale data that cannot be generalised, but quantitative data often ignores context when making its generalisations.

As was explained in the previous chapter, accessing contextual meanings is essential if researchers are to understand the significance of games to young people and also their experiences of and perspectives on violence. Context can help better explain people's actions and understandings since each person interacts with their own environment. For instance, children in South Africa who come from lower socioeconomic status (SES) backgrounds may have their access to video games managed differently to children from higher SES backgrounds. Given the crime statistics mentioned earlier, participants from different areas are also likely to have experienced different levels of exposure to interpersonal violence in their communities, and to grow up around somewhat different norms around violence, whether represented or actual.

Apart from the use of mixed methods acknowledging the importance of context and children's experiences (Livingstone & Bovill, 2000), using mixed methods also assists in drawing out the nuances of players' interactions with video games (Leonhardt & Overå, 2021). Williams (2005) supports using multiple methods by suggesting that being set in one method limits researchers' abilities to understand the nuances in video games. He suggests using qualitative data to establish contexts and then develop quantitative measures from the contextual data. De Vane and Squire (2008) also highlight the importance of attending to context while undertaking empirical examinations of games and gamers.

Further, Olson's (2010) survey and qualitative focus group study on the motivations of video game play gives a good example of using multiple methods to find answers with both depth (context) and breadth (external validity). Her study involved surveying 1,254 middle school children in the USA and then conducting focus groups with children and their parents to examine the children's motivations for playing video games (Olson, 2010). The survey allowed for a large sample, while the focus groups allowed for more probing into the participants'

understandings and motivations with a smaller group. Thus there was an incorporation of both breadth and depth in Olson's (2010) study. The one method aided the other in developing a more complete picture of children's motivations for video game play. As such, there is precedent for the use of mixed methods research in investigating video games and related topics.

Taken together, these approaches suggest that the use of both quantitative and qualitative research is encouraged to reach a balance between context and generalisability. Previous studies around video games in South Africa have been single method studies, and so this mixed methods study will be one of the first of its kind in the country. More specifically, it will be one of the first local mixed methods studies involving children and depictions of violence in video games. The next key decision taken was whether to run studies concurrently or sequentially, with the latter being chosen so that the first study could inform the second.

Sequential exploratory mixed methods research

A key consideration in designing a mixed methods research project is the timing of the qualitative and quantitative data collection, i.e. whether to do them sequentially or concurrently. Having studies be sequential or concurrent is best determined by the researcher's intent (Creswell, 2009). My intent was to firstly gain a better picture of how children defined video game violence and what meanings they attached to it by examining their responses to it. From there, I wanted to see what further questions would develop and what data may need to be checked quantitatively for external validity. To do so, a quantitative research question and a hypothesis on the congruence between children's support for retaliatory violence in video games and in their life-worlds was generated from the qualitative data and tested. As such, a sequential exploratory design was implemented.

Sequential exploratory design is used when one "wants to explore a phenomenon but also wants to expand on the qualitative findings" (Creswell, 2009, p. 212). My qualitative study provided rich data on how children respond to video game violence according to their contexts and norms, but also acted as the source of a quantitative research question and hypothesis and aided in the construction of a questionnaire, as is typical of the sequential exploratory design (Barnes, 2012; Axinn & Pearce, 2006; Punch, 2005). Thus, statements from participants in the qualitative phase were used to construct a questionnaire to test the hypothesis developed from the views of the participants. The sequential exploratory design is widely accepted in social science

research (Mayring, 2007) since qualitative research enhances one's 'peripheral vision' of the topic in the early stages of inquiry, and therefore assists in hypothesis generation and refinement for the quantitative portion (Sofaer, 1999). Sequential exploratory design also uses a form of data integration called connecting.

Connecting, as a type of data integration, involves the results of one study informing the procedure of the next, as has been outlined here. Integration of data is essential in this type of mixed methods research. Creswell & Zhang (2009) suggest two ways of integrating that were used here: connecting, as just mentioned, and merging. Merging is comparing data side by side in the discussion, i.e. not keeping the data sets distinct (Creswell & Zhang, 2008). While there is a preliminary discussion of only the qualitative data, the final discussion merges both the qualitative and quantitative data found. Merging is also common practice when reporting qualitative data (Anderson, 2010). Using merging in mixed methods research also allows for the complexities within the qualitative data to be engaged with first, before an overall view of the combined data can be given.

My initial main research question was "What definitions do children between 10 and 12 provide for 'video game violence'?". Sub-questions included "How do they interpret the representations of violence in age-appropriate video games?", "What is the significance of such representations of violence within the children's peer groups?", and "What sense do the children make of represented violence in video games which they play, but which are not considered age-appropriate by the Film and Publication Board?". These questions required the in-depth study of actual video-game play as it naturally occurred because observing game play in a natural situation, or as close to one, would be more likely to allow for nuances to be identified. Such an investigation required the use of a qualitative approach (Punch, 2005). As these methods accommodate the context of the cases (Creswell, 2009) they are the best to access participants' definitions of their situation (Punch, 2005), as well as their perceptions (Creswell, 2009). Furthermore, qualitative methods function as a "means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem" (Creswell, 2009, p. 4).

The data gained from my qualitative study raised the question "How do the beliefs of children between the ages of 10 and 12 about retaliatory violence in video games compare to their beliefs about retaliatory violence in their life-worlds?", and this question was more appropriately addressed by using quantitative methods. Quantitative research methods provide

efficient ways of answering more confirmatory questions using larger samples. Quantitative methods act as aids in providing evidence for/against arguments and are an efficient way of representing phenomena (Tredoux, 2013).

Qualitative Study

Design

"Methods matter because the choices made, along with the very characteristics of the researcher, play into and ultimately shape the conclusions of any research" (Bird, 2003, p. 9). Mathematically precise logic can rarely be used when studying complex relations such as those in gameplay in children's life-worlds, hence qualitative approaches are well suited to this type of research (Mäyrä, 2008). Quantitative research methods conceptualise and operationalize what players do, but qualitative methods are as useful because they capture the meanings the players attribute to video games and aspects within the video games (Jansz, et al., 2010). The main task of qualitative research is to "explicate the ways people in particular settings come to understand, account for, take action, and otherwise manage their day-to-day situations" (Punch, 2005, p. 142). Qualitative methods were thus the most appropriate tools to explore the definitions and meanings children attached to video game violence.

To ensure as rich data as possible, different qualitative methods were used and then triangulated (Flick, 1998). Additionally, during the qualitative data collection English was used in the first field site (Fountain School) in Rondebosch since all participants were fluent English speakers. However, isiXhosa was used in the second field site (Lumumba Library) in Khayelitsha as participants were first language isiXhosa speakers and were not all fluent English speakers. An interpreter was therefore used during the data collection at Lumumba Library, as I do not speak isiXhosa. Further detail on the use of the interpreter will be provided in later paragraphs.

The qualitative methods were informed by the audience reception tradition. Reception studies use a qualitative research approach that explores the "the social production of meaning in people's encounter with media discourses" (Schroder, et al., 2003, p. 147). Through in-depth focus group discussions or individual interviews, media experiences are explored in order to clarify audience practices and experiences, i.e. how people make sense of a media product (Schroder,et al., 2003). Reception research is usually conducted in a non-natural (i.e. outside the

participants' usual reception context, e.g. discussing television with a participant outside the home) yet open setting so as to allow the participant power to influence the agenda. Part of the aim of reception research is to be sure that the findings reported are of the participants' actual media experiences and not the researcher's preconceived notions of how the media product is used (Schroder, et al., 2003).

Reception theory was suitable for this study because it explores the interactions of active audiences with media meanings while acknowledging meaning as a joint product of the media product and the audience member (Schroder, et al., 2003). Reception theory also assumes that effects cannot exist without meaning (Jensen 1991 in Schroder, et al., 2003). Reception theory therefore acknowledges the situational and social contexts of the reception of media as a part of the sense and meaning making processes. Therefore, if video games are "doing anything" to players, whatever is being done will be informed by the contexts the players are in. The design choices used were cognisant of the contextual influences on behaviour. Reception studies have typically focussed on adults (Rydin, 2003). Additionally, while there are reception studies around television viewing, video games were not the intended medium to be explored in reception research. Adapting the focus group approach by incorporating participant observation and stimulated recall creates a novel approach to using reception research approaches with children.

Observation and Gaming Interview

Participant observation was the primary data collection method used to address the questions of "What definitions do children between 10 and 12 provide for 'video game violence'?" and more specifically, "How do they interpret the representations of violence in age-appropriate games?" Participant observation is a research method wherein the researcher observes activities by participants in an unstructured manner as a way of learning about the explicit and subtle aspects of their behaviour and culture, as a participant in the activity (de Walt & de Walt, 2011). Studies such as Danby and colleagues' (2018) and Pallitt's (2013) have successfully made use of observations of children's gameplay as part of video-ethnography.

Incorporating observation methods in data collection involving gaming recognizes participants' activities as socially structured and interactional (Danby, et al., 2018). This approach to observation required me to play the role of a facilitator at the school's after-school

homework club programme and to set up sessions where children could elect to engage in regular gaming activities under my supervision. This approach gave me the ability to explore what participants *did* as well as what they *said* (Gallagher, 2010a). As facilitator, I was present for all the gaming activities, set up the gaming equipment, supervised play, and managed turn-taking and other aspects of the gaming activity as well as the gaming interviews and discussions required for the reception research. I recorded play sessions with a camera in a fixed position. Recording maximises the reliability of an observer's reports (Thomas, 2003), and yields more depth than written notes (Giddings, 2014). Additionally, using a camera in a fixed position is beneficial because it allows the researcher to remain unobtrusive, and be able to take field notes while the camera remains focussed on the actions needing to be observed (Heath, et al., 2010).

All observation sessions were recorded using a video camera for two further reasons: firstly, for there to be a record of events that could be transcribed; and secondly, having the videos on hand meant that details of how certain things were said could be kept and referred to when analysing the transcripts. Focusing on the language used explores how people make sense of their life-worlds (Danby, et al., 2018). How participants said things can be as informative as what was said (Kelly, 2002). For example, it is easier to determine from a video recording than from an audio recording when someone shouts "stop" whether it was addressed to the character on screen or to another child, and also to see how comments related to actions in the game. This method helped address the question of meanings assigned by the children to the represented violence in age-appropriate games in that the direct and recorded observations were combined to show the participants' reactions to actions in the games.

The children were observed playing games in pairs in cases where games allowed for two players, but otherwise they were observed playing in individual turns. Play in pairs helped address questions about the significance of violent representations within the children's peer groups. It also served the practical purpose of allowing as many players to have a turn as possible in the 45 minutes I spent with the children each week. The sessions occurred during the school's extracurricular period and so my sessions were limited to the 45 minutes allotted in the extracurricular period. In both scenarios the children waiting for their turns were sitting close by and were interviewed in "gaming interviews" (Schott & Horrell, 2000) while play took place. The gaming interview (Schott & Horrell, 2000) facilitates a play-like atmosphere wherein questions can be developed and answered informally, and with prompts in the game to aid both

the interviewer and interviewee. Furthermore, interviewing participants during or directly after game play is encouraged as a data collection method as it reduces recall bias and can produce fluid discussion about the experience (Oswald, et al, 2014). For the purposes of this phase of data collection, participants were asked about what they knew about the game being played, whether they enjoyed it, what they enjoyed about it, as well as questions that linked to the rating of games and their views on violence in games. This line of questioning sought to gain more information on how the participants defined video game violence, and also whether they enjoyed it and/or ascribed deeper meanings to it.

Stimulated Recall

Stimulated recall of the observation sessions was used in some of the sessions at the Fountain School by showing video footage from those sessions to answer the questions: "How do they interpret the representations of violence in age-appropriate games?" and "What sense do the children make of represented violence in video games which they play, but which are not considered age-appropriate by the Film and Publications Board?". Unfortunately, plugging the camera into a television could not be done at Lumumba Library because there were other children not involved in the study using the televisions after we had used them. My agreement with the library staff was that my study would not interrupt the normal operations of the room, and so the screens could only be used for gaming. The children followed the library rules around silence, and so usually did not say much while playing, so I had to prompt them more while we viewed the video playback. Stimulated recall involves showing participants past (audio and/or video) recordings of themselves performing actions (in this case playing video games) and asking them to reflect on the experience (Fox-Turnbull, 2009). It has the advantages of providing reference points for participants in interviews and allowing for the participants to give unstructured responses (Fox-Turnbull, 2009). Participants at the Fountain School would play the chosen game of the day for 15 minutes and then would watch playback of their progress while being asked about what happened during play and further questions around violence and ratings in games. During this time, a voice recorder was used to record the conversations as the video camera was plugged into the television for playback. Some of their responses helped to generate questions that formed the focus group interviews they would also later participate in.

Focus Group Interviews

Apart from the stimulated recall interview at the Fountain School, the children were interviewed on a separate occasion using a semi-structured focus group qualitative interview format to allow for additional questions to be asked based on responses given in the stimulated recall (see Appendix A). The same method could not be used at Lumumba Library due to participants not consistently being available to participate in the research, and also since we were not able to have such a large discussion in the video game room.

The focus groups addressed all the initial research questions. Therefore, the questions asked were based directly on the research questions of the dissertation and while some probes were included, there were some impromptu probes on the data provided in the groups as suggested by Rea and Parker (2005) as a sound way of conducting semi-structured focus group interviews. As such, some questions were omitted when participants answered them while responding to another question, while probes were sometimes used when further detail was needed.

Focus group discussions are recommended as a research tool for children above the age of 8 (McNamee & Seymour, 2013; Scott, 2008) and are useful in gaining "concentrated insight into participants' thinking on a topic" (Morgan, 1988, p. 31). Furthermore, they act as good supplements for other qualitative and quantitative methods (Gallagher, 2010), as well as the implementation of the constant comparative method of analysis (Morgan, 1988), which was the approach used to analyse the qualitative data from this section (see below). Focus group interviews are used in reception research in order for the group interaction to produce data and insights that "would be less accessible without the interaction found in the group" (Morgan, 1988 in Schrøder, et al., 2003, p. 153). Focus groups also have the advantage of working well with pre-existing groups (e.g. children from one class in their grade) and allowing the children to feel more comfortable while they circulate ideas and interact as they are with friends and outnumber the adults in the room (Aarsand, 2012; Gallagher, 2010). By incorporating multiple voices, focus group discussions also can provide a more holistic picture of the sample (O'Reilly, et al., 2013) including the language participants use to describe video games and violence. Focus groups can therefore act as a way of arriving at the commonly held notions a particular group has about video games and violence.

In the interviews they were asked questions about what they defined as violence in video games and how the violence in the video games made them feel. Furthermore, they were asked to relate what video game violence meant to them in terms of the games (as a whole) and in terms of how they play them (i.e., are they playing to explore, to win, to achieve the highest possible score, etc). The interview also attempted to explore what, if any, meanings they attached to video game violence as it relates to their life-worlds. Children give their most reliable answers when questions pertain to events that are meaningful to their lives (Scott, 2008). As such, focus group interviews were conducted as part of the qualitative phase of this study. I followed O'Reilly and colleagues' (2013) recommendation of using approximately ten child participants, as that is a good number to use when wanting to get a balance between a general group voice and still getting multiple points of view.

Game Design Worksheet and Game Drawings

Creative methods such as worksheets and drawings are encouraged in research with children (Gallagher, 2010) since children do not always adequately engage with verbal questions. Also, creative methods can help researchers gain a wider range of data about the children's lives and views which can then be triangulated with other data. Creative methods also can help the children to respond to the research differently to how they would respond to a classroom exercise. Thomas and O'Kane (2000) urge the use of techniques such as this because they allow children to demonstrate their competence and respond in ways that are meaningful to them. As such, a worksheet (See Appendix B) was developed that asked participants to come up with an action game, and then provide details on what the game was about, how one won, if there were weapons and/or blood and what age rating the game would have and why. The worksheet was aimed at helping answer the question "What is the significance of such violent representations within the children's peer groups?" by having the participants describe what they would want in a game if they could create one. The ideas were discussed among the participants, and so participants tried to tailor their ideas to what would be acceptable/popular within the peer group. This method also helped to address the question "What sense do the children make of represented violence in games which they play but which are not considered age-appropriate by the Film and Publication Board" and "How do these [Film and Publication Board] constructions of video game violence compare with children's interpretations".

Sampling

Sequential sampling, i.e. having the sampling from the first phase inform that of the second phase, was used for this research (Creswell, 2009). Two field sites were used in the qualitative phase of the study: the Fountain School in the suburb of Rondebosch, and the Lumumba Library in the township of Harare, Khayelitsha. Lumumba Library was different from the Fountain School, and provided unique information that the other site could not (Teddlie & Yu, 2007). As discussed above, the sites differed in several ways: in terms of community, there were stark differences in SES and crime levels (thus, the children were likely to have widely differing exposures to both video games and life-world violence). Also, given that the video game room in Lumumba Library was set up specifically for video game play, collecting data there also provided an opportunity to glean unique data not yet obtained from the Fountain school.

Children between the ages of 10 and 12 were recruited from the two sites. This age group was chosen for three reasons. Firstly, their conversational skills are more advanced than a younger group (Stald, 1999 in Schroder, et al., 2003). While other techniques were used to supplement the verbal data acquired, the verbal data is the primary data, as is common with reception studies (Schrøder, et al., 2003). Their conversational skills allowed me to adequately discuss the concepts pertinent to the study with the children and for them to be expressive in their responses. Also, Jansz and colleagues (2010) reported findings that this age group is just before girls tend to lose interest in video games. Secondly, children in this age range are at a stage of cognitive, emotional, and social development where they are thought to be potentially more vulnerable to the influence of violent content (Hasan, 2017; Kirsh, 2003). Lastly, Nikken and Jansz (2007) report that gaming in children peaks between the ages of 10 and 14 and during that time children play age-inappropriate video games more often. This interest in age-inappropriate video games allowed me to discuss violence more adequately in age-inappropriate video games with the children.

Additionally, Olson and colleagues (2007) suggest that this age group would have less parental oversight than younger children, and thus may have greater access to age-inappropriate games which may feature more violence. This age group falls into the PG (Parental Guidance) category of South Africa's Film and Publications Board's (FPB) age ratings where parents are expected to monitor what their children play to determine appropriateness. PG covers ages 0 to

12, but is now split into PG, 7-9PG, and 10-12PG (I have not been able to find any indication from the FPB of why this split has been made, but it is likely due to developmental differences in children's responses to media in those age ranges). A comparison between the FPB, ESRB and PEGI ratings was presented in chapter one (see Table 1). These reasons in combination all suggested that richer data could be explored by involving participants would be extracted from this age cohort.

Ethical Considerations

Firstly, ethical clearance was obtained from the UCT Faculty of Humanities Research Ethics Committee (see Appendix E). Informed consent was gained from the relevant institutions, parents and the children themselves before the children participated. All the child participants were also asked for consent and reminded that they could withdraw at any time before each session, similar to the ongoing consent procedures used by Danby and colleagues (2018).

To protect the anonymity of the participants, pseudonyms will be used when referring to individuals and institutions. Further, all primary data were only viewed by my supervisors and me. All hard copies of the data were stored in a locked filing cabinet at the University of Cape Town while all electronic data were stored in a password protected format. Durrheim and Wassenaar's (1999) guidelines on confidentiality were followed to ensure that the guarantee made to parents and children in the consent and assent forms was not breached.

Participants were also informed of their right to withdraw. Teachers were close by in case they were needed, and children who did not take part in the study in the school were kept occupied by homework in an area separate from the gaming space in the classroom. Later in the study, a separate classroom was used and so only children participating in the space were allowed in.

Debriefing is an essential part of the data collection process (O'Reilly, et al., 2013). It allows the researcher to check that the participants have not been adversely affected by the study, to answer their questions and thank them for their contribution. For both phases of the study I explained the nature of the study and allowed participants to ask questions. Since discussing violence could potentially lead to some participants feeling distressed, I had the number to ChildLine (a national toll-free helpline for children who have been abused or exposed to other forms of violence) available if the participants needed to speak with someone immediately. No

participants reported feeling distressed, nor requested the number. Contact details for both ChildLine and the University of Cape Town Child Guidance Clinic (a postgraduate training centre run by the University's Psychology Department that provides clinical psychological help to children and their families) were also left with participants[19] in case they felt the need to contact them after the study.

Similar ethical procedures were followed at the library as had been applied at the Fountain School to gain consent from participants' parents. All forms were provided in both isiXhosa and English to ensure that participants and parents who were more proficient in isiXhosa fully understood what the study was about and what was being consented to. Both the librarian and interpreter understood the ethical protocols and helped me maintain them throughout the study.

Site 1: Extra-Mural Group in Rondebosch (Fountain School)

Venue

The Fountain School is a co-educational school located in Rondebosch. It is a Roman Catholic school but accepts students from different faiths. The Fountain School has students of a wide variety of socio-economic backgrounds, languages and ethnicities dating back to its resistance to racial segregation in South Africa during Apartheid. While the Fountain School is a state school, it charged relatively high tuition fees at the equivalent of approximately USD2,582, i.e. ZAR36,147 per annum at the time of data collection. The higher fees also date back to the late Apartheid era where schools that had been classified "Whites only" were allowed to charge fees and set their own entrance requirements, as a precursor to desegregation – the fees allowed the Fountain School to have a lower teacher to student ratio, and setting their own entrance requirements allowed the possibility of admitting students of colour (previously prohibited under Apartheid). However, the fees required to keep the lower student: teacher ratio meant that such schools inevitably became middle-class (or higher). Teachers in schools with lower student: teacher ratios are better paid (Heaton, et al., 2014). Also, students are more likely to achieve better in classes with lower ratios (Heaton, et al., 2014).

[19] Parents were also sent this contact information through the school so that I was sure they had this important information. Parents did not have to rely solely on their children to remember to give them the information.

The Fountain School was established in 1918 as a boys' senior school but is now co-educational and extends from pre-kindergarten through Grade 12. Furthermore, though the School is inclusive and provides scholarships and even transport for some of the students, the School's location means that it draws mainly middle class students. The School is well resourced and offers numerous activities for the children. One facility is the School's homework club. The homework club functions as an extra-mural time slot wherein children can do their homework in their classroom if they are not taking part in another extra-mural activity on that particular day. The homework club helped keep the children occupied while they waited to be fetched by their parents/caregivers, much like some of the children using the video game room in Lumumba Library while waiting to be fetched to go home. Children in the homework club tended to sit in gendered groups, and it appeared that their friendship circles were also gendered. The children in the library sat in more of a queue than in groups and did not interact with each other much.

Since the school was familiar with other researchers from the University of Cape Town, they were open to me conducting my research there with the primary school children, with the understanding that my research was not to interfere with any of their academic endeavours. I was assigned to one class by the principal. She had asked Grade 4 teachers which class had the most people not taking part in extra-murals during the time I wanted to conduct my research. This easy access continued even when the study carried on into the children's Grade 5 year – in the second year, I was still able to access most of the original group that joined the study initially.

During 2012 the research took place in the children's classroom, during the period set aside for extra-mural activities. The teacher had a television available for game play, and positioned away from the desks so that those doing homework could do so with minimal distraction, and those that were a part of the study would be all in one area. Originally the children sat at desks, but these were in an area demarcated by the teacher and would have to be moved before and after the sessions. We opted to sit on the floor so that furniture would not have to be shifted before and after each session, and the participants would be further away from the students not participating in the study. Sitting on the floor also allowed them to sit closer together in an effort to reduce noise in the form of them speaking loudly. The television volume had to be kept low also in an effort to reduce noise. The set up was close to the teacher during the sessions, which was helpful in that if the children grew rowdy she would calm them down.

In 2013, I was granted access to a separate room that was free during the times I was running my research. Using a separate room proved essential for the study to run because the children were now in different classes, and so if I were to sit in one of their classrooms I would not have been able to maximise the potential of the group. Since the room was empty the children sat on chairs close to the television, and the volume on the television was higher than when in the other room since our noise concern was only for people in the next room and not "our" room.

Games

I chose the games the Fountain School children would play mainly based on the age restriction they were given by the FPB. Age-appropriate games were chosen to avoid ethical problems around exposing children to material deemed age-inappropriate, although the research did explore whether they also played games deemed appropriate only for older age-groups. Previous research showed that there are different levels of parental involvement when it comes to games and different families have different notions on what is appropriate for children to see/play (Pallitt, 2013). I had considered asking the children to bring in their own games for the group to play, however when a child brought the game *Mobile Suit Gundam: Crossfire* (Namco Bandai Games, 2006), the game was not well received by the other children and they chose to play the games they had already been playing. I also familiarised myself with games that the children mentioned if I had not played them, because knowledge of the games is crucial in establishing and maintaining rapport (DeVane & Squire, 2008).

Three games were chosen for play initially. These games were selected on two criteria: age appropriateness, and popularity. Popularity was gauged by examining local video game websites and enquiring in video game shops. Two of the games were also selected because the children were likely to be familiar with them due to seeing the film and cartoon series associated with the games: *G-Force* (Disney Interactive Studios, 2009) is based on the highly popular film of the same name, while *Ben 10 Ultimate Alien: Cosmic Destruction* (D3 Publisher, 2010) is based on one of the most popular cartoon series of the time. This familiarity was a tool to help me engage with children on their terms as far as possible, as suggested by Squire (2002). At the time the study took place PG was the lowest rating the FPB would give a game, with the next rating being 13. As such, only games rated PG by the FPB were used regardless of their ratings

by other rating bodies (e.g., ESRB and PEGI) so as to comply with local norms (see Table 2 for list).

I began the sessions with my own Sony PlayStation 2 and used it until the Centre for Film and Media Studies' Sony PlayStation 3 became available. The children had asked why we were playing on a PlayStation 2 (which was all I had at the time) and not a PlayStation 3. I felt that using the PlayStation 3 would help the children be more enthusiastic due to the improvement in graphics. The games selected were selected on the same grounds as the PlayStation 2 games. In all the games the playable characters ran around and had to defeat enemies by using their limbs, melee weapons or, in some instances, some form of firearm.

Table 2

Games used in Rondebosch

Games	**Age Ratings**
PlayStation 2	
Ben 10 Ultimate Alien: Cosmic Destruction, D3 Publisher (2010)	FPB: PG, PEGI: 7, ESRB: E10+ (cartoon violence)
Disney's G-Force, Disney Interactive Studios (2009)	FPB: PG, PEGI: 7, ESRB: E10+ (fantasy violence)
Ratchet: Gladiator, Sony (2005)	FPB: PG, PEGI: 3+, ESRB: TEEN (fantasy violence)
PlayStation 3	
LEGO Pirates of the Caribbean, Disney Interactive Studios (2011)	FPB: PG, PEGI: 7, ESRB: E10+ (cartoon violence, comic mischief)
Kung Fu Panda 2, THQ (2011)	FPB: PG, PEGI: 7, ESRB: E10+ (cartoon violence)

Participants

Thirteen children (6 boys, 7 girls) between 10 and 12 were initially recruited from the Fountain School in Rondebosch, Cape Town. During the study an additional four participants (3 boys, 1 girl) joined the study while some of the original participants stopped attending the sessions. Consent for the use of school facilities and the children's time was gained firstly from the school

and then from parents prior to the start of the study. The children were approached in their classroom and briefed about what would be required of them during the sessions. They then were asked to take a consent form home for their parents to complete if they chose to participate. Despite boys being more likely to play violent video games (Cunningham, 2018; Ybarra, et al., 2014), both boys and girls were included in the study. I was interested in exploring diverse perceptions of video game violence, and therefore was keen to involve girls with an interest in gaming. Additionally, the targeted age group is one where girls have a keen interest in video games, although many tend to lose interest subsequently (Jansz, et al., 2010).

Site 2: Children at Lumumba Library (Lumumba Library)

Venue

The gaming room in Lumumba Library, Khayelitsha, was established on 3 June 2011 with the aim of providing patrons, particularly children, a space to relax through play. Though the gaming room had been inactive since June 2015 due to equipment needing repair/servicing, children from the community often checked in to see if the room had reopened. The library and gaming room were established using funding from the Carnegie Corporation of New York in conjunction with the Violence Prevention Through Urban Upgrading, the Neighbourhood Development Partnership Grant, and provincial government grant funding (Hardy 2011).

Violence Prevention Through Urban Upgrading is a Not-for-Profit Company (NPC) centred on transforming low SES communities into safer, more sustainable environments by partnering with local communities, the public sector and other concerned parties. The Neighbourhood Development Partnership Grant is a South African National Treasury grant set up specifically to fund community development projects aimed at improving the quality of life for residents of low SES areas. Establishing the library fitted in the goals of the Violence Prevention Through Urban Upgrading to provide safe environments for community residents (Hardy, 2011). The library strived to encourage community members to use the space for leisure and not just academic/research purposes. The head librarian explained that its mission was to encourage reading and recreation while fulfilling the mandate of providing information. Additionally, she affirmed that the library did not wish to be seen as a mere extension of school and so has taken measures such as including the video games room. Further, the library has been evaluated by local government authorities and seen as a priority for the community.

Through the use of educational video games, and the instructions in the purely recreational video games, the children in Lumumba Library gain a better understanding of the English language. The librarian would help them read any instructions on screen and translate when the need arose, however, the children often read the instructions themselves and confirmed with her that what they thought they had read was in fact correct. As such, the gaming space in the library promoted literacy both directly and indirectly, while still providing a safe recreational space for patrons (particularly children). Similar approaches to language learning were also presented by Becker and Gopin (2016). Using this space meant having access to a participant pool that would be acting as they usually would in that space at that time, i.e. the gaming room provided a more natural setting than at the Fountain School, in the hope of examining players a little more on their own terms (Squire, 2002).

The gaming room itself was a five by three metre (5m x 3m) room with three Nintendo Wiis (though only two were functional during my field work there) and three PCs (one of which functioned as a server for the other two). The Wiis were housed in wooden boxes to prevent damage during game play, and also to ensure that only staff could change games when the need arose. The room served children from as young as three to children in their teens during weekday afternoons for two hours. While the Wiis were used every day, the PCs were only used on Fridays and one PC had a car racing game available. There were plans to include a football game once the library sourced controllers (without a controller there was the risk of keyboard damage).

The video game room operated on an unreserved basis, with children coming to the room and handing in their library cards before they could begin playing. Their library cards were then returned to them when they left. The room was open in the afternoons from 14:00 to 16:00, though children usually arrived between 14:30 and 15:00, after school had closed for the day. The room was under the care of a librarian. She ensured that turn taking was observed, and that order was kept in the room. She also assisted in helping teach the children the controls of a game if they were new to it. She affirmed that the room and the children were easy for one person to manage.

The room itself was configured so that players stood while playing on the Wiis and sat on bean bags against the walls when waiting for their turn to play. Those waiting for a turn on the PCs were required to wait outside to prevent the room getting too noisy. For the Wii games, each player played for one turn, e.g. one boxing match or cycle race. On the PCs a timer was set on

the races, so each player played for 10 minutes and no longer. Only the consoles were used for my study because data collection was not possible on Fridays. Sticking to consoles was actually helpful since the only video games featuring violence were on the Wiis and therefore provided a good segue into conversations about violence. Using consoles also kept with how video games were played at the Fountain School. Details on the games used will be provided below.

Games

The library's games were used firstly because they were age-appropriate, and secondly because I was unable to find the same games I used in Rondebosch (using a PlayStation 2 and 3) for use on a Nintendo Wii. Since the children were familiar with the Nintendo Wii, I did not want to bring in the PlayStation 3 because they would have to familiarise themselves with the controls, which could take some time. Furthermore, I did not want to detract from the naturalness of their playing environment, and so felt that playing on the Nintendo Wii would be something they were used to, and would thus allow for them to behave as they usually do when in the games room. The librarian who oversees the games room, informed me that the library staff were wary of allowing the children to play games with more violent content as it may be harmful to them. In compliance with their regulations I could bring in games that were rated PG, but I was unable to find any that were similar to the games the children at the Fountain School played.

The library selected video games (see Table 3 for list) based on age-appropriateness as well as ease of play, and it was only once one of the librarians had played the video games enough to be familiar with them that the children were then allowed to play.

Table 3

Games used in Library

Games	**Age Ratings**
Nintendo Wii	
Boom Blox Bash Party, Electronic Arts (2009)	FPB: PG, PEGI: 3+, ESRB: E (cartoon violence)
Wii Sports, Nintendo (2006)	FPB: PG, PEGI: 7, ESRB: E (mild violence)
Wii Sports Resort, Nintendo (2009)	FPB: PG, PEGI: 7, ESRB: E (cartoon violence)

During the sessions, *Wii Sports* (Nintendo, 2006) and *Wii Sports Resort* (Nintendo, 2009) were the games used. *Wii Sports Boxing* and *Wii Sports Resort Swordplay* being the specific options chosen by the participants because they included some violence, albeit 'mild violence' according to the ESRB. It appeared that the cycling game on the *Wii Sports Resort* was the most popular among the children, but the librarian did note that they enjoyed the *Boxing* and *Swordplay* too. The games with the most violence were not the most popular at this site, which contrasted with preferences found at the Fountain School. Another game called *Boom Blox Bash Party* (Electronic Arts, 2009), which has players destroy large blocks using slingshots and other projectiles, was attempted but the children were very new to it, and requested to play the games they were more familiar with during that session.

Participants

Twelve children (11 boys and 1 girl) aged 9 to 12 were recruited from the Lumumba Library in Khayelitsha, Cape Town. While 25 consent forms were distributed, thirteen children either did not return the forms or did not appear on the days I was in the library. Attendance fluctuated since visiting the library was a purely voluntary activity. There were also some days when the length of the queue of children waiting for a turn to play delayed proceedings. Not all the children were fluent in English, so translation from isiXhosa to English and vice versa was required.

During my time at Lumumba Library I was assisted by the librarian in charge of the gaming space and by an interpreter I hired. Both the librarian and interpreter aided the children in communicating with me and vice versa. The librarian helped me get to know the children better, e.g. their English proficiency, what they usually played at the library, and whether they were usually talkative and open to conversation with new people. As the librarian already had rapport with the children, she was able to introduce the interpreter and myself and help us integrate into the space for the duration of the study. Participants in this part of the study were mostly boys since not many girls used the gaming space, and only one of the two girls I saw in my initial visits to the library returned a consent form.

Data analysis

The interview and observation data were transcribed verbatim and translated. Following transcription, the steps outlined by de Wet and Erasmus (2005) were applied. Firstly, the transcripts were read closely to determine what initial issues arose, and to read them in context. They were read through more than once to ensure that common phrases and alternative narratives (if any) could be found (de Wet & Erasmus, 2005). Subsequently, the data were descriptively coded, i.e. classified, while also using the constant comparative analysis with the data gained from other participants in this study. Constant comparative analysis is the cross-comparison of data in terms of similarities and differences between respondents to develop conceptualisations of the possible relations between the pieces of data (Glaser & Strauss, 1967). Tremblay (1957) encourages use of constant comparative analysis as it may reveal discrepancies that would require further probing. Exposing the discrepancies can lead to developing further questions to bridge any gaps. Furthermore, given the aims of the thesis, it was suitable as it was a technique used to "develop ways of understanding human phenomena within the context in which they are experienced" (Thorne, 2000, p. 69). DeVane & Squire (2008) also used and encouraged the use of constant comparative analysis.

Once coded and placed into clusters of information the data were summarised. The responses were summarised by finding quotations and noting their relation to other similar sentiments by the same individual or other participants (de Wet & Erasmus, 2005). The data were also to be compared to the findings of other studies relating to the FPB ratings and parental

views on video game violence (e.g. Chetty & Basson, 2007; Oppelt, 1999) to identify possible explanations for the findings.

Quantitative Study

Design

Survey methods are well suited for hypothesis testing due to their structured nature (Axinn & Pearce, 2006). Questionnaires are well suited for conducting the second part of mixed methods research when one began with qualitative research (Mayring, 2007). In mixed methods research, the quantitative portion can be useful in generalising the qualitative findings in a wider study with a larger, more diverse sample (Mayring, 2007). Further, using questionnaires when making comparisons between groups of people, and exploring relationships between variables is appropriate when conducting audience research in media studies (Bertrand & Hughes, 2005).

Henceforth, a questionnaire was developed by adapting the 'retaliatory violence' section of the Attitudes Towards Violence Scale (Funk, et al., 1999) to investigate children's beliefs about retaliatory violence in video games, and in their life-worlds. Retaliatory violence was chosen as the focus of the questionnaire because participants in the qualitative study explained that they needed to use violent actions in games because they were attacked or needed to protect other characters.

The majority of video games featuring violence present the violence perpetrated by the playable character as justifiable because, in the context of the game world, the violent actions are retaliatory and/or in the protection of lives or property (Hartmann, et al., 2014; Smith, et al., 2003). Duncum (2006) argues that for retaliatory violence to be enjoyed, justice must be viewed in contrasting terms. He claims that video games present this contrast by having the antagonist be viewed as vile in their actions, and the protagonist as using violence to restore peace (Duncum, 2006). Furthermore, research by Zillman (1998) claims that people who are fearful of being victims of violence are more likely to approve of retaliatory violence. Given the vulnerability of children, and the high violent crime rates in South Africa, it is possible that children will be more drawn to retaliatory violence and so approve of it in both video games and their life-worlds.

The questionnaire also examined what participants' favourite video games and films (from the General Media Habits Questionnaire – Child Version, Gentile, et al., 2004) were, so as to see whether playing mostly violent video games was related to the levels of congruence

between the beliefs. Furthermore, questions about their media preferences (in the form of favourite website, TV station, application, and radio station) were also asked to better contextualise the participants' understandings of their gaming and of gaming violence. Additionally, the questionnaire investigated how well the children know the ratings used by the FPB by checking recognition of the FPB logo and content descriptors.

In similar fashion to the qualitative study, the questionnaire was translated to isiXhosa, and an interpreter was on hand during the data collection in Khayelitsha. The translation and having an interpreter on hand ensured that all participants had a firm grasp of what was happening in the study, and what they were answering. Each page of the questionnaire had English on one side and isiXhosa on the other so participants could work in the language in which they felt more comfortable. Verbal instructions were also given in both languages.

Sampling

Sequential sampling was also used in this portion of the study but with four field sites this time. Differences in location, SES and crime levels in the area informed the choices in schools. Grade Five learners (i.e. commonly aged between 10 and 12) were used for this phase as well.

Venues

The Fountain School in Rondebosch was also used as a field site in the quantitative study. The school is situated in a historically designated 'White' area and had fees of USD2,582, i.e. ZAR36,147 per annum at the time of data collection. Also included were a school in Grassy Park and two schools in Khayelitsha (St Francis and Khaya). Grassy Park is a suburb in the South of Cape Town which was historically designated for 'Coloured' (please see page 58 for definition) people under Apartheid (Statistics South Africa, 2012). Even with school desegregation occurring faster than residential segregation, most children still attend schools previously designated for their race, in part owing to socio-economic change being slower than policy change, and because of the economic factors which reinforced spatial segregation even after the end of Apartheid (Lemon & Battersby-Lennard, 2009).

The Grassy Park school was established in 1975 by the provincial education department as an English-medium school. It had learners from different locations and socio-economic spheres but was made up predominantly of middle SES Coloured learners. Annual tuition fees

were approximately USD143, i.e. R2,000 at the time of data collection. The Grassy Park school had various extracurricular activities and had won education awards in the past. There were 1,024 learners over seven grades, and each grade had four classes of approximately 29 learners.

St Francis is a religious private school established in 2003 to fulfil the need for affordable quality education based on Christian principles within Khayelitsha. St Francis was a small school with a total of 197 learners across seven grades. Each grade had one class of approximately 27 learners. At the time of the study all learners at this school were Black and middle to low SES. Annual tuition fees were approximately USD164, i.e. R2,460.

Khaya is a "Section 21 school", meaning that the Department of Education deposits money into the school's account and from there the school manages its own finances while most learners do not pay fees (those that can are encouraged to). As such, the school mainly had learners from a low SES background. Here too, all learners were Black. Classes were larger though, with approximately 37 learners per class. The primary school had a total of 833 learners at the time of data collection.

Materials

A questionnaire (see Appendix C) was designed to measure children's beliefs about retaliatory violence in video games, and in their life-worlds. The questionnaire consisted of three parts: knowledge of the Film and Publication Board, media preferences, and beliefs about retaliatory violence. The first portion asked participants about the FPB ratings of the films/games, and their answers were then cross-checked with the official ratings provided by the FPB, thus measuring the accuracy of the participants' knowledge of the ratings. Open-ended questions asking participants if they recognized the FPB logo, and if they knew what the different content descriptor letters stood for (e.g. V for Violence) were also included. These have the benefit of allowing the child to articulate responses in their own words (O'Reilly, et al., 2013). The inclusion of the FPB logo had the added benefit of making the questionnaire seem less formal (Gallagher, 2010), and potentially more attractive to participants which is helpful for retrieving good quality data from children in the target age group (Borgers, et al., 2000).

The next portion used self-report questions to examine participants' media preferences. These questions were included to better contextualise their video game preferences. People tend to have congruence in media selectivity (Slater, 2007). So, those who enjoy violent video games,

for instance, will probably also watch TV programs, listen to music, and visit websites that are violent or include violent themes. The questions also provide detail on what media the participants had access to. Participants listed their three favourite films and video games, and their age ratings (See Figure 1). These questions were adapted from General Media Habits Questionnaire - Child Version which was used first by Anderson & Dill (2000) and later adapted by Gentile and colleagues (2004) and had a Cronbach's alpha of 0.84 in the original validation study in the United States. The questions are intended to be suitable for children as young as nine years old (Gentile, et al., 2004). The inclusion of film is useful because some of the children in the qualitative phase (in Khayelitsha) only had access to video games at the library (which are rated PG), but enjoyed action movies and were exposed to higher levels of media violence through these movies, though they only observe the violence in films rather than engaging with it as they would in video games. These questions also provide a view of the participants' violent media exposure.

1. What are your 3 favourite video games?

Title #1 (First favourite video game):_____

What is the age rating of this video game?

❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

Title #2 (Second favourite video game):_____

What is the age rating of this video game?

❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

Title #3 (Third favourite video game):_____

What is the age rating of this video game?

❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

2. What's the most violent video game you have ever played?

_____

Figure1: *Questions on video game preferences*

The final part of the questionnaire measured children's beliefs about the justification of retaliatory violence, firstly in video games, then in their life-worlds to address the research question: "How do the beliefs about retaliatory violence in video games of children aged 10 to 12 years compare to their beliefs about retaliatory violence in their life-worlds?". The questions were taken from the Attitudes Towards Violence Scale (Funk, et al., 1999). The original scale was developed using factors contributing to juvenile violence to measure attitudes towards violence in adolescents (Funk, et al., 1999). The 'retaliatory violence' factor of the questionnaire contains eight items and had a Cronbach's alpha of 0.80 in the original validation study (Funk, et al., 1999). Items are posed as statements regarding the justification of retaliatory violence, e.g. "If a person hits you, you should hit them back". While the original scale used a 5-point Likert scale (1 – Strongly Disagree to 5 - Strongly Agree), this version has been adapted to a 3-point scale because that is more suitable for child participants, as suggested by Mellor & Moore (2013).

The questions about retaliatory violence in video games were adapted by prefacing or concluding each question with "In a video game". For example, "It's okay to do whatever it takes to protect myself" became "It's okay to do whatever it takes to protect myself in a video game". These conversions were tested in a pilot study, and found to be appropriate for the children, who found them easy to read and to answer. As such, the questions were used in the final version.

Two items were added to this portion of the questionnaire. The first item concerns stopping play when one has to fight. For the life-world portion the statement reads "you should stop being friends with people that hit and fight with you", while its equivalent in the video game portion reads "you should stop playing video games if you have to fight in them". This item investigates the participants' tolerance for violence in their life-worlds and video game play, thus further exploring the congruence between their beliefs about violence in the two settings. The second item reads "you should respect people who are strong and can defend themselves and protect others" in the life-world portion, and "you should respect video game characters who are strong and can defend themselves and protect others" in the video game portion. Investigating this belief also assists in investigating the congruence of beliefs, and of social learning (Bandura, 1977). As such, agreeing with the statements points to the potential of participants admiring violent characteristics due to their link to success/respect.

Children's self-report data is only valid when one uses an age-appropriate instrument and is measuring non-sensitive behaviours (LeBaron et al., 2010). To further ensure that the questionnaire was appropriate for the chosen age group, I consulted with principals from the schools in the study to determine the students' literacy level. Consulting with school authorities aids in creating or adapting a questionnaire that is appropriate for the children in that particular context (O'Reilly, et al., (2013). As negative items can be confusing for children in this age group (Borgers, et al., 2000), they were avoided. Piloting also assisted in ensuring that the questionnaire was appropriate to the age and context of the target children (Gallagher, 2010; Borgers, et al., 2000). More detail on the piloting procedure will be described in the Quantitative Study chapter.

Data analysis

The data on video game preferences was analysed using basic descriptive statistics (i.e. means and frequencies). Cross-tabulations of the data were also conducted to view indications of differences by sex and/or school for more detail. A one sample t-test was run on the total scores of participants' attitudes towards violence in their life-worlds, and in video games. The t-test served the purpose of testing significance by determining if the difference between two means (i.e. mean of the total score for support for retaliatory violence in video games, and mean of the total score for support for retaliatory violence in participants' life-worlds) is larger than the standard error, and thus applicable to populations (Nunez, 2002). For the responses to the open-ended questions cross-comparison in terms of similarities and differences between respondents was used in order to develop conceptualisations of the possible relations between the pieces of data (Glaser & Strauss, 1967). From there, the data on ratings was compared to the findings of other studies relating to the FPB ratings and parental views on video game violence (e.g. Chetty & Basson, 2007; Oppelt, 1999). The data pertaining to the beliefs about retaliatory violence in video games and in life-worlds were correlated to determine if there was congruence between the two.

Conclusion

This chapter has outlined the various methods used in both the qualitative and quantitative studies. Additionally the forms of data analysis have also been described and justified. The

methods used for the qualitative portion helped provide detail into the participants' understandings of violence in video games while having them relate the violence to video game play in real time. These participant observations, focus groups and video game design activities helped present a vivid picture of children's understandings of violence in video games, and provided a base from which the hypothesis for the quantitative study was formed. The survey method used in the quantitative study tested the hypothesis while also gaining larger scale data on what video games the children play, where, and how familiar they are with the local ratings provided by the Film and Publication Board. In total 250 participants were engaged over the studies making for data that both provides depth and can begin to be generalised to children aged between 10 and 12 in similar contexts.

Chapter Four: Results of the Qualitative Study

The qualitative study mainly used observation and interview methods to examine children's perceptions of violence in video games. The data showed that children from the two research sites (Fountain School, and Lumumba Library) engaged in locally-situated play practices. These play practices were grounded in children's specific contexts in the two sites. The practices informed not only how the participants engaged with video games and one another, but also how they engaged with representations of violence in video games. The children understood video game violence as integral to the games but viewed the violent content through a number of distinct lenses.

The first lens was formed by the norms about violence which constituted video game rules and narratives. Viewed in this way, seemingly 'violent' actions had other instrumental functions within the game itself, for instance as a game mechanic or as the rules which governed progression in a video game. Also, the 'violent' actions served the narrative purpose of retaliation against antagonists.

The second lens was influenced by a range of normative views of violence which had likely been expressed by their parents or other adults. For example, some parents, mostly fathers, would use active mediation strategies and endorse or reject violent content. They would also co-play games with their children. Active mediation provided an example of counter-normative endorsement of age-inappropriate content by a father. Most mentions of mothers were of them employing restrictive mediation practices, e.g. gatekeeping and applying content restrictions when a child wanted to buy a game.

The final lens was linked to a set of playground norms deeply rooted in their peer interactions with other children where, for example, the use of violent game mechanics might raise a player's social capital in the peer group, especially for the boys, who recognised and respected the display of mastery in the game. When compared to the socially normative views of many adults around them, these playground norms could be seen as counter-normative. Yet, within their peer groups, the participants perceived the norms surrounding violence in video games as being distinct from the norms surrounding interpersonal violence in their life-worlds. The research sites themselves also differed slightly in that the library was a more adult-controlled context. Hence peer norms and children's interactions with one another while playing were slightly subdued in the library context compared to the peer-centred gaming sessions at Fountain

School. In both contexts, however, such peer norms were also tightly linked to the rule systems in games, where violent actions were rewarded and essential for success.

Participants' gender and aspiration to a more mature "grown up" identity also informed their views on video game violence. The boys in particular used violence in games as a tool for displaying mastery and asserting their status in the peer group. Here age ratings such as those supplied by the Film and Publications Board (FPB) were often appropriated by the children who aspired to be seen as older and more mature than they actually were. The ratings were also used in some cases as a useful shorthand signifying which content would be enjoyable or 'fun'. Finally, the ratings were also used as a way to gatekeep younger children.

The qualitative study sought to address one major question using qualitative methods: How do children between 10 and 12 perceive violence in video games? This question consisted of three sub-areas. The first sub-area was how do the children interpret the representations of violence in age-appropriate games (selected using the Film and Publication Board's ratings)? The second explored the significance of such violent representations within the children's peer groups. Finally, the question also explored children's interpretation of represented violence in games which they played but which were not considered age-appropriate by the FPB.

Site 1: Extra-Mural Group in Rondebosch (The Fountain School)

This study was conducted with pupils from The Fountain School in Rondebosch, Cape Town firstly from May to November 2012, and then from August to November 2013. Details of the procedure of the study follow below.

Procedure

Prior to data collection beginning, consent was gained from the relevant institutions and parents of the children (See Appendix D for consent form). Children who did not return signed consent forms were not allowed to participate in the study[20].

Once initial consent had been obtained, the first session was used as a pilot for the study. The children played a game in turns, but were not filmed while doing so, and were asked about

[20] The consent forms included advice on discontinuing participation at any point if a child wanted/needed to and contact information for psychological assistance if the need arose from the study. This information was also verbally repeated to the children at the start of their participation.

what games they enjoyed and whether the game played was fun. This was done to build rapport and help the children relax into behaving naturally[21], as "it is usually found that after an initial period of restraint due to the presence of observers, or awareness of their presence, the participants act naturally" (Goode & Hatt, 1952, p.128).

As an ice-breaker in one of the first sessions I asked the children to draw an image from one of their favourite games before we began playing. This elicited game drawings, which were a helpful way of gauging what they enjoyed playing, and helped me determine what games to try to acquire for the sessions. It also helped establish which children played games with violent-rated content and/or games which were rated higher than their age. This proved fruitful as I was shown that some of the boys played first person shooters which were rated with age restrictions of either 16 or 18. It also highlighted that they enjoyed the excitement around the violence, as will be discussed below.

During the subsequent observation sessions at the Fountain School I watched the players playing and asked participants questions about video games and video game violence in order to gain insight into their thoughts and feelings. In my discussion I refer to these conversations as the gaming interview. The gaming interviews served a dual purpose: The discussions kept them occupied while someone else was playing, and also used what was happening on screen as a prompt for questions about their gaming experience and violence in video games. It also helped save time as I could ask similar questions to each participant and engage with most of them during a session.

Near the end of the first year I conducted two focus group sessions wherein the participants and I discussed their understandings of ratings, violence, and how and when they had started gaming. Each session had five participants attending, and this helped keep the discussion on topic while still eliciting different views.

I returned in 2013, and redistributed consent forms for the study after my initial data suggested the need to gain more data from the participants. Most of the girls could no longer participate since even prior to the end of 2012 they had been conscripted into the choir. Also, in the later sessions some of the boys had sporting commitments and so were inconsistent in their

[21] I was also attempting to avoid the problem of the children associating my interests with that of their teacher, who acted as the most immediate gatekeeper for the research project at the school. This form of association between researcher and gatekeepers can affect how participants engage with researchers (Kelly, 2002).

attendance. A smaller subset of participants continued with gaming observations and stimulated recall sessions. These sessions would start with 15 minutes of game play, after which I would plug the camera into the television and play the recording back while talking to the participants and recording our conversation with a voice recorder. The children enjoyed hearing their own voices and reviewing their own game play. Using stimulated recall also gave them an opportunity to coach each other on what they meant when they gave instructions or where they should try to go next in order to go further in the game. Three such stimulated recall sessions were followed by a game design workshop.

The game design workshop involved the children answering the game worksheet questions to design their own video game. I split the children into two groups (one of boys and the other of girls) and asked them to come up with an action game (See Appendix B for worksheet). I had decided to organise the session in this way because the children's peer groups were gendered. Pallitt's (2013)[22] study had shown local children exhibiting gendered play preferences by playing in single sex groups. While gender may not have been the key focal point of my research, allowing the children to be in gendered groups meant avoiding either the boys or the girls trying to dominate the design exercise in a mixed group. The boys would sometimes try to encroach on the girls' play space in Pallitt and Walton's (2015) study even where the children played separately. I therefore felt it prudent to maintain the split with my participants. However, signalling a gendered expectation at the start of the activity may have influenced the kind of games they designed and possibly set up different dynamics in each group. As will be discussed below, both games were designed around a male protagonist and each group handled violence in distinctive, possibly gendered ways.

The game design worksheet was verbally administered to the boys at the Fountain School as one group and the girls as the other because my initial interactions with the participants showed them having differing genre preferences and perceptions about games by gender (Thornham; 2008). For example, the boys at the Fountain School seemed more interested in action-oriented games such as games from the *Grand Theft Auto* series, while the girls showed interest in platform games such as games in the *Sonic the Hedgehog* (Sega, 1991) franchise. Once the activity was completed, I sat with each group and had them talk me through what they

[22] Data was collected prior to my studies. I assisted with data collection as we were part of the same research group.

had written and what informed their choices. This conversation gave them the opportunity to give greater detail, and for me to see what had motivated their designs.

I asked the groups to each give their game a title, a story, describe what the players would have to do in the game, what weaponry (if any) the playable character would have, and how to win. I recorded the game design session while the children mulled over their ideas and presented their ideas to me. During their descriptions I probed for details where necessary.

The final sessions saw a return to observation and the gaming interviews. In the final session they were told about the nature of my study and given the opportunity to ask me about the study. Information was also provided to staff members so that if the children displayed any distress after participating in my study they could be provided with assistance.

Site 2: Children at Lumumba Library (Lumumba Library)

Further fieldwork was conducted with children using the gaming room at Lumumba Library, Khayelitsha from April to July 2014. Details will be provided about the procedure of the study.

Procedure

In the library, the study fitted into the normal operations of the video game room. Children were given individual turns to play and so those children who were not involved in the study simply waited for their turn to play exactly as they would on an average day. As with the Fountain School, the relevant permissions were obtained and then consent forms were given to prospective participants. Owing to the flux in attendance by children at the library, the waiting period for the return of the consent forms was longer than expected. Children either showed up without the form, or had returned their form earlier in the week, but did not attend on the day I was present. Even when incentives in the form of sweets were provided for the return of consent forms (regardless of whether the responses therein were positive or negative), it still took a few weeks before recording could start. This did however allow me to observe how they played and interacted with the games and with each other, and how turn taking worked. As in the Fountain School, I did not record in the first session at Lumumba Library so that I could build rapport with the children and become accepted as someone they expected to find in the space.

Thursday (the day I was in the library) had usually been the day when *Wii Sports Boxing* and *Wii Sports Resort Swordplay* were played by some children. Therefore, I was able to ask the

children to play the boxing or sword play games while still adhering to the normal operations of the game room. Having the children play either *Boxing* or *Swordplay* had the added benefit of being a conversation starter in the post-game interview. Preliminary questions included how much each participant enjoyed the game played, and what games they usually chose to play when in the library.

Once it was established which children were participating for the day, I would then have them play their turns, and film the screen during play. Brief field notes would also be taken during play so that I could refer to certain points when I spoke to the participants afterward. When they had all had turns I would then interview them with the assistance of the interpreter.

I also got verbal responses to the worksheet for ease of translation, i.e., the interpreter asked them questions verbally and transcribed the recorded video recordings, as, owing to South African schooling where the medium of education often switches to English after the foundation phase, participants were not necessarily fluent in writing isiXhosa. Library staff also informed me that some of the children had limited literacy levels in both English and isiXhosa. The children at Lumumba Library also did not attend consistently enough to provide us time to use any design techniques. Instead, they were asked verbally about their favourite game.

To aid the children in describing what they enjoyed about games, stimulated recall was used by showing them their play and probing when they vocally expressed emotion in the recording. To further examine what games they would like to play if given the opportunity, and therefore gauge their genre preferences I took video game magazines (e.g. *New Age Gaming*) from library shelves and asked them to show me examples of games they would like to play. I also asked if they recognised some titles to gauge the breadth of their gaming knowledge.

As there was a chance that some of the children had witnessed violence and might become distressed while or after discussing it, contact details for both ChildLine and the University of Cape Town Child Guidance Clinic were also left with participants in case they felt the need to contact them after the study. Further, I monitored their behaviour during the interviews with the understanding that if they seemed troubled we were to move away from the topic and that the number and my phone were to be provided to the child if they wished to call the counselling service[23]. At the end of the final session I explained the nature of my study and

[23] The phone number was also given to the librarian in charge of the games room, and she was asked to inform us if any child felt distressed outside of one of our sessions because of conversations we had had.

asked if the children had questions for me before I left. Data was then analysed as specified in chapter three.

Results and Discussion

Qualitative methods were used to examine how children perceive video game violence. Specifically, key data revealed how the children interpreted the representations of violence in age-appropriate video games; what significance such representations of violence had within the children's peer groups; and what sense the children made of represented violence in the video games which they played, but which are not considered age-appropriate by the Film and Publication Board.

Through the analysis of data it was found that the participants' context was important, and that they were able to provide interesting data on their knowledge of ratings, views on violence in video games and in their life-worlds. Unlike violence in their life-worlds, violence in video games was accepted as fictional and unavoidable. It was justified by the narrative and rules in the video game, which often included a backstory justifying retaliatory violence. The analysis led to questions being raised regarding the generalisability of the findings pertaining to their knowledge of ratings, gaming preferences, and beliefs about retaliatory violence in video games and in their life-worlds.

Observations of video game play, focus group discussions, drawings, and video game design exercises were all used to gain a deeper picture of participants' experiences and perceptions. These methods allowed the children to not only talk about video games abstractly, but show what they would want in their perfect video games (and thus to explore how attractive violence in gaming is to them), and how the violence in various video games is not all equal in terms of presentation (how graphic it is) and justification (whether it is justified by the rules and narrative of the game). The Fountain School and Lumumba Library children came from mid and low socioeconomic backgrounds respectively and these quite different contexts informed their understanding of the representations of violence in video games in various ways.

Boys and girls engaged with violence in video games in ways which largely conformed to gender stereotypes which associate masculinity with violence, and with enjoying violent themes in entertainment. The Fountain School boys were excited by frequent and vivid action, while the girls seemed more focused on the story. Very few girls joined the study at Lumumba

Library, possibly because girls were generally under-represented among the children who played games in the library gaming room. Furthermore, in the video game design exercise at the Fountain School (possibly in response to my decision to separate the children into two groups, by gender) the boys created a hyper-violent game based on themes and ideas from action movies and video games. The girls designed a video game based on a teen idol becoming a police officer and solving crimes. The violence in the girls' game was secondary to advancing the story and serving justice, whereas the boys' game had violence and gore as the focal point. The games the children designed, while based on their interests, might also have been designed to impress me. I presented myself as a gamer, and through conversations with the children they established that I was a lifelong WWE wrestling fan and was familiar with action films and games. Apart from acknowledging the relationship between myself as the researcher and the knowledge produced (de Paula, 2021), my presentation may have influenced what participants emphasised in our conversations. The children being in gendered groups may also have meant that designs were based on common interests, thus allowing me to tap into what was normative for that group.

Socioeconomic status (SES) also appeared to inform responses. Much as all the children had knowledge about violence in South Africa, the children from Lumumba Library reported more experience of violence. Their first-hand experience was also clear in their responses in interviews. As discussed above, Lumumba Library was in fact established as part of an anti-violence initiative (Hardy 2011). Even the games selected by the library were chosen because they had little to no violent content. The participants from Lumumba Library had a less glamorised outlook on violence in video games compared to the Fountain School children. Lumumba Library children and Fountain School girls identified with hero narratives from film and video games. However, Fountain School boys were drawn to the idea of an anti-hero, as shown in the video game they designed. The participants' knowledge of violence aided them in being able to set video game violence apart as something that is both narratively and ludically rewarded. Conversely, they viewed playground fights and violent crime as things to be avoided and feared. Some Lumumba Library children sought to use boxing video games as a learning tool for self-defence given the violent crime in their area.

The Fountain School children also suggested that other, usually younger, children were at risk of imitating the violence presented in video games. The children described different forms of parental oversight of their gameplay, suggesting that these different kinds of parental input might

also be influencing their perceptions of video game violence. Furthermore, as the children were at the age where parental mediation of their play was decreasing, they understood themselves to be less at risk of imitating video game violence than younger children might be. Participants' views on video game violence and ratings appeared to be shaped in part by parental guidance.

The children also used their peers as a resource for their engagements with video game violence. They often used prowess in violent mechanics such as hitting, shooting and so on to display their mastery of the video game. Such displays received cheers and encouragement, while children who did not act sociably during play were chastised by their peers for not behaving well. The distinctions presented above suggest that the children, with the aid of their environments (parental mediation and peer interactions) and video games themselves, have a complex understanding of video game violence as something separate to the violence that they experience directly or hear about indirectly in a South African context.

Locally-Situated Gaming Practices

The two research sites showed differences in what the children played and how they played. The Fountain School children had more and more varied access to video games, and some of the children were not very used to organised turn taking when playing. Conversely, Lumumba Library was altogether a more adult-controlled space, the children there had more limited access to video games and were used to taking turns according to library rules. Under the supervision of the librarians and myself, participants were generally supportive in their comments when watching one of their peers playing, while the Fountain School cohort often displayed competitive verbal jabs while I was supervising their play. Both cohorts mentioned age-appropriate games as their favourites, but children from the Fountain School had favourites rated 16 or 18 by the FPB.

In terms of access to video games, seven of the total of 17 Fountain School participants owned a PlayStation 3, while the X-Box, Nintendo Wii and PC each had two counts listed. Discussions with participants showed that they played games mostly at home or when visiting a family member or friend. They had mostly been introduced to video games by older siblings or cousins. This suggests that, in line with findings elsewhere, the siblings or cousins played a significant role in mediation of video game play for the participants in their early gaming endeavours (Domoff et al., 2019).

For the Lumumba Library group, the library was the children's primary exposure to video games. Although access to video games through mobile phones allows for children from most socioeconomic contexts to play video games (Walton and Pallitt, 2012), some children will only have partial access to the phones when they are not in use by parents or older siblings. Public spaces such as the library therefore provide an alternative way to play games, while also being safe spaces parents would be comfortable with. The games room in the library was also very popular, since in Khayelitsha as in other contexts, gaming is a popular cultural practice for children (Aarsand, 2012; Basson, 2015).

Regarding the ratings of their favourite games, data gained from interviews and participant drawings showed that 10 out of the 13 games listed as favourites by the Fountain School cohort (see chapter three for list) were age-appropriate, while the remaining 3 were rated 13, 16, and 18. Most children in South Africa who play video games reportedly play age-inappropriate games, especially violent ones (Basson, 2015). While most of the video games listed by the children were age-appropriate, the majority of them included violence, as per Buchman and Funk's (1996) and Basson's (2015) assertions. One of the boys from the Fountain School reported that the boys at the school liked "action games" (Ruben, 10, boy), and so violence appearing in the games listed makes sense. When asked to draw a scene from his favourite game he drew scenes from three games: *God of War* (Sony Computer Entertainment, 2005), *Call of Duty: Modern Warfare 3* (Activision, 2011) and *FIFA 12* (EA Sports, 2011). He described what he does to win in those games, with violence featuring in the first two (see Figure 2). Most boys listed games featuring violence as rating content descriptor as a favourite similar to the boys in Ybarra and colleagues' (2014) study. This also supports Kirk's (2014) and Maxwell's (2019) point that most popular video games include some form of violence.

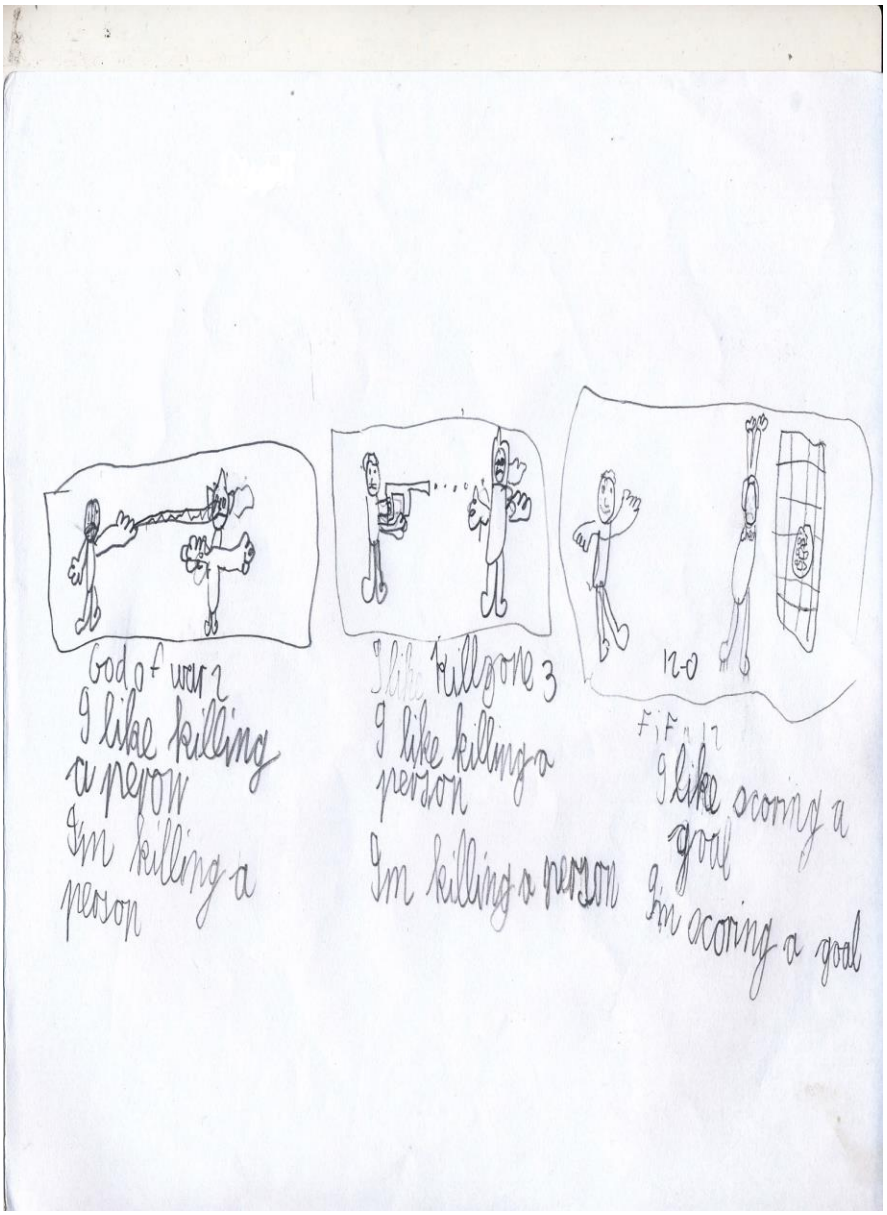

Figure 2: Ruben's (Fountain School, 10, male) game drawing of his favourite video games

The Lumumba Library participants only mentioned the games they played in the library, which were age-appropriate (i.e. rated PG) because they had been pre-selected by the librarians. Even though the library tried to avoid video games featuring frequent and graphic representations of violence the games still featured some violence. The video games from the *Grand Theft Auto* series are widely regarded as violent (Farrell, 2005) and are rated 18 by the FPB. These games were mentioned by participants from both sites but were not listed as favourites.

The Lumumba Library participants were more used to turn taking when playing since the library rules dictated that individuals had one turn and could only play again after everyone else had had a turn that day. The Fountain School group agreed to turn taking, but some participants would try to wangle another turn by offering to assist another participant. Some participants also suggested that if a player's character died, the next player should proceed with their turn. While watching their peers play, Fountain School participants would sometimes commend them on good play, but would also sometimes make discouraging remarks or boast about how much better they would do if given another turn. Play at the Fountain School was thus performative, i.e. more about showing expertise and getting high scores than about completing the game (DeVane & Squire, 2008). Progress was saved at the end of each session, so the children could play for completion if they wished, but they were more concerned with showing dominance.

To adapt the term from DeVane and Squire (2008) slightly, play at the library was performative out of necessity since children were not allowed to save their progress at the end of their turn. Furthermore Lumumba Library participants waiting their turn in the queue tended to be more supportive of their peers during play and even when suggesting how to do better, they appeared to want to encourage other children rather than perform dominance.

The qualitative fieldwork for this study presents many complexities owing to the varying contexts and circumstances of participants, and because of the somewhat different significance of participants' gender in both sites. Building on Buckingham's (2015) argument that computers are a medium through which users can conduct personal relationships, video games can also serve a similar function. Even where play was done in individual turns, social dynamics informed players' experiences. The mediation of play was also different in the two contexts. Fountain School children played games in a less regimented section and could speak through a whole session, whereas children from the library had no room for negotiation around play because they were bound by the library rules. Children from both contexts also had different experiences of parental mediation at home, with some parents using restrictive mediation, and others using active mediation. Friends and siblings also mediated play in some instances.

Some boys from the Fountain School relished the violence in games and enjoyed demonstrating their expertise to peers while their playable character performed violent acts in the game. Participants from Lumumba Library, on the other hand, were mostly boys, and played in a context which was more tightly controlled by adults, and (possibly as a result) they also

displayed a more tempered approach to the violence in games. However, there were some similarities in how the children from the two sites described video game violence.

"Ndiyayazi ba yigame [I understand it's just a game]": How tweens describe video game violence.

In addressing the first major research question, i.e. "How do children perceive violence in video games?", the children's discussion of their play and their environments provided rich details. Apart from providing a basic definition of video game violence the participants provided characteristics of violence which aligned with local rating rationales.

The children explained the characteristics of game violence in both age-appropriate and age-inappropriate video games. Despite not being familiar with local rating regulations, their discourse echoed that used in local FPB game ratings. Their understandings appeared to come from the Pan European Game Information (PEGI) rating system, their parents, and peers. Their explanations of the characteristics of video game violence thus resembled the dominant-hegemonic position in that they felt that the frequency and intensity of violence should determine the age rating of a game.

I found that sometimes direct questions yielded the most direct results. During the second focus group at the Fountain School I asked them what they thought violence was. During that session there were fewer participants than usual, but the quality of participation was adequate for such a line of questioning because the children who were present had considerable experience with video game violence and seemingly enjoyed engaging with it. Arnold, Ruben, Gideon and Tom (age 10, boys) were regular members of the group and were usually eager to engage with the questions I posed. These boys explained to me what "violence" meant to them. The definition they provided described violence as "hurting someone". This included cutting, decapitation and disembowelment:

"*Arnold*: It's [violence] hurting someone
Ruben: Taking their guts
Gideon: Cutting their heads
Tom: Cutting and slicing."

While this definition is narrow, it resembles the FPB's definition of violence being "any physical, psychological or verbal abuse whether self-inflicted, interpersonal or collective,

including gender-based violence" (Film and Publications Act, 2012, p. 10).

The boys revelled in the opportunity to discuss game violence and their choice of words such as "guts" and "cutting and slicing" highlighted the entertainment value of gore in their play. Their "definition" focused on the physical harm of interpersonal violence, and this makes sense considering the games the participants enjoyed. The focus on physical harm may also speak to the children's social contexts in South Africa influencing how they interact with video games (Croteau & Hoynes, 2018). I also found that the children had an understanding that not all violence in video games is equal, and drew this understanding from their experiences with games, and from the video game ratings.

The FPB's guidelines on violence rate games so that the more frequent and intense the violence, the higher the age rating. Some children described video game violence in similar fashion. Their descriptions evidenced the second lens they viewed video game violence through, i.e. normative views expressed by parents or other adults/authorities. Jackson (10, boy) from the Fountain School described frequency of violence being related to "when you have to do more killing than the last game". In another conversation, Arnold (Fountain School, 10, boy) told other participants that he was bored and later stopped attending. He had requested to bring in *LEGO Batman* (Warner Bros. Interactive Entertainment, 2008) because "it's more violent than this" referring to the two video games being used (*LEGO Pirates of the Caribbean* & *Kung Fu Panda 2*) but was still rated PG and involved LEGO. By this he meant that there was a higher frequency of violence, since violence "only happens very seldom in games like this [*LEGO Pirates of the Caribbean*]", and graphically the games were similar.

Intensity of violence is determined in part by how graphic (vivid) the violence is, and whether it is depicted at a distance or close up (Film & Publications Board, 2006). The children held similar views about how games should be rated in terms of intensity. For instance, Arnold (Fountain School, 10, boy) explained that a character in a LEGO game getting hurt mostly involved "someone turning red and falling over" while in games such as *Call of Duty* characters were represented as bleeding. Another example was the sentiment that blood in game graphics increased the brutality of games because, as Diana (Fountain School, 10, girl) suggested, there's "shooting each other and there's blood everywhere and guns and knives". As such, she and others in the group suggested that games featuring blood should have a rating of at least 13 (though some of the children felt 16 should be the minimum). The game design exercise the

Fountain School children also provided deeper insight into the roles the children felt violence had in video games.

"It's a game where the more you kill people the more you get" – Children's video game design

One of the activities the Fountain School children completed was video game design. I was able to conduct a video game workshop with this group because I had more time with them. There was also more consistent attendance by the participants. Participants worked in two groups (boys as one group and girls as the other) to give each of their video games a title, a story, age rating, description of what the player/character would do in the video game, what weaponry (if any) the player/character would have, and how to win. The designs drew inspiration from existing popular titles, and in their own ways gave violence a prominent position in the video game mechanics and narratives. There were gendered differences in the games the tweens designed. These differences bore similarity to that reported by researchers both in South Africa and elsewhere who have highlighted how play with video games reflects social normative ideas about gendered play (Pallitt, 2013; Thornham, 2008). Specifically, the role violence played in the narratives of the games was nuanced according to the tweens' preferences.

The Fountain School children drew inspiration from their media preferences and used the games they designed as performances of masculinity and femininity (Pallitt & Walton, 2015). For example, the media references the children used were aligned with the gendered marketing of the referenced media artefacts and artists. The designed games also seemed suited towards boys only and girls only through the roles violence played in the designs. As in Pallitt's (2013) study, the Fountain School boys displayed an aspirational masculinity through the design choices. The girls also made some design choices linked to their femininity. Therefore, participants' designs showed some overt and some subtle differences while also showing congruence in certain design choices.

Both games the children designed had violence listed as a classifiable element. These video games included the gendered preferences of the children and therefore acted as performances of masculinity and femininity (Pallitt & Walton, 2015). As with Pallitt and Walton's (2015) study, participants in my study performed their gender through video game design choices. The boys seemed to want to display maturity and media competence both for the peer group and me through their design. The girls appeared to design more for their tastes while

still performing their gender through their design. While neither group designed a stereotypically feminine game it is possible that my decision to organise the activity in gendered groups may have subtly influenced how the groups handled violence in the game, with girls treating violence as an incidental feature of their design, while it was the central feature of the boy's game.

There were gender norms presented in their designs similar to the gender performances displayed by Pallitt and Walton's (2015) participants. *Ultimate Manslaughter,* which was designed by the boys, was given a higher age rating (16) and had violence as a key instrument to success in the game. The boys intended for the violence in the game to be vivid and frequent. The girls' game, *The World of Justin Bieber,* on the other hand, had a lower age rating (13) due to there being less gore, and the violence in the game being infrequent. The violence was retaliatory though. The children rated the games similarly to what the FPB would rate them, and for similar reasons.

Ultimate Manslaughter was an action/horror game designed by the boys' group. The player took on the role of a male psychopath named Neo who has been recently released from jail. Neo encounters a stranger who offers him money to become a hitman. Essentially,

> "the more you kill people the more you get, the more weapons you get, the more levels you get, and you become the richest man in the world by the end" (Arnold, 10, boy).

Neo must also fight dark souls/spirits occasionally. To complete his tasks he'll use "every gun known to man and a katana" (Ruben, 10, boy), and eat fruit to regain health. Although eating healthy, Neo smokes. If he dies during a mission, one thousand dollars will be deducted from his earnings to bring him back to life. Each mission has a reward of one hundred thousand dollars. However, "You have to pay tax!" (Tom, 10, boy), and so your earnings will be less than the initial reward. It was unclear who Neo would have to kill (with the exception of the dark souls).

The Fountain School boys designed a game with the implicit goal of killing as many characters as possible. Their game also included pop culture and some situational references. Much like the boys in Burn's (2013) work on video games and playground cultures, the boys in my study used specific sources to construct their game. U.S. currency ("dollars") is used in the game, as it tends to be in U.S.A.-made games. The name Neo is "like *The Matrix* (Warner Bros., 1999)" (Jackson, 10, boy). The idea of a blacklist appeared in *Need For Speed: Most Wanted* (Electronic Arts, 2005). It is unclear where the idea of assassinations featuring in the game came

from. However, when the boys were arguing over whether assassinations should feature in the game Jackson noted that “it will happen in real life”.

Conversely, the dark souls part was dismissed as fake, i.e. not possible in real life (Pallitt, 2013). It is important to note that the dark souls part paid homage to *Alan Wake* (Remedy Entertainment, 2010), one of Arnold’s (10, boy) favourite video games. Further, the mechanic of losing money when Neo died emulated the character respawn mechanic of the *Grand Theft Auto* game series. Similarly, getting paid to kill people was also inspired by the *Grand Theft Auto* game series: “could be like GTA where he gets paid every time he kills someone” (Arnold, 10, boy). The video game also blended social realism with pure fantasy with the inclusion of its various components.

As suggested earlier, the inclusion of paying tax, eating fruit for health, and smoking as a vice provided some grounding for this fantastical story in reality. It also presented Neo as more of a flawed antihero. Despite eating fruit and paying taxes, he also smokes and is a psychopath and so is in no way an idealised hero who always does good. Antiheroes are morally ambiguous and complex: embodying some stereotypical heroic traits, while also acting in morally questionable or bad ways (Janicke & Raney, 2018). Neo’s ambition is also not the pursuit of ‘justice’ or ‘saving the world’ but becoming the richest man in the world (through murder). Players sometimes relate more to morally ambiguous/complex fictional characters (Sanders and Tsay-Vogel, 2016). Apart from including fantastical aspects and a narrative that could not be experienced in their life-worlds, the video game still includes some elements of reality. The video game would be rated 16 in South Africa because:

> “16-year-olds may be old enough to understand that this will never happen in real life” (Arnold, 10, boy),

i.e. much as it was violent, the violence was not the sort that could be experienced in real life. Arnold’s line of thought shows the boys designing a video game with some social realism in the form of paying tax, healthy eating and a criminal underworld, but also is unrealistic in the form of fighting dark souls and losing money when your character dies because “you have to pay for lives” (Arnold, 10, boy).

The initial drive behind the video game was to “make a game where you kill people” (Jackson, 10, boy), leading to violence holding a prominent position in the game. In order to advance one had to kill enemy targets. Success meant a financial reward for the character and

advancing to the next assignment/level for both the character and player. Therefore the violence in the game was developed and understood through ludic and narrative norms, i.e. the first lens. As Juul (2003) stated, the narrative in video games "plays an important role in making the player understand the rules of the game" (p. 163).

In *Ultimate Manslaughter* the narrative stated that the player's character had to kill, and this was to get the player to understand that the primary ludic rule, i.e. the rule that one follows to win the game, is to kill the enemy targets assigned by the stranger the player's character meets in the beginning of the game. The stranger explicitly states "I will pay you for every time you kill a person", and this shows the player the reward mechanism that will be in place: mission success (i.e. killing people) will lead to reward in the form of money for the player's character. This establishes a ludic economy wherein killing targets leads to income generation and dying leads to income loss. Neo's payment can also be used to buy weapon upgrades to help him through his next missions. So then, violence is necessary for success both because of the narrative premise of the game, and the rules of the game dictate that killing enemy targets furthers the story, and advances/wins the game for the player.

The World of Justin Bieber was an action mystery game designed by the girls' group and has the player control the titular Justin Bieber as he firstly completes his studies and trains as a detective, and then begins solving crimes. He must use clues/evidence to find and neutralise the main villain, a kidnapper, to become the hero of the town. To do this he will use guns, knives and bombs "every time he tries to solve a crime" (Tracy, 10, girl), and use coins found during the cases to purchase weapons and lives. Whether or not he has backup is determined by how many points the player has: "if you reach a certain amount of points you'll have a certain amount of backup" (Tracy, 10, girl). The player will gain points through fighting suspects using the knives, guns and bombs in the player's arsenal. A player can choose to either arrest or kill a suspect though. Killing the suspect would lead to material rewards such as more weapons, while arresting the suspect would lead to upgrades of existing weapons and equipment.

Similar to the girls in Burn's (2013) study, the girls in my study favoured adapting elements from various sources rather than having specific references to existing sources like the boys did. The video game is poised as an action mystery seemingly similar to procedural television shows such as *CSI* (CBS, 2000). The girls mentioned blood being included "Because a lot of people like blood with case studies and finding evidence and stuff like that" (Dani, 10,

girl). Children in Sanger and colleagues' (1997) study were also attracted to gaming titles which tied into TV, film, comic book characters they were familiar with. The most overt pop culture reference the girls used was of Justin Bieber as the titular character in the video game. The girls were big fans of his looks and music.

The Fountain School girls designed a game with a clear narrative structure and objective to be completed. The narrative in the video game presents a hero's journey. Firstly, Justin gets an education and trains to be a detective, and then he works cases building up to him solving the case of the kidnapper and thus becoming the hero of the town. So, to progress one must solve crimes by collecting evidence, fighting, and then either arresting or killing suspects. Here too violence has a prominent role, but there is the option of using non-lethal force in solving cases and progressing through the game. Both paths (using lethal force, and not) lead to rewards in the game, and the player can choose which would suit their style of play and/or which reward they would value more:

> *"Tracy* (10, girl): If you kill him, then a gun will pop out.
>
> *Dani* (10, girl): You'll get a reward or something, and if you arrest him, you wouldn't get such a privilege, but you'll get something….
>
> *Tracy* (10, girl): You'd get like stronger things for your next case which you're able to fight him with."

A ludic economy is present here too with weapons or weapon upgrades being on offer for success in missions, and back up only being available if enough points are accumulated in the fight with a suspect. A player will have to choose which reward they would prefer (either the upgrade or a new weapon) and act accordingly in their encounter with a suspect.

There was a difference in genre or at least sub-genre in the designed video games. The boys opted for a more out and out action title while the girls designed a game with a mystery element to it. Further, the boys presented an antihero as the main character while the girls presented a more straightforward hero as their protagonist. As per Schwarz and colleagues (2019), the boys presented the protagonist based on criminal actions. Additionally, the girls took a real-life character as their protagonist (Schwarz, et al., 2019). One important piece of convergence came in the form of their positioning of violence in their designed games.

Both these created games present violence as necessary both to their stories and for the games to progress. While *The World of Justin Bieber* is a little more nuanced in that a player can

choose to use non-lethal force, violence is still a requirement in solving cases. It is interesting that in designing games that they (the participants) thought they would enjoy and would be popular, the participants designed games wherein violence was central. This supports Kirk's (2014) assertion that violence is a crucial piece of the video game industry and appears in most popular games. *The World of Justin Bieber* featured retaliatory violence justified by the narrative of saving the day. The villains all transgress, and it is only through violent means that the transgressions can be stopped and future transgressions prevented (Krahé, 2014; Duncum, 2006). Part of becoming the hero of the town involves potentially killing antagonists. The protagonist's killing will be perceived as less violent than the antagonists' transgressions (kidnapping) (Waddell, et al., 2019; Samson & Potter, 2016). Additionally, the protagonists' retaliatory violence is portrayed as justified because it is used to protect others (Cote, et al., 2021; Hartman, Krakowiak, & Tsay-Vogel, 2014).

There could have been elements of peer performance in their group work while designing, especially within the boys' group. It is possible that the boys were attempting to present what they perceived as their maturity to each other and to me by suggesting the elements of what would be a vividly violent game and suggesting a high age rating. The girls could have been presenting me with what they thought I would want by including weapons and killing, while still showing their preferences by including Justin Bieber in the game. Their wanting to give the game an age rating of 11 could be an aspirational display given that they would have been turning 11 soon after the conclusion of my data collection. Regardless of their reasoning, these participants presented violence as it appears in a lot of games: necessary if one wants to win. The role of blood in the two video games was also different between the girls and boys.

> *The World of Justin Bieber* included blood as evidence/clues about the crimes committed: "because a lot of people like blood with case studies and finding evidence" (Dani,10, girl).

Blood served a purpose of furthering the game because players would have to interact with it to solve the case. It also adds a sense of realism to the game as blood is usually collected as evidence where it is present in a crime. Blood would also appear when suspects were injured or killed, but the girls said there would only be a little blood in the game. *Ultimate Manslaughter* included copious amounts of blood firstly because "we like action games" (Ruben, 10, boy), but also because:

> "It's called *Ultimate Manslaughter* and what's a manslaughter game without any blood?" (Arnold, 10, boy)

The blood is there because it fits the picture of what a video game in the action should look like, i.e. it stays true to the genre much like *The World of Justin Bieber* does by having a detective use blood as a clue to solve the case. The blood in *Ultimate Manslaughter* also adds a sense of realism to the game mechanics. Enemies will be killed with either bullets or a katana. Such ammunition and weaponry can cause a lot of damage and bleeding to/in the human body, and so the video game will mirror this to an extent. There was no suggestion here that the blood would help drive the story at all other than it showing you that an enemy was dying or dead though. As such, blood appears to have a more narrative base in *The World of Justin Bieber* while serving a more mechanical/graphical purpose in *Ultimate Manslaughter*.

Both groups incorporating blood in their designs supports Bruckheimer's (2014) argument that video games featuring violence are popular cross-culturally. However, the children seemed to exhibit an example of de Camp's (2017) suggestion that violence is generally a masculine area. Meltzer (2019) also argues that a game like *Ultimate Manslaughter* provided the boys with an opportunity to perform male gender roles. This result also supports Sanger and colleagues' (1997) suggestion that boys prefer competitive video games wherein they can display supremacy and gain high scores, while girls prefer purposeful video games involving real-world problem solving. Competitive games allow for performances of competence by players. Thornham (2008) found gendered differences in the performances of her participants during game play, with the men showing performances of competence. Similar to the boys in Sanger and colleagues'(1997) study, boys in my study tended to try to display expertise and to control the play space. The boys' desire for displaying supremacy also spilled over into trying to show expertise even when not playing.

The game design exercise helped uncover gender differences in how children from the Fountain School thought violence belonged in video games. However, there were also differences in how children from the two sites responded to violence in video games. Much as the children had locally-situated play practices, their responses were also informed by the circumstances of their life-worlds.

"They shot over there yesterday": The ways in which violence in children's life-worlds informs their responses to video game violence

Children from the two field sites had vastly different experiences of violence in their life-worlds. Their life-world experiences informed how enthusiastic they were about the violence represented in video games. Most of the Fountain School children only had third party experiences of violence, e.g. three boys shared stories they had heard from family and the news on gang violence in Cape Town. In contrast, most of the children at Lumumba Library had more direct experiences with violence, e.g. a boy described witnessing gangsters pursuing and trying to stab someone in his neighbourhood. However, children from both research sites still drew distinctions between the violence presented in video games and the violence they had witnessed or been told about.

Three boys from the Fountain School related stories they had heard from family and the news on gang violence in Cape Town. Christian (10, boy) had said no one should be afraid of blood in video games and movies "because it's all fake". The boys thus agreed that video game mechanics were different to real life, e.g. people do not respawn like characters do if they die. However, it was also agreed that some video games, and in this instance *Grand Theft Auto: San Andreas*, contained social realism in their depiction of violence because the violence was similar to information participants had drawn from their family and friends' experiences of gangsterism in Cape Town, as well as news reports of gang violence. Ruben's initial mention of violence like that in *Grand Theft Auto: San Andreas* happening in areas of Cape Town was first met with disbelief by Robert and Bobby before Christian explained:

> "*Christian*: Yes, they do. My cousin, he grew up in Lavender Hill and he used to ask his mother if he could play with his toys, and she'd say he could play with the toys but he must stay down because the gangsters shoot through the windows…
>
> *Christian*: And that was like last year…. They called the army…
>
> *Bobby*: And yesterday, you should've watched the news. They shot over there yesterday."

Their relating the gang violence in *Grand Theft Auto* to gang violence in Cape Town speaks to the gaming having some social realism while not being mechanically realistic (Galloway, 2006). For instance, rival gangs in Cape Town have had shootouts in the streets in broad daylight much like can be seen in *Grand Theft Auto: San Andreas*, but the mechanics of the shootouts differ from *Grand Theft Auto: San Andreas* in how they occur, how people respond, the sounds made,

and the general atmosphere of the situation. These differences highlight how *Grand Theft Auto: San Andreas* can be mechanically unrealistic while still containing social realism around gang activity.

At Lumumba Library, Lungelo (10, boy) also gave an account of the social realism in *Grand Theft Auto*. Referring to *Grand Theft Auto: San Andreas*, he described that early in the game the player's character had to ride a bicycle to escape from gangsters. When asked if he thought this could happen in real life he said no, but acknowledged that some of the violent elements in the game were real by giving an account of witnessing gang violence in his community:

> "*Hayi, ayiyenzeki. Kodwa bakhona abantu abaleqwa zizkolie ezifuna ukubahlaba.* Translation: no but there are people who get chased by gangsters that want to stab them. *Izikoli zileqha ezinye izikoli* Translation: I've seen gangsters run after other gangsters trying to stab them".

What is striking is that while having this direct interaction with gang violence in his life-world, Lungelo still holds violence in his life-world as distinct from video game violence. When asked if he thought what happened in the game could happen in real life if he played the game (i.e. if he would possibly mimic it), he explained:

> "*Ewe, ndikhendiyicinge kodwa ndiyayazi ba yigame*. Translation: I do think about it, but I also understand that it's just a game".

The boys from the Fountain School also held video game violence as distinct from violence in their surroundings despite the social realism. However, this distinction was more informed by discussions about violence in Cape Town that the children might have heard on the news or through their parents, than from the children's personal experiences. As Robert (Fountain School, 10, boy) explained when asked if social realism made him feel any different about performing violent actions in video games: "it's still quite funny when you kill a person [in a video game]". These perspectives are thus similar to those of the participants in Kobach and Weaver's (2012) study who were shown real or fictional violent images. Like those participants, participants in my study had significantly fewer negative reactions to images they perceived as fictional. The reactions stood even when there was social realism in a game, i.e. a representation of violence is perceived as merely a representation no matter how accurate it may be. Some participants showed, and also reported showing, emotional responses that were "counter to what

one would expect from similar real-life violence" (Lang, Bradley, Schneider, Kim & Mayell, 2012, p. 162) while playing other games with equal or higher age ratings. Even where one Fountain School participant had directly witnessed violence in his life-world, he still enjoyed video game violence.

Tom (10, boy) had witnessed a real fight and said that "it was ugly". When probed as to what made it ugly he described that "there was blood" and "people cried". This description presents the violence as "ugly" due to the physical and emotional harm they did to people involved (including bystanders). Unlike the violence in video games, the violence in the fight did not only affect those directly engaged in it. He later also said he would be "terrified" to meet real pirates because "they'd sometimes stop at nothing to get things and they have weapons". In contrast to this fear, Tom enjoyed killing characters in video games and had no problems with blood in the games. When asked if fights in video games have ever made him feel the way he did when witnessing the real fight he commented that "it's not the same because it doesn't look real". This resembles Silcock and colleagues' (2013) findings with children aged between 10 and 12 which "indicated that they [the children] didn't think it [violence in a video game] mattered because it was not real" (p. 6).

Some Lumumba Library participants also had different emotional responses to video game violence despite witnessing violence in their life-worlds. For example, Xolani (9, boy) had witnessed violence and criminal activity in his neighbourhood. While suggesting that violence in his life-world was bad, he acknowledged enjoying violence in video games. He suggested different consequences between using violence in video games and using it or even trying to prevent it in his community, e.g. getting embroiled in a fight one was trying to break up, and getting physically injured.

Children from both sites also argued that all violence in video games was not equal. Even though children from both sites did not know the local ratings for video games very well, they appropriated what knowledge they had to understand what to expect in video games, and to guide their preferences in games. For example, at Lumumba Library, one participant (Lungelo, 10, boy) argued that boxing games, and more especially televised boxing, should carry an 18 rating because of the presence of blood. He noted that "ubetha abantu nabantu baphuma igazi [you beat people up and they bleed]", and so the rating should be higher. However, he is comfortable with the gang violence in the *Grand Theft Auto* series because "ndiyayazi ba yigame

[I understand it's just a game]". Children from the Fountain School also stated that gun fights in video games were more brutal than knife fights. In a further demonstration of the dominant-hegemonic views of the country, the children also argued for the need for ratings to exist to protect young children.

"Why is it 13 or 18": The ways children navigated the local ratings

Despite ignorance of the local ratings provided by the FPB the children understood the importance of video game ratings and were able to articulate it. They also showed a hegemonic comprehension of how violence was rated in games based on its intensity and frequency. The children presented the local ratings as inadequate in informing consumers and suggested visual presentations of the classifiable elements as a solution. They also suggested stricter gatekeeping around access to age-inappropriate video games.

Categories in rating systems must reflect the content perceptions of the consumers in order for the rating systems to be valid and effective as informational aids (Funk, et al., 1999). Most participants from the Fountain School did not recognize the FPB sticker at all. The Lumumba Library participants also did not recognize the sticker. However, they admitted to having not seen video game covers. It is therefore understandable that they may not have been exposed to the rating stickers. Only one participant from Lumumba Library recognized the logo and some descriptors. Still, as the goal of the rating system is to "provide information that can be used to control access for vulnerable individuals" (Funk, et al., 1999, p. 284), the ratings need to be visible, and easily understood by consumers. Some participants who were more familiar with the ratings felt that changing the content descriptor labels for the ratings might lead to better understanding by consumers.

Despite not knowing the local ratings well, Ben (Fountain School, 10, boy) pointed out the importance of the rating content labels while arguing that using pictures to denote the classifiable elements (like PEGI does) would make more sense. It makes sense that Ben and other children would be more familiar with the PEGI ratings since the FPB sticker is often stuck over the PEGI rating information, and the booklets in the covers of video games contain PEGI rating information. Ben suggested that consumers need to know what content they are getting by commenting:

"Why is it 13 or 18? You won't know because it doesn't have the signs on and you can't

open the game to see".

He further commented that there was a difference between LEGO video games, and video games with "real people", i.e. video games with more photorealistic graphics. This comment was similar to Funk, and colleagues' (1999) participants categorising violence in video games as either "human violence" or "fantasy violence". In differentiating between types of animation, Ben demonstrated an understanding some parents lack, i.e. some South African parents who do not pay attention to ratings because they equate the animated graphics of video games to children's cartoons (Basson, 2015).

Ben's concern bore a striking similarity to the FPB's concern that more graphic instances of violence will "threaten a child's sense of security or well-being" (Department of Home Affairs, 2009, p. 17). This shows a dominant-hegemonic position on the ratings, i.e. the children understood the ratings from a position similar to the one from which it is being spoken (Bertrand & Hughes, 2005). A related instance was Tom (Fountain School, 10, boy) arguing that video games rated 16 and 18 may be a bad influence on young children because "graphics are good so it'll make it worse for kids younger than that age". Further examples of this include some children explaining the two major potential harmful effects (imitation and addiction) violence in video games could have on children.

The local dominant-hegemonic position regarding video game ratings was also evident in the children voicing concerns about the potential negative influences of video game violence. As with Basson's (2015) study, the children presented an awareness of the potential impact of video game violence at an individual level. For example, Tom (Fountain School, 10, boy) mentioned that he thought parents were worried that "the child might get into violence as well. They might get too violent because of the game". Numerous institutions and studies have voiced similar concerns (e.g. Ybarra, et al., 2014; Media Violence Commission, 2012; Farrell, 2005). Consistent with responses given by participants aged 16 to 39+ in the FPB's 2013 Convergence Report (Film and Publication Board, 2013), participants agreed that violence should form part of a game's rating. Addiction was a potential concern raised in local research (Chetty & Basson, 2007). Tom also noted the potential of children getting "addicted with like killing people and blood and that". This sensitivity to adult concerns around video games is similar to how a participant in Burn's (2013) sought to distance himself from appearing as if he was overly invested in *Call of Duty* games.

The participants' presentation of the dominant-hegemonic position while being largely ignorant of the rating system raised the question of where they got their position from. It is possible that the ratings are so intuitive that children can figure them out without knowing the formal structures. However, the more likely answer is that the children gained their knowledge from elsewhere. Their familiarity with the PEGI ratings suggests that they could be leaning on their understandings of that system when interpreting the FPB ratings. Furthermore, the children could also lean on the ICASA ratings they would have seen on local television. The ICASA ratings use an identical system to the FPB ratings, and so it makes sense that the children would have some familiarity with the content descriptor letters while still not knowing/recognizing the FPB sticker. The children were also likely gaining their understanding from their parents and peers. The normative views about violence expressed by caregivers while mediating gameplay were a key component to the children's understandings of violence.

"There has to be adult supervision": To what extent children look to their parents to help them understand violence in games

Khurana and colleagues (2018) highlight the importance of parental monitoring of violence in media. They suggest that increased parental monitoring of gameplay and encouragement of self-regulation could lead to a child playing fewer video games with high violent content. The child may also display fewer negative behaviours, e.g. aggressive behaviour (Khurana, et al., 2018). Similarly, Olivier (2000) highlights the need for adult supervision when children play video games. Parents seemed pivotal in informing how children in my study understood video game violence and ratings. Parental mediation strategies and input helped most participants to have an adequate understanding of how and why video games have age ratings without knowing the formal rating structures. Parents also served as gatekeepers of access to video games. The librarian from Lumumba Library played a similar role for children playing video games in the library: acting as a gatekeeper, and advisor to them. Therefore, participants in my study were monitored to varying degrees. However, they engaged with their caregivers as a resource to inform their gaming practices, and their perceptions of video game violence.

Gatekeeping children playing video games involves parents/caregivers controlling children's access and use of digital technologies (Dias, et al., 2016). An example of parental gatekeeping of access to games was described by Shawn (Fountain School, 10, boy). He

explained that he chose games by looking at a game's cover and checking the age rating. If the rating was too high, he would return it and try to find something else because he was "not really allowed to play anything over 16… [because of] violence". Shawn's parents therefore determined what games he was allowed to purchase and play at home. His parents paid enough attention to video game ratings to use restrictive mediation in this manner. Shawn later suggested that younger children were at risk of imitating violence in games if their parents did not teach them any better. He leaned on his parents' understanding of what children should play, and what they should be told about video games for his perceptions. His views on the appropriateness of games and game content were at least partially determined by parental norms, i.e. according to what his parents allowed.

Other participants also reported their parents approving what they are able to play. For example, Ben (Fountain School, 10, boy) spoke of making sure both his parents were present when he wanted to buy a game because "my dad knows stuff, because I play video games [with his dad]". Ben's mother acted as the formal gatekeeper to his play, applying restrictive mediation. His father employed the active mediation strategy of co-playing, i.e. watching their child play video games or playing with them (Nikken, et al., 2007). Co-playing tends to be strongly linked to the parents' own gaming practices (Nikken, et al., 2007). Some children, e.g. Ben, can therefore be exposed to age-inappropriate content through co-playing. The exposure can happen as more older gamers are becoming parents and some children end up accessing age-inappropriate video games their parents are playing (Gee, 2007; Nikken & Jansz, 2007). The Film and Publications Board's (2020) convergence report listed the majority of the younger respondents who were parents having played their children's video games. The FPB's finding provides more local support for the idea that older gamers are now gaming with their children. For Ben, there was still some mediation if he played without his father in that "there has to be adult supervision" if he wanted to play age-inappropriate games. The highest age rating he was allowed to play in such scenarios was 16. This reliance on his parents and their mediation strategies highlights the active role these children's parents played in mediating video game violence for children. The norms set by their parents helped inform how the children engaged with video game violence.

One of the Lumumba Library participants provided an example of co-playing/co-viewing influencing a player's content preferences and appropriations of age ratings. Nqaba (10, boy)

described the parental input present in his understanding of ratings. His father used active mediation during co-viewing/co-playing by endorsing certain content and age ratings. When asked if he knew what the 16 rating on the FPB logo meant Nqaba responded that he had seen the FPB rating sticker before and that the 16 sticker meant the content would be nice, according to his father. Nqaba's reasoning presented is far from what the FPB would use. However, it displays the important role parents play in children's understandings of and responses to video games. Nqaba described a 16 rating as a sign of a good movie or game. He then affirmed that he felt similarly for games, going as far as to suggest that *Wii Sports Boxing* should be rated 16 because it is fun:

> "Interviewer: *ucinga baithini iminyaka yeboxing? Ingathi 16 okanye 13 okanye 10*?
> Translation: do you think that the rated age for boxing is 16 or 13 or 10?
> Nqaba: *inoba ithi 16 kubaimnandi* Translation: it probably says 16 because it is fun and nice".

Nqaba's appropriation of the ratings as a signal of what content would be fun was directly informed by his father.

While not giving Nqaba specific insights about classifiable content such as violence, Nqaba's father did assist him in knowing the ratings. This finding is contrary to local studies (Chetty & Basson, 2007; Basson, 2015) reporting that most parents lack the information to assist children in understanding the technical aspects of ratings. However, it is unclear how much of the technical aspects the father actually knew. Additionally, it is possible he was only speaking from his own viewing preferences. Nqaba's example was the most direct of parents influencing choices on what is enjoyable. The example supports Nikken and Jansz's (2009) finding of a positive correlation between active mediation (including co-playing) and children playing age-inappropriate video games. My data produced other examples of parents influencing choices of what video games are acceptable.

Gideon's (Fountain School, 10, boy) parents can be used as further examples of active mediation and co-playing strategies. Gideon reported avoiding gore in games. If he encountered scenes he didn't like or was not succeeding he would "hand over to my dad and watch him clear it". Other examples include Ben (Fountain School, 10, boy) and Bobby (Fountain School, 10, boy) mentioning their fathers actively monitoring what they play and sometimes helping them if they need it. The only mention of a mother employing such active mediation strategies was

Jackson (Fountain School, 10, boy). He mentioned that his mother took this approach in relation to the movies he watched: “like in the movie called *Kick Ass*, she’ll check and watch a part of it, then overnight she’ll decide if it’s ok”.

Parents and caregivers can provide guidance through active mediation or co-playing and sharing their reactions. Data from my study strongly suggested that children whose parents use such strategies, which seemed prevalent in the Fountain School group, have their views on violence in video games and their life-worlds informed by parental input. Similarly, there were examples such as Lungelo (10, boy) from Lumumba Library being guided by his parents’ views that boxing was bad and should not be watched or played. Xolani’s (Lumumba Library, 9, boy) parents used co-viewing when watching boxing and made it a family activity. Xolani nonetheless noted that he does not play boxing with friends though because “we might get hurt or bleed from boxing each other”. The children therefore use their interactions with their parents during and around gaming to inform their understanding of the world and their perspectives on violence and violent entertainment.

The participants suggested that parents should be involved in deciding what their children play and provide more freedom as the child gets older to mitigate any potential negative consequences of being exposed to video game violence. It is encouraging that most participants reported that their parents mediated their video game play in various ways. However, broader South African data suggests that parental mediation is often hampered by the parents’ time (Simons, et al., 2018) and knowledge (Basson, 2015) constraints. When asked what parents might be worried about when children play video games, Tom (Fountain School, 10, boy) suggested that “they’re worried about the child might get into violence as well. They might get too violent because of the game”. Other children also mentioned imitating video games as being something parents wanted to prevent their children from doing.

Arnold (Fountain School, 10, boy) suggested that parents want their children “to get used to games like that [PG rated games] and make more fun of it than any other game you were playing”. Parents would therefore be limiting their children’s exposure to content such as blood in games. His statement not only touches on parental influence, but also the appeal of age-inappropriate games, and parental involvement in access to games. Arnold suggests that children have an interest in playing age-inappropriate games, and that parents implement strategies to counteract this interest. Children, especially boys aged between 10 and 12, are the most likely

demographic to play age-inappropriate games (Nikken & Jansz, 2007). Other children also admitted to playing and enjoying age-inappropriate games. However, most were only allowed to when there was some form of parental mediation involved.

Parental guidance can taper off as children grow (Krantz, et al., 2017; Nikken & Jansz, 2007). In the second year's sessions at the Fountain School, Robert (11, boy) claimed he had almost no supervision because: "I'm almost a teenager. I'm turning 12 this year". He and other participants were gaining more autonomy, as tends to happen for this age group (Fikkers, et al., 2017). This decrease in parental monitoring is linked to an increase in following the peer group (Defoe, et al., 2018). The decreased parental monitoring also saw participants feeling that they were not at risk of imitating the violence represented in games. They did however feel that younger children would be at risk and needed parental oversight. Some participants therefore othered younger children.

"We're able to control ourselves when we play": How peers define some distinctions drawn between violence in video games and real life by showing what is acceptable in the peer group

Some participants felt younger children were the only ones susceptible to the potential dangers of engaging with video game violence. In such cases, participants would position themselves as safe from the threats video game violence exposure might hold, thus trying to display their maturity. Younger children were positioned as at risk of being scared by violence. They were also viewed as being at risk of transgressing by imitating the violence in video games. Contrastingly, two Lumumba Library participants specifically used the *Wii Sports Boxing* video game as a tool for imitation, as will be discussed later. However, my Fountain School participants demonstrated four norms around violence: Firstly, children of the participants' ages were expected to follow the rules within video games; secondly, children of those ages would experiment with violence within those rules; thirdly, they understand that violence is not real in video games; and finally, they would never imitate what is done in the video games.

Most times the children discussed the potential negative influences of video game violence, they were sure to exempt themselves from such dangers. As with DeVane and Squire's (2008) study, the suburban children worried that the wrong type of person, e.g. younger children, would be negatively affected by video game content in the form of imitation or obsession. The children displayed a clear example of the third person effect by suggesting that others will be

more susceptible to video game influences from age-inappropriate games than them (Buckingham, 2013).

The clearest example came from Tom (Fountain School, 10, boy) saying that some children might imitate the violence portrayed in games but "only the ones that play these age games. Say if it's 18 and 18-year-olds play it, it'll be fine. But if younger people play it, then it's irresponsible". He then admitted to playing age-inappropriate games but was immune to wanting to imitate the violence because "I think of it as a game…. Some people might only think it's a game, some people won't". The "some" Tom mentioned were younger children. Shawn (Fountain School, 10, boy) also mentioned that he felt that "small children... don't know anything" and may be influenced by video game violence. Shawn's view suggests a reliance on parents for guidance on what is right and wrong. His view surprisingly accurately reflects findings that children younger than five years old are not always able to distinguish between fantasy and reality (Sharon & Wooley, 2004). Some of my Fountain School participants suggested that they exercised restraint to prevent them from copying any in-game activities.

Tom (10, boy) also remarked "we're able to control ourselves when we play" when describing who would be at risk of negative effects of video game play. Nikken and Jansz (2007) found that children whose parents employ active mediation are prone to thinking they are immune to any potential ill effects from gaming. Essentially, Shawn, Tom and others suggest that they are already old enough to not be at risk of the potential negative influences of video game violence.

Diana (Fountain School, 10, girl) also argued a similar point stating that children aged five would be able to handle cartoonish games because "there's not a lot of violence that they can put into video games and when they go to bed it can't get them". This resembles the FPB's notion of video game content potentially threatening a child's sense of security or well-being. She suggested that more graphically realistic games with "reality people, like people like me and you... shooting each other and there's blood everywhere and guns and knives" could give younger children nightmares[24]. Diana's point gives a very accurate summation of what the FPB suggests is appropriate for younger children.

Apart from suggesting that younger children could not handle more mature content, some

[24] The FPB only allows for "minimal violence in playful, comic or highly stylised settings" (Film and Publications Amendment Act, 2012, p. 17) in video games rated PG.

of the Fountain School children also tried to establish that at their age they were past the point of playing video games with low age ratings. This was evidenced by Bobby (10, boy) being mocked when he mentioned playing age-appropriate games and tried to dissuade other participants from playing age-inappropriate games. His suggestion that "that's not his age-appropriate. He shouldn't be playing those games" was met with sarcasm by Christian (10, boy): "Yes, I'm going to play a 3-year-old game". Here, age-inappropriate games appear to serve as a statement of maturity similar to the participants in Pallitt's (2013) study. Boys here suggested that playing games for younger children was beneath them, and that they wanted to play games rated 13 or higher. There were traces of hypermasculinity in their suggestion: They presented themselves as being competent and mature enough to handle games made for more mature players. They therefore shunned games made for younger players as a display of their aspirations of playing games with higher age ratings. In this way, the children used the ratings, and also their expertise in video games, as a form of cultural capital[25].

Violence in video games also acts as a form of cultural capital, and this affects the meanings and understandings attached to it. For instance, some children would brag about their kill streaks in games, and how they know how to defeat opponents with or without cheats. Such posturing presents those children as superior to others who cannot achieve the same feats. The peers who are not able to achieve these feats will try to improve to gain peer acceptance since peer acceptance is a developmental goal during the tween years into adolescence (Palacios & Berger, 2016).

Inasmuch as violence was understood as a part of displaying expertise in a video game, it was celebrated. Violence was therefore perceived as a tool for progression and mastery in games, much like successfully jumping between platforms was. Examples included Fountain School boys being more supportive with their comments when players showed expertise, and Lumumba Library celebrating players' successes in *Wii Sports Boxing*.

As such, the children displayed an understanding of video game violence that was similar to what the FPB suggests both in terms of the definition of violence and how the frequency and intensity of violence inform what age rating a video game will receive. However, this understanding seems to have been gained from using other rating structures such as ICASA and PEGI, as well as from relying on parental and peer input on what violence is and when it is

[25] Malaby (2006) describes cultural capital as a resource invested in cultural objects and/or artefacts.

acceptable. These understandings informed the clear distinctions they made between violence in video games and in the world around them.

"In real life there will not be anyone to help": How children use their contexts, parents, peers and video game elements to draw distinctions between violence in video games and real life

Participants engaged with parents, peers and video game ratings to build their understanding of video game violence. They also used the graphic, ludic and narrative elements of video games when shaping their responses to video game violence. The children developed their responses to video game violence based on the presentation of violence in the games through graphical display, rules and narrative.

Perceptions of media and video game violence are shaped by the realism, graphicness and justification of said violence (Tamborini, et al., 2013). In my study, participants showed a similar perspective on realism and they discussed the unreality of games at various points in the study. The realism and justification elements come from the narrative base of the games.

Much as the children used the ludic rules of the games to judge the appropriateness of certain acts of violence, they also engaged with the narrative elements in the games in making judgments on how different they were from interpersonal violence in their life-worlds. That is to say that the norms presented in the narrative elements of video games are perceived as different to the norms the children have to adhere to in their everyday lives. The displays of the world around them and the worlds in video games were also distinct from each other.

Robert (Fountain School, 10, boy) enjoyed killing in age-inappropriate games, e.g. he found killing in *Grand Theft Auto* funny. However, when discussing content descriptors for video games and what discrimination was, he suggested that killing people was maltreatment: "But you kill people. Isn't that treating people badly?" So, he found the killing in Grand Theft Auto funny, but also acknowledged that killing is a bad thing. He appeared to be straddling two ideas: one being that killing in general is wrong, and the other being that killing in the context of the video game can be entertaining because it isn't real.

Similarly, when playing and/or discussing age-appropriate video games the children presented distinctions between the violence in video games and in real life. A striking example of differences between video games and reality came from Mondli (Lumumba Library, 10, boy) relaying that he has fun playing *Wii Boxing*, but feels that fighting is wrong, and that fighting is

the only thing one could learn from playing *Wii Boxing*:

> "Interviewer: *Ikhona into oyifundayo pha kuyo?* Translation: Do you learn anything from this game?
>
> Mondli: *Kaloku ikufundisa uba nawe ungalwa. Ayikho right.* Translation: The only thing is that it teaches you how to fight. It's not right."

There is a stark contrast here between his response to fighting in the video game and fighting in his life-world. Another example of distinguishing between video games and a player's life-world was Xolani (9, boy) from Lumumba Library having relished fighting in *Wii Sports Boxing* and enjoyed watching WWE wrestling while hating real fights because:

> "*Kodwa xa inokwenziwa manyani ndingayoyika. Kuliwa kakubi pha. Njengoba ndibukele ndiyayazi uba iya "acting" lento*. Translation: I am scared of that type of fighting in real life. It's too violent. I know as I'm watching [WWE] that it's all acting and not a real fight."

Much as he enjoys beating people up in *Wii Sports Boxing* he is afraid of fighting in his life-world. Video games distinguish themselves from reality by having mechanisms in place for one to redo actions and gain rewards for successfully completing the objectives of the game. Xolani referenced clear differences in rules and consequences between video game play, sport and real fights suggesting that boxing is dangerous in real life (but not in video games).

An example of the abovementioned distinction from Sanger and colleagues' (1997) came in the form of a nine-year-old girl telling one of the researchers in that study that he quickly had to die in the game she was playing so she could switch to a different game. The girl was very aware of being able to replay the game, and the perceived lack of consequences of dying in the game. Games are meant to be fun and a part of that fun is in the form of succeeding in gaming tasks (Sørensen & Jessen, 2000). Life, and particularly violent encounters, do not have such mechanisms built in, as Xolani alluded to.

One could also argue that the rules of games help define this difference for the children. It can also be argued that the children engage with the rules according to their life experience since "meaning is created through the interpretative process of interacting with the narrative and rule-based layer of the game and with significant others" (Sicart, 2011 in Ribbens & Malliet, 2014, p. 6).

Children from both research sites who had witnessed violence found it scary and

described the violence very differently to how they described violence in video games. This distinction supports Goldstein's (1998) suggestion that there is an unreality in even the most realistic games. He found that people showed joy over cartoon violence, but fear for real violence; and suggested that cues such as music helped establish the division between the real and unreal. A fight like the one that Tom had witnessed at a rugby game scared him, but fighting in video games was something he enjoyed.

Lungelo (Lumumba Library, 10, boy) too had apprehension about fights happening in front of him but enjoyed fighting in video games such as *Wii Sports Boxing*. Moreover, he was very afraid when he saw gangsters with knives chasing an individual in his neighbourhood. Further support for Goldstein (1998) is found in research showing that hearing about violence leads to as much distress as actually witnessing the violence by making the children feel unsafe (Shields, et al., 2008). That distress is very different from the responses recorded regarding video game violence in this study.

In essence, even when there are elements of realism in a video game, its gamelike qualities impart a low modality[26], distancing the game as representation from everyday violence and its consequences. This low modality is both evident in commercial games and even when the children came up with their own game ideas. These disparities between the representations of violence and actual violence cluster around how video game rules differ from the social conventions in the children's life-worlds.

"If you have some guards, you have no choice but to kill them": The role of rules in separating violence in video games from violence in life-worlds

Participants engaged with and interpreted violence according to the rules of the video games they played. They did not stigmatise the use of violent actions and animations in the games as they might have stigmatised playground aggression and violence toward peers. Instead their use of violent actions and animations was regulated by game systems. These game systems largely implement presentations of simulated conflict. Video game conflicts resemble action narratives in that they set up narrative and ludic goals which reward the successful use of violence. The children saw video game violence as appropriate when it could be used to advance in the game,

[26] Modality is the extent to which a text represents things as if they were real (Maagaard, 2015). Low modality has things in a text represented as caricatures or fantasies.

led to a reward (not necessarily attached to advancing in the game), did not lead to overtly negative consequences such as the game ending, and/or was perceived to be amusing.

One of the 10 elements of a great game has been identified as the presence of explicit rules that are enforced (Reeves & Read, 2009). In engaging with these rules players test what can and cannot be done in the gaming environment. Video games have their rules built into the system and these rules are bound up with feedback (Prensky, 2001). Feedback leads to learning, because rewards are given as part of the game's structure to encourage players to continue playing and reach the goals of the game (Prensky, 2001). An example is the invisible wall in *LEGO Pirates of the Caribbean* which blocks players from swimming away from the play area by having a shark eat the playable character. Juul (2005) describes invisible walls as a subtle way of showing the game space ends, as opposed to using an actual wall or white line as a marker. The character dying and returning in *LEGO Pirates of the Caribbean* meant a loss of points for the player, thus discouraging the player from continuing to attempt the action. Punishments, in this way, are also provided to prevent players from performing certain actions (Prensky, 2001). Rewards are also used in games to guide player action.

While playing the different games, some participants suggested that fighting was unavoidable, and so both the character and the player must fight and fight to win. Examples include Bobby (Fountain School, 10, boy) reporting that "you must kill" in *God of War* and *The Warriors* (Rockstar Toronto, 2005), and Ben explaining that that killing can be compulsory and specific like when "you must use a shotgun to kill them". In these instances, the game will not advance unless the required action (killing the characters that must be killed) is carried out. That is to say that killing in a specific way forms a *ludus* rule in that one wins if one kills in the desired way and loses if one does not.

Some game genres are centred around combat or other forms of represented violence. Given the lack of actual consequences, this means that the rules of the game dictate (and/or are seen by the children to dictate) the use and appropriateness of violence. Frasca (2001) argues that each game will have standards wherein killing that leads to a reward is right, and not killing in those instances is wrong. For example, *Ultimate Manslaughter* (the game the boys designed) had a *ludus* goal rule dictating that the player/character "has to kill people" to progress. Killing characters you are sent to kill is better than not killing them, because killing them advances the game and gives various rewards.

An example from an existing game came from Robert (Fountain School, 10, boy) mentioning that in some of the games he plays, e.g. *Assassin's Creed*, "if you have some guards, you have no choice but to kill them" to complete missions. Hence, in such examples violence had to be used to advance in the game, thus making it appropriate in the children's view. They accepted that violence was part of a game's rules, and that in video games meant for older players especially, there were overtly negative consequences when inappropriate violence was used, e.g. attacking innocent characters.

The presence of overtly negative consequences such as one's character dying or being shown the 'Game Over' screen acts as a deterrent for attacking 'good' characters or the playable character's companions. That is to say that the rules show when violence is appropriate by punishing inappropriate forms of violence. A good example of this is *Call of Duty 2's* (Activision, 2005) mechanism which ends the game if a player shoots a companion. One of the quotes brought up when the game ended then was "friendly fire isn't". This alerted the player to why the game had ended.

The children recognized such mechanisms and so tended to use violence appropriately (in terms of the ludus rules) in order to avoid the negative consequences. This was evidenced by Robert (Fountain School, 10, boy) saying that "in Assassin's Creed, if you kill [innocent] people around you, you lose life and the guards find you". Apart from directly ending the game, other negative consequences built into games include health and/or point penalties, and alarms being raised which make the level (near) impossible to complete.

Games sometimes also provide incentives for using violence, e.g. Ruben's (Fountain School, 10, boy) assertion that killing (in *Grand Theft Auto: Liberty City*) was fun because "Uh, you get the money. You get cool stuff too". The video game is explicitly rewarding players for killing non-playable characters. So, even when a player chooses to engage in metagaming[27] by not following the story, the game provides certain structures that the player can manipulate and interact with to play.

Thus, the children engage with the rules of the game to determine what violence is acceptable in the game, and what is not, leaving them with a broad range of violent actions that are acceptable on those terms. Ludic consequences such as advancing to a new level present the violence as acceptable, and so the children continue to use those forms of violence. However,

[27] Metagaming is when players appropriate the game mechanics to play their own mini-games.

when there are overt negative ludic, rather than narrative, consequences to using violence, it is discontinued. This suggests that ideologies presented in games are better adhered to when ludic consequences are attached to them. Also, children appear to be playing the rules rather than engaging with the violence in and of itself. Still, video games also tend to instruct players on when and how violence is allowed by using narrative elements.

"They explain it to you even though they can't talk": How narrative elements in video games assist players in distinguishing between violence in video games and their life-worlds

The children's perceptions of violence were also shaped by the narrative justifications provided in the video games. Much as *ludus* rules provide justification through rewarding/punishing certain actions in games (Frasca, 2001), so too do the narrative elements of the game. Violence in video games is often justified by it being in retaliation for a wrong done to the hero or something/someone important to the hero (Cote, et al., 2021; Krahé, 2014). Klimmt and colleagues (2006) also suggest that video games provide the "narrative-moral framework that justifies violent action" (p. 313). For instance, most enemies attack first, meaning that the player/character is acting defensively, and tend to be fighting in the name of hegemonic social norms such as freedom and justice (Klimmt, et al., 2006).

Usually the reason for the protagonist using violence is shown to be the villains in the game using transgressive violence, e.g. attacking a city or taking hostages (Duncum, 2006). This, Duncum (2006) claims, can lead to distress that is relieved by the pleasure of using retaliatory violence against the villains. Thus, this particular form of violence becomes attractive in these instances because it is "an acceptable device for making dramatic points where violence is valued for what it does rather than what it is" (Duncum, 2006, p. 23). Juul (2005) termed this acceptance of some violence as a 'valorization of outcome' that is present in video games wherein some outcomes are viewed as positive and others negative.

Video games give narrative prompts regarding who is an enemy and who is an ally. Arnold (Fountain School, 10, boy) explained that even in games such as *LEGO Pirates of the Caribbean,* wherein characters do not speak:

> "They explain it to you even though they can't talk. They tell you whether it's an evil person and say 'attack this man' or not or whatever".

Usually, narrative elements such as cutscenes provide detail on why the playable character

should use violence against certain non-playable characters. These sorts of narrative elements also extend to film and television, and are easily accepted by the audience. An example came from Robert (Fountain School, 10, boy), who gave an account of transgression and retaliation in a video game he played.

Robert's description of a traitor in a video game he played seems to concur with Duncum's (2006) suggestion that violence can be acceptable in video games when it serves purposes like eliminating villains who have used transgressive violence, and removing the distress a player feels due to the transgressive violence:

> "I don't know how it happened but he just betrayed us. But at the end his last words were "I'm sorry". I think he deserved it. He deserved to die".

Robert's description shows an initial distress due to the treachery, but pleasure in resolution of the conflict, i.e. the repentant traitor dying. The narrative provided a clear guide of how to feel about the situation as it unfolded in the game, and the violence was celebrated for its role in eliminating the traitor. Video games also tend to provide narrative prompts to chastise a player if they attempt treachery and so alert the player to what violence is appropriate and inappropriate in the game.

Tom (Fountain School, 10, boy) explained that "if you have some [enemy] guards, you have no choice but to kill them", but if he saw innocent characters he "wouldn't kill them like that". The norms presented here are that killing is necessary but should be done in an appropriate way at an appropriate time and to the appropriate people. Tom's rationale was also provided by the adult participants in Klimmt and colleagues' (2006) study on how players manage moral concerns to make playing violent video games enjoyable. However, it also describes how narrative elements in games justify the use of violence. The playable character is often left with a simple choice which is explained to them through narrative elements: kill or die (and/or have many others die). The Fountain School girls' video game design also provided narrative cues to the player to retaliate against antagonists in order to complete the game.

The World of Justin Bieber positioned players as a police officer wanting to save their town from kidnappers. The girls included the option of killing the kidnappers in order to progress. As per Samson and Potter (2016), the playable character only uses violence to protect themselves and others. Kidnapping being chosen as the antagonists' crime could stem from the girls' anxieties around being kidnapped. People fearful of being victims of violence are more

likely to approve retaliatory violence (Zillman, 1988), and so adding in the option of killing the antagonists in the game makes sense. Additionally, having a police officer character do the killing supports Parkes' (2007) finding that South African tweens perceive retaliatory violence as a form of justice, albeit in a video game in this instance. This finding opens the question of whether children would have similar beliefs about using retaliatory violence outside of video gaming.

An idea that helps one better understand the role of narrative in the children's responses to violence is that of the fiction in the narrative projecting a world that is different from the children's environment (Juul, 2005). So, even when the children play video games with some fidelity of context, there is still an element of fiction to it, and this allows the children the space to explore things like death and disaster. As Juul (2005) argues, video games are like narrative stories in allowing us to relate to things like death and disaster, and we use them to relate to these things not because of desiring them to happen, but because we are aware that they are around us.

Participants responding positively to violence and narratives justifying violence in video games does not necessarily mean they want to perform such actions in their social environments. However, context becomes important again. Sometimes children feel that they need to protect themselves or their families from violent crime. Their social environments therefore allow them to interpret violence in games in line with their desires to be effective protectors in their life-worlds.

Local research has found that young adolescents in low SES settings in Cape Town endorse physical retaliation to provocation (Padmanabhanunni & Gerbrandt, 2018). Nqaba (Lumumba Library, 10, boy) reported being in a fight with an older boy in his neighbourhood. The fight started when Nqaba and the older boy were playing and the older boy hit Nqaba. The boys were engaged in ritual combat (Burn, 2013) where their actions were meant for playful effect. However, the older boy transgressed by actually punching Nqaba and Nqaba retaliated. Nqaba attributed his victory to what he had learned from *Wii Sports Boxing*, noting: "*yiboxing. Ndambhetha ngohlobo lwam*". Translation: "I added my own way to the boxing I watch and play". When asked if he'd ever start a fight he refused, stating: "*hayi, ndingaphindisa qha baumtu uyandiqala*". Translation: "No, I would just fight back if someone picks a fight with me". Nqaba's *Wii Sports Boxing* knowledge is a form of cultural capital and building a form of streetwise boxing "knowhow" for him. His gaming culture feeds into his playground practices

(Burn, 2013), albeit beyond the context of playing in the library.

Another example supporting Zillman's (1998) claim that people fearful of being victims of interpersonal violence are more likely to approve of retaliatory violence came from Mancane (Lumumba Library, 10, boy). Mancane seemed to hold onto some narrative elements from the media he engaged with as educational tools. When asked why he enjoyed *Wii Sports Boxing* his explanation presented him as a hero/protector. He, similarly to the children who had high exposure to violence in Ardila-Rey and colleagues' (2009) study, found physical retaliation to provocation acceptable. Additionally, he was learning from the game. He explained that he enjoyed *Wii Sports Boxing* because it offered him an option in how to deal with the scary prospect of someone attacking him and/or his family:

> "Interviewer: *Uthi uyathanda uba ufunda ukuzikhusela. Qha uzikhusela kubani?*
>
> Translation: So, you say you like it because you learn how you can protect yourself. Who do you need protection from though?
>
> Mancane: *Ndingazikhusela mhlawumbi xa kukho abantu abaza ekhaya bezo sihlasela*
>
> Translation: I can maybe protect my family against people who may come to attack or harm us."

He suggests, then, that using violence to protect one's family is a good thing similar to some narrative justifications in movies and video games (Cote, et al., 2021; Hartmen, Krakowiak, & Tsay-Vogel, 2014). Mancane used the violence in the game to manage his anxieties about crime in his area. Mastering the mechanics, i.e. mastering how to effectively punch the opponent's avatar was empowering for him. With this instrumental use of video game violence, he is preparing to retaliate if ever someone uses transgressive violence against him or his family. He was also adhering to the hegemonic masculinities in low SES areas of Cape Town and South Africa wherein violence is used as a tool to defend and protect (Parkes, 2007).

Conclusion

The data therefore shows violence in video games is engaged with according to locally situated gaming practices. Socioeconomic status informed the children's access to games. Moreover, violence in their life-worlds helped shape their responses to violence in games. Violence was a regular part of the children's video game experiences and accepted as part of the game itself. The children used three lenses in their understandings of video game violence: Ludic and narrative

norms found in video games; normative views about violence expressed by parents and other authorities; and playground norms based around peer interactions. The children also conformed to some gender stereotypes around gaming and violence in games. They had similar understandings about video game violence to those presented by the local rating system despite lacking technical knowledge about the ratings supplied by the FPB. These understandings were gained from parents, peers and ratings provided by other rating bodies.

The data showed differences in access to video games between the two research sites. The Fountain School children had access to a wider variety of games, and also had more to say about parental mediation of their gaming. Additionally, data suggested, as previous local qualitative studies (e.g. Walton & Pallitt, 2013; Palen et. al., 2010) have, that video games were more popular with boys. More especially, video games wherein violence was a prominent part of the game were popular with boys. How, where, and what children play informed how much violence they encountered in video games, and how they interpreted it. Peer norms formed a lens through which participants understood that violent in-game actions were to be celebrated as part of the game. Aggressive behaviour towards peers was not accepted though. Peer groups also encouraged participants' desire to play age-inappropriate games as a sign of maturity. Even with these peer norms, the children did not necessarily have formal knowledge of the local ratings.

Though exhibiting minimal knowledge of the local ratings, most of the children's views conformed to hegemonic ideas about video game violence as potentially harmful to younger children. They did not however feel that these concerns applied to themselves. While mostly mentioning age-appropriate games as their favourites, the children generally felt prepared for age-inappropriate content.

The children's gaming contexts, e.g. families and peers influenced their feeling prepared for age-inappropriate content. The children used the lens of parental/adult norms when engaging with such content. For example, at least one of the fathers used mature ratings as a signifier of more desirable content. The participants were more concerned about interpersonal and gang violence in their own life-worlds. These gaming contexts also informed their understanding of and access to video game violence. While children from Khayelitsha reported more first-hand experiences of witnessing violence, children from both research sites had knowledge of violence in South Africa. This knowledge aided them in being able to set video game violence apart as something that is both narratively and ludically rewarded. They also viewed playground fights,

violent crime and other forms of interpersonal violence as something to be avoided and feared.

Participants argued that younger children were vulnerable to the possible negative effects of violent content, but that the participants themselves were safe from such effects. As the children still relied on adults for access to video games, it made sense that some of their understanding of video game ratings came from parental guidance. This reliance, in turn, fed back to their understandings of video game violence as something fun and rewarding, but also an experience reserved for, and marking the identity of, suitably mature players.

Accepting the violence as represented rather than actual violence, the children reported reacting differently to it than they would violence in their life-worlds. They drew clear distinctions between violence in video games and in their life-worlds. The distinctions were drawn by the children using ludic and narrative norms as a lens to view/understand video game violence. They often celebrated the use of violence in video games, but mainly as it linked to success in the game. Participants noted fear around the use of violence in their life-worlds but also sought out games featuring violence. They felt that video game violence was justified, usually by narrative elements, and the rules of the game. Two participants did however, present parallels between retaliation in video games and in their life-worlds by aspiring to a protector role for themselves and their families. They felt that playing *Wii Sports Boxing* would help them learn to defend themselves. Those participants were ready to retaliate if the need arose, much like the protagonists in numerous video game narratives.

Video games provide cues to players on what they should do to progress and why. Participants in my study used the cues in video games as part of how they determined what in-game actions were right or wrong. Given that the in-game justification for violence in video games is usually that it is in retaliation to a wrong that has been committed against the playable character, players believed that violence is appropriate in video games. The game designed by the Fountain School girls (*The World of Justin Bieber*) was an example of such in-game justification. A concern raised in Effects research, e.g. Padmanabhanunni and Gerhardt (2019), Kirsch (2006), and Slater and colleagues (2003), is that children may have congruent beliefs about violence in video games and in their life-worlds.

Parkes (2007) found South African children viewed retaliatory violence as a form of justice. Qualitative data showed that some children living in areas where they would have more exposure to violence were anxious about victimisation and approved of retaliatory violence

(Zillman, 1998). Their approval was demonstrated by their use of video games to attempt to train themselves for self-defence. Having beliefs that violence is justified in many social situations may be a precursor for children behaving aggressively or violently when given the opportunity (Cote, et al., 2021; Slater, et al., 2003). Much as the participants in my study made distinctions between violence in video games and in their life-worlds, it was not certain, based on the qualitative data alone, if their beliefs about retaliatory violence were congruent with their beliefs about it in their life-worlds. Answering this question not only provides clarity on that point, but also leads to further avenues of research. For instance, is there an association between how children feel about retaliatory violence in video games and in their life-worlds? What mitigating/moderating factors may exist in the congruence between children's life-worlds and video games, or what informs the distinction if there is no congruence? Additionally, do the gender differences, and locally-situated play practices apply beyond this sample?

Chapter Five: Quantitative Study

As is the case with sequential exploratory mixed methods research (Mayring, 2007), the qualitative methods provided some answers to both the questions and sub-questions but have also led to the formation of new research questions. So, the qualitative methods were used to address in depth the overarching question of how children perceive representations of violence in video games. More specifically, there were questions of what definitions children provided for video game violence, how children interpreted representations of violence in age-appropriate and age-inappropriate video games, what significance such representations had within the children's peer groups, and how the children's interpretations of video game violence compare to the official definitions and guidelines of South Africa's Film and Publication Board (FPB). Data revealed that though there were similarities between the two groups of children, their life-worlds informed their play practices and their responses to video game violence. The Lumumba Library children were more used to organised turn-taking. While both groups played age-appropriate games, the Fountain School children had more access to games at home, and also more exposure to age-inappropriate games.

Much as all the participants had some knowledge about violence in South Africa, the Lumumba Library children reported more direct experiences of it. As such, the Fountain School children would refer to there being a risk of other, usually younger children, from a different social class, imitating violence, while one child from Lumumba Library site described using a boxing game (*Wii Sports Boxing*) as a form of personal defence training, stating that he needed to be able to defend himself if he was attacked and could not escape. More accurately, the child used the violence in *Wii Sports Boxing* to manage his anxiety about encountering violence in his life-world. He felt the more skilled he was in *Wii Sports Boxing*, the better equipped he would be to fight off attackers. Additionally, girls from the Fountain School designed a video game (*The World of Justin Bieber*) which had retaliatory violence built into its narrative. Generally, participants from both sites understood representations of violence in both age-appropriate and age-inappropriate video games to be distinct from the violence that could occur in the participants' life-worlds. Across the research sites, participants understood violence in video games to be unavoidable, and justified where the narrative presented the violence as retaliatory.

However, while most of the children separated video game violence from violence in their life-worlds, there were still some who appeared to hold similar beliefs about when to use violence in their life-worlds and in video games. These beliefs about aggression/violence raised a concern similar to that presented in psychological literature by Slater, and colleagues (2003): Performing violent actions is usually constrained by circumstance, and so beliefs about violence provide better evidence for the potential of perpetrating violence than reports of prior aggressive actions would. For example, a child who is smaller than their peers may ruminate on aggressive thoughts, but not be physically aggressive towards their peers due to their size. They therefore may not have reports of prior physical aggression, but may still act on their aggressive ideations if the correct opportunity presented itself.

Research involving the value judgments players make about aggressive behaviour in video games is important because aggressive behaviour in real life is constrained by circumstance, e.g,. the small or weak are less likely to use aggressive behaviour unless driven to extremes (Slater, et al., 2003). Aggressive behaviour being constrained by circumstance is why most school shooters did not have prior records of aggressive behaviour: they had aggressive cognition, and beliefs justifying aggression, but did not act on them overtly until their final shooting (Slater et al., 2003). Slater and colleagues (2003) further argue that studying beliefs about aggression would provide better evidence of the potential of children for perpetrating physical aggression than reports of prior physical aggression.

Additionally, there is a concern voiced by some scholars, e.g. Kirsh (2006), and Rieffe and colleagues (2016), that children might use aggression to satisfy personal needs that do not necessarily require aggression to be satisfied, such as shoving to the front of a line or hitting a peer to dominate social interactions. Scholars such as Kirsh (2006) and Padmanabhanunni and Gerhardt (2019) suggest that children's supporting aggressive behaviour in video games could be a dangerous precursor to them behaving aggressively/violently if given the opportunity. General beliefs about aggression and retaliation predict aggressive behaviour (Padmanabhanunni & Gerhardt, 2019; Ren, et al., 2018).

Given the responses of the participants in the qualitative study, the concern stemming from this rationale would be that the beliefs they have about retaliatory violence in video games would be similar to their beliefs about retaliatory violence in their life-world. Therefore, if they felt violence was justified in a video game to protect their in-game character or other characters,

they might use the same justification to use interpersonal violence in the playground or elsewhere.

The possibility that the children playing violent video games could be applying similar beliefs about aggression to both video games and their life-worlds inspired the following research question:

> How do the beliefs of children between the ages of 10 and 12 about retaliatory violence in video games compare to their beliefs about retaliatory violence in their life-worlds?

Participants in the qualitative study appeared to actively decide what violence was appropriate and what was not. There were some nuances in this presentation that indicated that they sometimes held different views about video game violence and violence in their life-worlds. For instance, the opinion that fights are entertaining in video games, but real fights are "ugly" (Tom – Fountain School, 10, boy) was held by some participants like Lungelo (Lumumba Library, 10, boy), who stated that *Wii Sports Boxing* is "only a game and it's fun", but real boxing is "a bad sport and people bleed from it". Another example is Mancane (Lumumba Library, 10, boy) and Sithembele (Lumumba Library, 10, boy) using *Wii Sports Boxing* to learn how to box. Sithembele did not seek out fights (and where possible ran away to avoid them) but used the video game as a way of managing his anxiety about experiencing violence in his life-world. His rationale was that *Wii Sports Boxing* was a learning tool for the fighting style he would use if and when he had to defend himself.

Stemming from the qualitative examples of children separating video game violence from violence in their life-worlds, my hypothesis is that the beliefs are not congruent. Therefore, children would, for example, have positive beliefs about using retaliatory violence in video games, but negative beliefs about using retaliatory violence in their life-worlds.

A three part questionnaire (see Appendix C) was designed to address my quantitative research question. The questionnaire aimed to measure children's beliefs about retaliatory violence in video games, and in their life-worlds. The three parts of the questionnaire were: knowledge of the FPB, media preferences, and beliefs about retaliatory violence.

Participants

A total of 217 participants (111 boys and 106 girls) from middle (n = 86) to low (n = 131) SES backgrounds participated in the quantitative study in May/June 2015. Firstly, one class (approximately 30 students) from the same school in Rondebosch as the qualitative study (Fountain School), and a school in Khayelitsha (St Francis) were used to pilot the questionnaire in English and isiXhosa respectively. IsiXhosa and English are spoken as a first language by 24.7% and 19.3% of Cape Town's population respectively (Statistics South Africa, 2021). English, while only one of South Africa's eleven official languages, is the primary language of learning and education (Barkhuizen, 2002), hence its inclusion. isiXhosa is one of the official indigenous languages of the Western Cape province (Western Cape Government, 2013), and therefore Cape Town. IsiXhosa is also the language most commonly spoken in Khayelitsha (Statistics South Africa, 2020) thus warranting its inclusion.

Socioeconomic status (SES) played a large role in site selection. Video games are played quite widely in South Africa. For example, 1,884,998 households reported having consoles around the time of data collection (South African Audience Research Foundation, 2014). Most mobile phones at the time already had games on them and the ability to download more games. Also, numerous internet cafes and some libraries allowing video game play meant that children had opportunities for gaming. However, SES did and does still act as a determinant of access to gaming. SES impacts both the frequency of access and the variety of games available to players. Children in households with higher SES tend to have greater access to gaming consoles, better internet access, and money to buy or rent video games than children from lower SES households. Even in terms of mobile gaming, children from lower SES households will have less exposure because the phone they play games on may not belong to them and may not be able to run current mobile games. Despite a lack of facilities in low SES areas around Cape Town at the time children still tried to engage in video game play where possible (Palen, et al., 2010).

Given that the Khayelitsha schools were close to the library with the video game room used as a field site in the qualitative study (Lumumba Library) I believed that even if children did not have video game consoles at home or did not have cell phones whereon they played games, they could still have access to video games through the library and would thus be able to participate in the survey. The Grassy Park school has children with a high enough SES that I expected that they would have almost as much access to video games as the children from the

Rondebosch school. Choosing schools from middle-high, middle-low, and low SES areas served the function of providing a diversity of data from the broader context of Cape Town. School fees were used as an indicator of SES of the community. The Western Cape Education Department (2014) stipulates that school governing bodies agree on fees followed by the majority of parents ratifying the fees. As such, the fees will be aligned with what the majority of parents feel they can afford, and so made for a good indicator of SES.

Once the pilot was successfully completed in Rondebosch and the smaller school in Khayelitsha the full cohort of Grade Five pupils from each school and a school in Grassy Park, and a larger school in Khayelitsha (Khaya) were engaged using the English and isiXhosa versions of the questionnaire, respectively (see Table 4 for list of schools).

Table 4

School locations, and codes assigned to each school

School Location	**Code**	**Sample n**	**Grade N**	**Annual Fees per learner**
Rondebosch	Fountain School	32	35	R36,147 (USD2,582)
Grassy Park	Grassy Park	54	117	R2,000 (USD143)
Harare, Khayelitsha	St Francis	22	30	R2,460 (USD164)
Harare, Khayelitsha	Khaya	109	113	No fee

The participants in this study were tweens, i.e. aged between 10 and 12, which is in line with the previous qualitative work. Keeping this in mind, the questionnaire used was tailored to the "cognitive and social development of young respondents" (Borgers, de Leeuw & Hox, 2000, p. 71) by keeping it short, keeping the language in the questions and instructions simple, and making the questionnaire visually attractive.

Ethical Considerations

Prior to beginning the study, ethical clearance was obtained from the UCT Faculty of Humanities Research Ethics Committee (see Appendix E; Reference number PSY2015-001). Subsequently, consent was gained from the Western Cape Department of Education, and the schools (see Appendix E). It was crucial to be sure that the necessary gatekeepers were engaged, but also that the children themselves did not feel that they were forced to do the questionnaire (Gallagher, 2010; O'Reilly, et al., 2013). As per O'Reilly and colleagues (2013), I ensured that all necessary parties from each school (school's governing body, principal, relevant teachers) granted permission for the study to be conducted.

The schools, acting *in loco parentis*, provided consent for the students to participate in the study. However, consent forms were also sent to parents, asking them to return the form if they objected to their child participating in the study. This form of consent, known as passive consent, was used because it is a simpler, more efficient way of gaining consent for larger numbers in low-risk studies (Pokorny, et al., 2001).

Passive consent can increase participation rates and reduce potential systematic errors associated with demographic differences (Pokorny, et al., 2001). Furthermore, survey studies such as the current study present low risk to participants' well-being (Zuch, et al., 2013). Additionally, passive consent procedures work in low-risk studies with children and adolescents such as this because they reduce sample bias and allow for larger samples as they are more cost effective (Zuch, et al., 2013). Carefully designed passive consent procedures ensure that parents make properly informed decisions regarding the input needed from their children, any potential risks and rewards for participating, and the ability of their children to withdraw from the study (Ellickson & Hawes-Dawson, 1989). In line with these guidelines, the children were also informed that the study would take place days in advance of the questionnaire being administered (O'Reilly, et al., 2013).

In the South African context, language differences have the potential to impede full informed consent (Zuch, et al., 2013). Thus, to ensure informed consent, the consent forms and questionnaire were translated to isiXhosa where appropriate.

To start the session, participants filled in assent forms and were informed that participation was voluntary, and that they could withdraw at any point (Gallagher, 2010). To counter the potential problem of literacy differences among the participants (Gallagher, 2010), I

read out the contents of the assent form to the children and discussed what each paragraph meant with them. This ensured that the children were aware of what they would be doing and the voluntary nature of the exercise.

As with the qualitative study, debriefing occurred once data collection with each group was complete. I explained the nature of the study and allowed participants to ask questions. Furthermore, both participants and the institutions involved benefited from information given on the video game rating system used by the FPB, and how much the children know about the ratings and what they play, respectively. Since discussing violence could potentially lead to some participants feeling distressed, I had the number to a national toll-free helpline for children exposed to violence and/or abuse (ChildLine) available for if the participants needed to speak with someone immediately. Contact details for both ChildLine and the University of Cape Town Child Guidance Clinic were also left with participants (and sent to parents) in case they felt the need to contact them after the study.

The data were only seen by my supervisors and me. All hard copies of the data were stored in a locked filing cabinet at the University of Cape Town while all electronic data were stored in a password protected format. Guidelines on confidentiality (Wiles et al., 2006); Durrheim & Wassenaar, 1999) were followed to the letter to ensure that the guarantee made to parents and children in the consent and assent forms was not breached. Additionally, participants did not provide their names on the questionnaire, and so are not identifiable by anything other than a participant number, thus keeping them anonymous.

Procedure

Once consent procedures with the parents/institutions were complete, a brief description of the study was given, followed by a read through and description of the assent form. Upon completion the children signed the assent form, after they had had the opportunity to ask questions. Children who did not take part in the study were kept occupied by homework (data collection was done either during an extra-mural or free period so as to not interfere with the academic schedules of the schools). Once the forms were completed, I collected them, and any students not willing to participate (either because their parents denied consent, or they themselves did not want to participate) were allowed to do their own work away from the participants. An agreement was reached with staff prior to the study's taking place that children

would be allowed to do other things separately while the study happened if they chose not to participate. I followed Gallagher's (2010) guidelines when meeting the children by ensuring teachers were not present during the study and using my first name to create distance between myself and the staff as well as to highlight the voluntary nature of the study, i.e. not make it seem like a learning exercise.

For the pilot phase, the participants from one class at Fountain School were given the questionnaire in their classroom during an extra-mural period. After the introduction and assent form formalities, I gave verbal instructions and guided the participants through how to answer each type of question using the examples on the front page of the questionnaire. Once that was completed the participants began the questionnaire while I read the questions out loud. I also assisted if the participants had questions or needed something paraphrased. The procedure was timed so that I knew how long to give participants to complete the questionnaire. Once the questionnaires were completed I collected them. During the collection, I checked that all the questions had been answered since children doing pen and paper questionnaires can sometimes skip questions or sections accidentally (Borgers, et al., 2000). The participants were then debriefed about the study, and any questions they had regarding the study were answered. As children of that age tend to try to give the answers they think an adult would want to hear (Borgers,et al., 2000; O'Reilly, et al., 2013), I avoided answering questions about my gaming preferences until after all children had completed the survey. Once the questionnaire was successfully piloted it was given to the remaining grade five students from the Fountain School following the same procedure.

A similar procedure to the one used for the pilot was used at Grassy Park with the addition of a research assistant helping me answer questions the participants had and maintaining order during the time allotted, as more children were included than had been at Fountain School. The questionnaire was administered in the school hall with the students split according to their classes. This way the participants were in groups of approximately 30 when doing the questionnaire. This helped keep them from getting distracted, and also made collecting the questionnaires easier. Students not participating in the study sat and did homework at the back of the hall. As with the pilot, questionnaires were checked for completion as they were collected, followed by giving the participants an opportunity to ask questions.

There were minor changes when running the questionnaire at the two Khayelitsha schools (St Francis and Khaya). Firstly, the research assistant acted as an interpreter (from English to isiXhosa) where needed. Secondly, the questionnaire was presented in both English and isiXhosa, and the participants were asked to respond in whichever language they felt the most comfortable. Much as the children were taught in English at school, providing both the English and isiXhosa versions of the questionnaire provided the opportunity for some of the children to be more at ease by communicating in their primary language (Gallagher, 2010; O'Reilly, et al., 2013). Also, in consultation with the principal from the larger school (Khaya) it was decided that the questionnaire would be administered in classrooms one class at a time during a free period rather than trying to have all the children in the school hall. This would prevent the children from getting distracted and unruly.

Results

The questionnaire results corroborated most of my qualitative data. Firstly, despite the majority playing video games frequently, participants displayed limited knowledge of the rating guidelines supplied by the FPB. Further, participants mostly watched age-appropriate television and played age-appropriate video games, but some dabbled in age-inappropriate content. Testing the hypothesis that children's beliefs about retaliatory violence in video games would not be similar to their beliefs about retaliatory violence in their life-worlds, a positive correlation was found, and so at face value the hypothesis is not supported. However, a statistically significant difference was found between participants' total scores for support for retaliatory violence in video games and retaliatory violence in their life-worlds. This suggests that the children had marginal support for retaliatory violence in video games but did not support retaliatory violence in their life-worlds. Therefore there was an association, but also a clear distinction between support for retaliatory violence in video games and in the children's life-worlds, which makes sense given the normative distinctions presented in the qualitative data.

Sample Characteristics

Two hundred and seventeen participants were surveyed in this study (see Appendix F). There were marginally more boys (n = 111) than girls (n = 106), and when the schools were split into SES/location groups (Fountain School and Grassy Park formed the middle SES/Southern

Suburbs group, and St Francis and Khaya the low SES/Khayelitsha group) the low SES accounted for 60% (*n* = 131) of the sample, with the middle SES being the remaining 40% (*n* = 86).

Knowledge of the Film and Publication Board

Of the 217 participants, 82 (38%) recognized the FPB logo while 135 (62%) did not. Similar percentages were found when participant results were split according to their gender (see Appendix F). Splitting according to schools yielded an interesting result: in Fountain School and Grassy Park the majority of their participants recognized the logo while the majority at Khaya and St Francis did not. More specifically, 71% of the children from the middle SES schools (i.e. Rondebosch - Fountain School and Grassy Park - Grassy Park) recognized the logo while only 15% of children from the low SES schools (i.e. Khayelitsha – St Francis & Khaya) recognized it (see Appendix F).

Leading from this, the next question investigated how many of the content descriptors the participants recognized. It was found that most children did not recognize the descriptors (See Appendix F). In fact, all the descriptors were mostly not recognized, although marginally so in some instances.

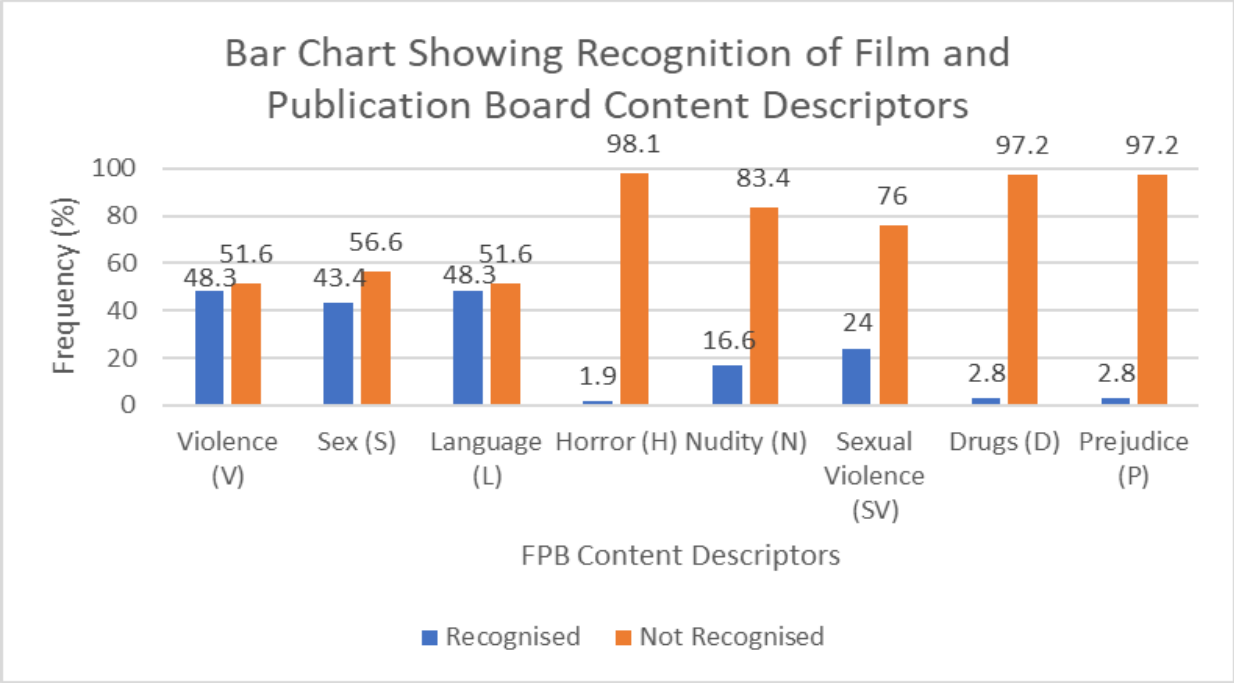

Figure 3: Recognition of Film and Publication Board content descriptors

Specifically, Violence (V) and strong language (L) were the most recognized with both being recognized by 48.3% (*n* = 105) while not recognized by 51.6% (*n* = 112). From there the gap between recognition and non-recognition grew. Sex (S) and Nudity (N), the two remaining original content descriptors, had lower recognition (nudity especially). The participants showed poor recognition for the new content descriptors. Of the new content descriptors, Sexual Violence (SV) was the most recognized (24%; *n* = 52 recognition versus 76%; *n* = 165 non-recognition). Horror (H), Drug Use (D) and Prejudice (P) were barely recognized by the participants[28], with less than 5% of participants recognizing them (see Figure 3).

There were no striking gender differences in the recognition of the content descriptors. Conversely, when cross tabulated with SES, data showed that the mid SES schools (Fountain School & Grassy Park) had better recognition of the traditional content descriptors (V, S, & L) with the exception of Nudity (See Appendix F). The majority of the participants from those schools recognized the V, S, and L descriptors. However, their recognition of the new content descriptors was poor, as was the recognition of all the content descriptors by the participants in the low SES schools (Khaya & St Francis).

In summary, most of the sample exhibited limited, if any, knowledge of the FPB guidelines (i.e. logo and content descriptors). This was more evident in the more recent content descriptors (Sexual Violence, Drug Use, Horror, & Prejudice) than the more traditional descriptors (Violence, Strong Language, & Sex). Nudity was not well recognized despite being a traditional descriptor though. While gender differences were not prominent, school location (as a proxy of SES) showed that low SES participants had less knowledge. This reduced knowledge presented both as a lack of recognition of the FPB logo, and traditional content descriptors. Participants' recognition of the new content descriptors was universally poor. The findings above were corroborated by there being some errors/omissions were also present when participants were asked to provide age ratings for their favourite TV programmes and films as well as video games.

[28] Data collection was done before the recent amendments included Competitive Intensity (CI) as a content descriptor.

What the children watched

The two most common ratings of the participants' favourite TV programmes and films were 13 (33%, *n* = 69) and PG (32%, *n* = 67). While participants noted different favourites when it came to TV programmes and films, the most common age rating for their first favourite (Total = 208) was 13. Examples of common choices that fit in this age rating are the local soap operas *Generations: The Legacy*, and *Uzalo*. These shows aired in prime time[29] slots on public access channels in South Africa. The most popular film mentioned was *Fast & Furious* (Universal Pictures, 2009) which is rated 13. However, it is important to mention that while most age-inappropriate shows/films listed were rated 13, more participants listed shows/films rated 16 as their second (12.2%) and third (11.8%) favourites. Examples of such shows/films include *Stalker*, *Scream 4*, and *Desperate Housewives*. Also important is that only three of the most frequent favourites listed by participants included violence as a content descriptor.

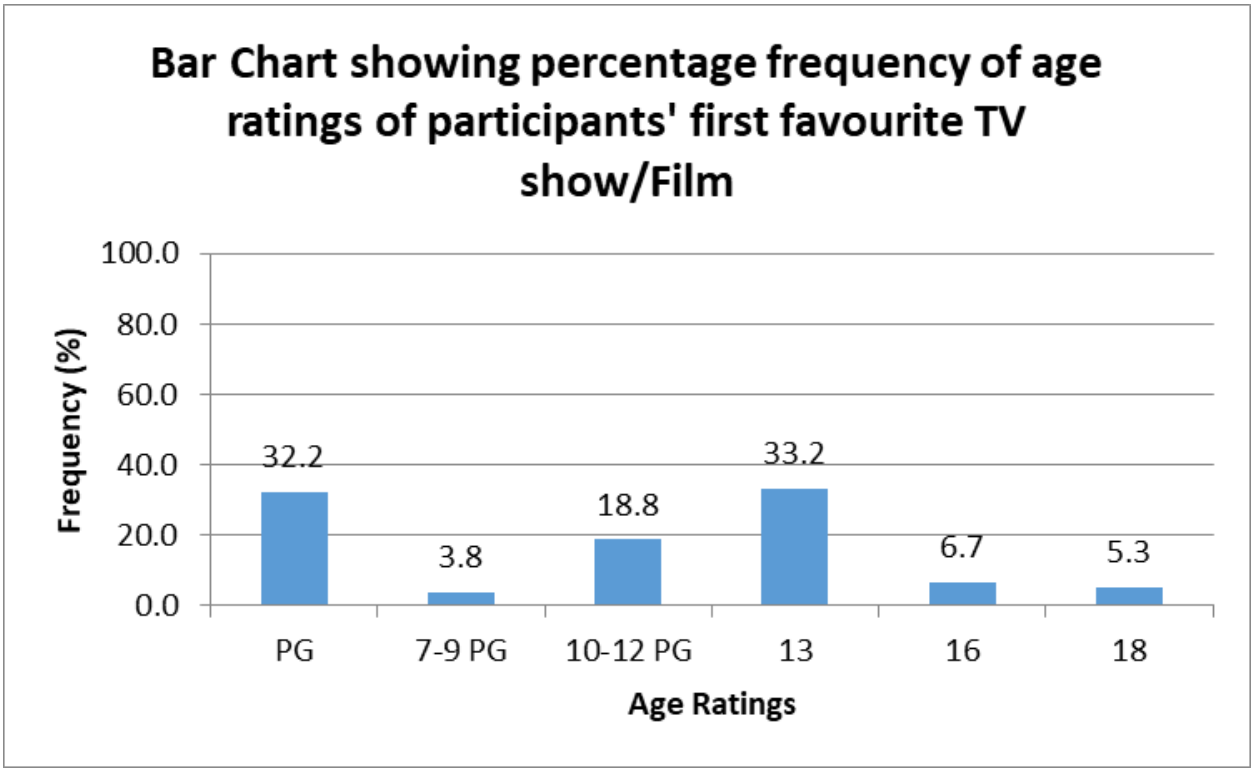

Figure 4: Age ratings of first favourite video game

[29] Prime time is between 6pm and 10pm daily (ICASA, 2016).

The next most common rating was PG. However, when grouped with 7-9PG and 10-12PG, PG was the most common rating, accounting for over half of the responses (54.8%, *n* = 114). Only 6.7% (*n* = 14) and 5.2% (*n* = 11) of participants reported having a show/film rated 16 or 18 respectively as their first favourite (see Figure 4).

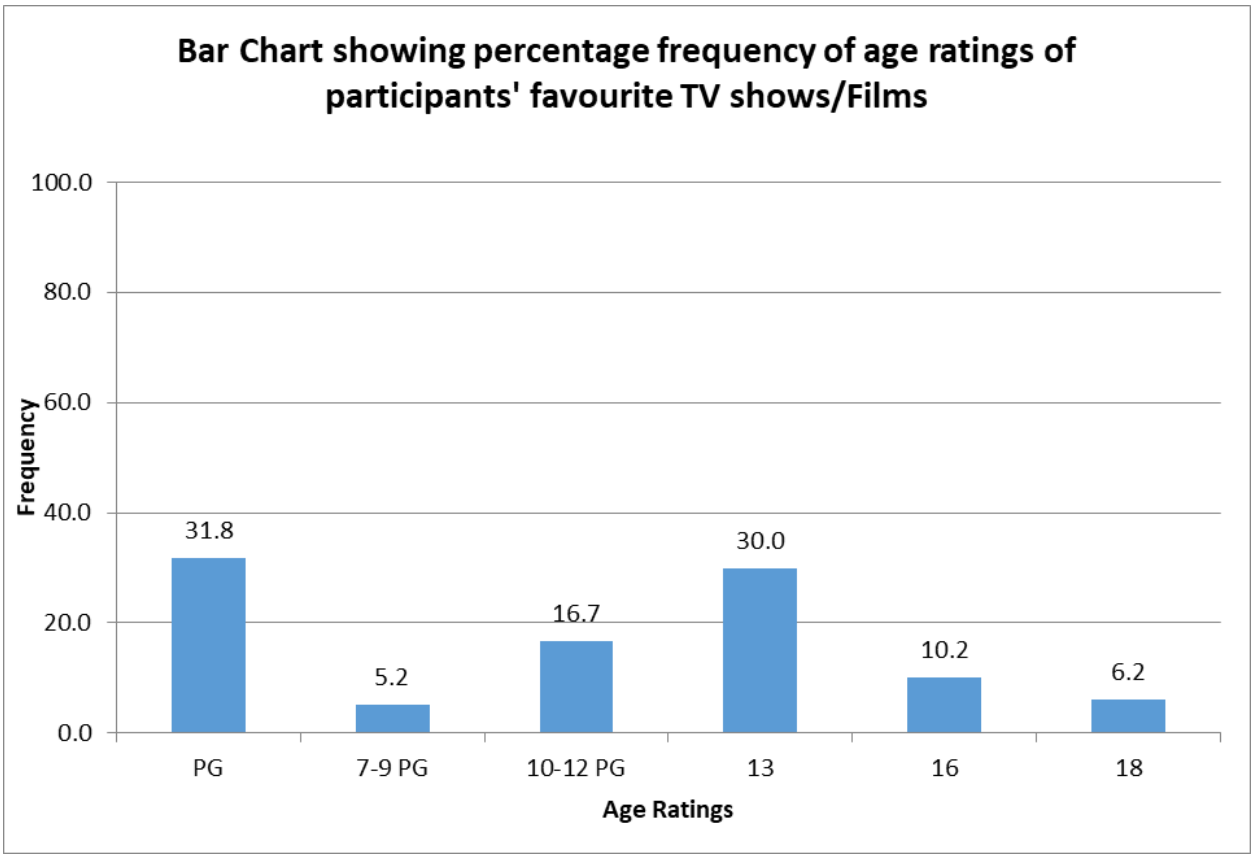

Figure 5: Age ratings of favourite TV shows/films

The boys listed marginally more shows/films outside of their appropriate age category as favourites than those in their appropriate age category (50.6%, *n* = 152). Conversely, the girls had more favourites in their appropriate age category (58%, *n* = 174). Similar findings were reflected in how much and what video games the participants played (see below).

When combining the three favourites (total = 600), PG was the most frequent rating (32%, *n* = 191) reported by participants. It accounted for a third of the responses while 13 accounted for 30% of the total (*n* = 180) while only 10% (*n* = 61) and 6.1% (*n* = 37) of participants reported having a show/film rated 16 or 18 respectively as a favourite (see Figure 5). This shows that while the majority of children watched age-appropriate content, most of the children who watched age-inappropriate content were viewing content rated just out of their age

group. Additionally, if 7-9PG and 10-12PG are added to the existing numbers, PG would then make up 54% (*n* = 322), just over half of the listed ratings again.

In brief, it appears that age-appropriate (i.e. PG) content comprised the majority of the participants' favourite viewing material. However, content rated 13, and therefore age-inappropriate, also seemed to be popular. Some of the 13-rated content, such as popular soap operas, appeared during prime time on the free to air television channels in South Africa and is widely popular throughout the country (Times LIVE, 2015). Still, some participants did list content rated 16 or 18 as their favourite viewing. No differences were found between genders, schools, and SES groups.

How much and where do they play video games

Twelve participants did not respond to the question asking how often they played video games. Only seven out of the remaining 205 (3.4%) participants reported not playing video games at all (see Appendix F). The majority (55.6%) played video games almost every day, while 40.9% only played a little. More specifically, 72.3% of the boys reported playing a lot, but the majority of the girls (58.1%) reported playing only a little (see Appendix F). By SES, the middle SES group had an even split (*n* = 40; 48.19%) between playing a little and playing a lot. Surprisingly though, 60% (*n* = 72) of the low SES group reported playing a lot (see Appendix F). What is striking is that while it was expected that participants who reported playing a lot would have better recognition of the ratings, it was the cohort that only played a little who showed the highest recognition rate (see Appendix F). This warrants further discussion (in the next chapter) as there are interesting possibilities for this occurrence. The most likely suggestion is that the caregivers of the participants who only played a little might have monitored the participants' play more closely than caregivers of more frequent players, similarly to the Dutch parents in Nikken and colleagues' (2007) study.

When using a crosstabulation to examine the recognition of content descriptors in light of how often video games were played it was also found, for Violence and Language at least, that a small majority of participants who played a little recognized the symbols (See Appendix F). The majority of participants, regardless of how often they played, did not recognize the content descriptors, as previously shown.

Regarding location, the 195 participants who did respond (n = 195) gave two places that made up the bulk of the result. Over half of the participants (56.9%) reported playing at home. A further 29 (14.8%) wrote down "phone" as their answer. These children were mainly from the low SES cohort. Game shops (n = 15) were also listed mainly by the low SES cohort while friends' (n = 10) or family members' (n = 14) houses, and restaurants, made up the bulk of the remaining responses and were mainly selected by the mid SES group. Other responses, e.g. school (n = 2) and what platform the participant played on received less than 10 responses each (see Appendix F).

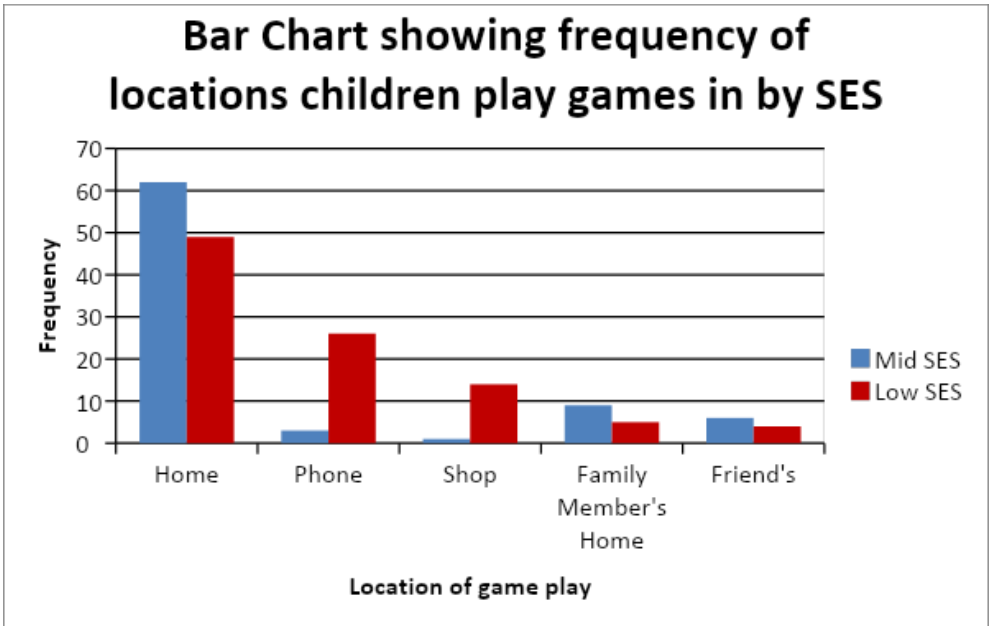

Figure 6: Top 5 locations of video game play per field site

Figure 6 shows similar trends were seen across sites with Home being the most frequent location. St Francis, the small school in Khayelitsha (n = 21) was the only site to show Phone as the most frequent location. Additionally, the low SES group had the highest frequency of phone play. This suggests that gaming at home has some prevalence across locations and SES but that using phones for gaming is more prevalent in low SES settings.

As expected, these results suggest that most participants played video games. Over half reported playing often, and at home and/or a mobile phone. While there were some who did not play at all, they were in the large minority, accounting for less than 5% of the sample, while the bulk of the minority reported playing video games a little. Other popular locations of play

included shops (some shops that sell video games have sections where games will be demonstrated), and family members' houses and/or phones. Mobile phones and shops were more frequently reported by the low SES group.

What video games they play

Similar to how the participants' three favourite TV series/films were noted, so too were their favourite video games. Both the titles and what age ratings the children thought they had were recorded (see Appendix F for the top ten). Eight of the top ten listed games had violence as a content descriptor. Games from the *Grand Theft Auto* (*GTA*) series, which carry a rating of 18, were the most popular favourite among the participants with 43 counts out of a total 599, i.e. only 7.2% of the participants reported a game from the *GTA* series as a favourite. Other popular age-inappropriate choices included *King of Fighters* (*n* = 14; 2.34%), *God of War* (*n* = 9; 0.83), *Call of Duty* (*n* = 4; 0.67), and *Mortal Kombat* (*n* = 4; 0.67).

In total there were 57 counts, i.e. only 9.5% of video games rated 18 being marked as one of the participants' favourite video games. Within this, 7.2% of participants listed *Grand Theft Auto* as a favourite, with the majority (*n* = 27) coming from the mid SES group. The most popular age-appropriate video game series mentioned was *FIFA* at 6.7% (*n* = 17). *Need for Speed* was mentioned by 22 participants. However, even though most games in the series carry a 10-12PG or PG rating, some do carry a 13 rating, therefore *Need for Speed* was not listed as the most popular age-appropriate game. Regardless, 76% (*n* = 558) of the video games listed as favourites were rated PG (including 7-9 PG, and 10-12 PG). Furthermore, the data showed that video games rated 13 were listed as favourites more often than video games rated 16 and 18 (see Figure 7). This suggests that most of the children preferred games in their age range, and if the games were beyond their age, it is only marginally so.

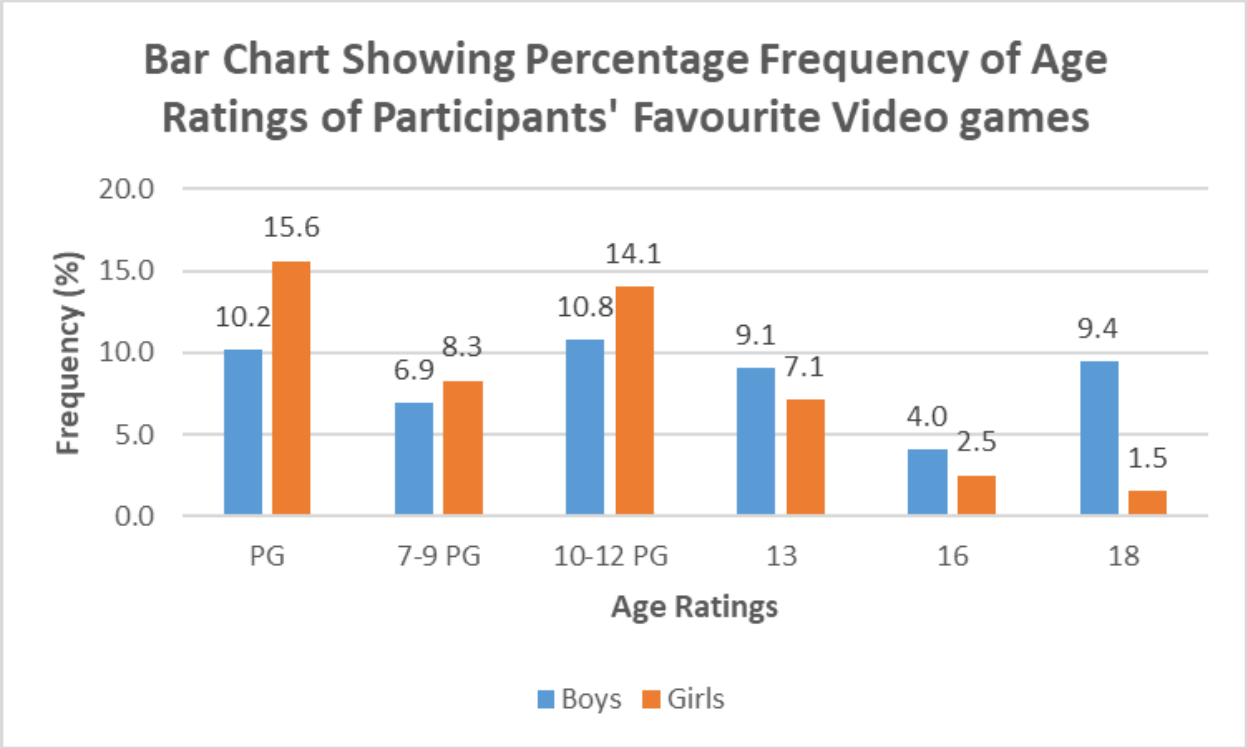

Figure 7: Age ratings of favourite video games

The girls listed 38% of games rated PG (including 7-9PG and 10-12PG), and 11.2% rated 13 and above. The boys presented a similar yet not as pronounced preference, with 27.9% counts of games rated PG, and 22.5% of games rated 13 and above. Furthermore, the girls listed 7.1% of games rated 13 and only 1.5% of games rated 18. The boys, however, listed just more 18 rated games (9.4%) than 13 rated games (9.1%) as favourites. The gender difference for 18 rated games is both pronounced and intriguing when viewed together with literature on gender differences in video game play. This will be explored further in the next chapter.

Cross tabulating the age rating of the participants' favourite three games and their recognition of the FPB logo revealed that more children who listed games rated 18 recognized the logo than did not (see Appendix F). The opposite was found for games rated 13 and 16. This is fascinating in that it prompts discussion into why. It is possible that the children playing 18 rated games have more parental input, or that the participants took the time to check the logo while acquiring the game. Further discussion on this will be in the following chapter.

So, most participants had age-appropriate favourites, as evidenced by video games rated PG comprising over two thirds of the listed favourites. However, the 18-rated *GTA* series was the

most popular game series mentioned. Interestingly, like with television shows and films, content rated 13 was the most frequently mentioned age-appropriate content. In this case 18 was mentioned more frequently than 16 though. Such a result informs what titles the participants listed as the most violent video game they had ever played. Furthermore, more participants who listed a video game rated 18 as a favourite recognized the FPB logo than did not.

Most violent video game they've played

Of the 43 participants who had previously listed a video game from the *GTA* series as one of their favourites, 35 participants reported one of the *GTA* games being the most violent game they had played. Of the 35, there were 25 from the mid SES group. The second most cited game was *God of War* (eight participants from the nine that listed it as one of their favourites). *WWE* video games were mentioned by six participants while surprisingly games from the *Mortal Kombat* franchise were only mentioned by two participants. However, as only four participants had listed it as one of their favourites, the main surprise is that more did not list any of the *Mortal Kombat* games as favourites given the popularity of the franchise. The remaining video games were all mentioned by five or fewer participants (See Appendix F the top 10). Examples of such titles include *Street Fighter*, *Snake*, and *Call of Duty*.

Support for retaliatory violence

The main purpose of the questionnaire was to investigate how tweens' beliefs about retaliatory violence in video games compared to their beliefs about retaliatory violence in their life-worlds. It was hypothesised that the beliefs would not be congruent because participants in the qualitative study had shown clear distinctions between representations of violence in video games and the interpersonal violence they could experience in their environments. When examining participants' support for retaliatory violence (both in video games and in real life) their scores for 9 questions pertaining to each section were totalled. Responses for each question were coded as -1 for disagree, 0 for neutral, and 1 for agree. The two negatively worded items in each section were reverse scored. The maximum total scores a participant could possibly score were -9 (extreme negative score) and 9 (extreme positive score) with 0 being a neutral total score.

The most common score found for Video Game Total was 1, denoting a marginally positive outlook on retaliatory violence in video games. The most common score for the Real Life Total was -3 which suggests a slight negative outlook on retaliatory violence in real life. Also, 67.29% of the sample had negative Real Life totals, while 65.89% had positive Video Game totals (see Appendix F). There were fewer neutral total scores for Video Games than there were for Real Life. This means that the positive Real Life totals accounted for 21.50%, and negative Video Game totals for 29.91%.

Interestingly, all the responses to the questions pertaining to retaliatory violence in video games, bar one, had positive mode scores, i.e. participants supported the retaliatory actions/scenarios described. The only question widely opposed was "Parents should tell their children to use violence if necessary in a cellphone/video game". It did however only account for 41.98% (n = 89) of the scores for that question (Neutral: 21.23%, n = 45; Positive: 36.79%, n = 78).

Conversely, the questions pertaining to real life were all in the negative except for the questions "It's okay to do whatever it takes to protect myself" (63.21%, n = 134) and "You should respect people who are strong and can defend themselves and protect others" (67.30%, n = 142). There were no significant differences between SES and gender in these results. Also interestingly, of the 46 participants who had positive Real Life totals, 47.83% (n = 22) had totals of either 1 or 2, i.e. marginal support. A dependent samples t-test revealed that there was a significant difference between Real Life and Video Game totals, $t(214) = 7.92$; $p < 0.001$ suggesting that the sample felt negatively about violence in real life, but marginally positively about violence in video games.

As the research question and hypothesis of this part of the study pertain to congruence of beliefs, correlation was the most fitting form of analysis that could be implemented. Correlations measure the degree or strength of a relationship between variables (Howell, 2004). The analysis produced a correlation coefficient of r = 0.42. Correlations between 0.4 and 0.7 are interpreted as moderate correlations, and it is suggested that a substantial relationship exists when the coefficient falls in this range (Lachenicht, 2013). According to this logic, there is a low moderate positive correlation between attitudes towards retaliatory violence in video games and in real life, i.e. there is some congruence between the participants' beliefs about retaliatory violence in video games and real life (See Figure 8). Furthermore, it was found that this correlation is statistically

significant as $p < 0.01$. This runs contrary to the hypothesis that the beliefs would not be congruent.

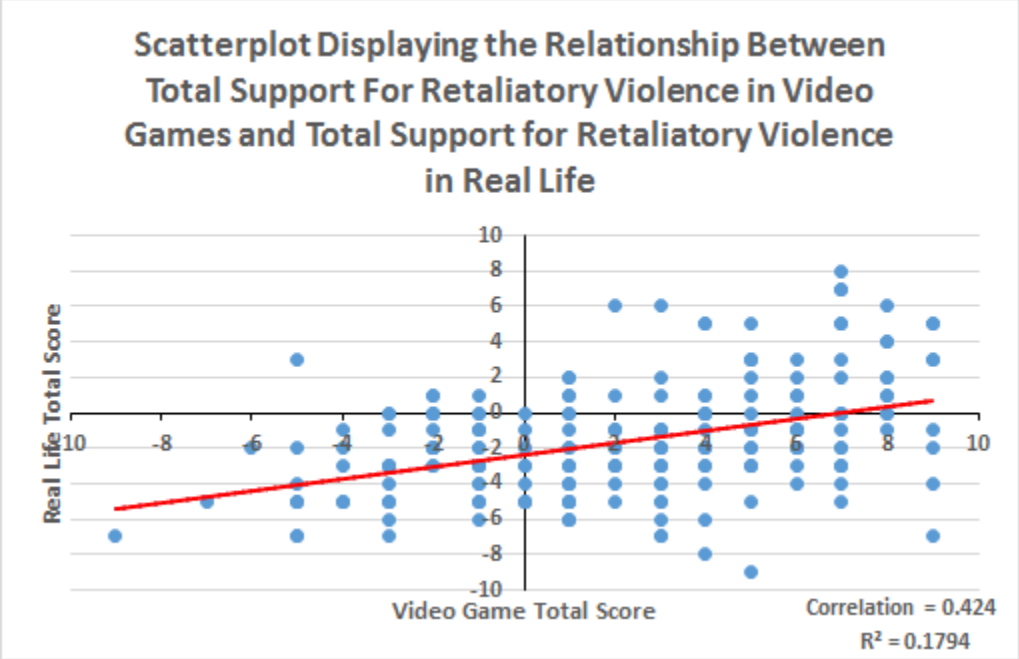

Figure 8: Relationship Between Total Support for Retaliatory Violence in Video Games and Total Support for Retaliatory Violence in Real Life

Linking this to earlier results, it is argued that the children marginally support retaliatory violence in video games (shown by the 1 mode total score) and generally dislike retaliatory violence in real life (hence the -3 mode total score). Yet, given the positive correlation, the more positively a child feels about video game violence the more positively they will feel about real life violence, and if a child feels negatively about video game violence they will probably feel even more negatively about real-life violence.

Having heterogeneous subsamples can lead to misleading results (Howell, 2004; Lachenicht, 2013). Therefore, correlations were run on the gender and school cluster subsamples to investigate further. When split by gender, the boys ($n = 110$) produced a 0.46 correlation while the girls ($n = 102$) produced a 0.33 correlation. This difference to the full correlation is not extreme, and so these subgroups may be regarded as homogeneous.

Further, using a Fisher's *r–to–z* transformation it was found that the difference between the two is not statistically significant. Fisher's *r-to-z* transformation transforms a sample

correlation into a variable that is close to normally distributed and then can be compared with another correlation on the standard normal distribution curve (Steiger, 1980). School cluster subsamples, i.e. splitting the schools into SES by their locales of the Southern suburbs of Cape Town (Fountain School and Grassy Park) and Khayelitsha (St Francis and Khaya), were used for the next test instead of using each school because of the great differences in sample sizes from the schools (the smallest school had a sample of 22, while the largest had a sample of 109 participants). The Southern suburbs cluster (n = 86) produced a coefficient of 0.43, and the Khayelitsha cluster (n = 131) produced 0.44. These differences to the full correlation were also small enough for the subsamples to be held as homogeneous. Here too, the Fisher's $r - to - z$ transformation showed that the difference between the two was not significant.

It was also important to examine the coefficient of determination. The coefficient of determination is the square of the correlation coefficient and is "the proportion of variation in one measure that is accounted for statistically by the variation in the other measure" (Lachenicht, 2013, p. 191). For the main correlation it was found that R^2 = 0.18, i.e. that only 18% of the differences in the Real Life Total are associated with variability in Video Games Total. This suggests that most of the differences between participants in their valuing of real-life violence were not explained by how they felt about video game violence. Howell (2004, p. 182) asserts that a "relationship between two variables may be obscured or enhanced by the presence of a third variable. Such a finding is important in its own right". Broken down into the subsamples: Results for boys explain 22% (R^2 = 0.22), whereas the girls' results explain 11% (R^2 = 0.11) of the variability. The Southern Suburbs subsample has 18% (R^2 = 0.18) of its variability explained by the results, and the Khayelitsha subsample has 19% (R^2 = 0.19).

To further test the robustness of the correlation, destructive testing was used. Destructive testing aims to firstly establish that there is a correlation, and then injects competitive variables into the regression model to see if the relation remains statistically significant or not (Anderson & Dill, 2000). As such, destructive testing is concerned with "how much stress the target relation can withstand" (Anderson & Anderson, 1996, p.743). A correlation is strong when including several theoretically relevant covariates does not "break" said correlation (Anderson, et al., 2007). There are three sub-types of theoretically relevant covariates: nuisance variables, theoretical competitor variables, and potential mediating variables (Anderson, et al., 2007).

A nuisance variable is defined as a variable that is intrinsically irrelevant to the study, but may still affect the outcome (Dayton, 2005). Anderson and colleagues (2007) used the gender of the participants as the nuisance variable in their study correlating exposure to violent media with aggressive behaviours. A theoretical competitor variable is one that, as the name suggests, could also theoretically explain what has been found. The theoretical competitor to exposure to violent media in Anderson and colleagues' (2007) study was the time spent in front of the television (be it for watching television or playing video games). Potential mediating variables are variables that explain the differences in the classification variables (e.g. gender of participant) – in Anderson and colleagues (2007) study, the mediating variable investigated was participants' attitudes towards violence.

In the current study, the nuisance variable used was the gender of participants, while the potential mediating variable was how often the participants played video games. Lastly, the theoretical competitor variable used was the age ratings of the participants' first favourite film, and video game. When the destructive testing procedures were run on the link between support for retaliatory violence in video games and in real life, the correlation remained significant when gender, how often games were played, and the age ratings of favourite film and video games were added to the models (see Appendix F). The link was not broken in any of the destructive tests. The correlation remained significant ($p < 0.001$) and positive though moderate (ranging from 0.42 in the absence of the covariates to 0.39 when all covariates were included) through the tests. The variance in support for retaliatory violence in real life explained by support for retaliatory violence in video games ranged from the initial 18% mentioned earlier (in the absence of the covariates) to 15% (when all covariates were included).

In summation, the correlational result contradicted my hypothesis that the beliefs of children, aged 10 - 12, about retaliatory violence in video games would not be congruent with their beliefs about retaliatory violence in real life. A moderate positive correlation ($r = 0.42$) was found between attitudes towards retaliatory violence in video games and in real life with 21.50% (n = 46) of the participants having had positive totals for the Real Life portion of the questionnaire, suggesting supportive beliefs about retaliatory violence. However, the most common score for Video Game Total was 1 on a scale ranging from -9 to 9 with 0 being neutral (denoting a marginally positive outlook on retaliatory violence in video games), and the most common score for the Real Life Total was -3 (denoting a slight negative outlook on retaliatory

violence in real life). This difference in scores was found to be significant ($t(214) = 7.92$; $p < 0.001$). No significant differences were found between genders or locations, and thus the subsamples were held as homogeneous. Additionally, only 18% of the differences in the Real Life Total are associated with variability in Video Games Total, and when destructive testing was used to gauge the robustness of the findings, the figure dropped marginally to 15%.

Conclusion

Results from the questionnaire given to 217 children aged ten to twelve from four schools in Cape Town showed, firstly, that the children have limited knowledge of the rating guidelines supplied by the FPB. This was most evident in the lack of recognition of the FPB logo and new content descriptors. Participants do seem to watch mostly age-appropriate television, but some did list age-inappropriate (i.e. 13, 16, & 18) content as favourites. Congruently, the vast majority of them also played video games (mostly at home and/or on a mobile phone), and listed age-appropriate video games as their favourites. However, there were higher counts of age-inappropriate content, especially when listing the most violent games they had played. Some congruence between participants' beliefs about retaliatory violence in video games and in their life-worlds was found through a low moderate positive correlation. Notwithstanding this, a significant difference was found wherein most participants had marginally positive total scores for the video game questions while having negative totals for the life-world questions. This difference suggests that there is more to the results than is immediately apparent. This will be discussed further in the next chapter.

Chapter Six: Discussion

The combined qualitative and quantitative data show that children's responses to video game violence are informed by the games they play, their parents, peers and their local contexts. These responses are significantly different to their responses to violence in their life-worlds. Children in this sample were aged 10-12, and the games they played were typically age-appropriate, i.e. rated PG. Where they played games that were age-inappropriate, the games were often rated 13 rather than 16 or 18. However, more than a quarter of the mid to high SES participants in both the qualitative and quantitative studies listed a game rated 18 as a favourite. Violence in video games was regarded as a fun activity when being used by the player, as necessary according to the ludic rules of the game, and as a means to winning, not an end in itself. The tweens' responses were therefore positive and distinct from their responses to non-mediated interpersonal violence, with the exception that they felt that a person who can defend themselves and others should be respected. The contexts in which the children lived, and what information about violence had been relayed to them by adults as well as local peer norms were all crucial in shaping these perspectives on game violence.

This chapter provides a summary of the qualitative insights from the fieldwork, followed by a summary of the quantitative findings from the survey. These insights will then be discussed together, to explore children's responses to video game violence in greater detail, and to present the theoretical and practical implications of the study. The study argues that while South African tweens have high exposure to violence in both their life-worlds and video games, their locally-situated gaming practices provide contexts that allow the tweens to differentiate between violence in video games and in their life-worlds.Therefore, even with video games presenting violence as justified when in retaliation to an attack or in order to protect someone, the children demonstrated only weak support for retaliatory violence in video games, and were not supportive of retaliatory violence in their life-worlds.

"You have to go kill that other mannetjie [small man]": Summary of Qualitative findings

The qualitative study explored children's responses to video game violence by asking what definitions they gave for video game violence, how they interpreted representations of violence in both age-appropriate and age-inappropriate video games, what significance video game violence had in their peer groups, and how their interpretations of video game violence compared

to the age and content classifications provided by South Africa's Film and Publication Board (FPB). The data showed that children in Cape Town have different types of lived experiences both in terms of their safety, and their interaction with violence in video games. The two sites of the study were the Fountain School in the affluent suburb of Rondebosch, and Lumumba Library in the township[30] of Khayelitsha. In broad brushstrokes, children in more affluent contexts such as the Fountain School have less restricted access to video games, and lower exposure to violence in their life-worlds compared to children from contexts such as Lumumba Library. These differing contexts informed the locally situated gaming practices participants presented, and how the participants responded to representations of violence in video games. Some participants from the Fountain School exhibited the third person effect by balancing their acknowledgement of the potential risks of playing age-inappropriate video games with violent content, and their desire to be viewed as mature enough to play such video games without any negative outcomes. In spite of this aspirational maturity, Fountain School participants still showed a reliance on their parents for guidance on what was appropriate in terms of video games.

Conversations with participants were used to glean their definition of video violence that included "hurting someone" by cutting, decapitation and disembowelment. The general consensus, despite the children enjoying the violence in video games, was that the violence present in their life-worlds and mentioned in the news was a negative thing. For example, Tom (Fountain School, 10, boy) described a fight he witnessed as "ugly" but depictions of violence in games as enjoyable because they don't "look real". Participants agreed with the societal norms around rating violence in video games. Additionally, they suggested that games should have a higher rating when the violence is more graphic and frequent. They also argued that violence in video games was potentially negatively influential to young children. Through the latter claim, some of my Fountain School participants othered younger children by suggesting they were incapable of controlling themselves when presented with video game violence. This example of the third person effect was closely linked to participants' presentation of their reliance on their parents for guidance on what is right and wrong, and stigmatising children who (they imagined) might not receive adequate parental guidance.

[30] Largely informal peri-urban settlement.

Participants from both sites were able to draw distinctions between the violence in video games and violence in their life-worlds. They strongly and consistently asserted that violence in video games was not real, even when graphics were realistic. Visual and contextual cues provided the basis for the distinctions made between their environments and video games. One distinction they identified was that video games allow for more opportunities to perform violent acts. Considering most popular video games include some form of violence (Kirk, 2014), the children have a point. Moreover, in some video games performing certain acts of violence is not just encouraged but required by the ludic rules of the game. However, players usually have some decision-making power regarding how to carry out the violence. For example, the *Hitman* games require players to assassinate targets, but leave the player to decide whether to make it look like an accident or not, as well as what weapons and tactics to use. This is, in part, dictated by the rules as a way of progressing in the game.

The rules of many video games make some violence unavoidable if one wishes to progress through the game. They also provide positive or negative ludic consequences for engaging in either appropriate or inappropriate forms of violence. As such, children engaged with the rules to determine what was acceptable and what was not. In-game reactions to violence also tended to differ from those that would be found in the participants' life-worlds and were justified by narrative elements in the game. There is a normative assumption in video games that retaliatory violence is acceptable. Retaliatory violence is usually justified in video games when the antagonist has wronged the playable character or the organisation/country the character represents. These narrative elements provide instructions to the player on when and how to use violence in a particular video game. The participants experienced these cues as different from cues provided to them in their life-worlds. This difference helped inform the distinctions they drew between video game violence and violence in the world around them.

Violence was significant in the Fountain School peer group as a tool for displaying mastery in a game. Engaging with violence was also a way of demonstrating aspirational maturity if it was in an age-inappropriate game. An example of this was designing games rated 16 and 13 during a game design exercise. At Lumumba Library, some participants engaged with violence in the available video games as a tool for learning self-defence. This instrumental use again demonstrated how the participants' contexts played a role in shaping their normativities. Violence in age-inappropriate video games was also interpreted as fun, and still not seen as real

by participants from both sites. Clear distinctions were still drawn between violence in their life-worlds, and in video games, particularly if the game was a cartoon (e.g., *LEGO Pirates of the Caribbean*). However, violence in age-inappropriate video games was described as being more graphic and frequent than violence in age-appropriate games, and potentially dangerous for younger children to be exposed to. They therefore agreed that such content should be age-rated. Participants from both sites demonstrated understandings of violence that were similar to the hegemonic view presented by the FPB (i.e. the more graphic and frequent the violent content, the higher the rating; that violent content is potentially harmful to children; and that parents play an important role in guiding keeping their children away from this potential harm). Despite this overall congruence in their beliefs about violence in games, they nonetheless lacked knowledge of the actual FPB rating guidelines relevant to violence.

"It's okay to do whatever it takes to protect myself in a cellphone/video game": Summary of Quantitative findings

The qualitative data generated a quantitative research question which investigated how children's beliefs about retaliatory violence in video games compare to their beliefs about retaliatory violence in the world around them. The 217 participants surveyed showed very low recognition of the FPB ratings. In particular, the children from the low SES schools had lower recognition even though most participants from those schools played video games often. However, most listed age-appropriate (i.e. rated PG – Parental Guidance) television shows and films as their favourites while some listed content rated 13 as their favourites. Over half of the participants reported playing video games often, and this was consistent across gender and SES. While most preferred age-appropriate games, 34% ($n = 25$) of the mid to high SES group listed games rated 18 as their favourites compared to the 15% ($n = 17$) of the low SES group. Only four of the 36 participants who listed a game rated 18 as one of their favourites were in the low SES group.

The quantitative results also revealed a statistically significant moderate positive correlation ($r = 0.42$; $p < 0.001$) between participants' beliefs about retaliatory violence in video games, and their beliefs about retaliatory violence in real life. This was contrary to the hypothesis that the beliefs of children between the ages of 10 and 12 about retaliatory violence in video games are not congruent with their beliefs about retaliatory violence in real life. However, there was a significant difference ($t(214) = 7.92$; $p < 0.001$) between participants' scores for

retaliatory violence in real life (*mode* = -3) and scores for retaliatory violence in video games (*mode* = 1). The majority of participants (65%) had a positive Video Game Total, i.e. their scores showed positive attitudes towards the use of retaliatory violence in video games, compared to the Real Life Total (21%). I expected that children from the low SES location would have more positive attitudes to retaliatory violence because of the higher rates of violence in their life-worlds and people who are fearful of being victims of violence being more likely to approve of retaliatory violence (Zillman, 1998). Contrary to this, no significant differences in beliefs about retaliatory violence were found between genders and locations (SES).

Who plays, where, and how often?

Children's active choices in playing video games are both acknowledged and ignored in psychological literature. While their being able to choose games that they enjoy is widely accepted, their engagement with themes and content such as violence can easily be assumed to be passive. The combined data from my qualitative and quantitative studies points to an active engagement that begins with their choices of what games to play, and includes how to behave in the games, and how the games are different from their everyday lives. The quantitative data revealed that the majority of participants played video games often, and mainly at home. The qualitative data enriched this with details regarding how access is navigated across SES settings.

As expected, both qualitative and quantitative data indicated that video games were very popular in this age group (10-12). This popularity supports local (Basson, 2015) and international (Kneer, et al., 2016) literature on the prevalence of video game play. Video games appear to have a central position as a cultural practice in the lives of children (Šisler, et al., 2023; Aarsand, 2012; Kaschula & Mostert, 2010; Mäyrä, 2008). The popularity of video games in this cohort also suggests a shift away from the perception that video games are a White hobby (Skotnes-Brown, 2019). The majority (55.6%) of the quantitative participants said they played video games a lot, while only 3.4% did not play games at all, providing support for the argument (e.g. von Salisch, et al., 2011; Nikken and Jansz, 2007) that gaming peaks around the ages of 10 to 14.

Location, location, location

A contribution of this study is adding to the literature on play, particularly in the Global South. Specifically, uncovering nuances around access and frequency of play speaks to the diversity of audiences in the Global South (Penix-Tadsen, 2019). These nuances highlight the multitude of childhoods in the Global South which are produced by the range of contexts children grow up in (Twum-Danso Imoh, 2016). Broadly speaking, it was surprising that the majority of participants from the low SES schools reported playing video games a great deal. It was expected that quantitative study participants from low SES schools would report playing infrequently. The rationale was that while the children from low SES schools played video games, their access would be sporadic due to having to play in libraries or on shared mobile phones. Despite the differing socioeconomic contexts of participants, they still mostly had access to video games either through consoles and/or mobile phones.

Furthermore, the qualitative study in Lumumba Library demonstrated how children negotiated access to video games where games might not have been readily available. The availability of gaming in libraries also adds to the proliferation of video game play regardless of SES. Additionally, turn-taking in library and mobile gaming settings means that more children can play, but the length of play sessions may not be as long as those of children from more affluent settings.

Most participants listed playing at home which makes sense considering that globally and locally consoles were the most popular devices for gaming and have only recently been overtaken by mobile gaming (Bradshaw, 2020; Gadget, 2019). Also, the low SES schools had the highest frequencies of playing on mobile phones. In line with local literature, cellphone gaming was popular among this age group (van der Merwe, 2013). This finding links back to recent trends showing increases of mobile phone usage and using mobile phones for gaming in the country (Statistics South Africa, 2019; South African Audience Research Foundation, 2019; Walton & Pallitt, 2012).

Local literature, e.g. van der Merwe (2013), suggests that playing games on mobile phones would be popular, particularly in the low SES schools, but quantitative data from most participants from those schools showed them playing either at home or at a family member's house. It is possible that participants were playing on mobile phones while at home and so listed home as where they played. Therefore, access was more widespread in this group than initially

thought, which is significant because the children surveyed in low SES settings were not as technologically limited as some characterisations of Africa (Twum-Danso Imoh, 2016) would hold. Additionally, the qualitative interviews at Lumumba Library featured some children mentioning games they definitely did not play at the library (e.g. *Grand Theft Auto: San Andreas*), which also speaks to greater access to video games. The result also highlights the importance of further research into video game play among low SES groups in South Africa in particular as will be discussed in the directions for future research. These insights into the significance of gaming and game violence for children across a range of socio-economic contexts are novel findings in an area where there is a dearth of existing research.

Transactions with peers

Peer interactions form an integral part of video game play. While players sometimes play alone, they are still able to engage in discussions with others about the games they are playing. Gaming communities can exhibit problematic patterns when problematic behaviours are condoned or at least not sanctioned by peers (Skotnes-Brown, 2019). As such, these interactions form part of the contexts of play which inform tweens' play practices and perceptions of violence. While not directly asked if players play with others, quantitative data revealed that 12% of the participants played at a family member or friend's house. The qualitative study demonstrated how children negotiated turn taking and how social capital was built in the groups. For the children in the qualitative study, there were discussions and comments about the games being played, and other games they might have played or wished to play. What was evident was that players gained social capital by being good at a game.

Observations at Lumumba Library revealed children watching intently as others played and cheering when others did well. There was a very cooperative atmosphere in the setting, and those who were skilled at the games were watched quite keenly by those waiting in line to play so they could see what to try to do to win. Conversely, while there was some cooperation among the children at the Fountain School, there were often sarcastic comments, and frustration shown if players did not know what they were doing. It is possible that some of the children were more used to having more agency around play since they owned their own consoles. Progress was always celebrated, but experienced players often tried to influence play by giving instructions.

Ben (Fountain School, 10, boy), for instance, was not very good at restraining himself from commenting:

> Ben (10, boy): Can I just tell them where to go? Go to the left. You see that turn? Now jump over there. Turn to the left.
>
> Heidi (10, girl): I already know what to do.

The balancing of showing expertise and displaying independence was prominent during the early sessions at the Fountain School. The children all tried to display mastery by advising each other, but also tried to protect themselves and others from criticism by asking their peers not to give advice unless asked.

"Are you supposed to judge?" and "Stop telling her what to do" (Diana, 10, girl) were examples of the reprimands given when other children tried to influence play too much with their advice. Janet (10, girl) also expressed feeling frustrated by "everyone telling me what to do" and sometimes having to start over. There was a sense that achieving unassisted was important to the children, and sometimes being assisted could do more harm than good.

In games such as *Kung Fu Panda 2* achievement involved being able to beat up the waves of enemies that attack. During an observation session at the Fountain School, a girl who had not played *Kung Fu Panda 2* before was playing very well for a beginner. With a praising tone, Robert (10, boy) commented "You like smashing stuff, Mpho", to which she giggled. A further example was Ben (10, boy) and Gideon (10, boy) praising Tracey (10, girl) when she showed fast learning in *Ben 10 Ultimate Alien: Cosmic Destruction*, (D3 Publisher, 2010). Ben (10, boy) informed the group of Tracey's (10, girl) aptitude by saying "Wow! Tracey's good (as she defeated her first enemy)", and this was supported by Gideon (10, boy): "It's a good thing". The social capital one can gain from acts of violence in games is usually not gained from acts of violence within one's peer group. The transaction at play is that expertise is celebrated and so children who are good at video games will feel more encouraged to play. This expertise involves using violence in games in some instances, and thus the expert use of violence is what gets celebrated by the player's peers.

Another contribution of my thesis is providing insights into the role of gaming expertise in building social capital. Specifically, there are insights into how violent actions in games were a form of expertise used to build social capital while violent behaviour in life-worlds was not. Nikken and Jansz (2007) note gaming peer groups developing norms and standards of what is

good in video games. Skill forms social capital in games (Orme, 2021; Gentile & Gentile, 2008), and my data shows that expert use of violence in games built social capital. Violent in-game actions were always celebrated by participants in the qualitative study as skilful game play. Conversely, peer groups did not seem to value aggression in their peer interactions. Every mention of aggression in their life-worlds was negative, indicating that expertise in violence in life-worlds would not be regarded as positive or social capital. Peer norms determine the appropriateness of aggressive actions, and research (e.g. Palacios & Berger's 2016 study with Chilean children) has shown that adolescents are less likely to use aggression and have normative beliefs supporting aggression where the peer group does not value aggression. The negative total scores of support for retaliatory violence in the children's life-worlds coupled with the qualitative data supports Palacios and Berger's (2016) results.

This data thus adds to the body of knowledge around gaming in the Global South as well as childhood, peer interactions and play practices, and how violence in games and life-worlds is understood by tweens.

Gender differences are another part of child development present in tweens which were evident in participants' play practices.

Gender Differences

While frequent gameplay was reported by both boys and girls, more boys reported that they frequently played games. There were also quantitative and qualitative differences between how much violence featured in the games played. Furthermore, results from the qualitative study highlighted what role violence would play in games boys and girls designed, with boys creating a hyper-violent game where the motives of the protagonist were not heroic.

Both qualitative and quantitative data suggested that boys played more video games, supporting local data from studies by Palen and colleagues (2010), and Walton and Pallitt (2013). International studies, e.g. Lucas and Sherry (2004), Galleli and Fanelli (2010), and Dhiaa and Tawfeeq (2016) also have similar findings. Further, boys played more video games featuring violence, similar to local and international findings, e.g. Pallitt and Walton (2015), De Camp (2017), and Cunningham (2018). Boys playing more video games featuring violence was to be expected because of the gendered marketing of video games, and because violence is considered a masculine pursuit in Western popular culture (Cunningham, 2018). There was a higher

frequency of boys playing age-inappropriate video games including violence than there were of girls, similar to Dhiaa and Tawfeeq's (2016) study with tweens in Bagdad, and Nikken and Jansz's (2007) survey results with 1,115 Dutch families. Boys in the quantitative study listed some age-inappropriate games as favourites, with 18 being the most frequent age-inappropriate rating listed.

Additionally, different norms were presented by the boys and girls at the Fountain School during the qualitative study. The boys designed a hyper-violent game where blood was an aesthetic choice. The girls however, created a detective game, where bloodstains functioned as a clue to the murder. These gory signifiers of violence were also included as a marketing ploy since the girls believed the blood would make their game popular like the TV police procedurals wherein cases are solved using blood and other physical evidence. *Ultimate Manslaughter* was rated 16 and had a narrative focused on using instrumental violence to become the richest man on earth, whereas *The World of Justin Bieber* (the girls' game) had a narrative wherein the protagonist had to use retaliatory violence to save his town.

Both groups incorporated blood in their designs, which supports Bruckheimer's (2014) argument that video games featuring violence are popular cross-culturally. However, the boys seemed to exhibit an example of de Camp's (2017) thesis that violence is generally a masculine arena by creating a hyper-violent game wherein the protagonist kills for money and status. The boys displayed an aspirational masculinity (Pallitt, 2013) by designing a game with a high age rating and featuring frequent violence. Quantitative data showed that boys had more favourites rated 18 than girls did, which may support this claim that violence signified aspirational maturity to boys.

My findings also resonate with other local data showing that boys prefer competitive video games wherein they can display supremacy (Amory & Molomo, 2012). The boys' desire to display supremacy spilled over into their assertions of expertise while discussing or watching others play, in ways which were similar to the men in Thornham's (2008) study. The boys in this study used the design exercise as an opportunity to perform their maturity and media competence for each other and myself, similar to the boys in Pallitt's (2013) study. As will be discussed below, such displays of expertise were also evident in children's bragging about playing age-inappropriate games.

My data on access to video games presented a quantitatively homogenous yet qualitatively nuanced picture of gendered gaming practices in Cape Town. While most children played video games frequently and had access to video games, there were differences based on gender. As per previous local studies (e.g. Graaff & Heinecken, 2017) gender inequalities still exist in South Africa and so girls sometimes have less leisure time to dedicate to video game play. Moreover, play groups tended to be gendered, and play preferences were informed by these groupings. The role violence played in gendered play practices forms an important contribution of this dissertation. Violence in games seemed to be a top priority for the boys at the Fountain School. They sought out games with frequent and vivid violence and positioned being able to cope with age-inappropriate representations of violence as a sign of maturity. The boys also more readily acknowledged the instrumental nature of the violence in completing games. They also emphasised the social capital of showing skill in a game by using violence. Girls, on the other hand, acknowledged violence as part of games, but linked it to the narrative. Their game design explained that the violence used was to save the town, for example. The social capital of showing skill was also not as pronounced in the girls. In spite of these nuances, the general picture presented by the children supports the argument that they have high exposure to violence in their life-worlds and video games.

Kids are playing what?

Quantitative results revealed that most participants played age-appropriate video games and watched age-appropriate films and television shows. However, similar to my qualitative results and previous literature, some children reported playing age-inappropriate games. All such age-inappropriate games had violence listed as a content descriptor by the Film and Publication Board (FPB). Eight of the top ten favourite games listed by participants in the quantitative study had violence listed as a content descriptor, supporting my argument that South African tweens have high exposure to violence in the video games they play.

In terms of film and television consumption, the survey data showed that most children watched television shows that were either age-appropriate or on the lower end of being age-inappropriate (i.e. rated 13). This finding is consistent with previous studies from the United States wherein more than half of participants acknowledged watching age-inappropriate (PG-13 and R) films and television shows (Conners-Burrow, et al., 2011). Similar results were found

with video games but with fewer reports of age-inappropriate games being played, which is not too different from my qualitative findings, and the majority of the literature. Nikken and Jansz (2007), for example, reported in their study of Dutch youth playing age-inappropriate video games that boys between 10 and 12 are the most likely demographic to play age-inappropriate video games but that they also play age-appropriate video games. Dhiaa and Tawfeeq (2016) had similar results with Iraqi children aged 11 to 13. However, the quantitative results show that PG was the most popular rating in this South African sample.

Only 24% of the survey respondents across sites listed an age-inappropriate video game as a favourite. A similar percentage was found in the Fountain School participants specifically. Of course, playing games and considering them favourites are two different things, so it is possible that more children were playing age-inappropriate games. The gatekeeping role parents and institutions such as libraries play could also be a key factor in the access and preferences the participants had. Further studies should investigate what factors inform these preferences and what role they play in influencing children's preferences.

Still, even where most games listed as favourites were age-appropriate, the argument of Buchman and Funk's (1996) and more recent studies (e.g. Maxwell, 2019; Gitter et al, 2013) that children's favourite games tend to include violence is supported by this data. This is not surprising, given that most popular games include violence (American Psychological Association, 2020) but the children also appeared to particularly enjoy games with violence as a focal point. Only two of the top ten games listed as favourites in the quantitative study did not carry a "Violence" content descriptor.

These findings thus confirm the results of an earlier survey by Amory and Molomo (2012), whose results showed that action and sports games were the most popular game genres for young South Africans. Also, while the list of age-appropriate video games included a very diverse range of titles, the list of age-inappropriate games included higher frequencies for specific titles. The most popular (and the most violent as reported by the participants) was *Grand Theft Auto*. This is also not surprising given the general popularity of the video game series, e.g. *Grand Theft Auto 5* (Rockstar Games, 2013) was the highest selling video game of its time once released and maintained its popularity years after release (Entertainment Software Association, 2014). It is also not surprising given how often video games from that series were mentioned during the qualitative study.

Similar to the qualitative study, the most popular video games mentioned by the quantitative participants all included retaliatory violence, i.e. an act of revenge that goes beyond an action of self-defence (Leisring & Grigorian, 2016). Although the player is positioned as an anti-hero in games from the *Grand Theft Auto* series, there are narratives around protecting one's comrades and business interests and defending against attacks from rivals. Similarly, the revenge tale that spurred the *God of War* series is based around retaliation. Games from the *Call of Duty* series have retaliatory violence on a national scale so that a player's character is fighting for their country and in defence of "freedom". Even fighting games such as *Mortal Kombat* and *Street Fighter* have characters fighting to avenge a fallen family member, friend or tribe. As such, both ludic and narrative norms point the player towards responding to an attack with violence as a way of relieving the distress caused by the transgressive violence used in the attack (Waddell, et al., 2019; Klimmt, et. al, 2006; Duncum, 2006). These norms can sometimes constrain the player to using violence by making it so one cannot advance through the game without using violence, e.g. only being able to progress to the next level by killing the boss of the current level.

Another characteristic of the video games mentioned above is that they were all age-inappropriate for the sample groups. That age-inappropriate games were played by participants is not surprising for a variety of reasons, including children's aspirational maturity, playing the games friends or older siblings have access to (Domoff et al., 2019), and the lack of knowledge children and caregivers have of video game ratings (which was revealed in the quantitative study). Caregivers act as gatekeepers, and so children will rely on them to varying degrees for access to video games. Friends and siblings will co-play and use active mediation more than employ formal gatekeeping to children's games.

Where were the parents?

A major contribution of this dissertation is highlighting that contexts of play inform children's play practices and perceptions of video game violence. Parents formed a crucial part of these contexts of play which allow children to differentiate between violence in video games and their life-worlds, even with the high exposure to violence South African children have in both their life-worlds and video games. Both quantitative and qualitative data point to participants having relied on their parents/caregivers not only for access to video games, but their interpretations of violence in games and in everyday life. For example, Tom (Fountain School, 10, boy) explained

that he had witnessed a fight and that it was terrible because he had seen adults crying. Similarly, parental responses to violence in video games form a resource that children draw from to know how to react to events.

Reliance on parents for access is shown in part by quantitative results showing that most participants played video games at home. Similarly, qualitative discussions highlighted the different mediation practices parents used, namely restrictive, active or co-playing mediation (Simons, et al., 2018; Basson, 2015). The most recent Film and Publications Board convergence report (2020) recorded that the Western Cape had the highest percentage (62.5%) of parents playing their children's video games with them. Still, co-playing does not always mean that children are not exposed to age-inappropriate content. Some children in my qualitative study reported their parents co-playing age-inappropriate video games with them, and therefore providing them a safe space to gain confidence while being exposed to more graphic material. Gideon (Fountain School, 10, boy), for example, relied on his father to play through difficult or gory sections of games. He would watch his father clear the sections. His and some other children's play practices were therefore directly informed by contexts of play. Similarly, their perceptions of what violence they could handle was also linked to their contexts. However, not all parents used ratings as a signal for restriction of play/viewing.

Nqaba's (Lumumba Library, 10, boy) perceptions of age-appropriate and age-inappropriate content (including violence) were informed by his father. When asked if he knew what the 16 rating on the FPB logo meant he said that according to his father if a movie was listed as 16 it would be "nice". He then affirmed that he felt similarly for games. He played and enjoyed games rated 16 but would play games rated lower when he has to, e.g. at the library. Nqaba also suggested that *Wii Sports Boxing* should be rated 16 because it was fun. Nqaba's example suggests that children not only use peers but parents in shaping their media preferences along with the ratings, thus equipping them with hegemonic understandings of video game violence and video game ratings despite ignorance of the official ratings and content descriptors. Children often also have other family members who could introduce them to games.

Participants from both the qualitative and quantitative groups noted that they played games with family members. Locally, Olivier (2000) argued that adult supervision is necessary for children playing video games because of the lack of consequences when violence is used in games. Coyne and colleagues (2016) suggest that parents playing age-appropriate games with

children can lead to positive outcomes, e.g. lower internalisation of violent or other anti-social behaviours exhibited in games. However, sometimes, as with some of the qualitative participants, older family members allowed the children to play age-inappropriate games. As per Vinter's (2012) research on video game play and TV viewing in households: older siblings sometimes introduce viewing/playing content to younger children that parents would not necessarily approve of. Most qualitative participants were introduced to gaming by older siblings or cousins. Gee (2007) posits that more older gamers are becoming parents and as such some children end up accessing age-inappropriate games because their parents are playing them. Additionally, some children may have gathered information about age-inappropriate games without having played them, as was the case for some of the children in Burn's (2013) study.

Even when access to age-appropriate games was limited in the participants' households, they were able to access games when away from their parents/caregivers. Some participants from both studies reported playing with family members outside of their household and friends. Accessing age-appropriate video games through such means is similar to the findings of Kutner and colleagues' (2008) qualitative study on American parents' and sons' perceptions of video game play. In that study, the children reported accessing age-inappropriate games through friends, older siblings, and older siblings' friends. The American teens from a low SES background in DeVane and Squire's (2008) study also gamed at friends' houses and with friends' siblings. Olson and colleagues' (2007) study showed that young American teens are more likely to play age-inappropriate games if they play frequently with an older sibling. My qualitative and quantitative data provide some support for this claim. Considering that other studies such as Nikken and Jansz's (2007) Finnish study have found contrary evidence, this claim will need to be investigated further, especially in South Africa, as there is a dearth of local data on the matter.

Another possible explanation for the participants playing age-inappropriate games comes back to the lack of parental supervision in some cases. As with Nikken and Jansz's (2007) findings, there may be less parental mediation as children get older. Furthermore, given the economic landscape of the country, many parents may not have time and energy to pay attention to video game ratings due to balancing household upkeep and either working long hours or looking for employment (Simons, et al., 2018). The play of children in my studies was not always mediated, and so they were able to engage with age-inappropriate content. However, they

still needed to access the games in order to play them, and this links back to the lack of knowledge about the rating system. This lack of knowledge can make conversations around gaming and what is appropriate difficult (Jhee, 2014). As such, some children may manage to negotiate acquiring age-inappropriate games because they exploit their parents' ignorance of the ratings and games in general.

Bauman's (2012) and Costello and colleagues' (2022) work on cyberbullying in the United States, for example, suggest that greater parental education is needed so parents can be effective in supervising and protecting their children from harmful online activities, including during online video game play. This suggestion was also supported in Japanese studies by Aoyama, Utsumi, and Hasegawa (2012), and locally by Baloyi (2023) and Stadler (2012). Stadler (2012) argues that the best way to increase media socialisation in viewers/players is to improve critical media literacy. Media literacy for both parents and children is therefore essential for protecting children. Lumumba Library provided its users with some media literacy.

The qualitative study also highlighted that the library, as an institution, was operating as a substitute caregiver. Responses to questions about the appropriateness of use of violence in my quantitative questionnaire also supported the qualitative finding that children were relying on not just the video games but their parents to suggest when using violence was appropriate. Local studies have shown that parents in low-income communities are sometimes unable to find alternative supervision for their children (Simons, et al., 2018). Suburban children had more extra-mural activities which meant that their free time was more directly supervised even where parents might be unavailable. That supervision may have informed why the majority of suburban children reported playing infrequently in the quantitative study. The time taken by the extra-murals would also have limited the time the children could use for gaming.

Conversely, the library may have provided them more gaming time for the township children. The library therefore acted as an informal day care facility by keeping children, who did not have access to extra-mural activities through their schools, occupied while their caregivers were at work or searching for work (Donner & Walton, 2013). The idea behind the encouragement was firstly for the library to be more of a community space than just an academic space (Hardy, 2011), and also so that the children were kept away from harm outside such spaces in the community. South African participants from low SES settings in Palen and colleagues'

2011 study reported playing video games to avoid being out on the streets, which were risky environments in that context.

A contribution of this study is showcasing the role of libraries as safe spaces for children to game, and providing adult supervision in cases where parents may not be able to. Local libraries often serve as informal after-school care centres (Donner & Walton, 2013). Additionally, Lumumba Library, like other local libraries in low SES communities, was established to be a safe environment for users (Hardy, 2011). Play in the library was monitored by a librarian and the choice of games was limited to PG rated games, so that all children who came to the library would be able to play. The librarian would not only give guidance on how to play the game, e.g. how to use the controls, but would also assist the children in reading out instructions, and general etiquette around turn taking and supporting other players when it was their turn to play. Equipping librarians with more information around media ratings could assist them in further supplementing the media literacy of library users. Tweens already showed some literacy around violence in video games which could be refined, for example.

Quantitative data revealed that a large minority of participants (41.98%) felt that parents should not encourage their children to use violence in video games. This acknowledgement resembles local data showing that the majority (69.8%) of Western Cape parents surveyed by the FPB prohibited their children from playing games based on the games containing violence (Film and Publication Board, 2020). The children here appear to understand not only that using violence in non-mediated circumstances was bad, but that it was the role of the parent to educate the child to not use violence in general. So, even where violence is mediated, parents should not encourage its use, or perhaps the children's responses reflected that they had been discouraged from using violence in video games.

Participants in my qualitative study also appeared to understand that their parents were hoping to influence their gaming choices. They also acknowledged the gatekeeping role parents played as important and as a norm. It is possible, however, that those survey respondents who did not support parents dissuading children's use of violence in video games may have been displaying the third person effect. Much like some children in the qualitative sample, they may have felt that they did not require parental guidance and so disagreed in this question involving parental input.

Among the boys at the Fountain School, the interplay between the boys revealed their belief that they were mature enough to play games rated 16 while other children were not. This even applied to the boys whose parents still required them to be supervised when playing 16-rated games. Their parents treated them as being ready enough that they could be exposed to 16 rated games in a limited context that could help them interpret and process what they were seeing and doing. The children relished the play but also valued feedback from their parents about the games and acted in ways that would encourage the parents to continue allowing them to play. Sameroff and MacKenzie (2003) describe these kinds of continuous dynamic interactions with parents as pivotal in child development.

Some of the Fountain School children in the qualitative study were found to "other"[31] children who might be more likely to imitate violence from video games, while they felt that they themselves were not vulnerable or susceptible to any potential negative effects from game violence. Most often, this othering was apparent when participants discussed the potential negative influences on younger children of video game violence. Shawn (10, boy) mentioned that he felt that "small children that don't know anything" and thus might be influenced by video game violence. He also added that their ignorance was due to their parents not teaching them.

In other cases, the process of "othering" may have been influenced by the religious education provided at one of the qualitative research sites. For example, Christian (10, boy) argued that the Fountain School participants would not be adversely affected because they "actually have a conscience. And our mothers and fathers taught us to control ourselves". This version of the othering process thus draws on religious discourse, where children who imitate violence are depicted as immoral (without a "conscience"), while the parents of such children were portrayed as the source of the deficiency and as unable to teach their children self-control. By contrast, Christian depicts himself, his peers and their parents as knowledgeable and moral. This stance suggests that children know the differences between violence in video games and in their life-worlds if they receive the correct kinds of parental input. Nonetheless, it was not always clear which groups of parents were considered deficient or possibly even immoral. Future studies should investigate whether the middle class children in this study might have been

[31] Jensen (2011) describes othering as being developed in post-colonial theory. Due to identity always being social in some way or other, persons often juxtapose their sense of 'self' against an 'other'. Said other is always seen as inferior, and is problematised and pathologised (Jensen, 2011).

learning racial, class-related or religious ideologies regarding “other” children who might be more vulnerable to potential negative effects of game violence, and whether such ideologies might be linked to racial, class or religious stereotypes.

Thus the findings of this study highlight the importance of context in determining children’s responses to violence and underline the importance of active parental mediation, i.e. engaging with the content of a game in playing video games. Parents form a crucial part of a child’s context of play. They can explain that reactions to events in games can be different to reactions to similar actions in one’s surroundings thereby reinforcing contextual cues that show children the difference between video games and their life-worlds. Still, there is a lack of local studies exploring parental involvement in children’s video game play and how this might shape their perceptions of violence. More studies are needed to further gauge the generalisability of these results in South Africa, and on effective parental mediation strategies in the various socioeconomic contexts of the country.

Ratings as a resource

Both qualitative and quantitative data showed that the participants had poor recognition of the local rating system. Even the children who reported frequently playing video games had poor recognition. My dissertation therefore contributes to the literature by highlighting some of the qualitative differences present in the data even in the absence of quantitative differences. Previously, local studies such as Beukman and Olivier’s (2000) had highlighted the need for parents to be aware of the rating systems, and to build media literacy in their children. More recently, Basson’s (2015) study on children and adults’ media practices around ratings in South Africa also found poor recognition of the ratings. However, despite the poor recognition, participants from the qualitative study engaged with ratings as a resource for game selection. While their engagement with age ratings was sometimes linked to restrictions administered by their caregivers, the ratings also played a role in helping participants predict what type of fun to expect in a video game. Qualitative data suggest that part of the normative practices for some of the children was to play age-inappropriate video games to display aspirational maturity.

As in the qualitative study, and other local studies (e.g. Basson, 2015), the quantitative participants did not recognize the FPB's logo (62%) or content descriptors (76.4% on average). Much as this finding is in line with previous literature, it is surprising that although the majority

of participants reported playing video games frequently, they were ignorant of the local ratings. However, some children's access to games may have been such that they did not see the FPB logo (for example, children who played games on phones, in which case there would have been no FPB gatekeeping possible, as these games are accessed from app stores). As will be discussed, some children had more knowledge about Pan European Game Information (PEGI) ratings. A lack of information from the FPB to consumers appears to be the overarching reason for this lack of knowledge (Basson, 2015). This poor recognition suggests that the rating information is not getting to those the ratings are meant to protect. Teachers at the quantitative field site schools all expressed concern about the lack of knowledge and some even requested that workshops be held wherein teachers and learners could be educated about the rating system.

Even with a lack of knowledge about local ratings, participants from the Fountain School's qualitative sample exhibited more knowledge about the PEGI symbols than the ratings of the FPB. The FPB rating stickers did not always appear on games sold locally, and sometimes when they did, they were pasted over the PEGI stickers already on the cover. The lack of stickers was due to a shortage of game classifiers who could finish games and provide rating recommendations (Mashapa, 2022). The FPB has only recently addressed the issue by introducing the self-classification of games to be completed online (Film and Publication Board, 2023). Self-classification allows for distributors to provide a rating and classifiable elements for a game within 24 hours of its release (Film and Publication Board, 2023). Shawn (10, boy) from the qualitative study had first-hand experience with the FPB sticker problem, stating: "This game had a PG rating, then I saw that sticky thing. I pulled it off there was a sticker that was hiding it". So, even where children had wider access to games, they would not necessarily have knowledge of the local ratings. This lack of knowledge, particularly of the logo, may not be alarming. However, the majority of participants in the quantitative study also did not recognise the content descriptor for violence.

Violence as a content descriptor is displayed as V for both local video game (FPB) and public broadcasting (ICASA) ratings. So it was expected that even where children might not have access to video game covers or FPB rating information, they might still have knowledge of the V content descriptor. Quantitative data showed less than half (48.3%) of the participants, particularly from the low SES schools, recognised the V content descriptor. It is less surprising that participants had low recognition for the newer descriptors, namely: Sexual Violence (SV),

Drugs (D), Prejudice (P), and Horror (H). Still, the recognition of local content descriptors continues a trend present in South African research.

Linking back to the qualitative study's participants' call for using symbols rather than letters for the content descriptors, data from local research shows that parents (Chetty & Basson, 2007) and children lacked understanding of all the letters used as content descriptors (Basson, 2015). Similar results were found in the United States with the Entertainment Software Ratings Board (ESRB) ratings (Stroud & Chernin, 2008). Perhaps then pictures would more comprehensively denote content descriptors to parents. This may be especially true when the use of letters for content descriptors is not always efficiently implemented, e.g. the FPB sticker does not always explain what the content descriptors mean.

What is encouraging from the qualitative results is that the children do present some understanding about the necessity of rating games, what sort of content should be rated, and that ratings should include a variety of descriptors. Their views on how games should be rated were similar to the hegemonic viewpoint in the country, i.e. that the more graphic and frequent the violence, the higher the age rating of the game should be. While lacking formal knowledge of the ratings, participants' contexts of play provided an informal education around local ratings. Education around video game ratings, Gee (2007) claims, is the most useful tool in preventing children from playing age-inappropriate games.

Even with there being some education around the ratings it appears that using letters for the content descriptors is ineffective in South Africa. Apart from this study's findings, Basson's (2015) findings showed that children do not always notice and/or have knowledge of all the classifiable elements in video games. Furthermore, Chetty & Basson's (2007) results included a plea from parents for age restrictions and consumer information to be "more prominently displayed and 'reinforced by explaining about what they stand for on a regular basis'" (Chetty & Basson, 2007, p. 43). This plea is especially crucial with the FPB having expanded the number of content descriptors they use. When participants in the qualitative study were examining the cover of a game, it became clear that they had difficulty not only naming the content descriptors, but also understanding them. For instance, the participants were unsure of what prejudice meant, and only understood once it was explained with racism as an example.

My results suggest that local tweens may have some critical media literacy, but not as much as is intended by authorities such as the FPB, considering the information that is supposed

to be available to them. Furthermore, the data suggests that children's gaming choices were informed by age ratings despite the children not having a full grasp of the rating information. So, while they may aspire to playing currently age-inappropriate games, they do not always have sufficient understanding of what makes the game age-inappropriate. Still, they are able to appropriate the ratings and use what understanding they have as a way of displaying knowledge and maturity enough to play the age-inappropriate games.

Notwithstanding these problems, children were using the FPB ratings along with any other ratings on video game covers as resources to inform their video game choices. In some cases they knew they were not allowed to play certain games due to the age rating, e.g. Shawn (Fountain School, 10, boy), while not explaining which sticker (FPB or PEGI) he looked at, reported not taking games with too high an age rating. However, some qualitative participants were more drawn to video games that have age ratings above their age, similar to tweens in local and international studies, e.g. Dhiaa and Tawfeeq (2016); Basson (2015); and Nikken and Jansz (2007).

Participants in the qualitative study used the ratings as part of maturational aspirations of what they want to play, and as a way of distancing themselves from video games they had previously enjoyed when younger. Here, age-inappropriate video games appear to serve as a statement of maturity similar to that of the participants in Pallitt's (2013) study. The participants here suggest that playing video games for younger children was beneath them, and that they wanted to play video games rated 13 or higher. The peer norm stood at odds with Bobby's individual norm. Since peer acceptance is a developmental goal for tweens (Palacios & Berger, 2016), engaging in peer performances about playing more mature video games was Bobby's most attractive course of action. The video games the Fountain School children designed also displayed their maturity aspirations and how they used ratings as an important aspect of video games.

The example above demonstrates how children appropriated the ratings as a signifier of their aspirational maturity rather than as a guide on what content was not suitable for them because they were too young. Access to and knowledge of games with higher age ratings were a source of social capital for the boys at the Fountain School. Their appropriation allowed for them to better scrutinise the ratings, e.g. being able to question why games have the same age rating when one game has more frequent instances of violence in it. Much as the FPB is concerned

about children accessing age-inappropriate content, the data suggests that the quality and context of exposure tempers the potential outcomes of the exposure. For instance, participants who played age-inappropriate games with their parents were able to explain why certain games should carry higher age ratings. Therefore, despite their appropriation of the ratings, participants held hegemonic views about video game ratings and video game violence.

Hegemony

Participants' views, as reflected in the qualitative data, of video game ratings and video game violence were very similar to the hegemonic view in South Africa as provided by the FPB. The uncovering of this hegemony grows local literature around children's gaming practices and how they are informed by the regulations provided by adults. In particular, the importance of ratings and reasoning behind providing different age ratings for content were supported by the participants. Even with these understandings, participants in both qualitative and quantitative studies had poor recognition of the FPB rating stickers and were unfamiliar with the content rating symbols used.

Similar to findings from Chetty and Basson's (2007) study on the perception and use of the rating guidelines by South African parents, participants from both qualitative field sites felt that ratings were important. In particular, the age ratings were seen as necessary for protecting younger children from the potential negative influences in games. The participants themselves felt that they were not susceptible to said influences though and were in fact ready for video games with more mature content.

The potential negative influences of video games were mentioned by the Fountain School participants as well. For example, Tom (10, boy) believed that only violence in games rated higher, i.e. 16 and 18, could potentially be a bad influence on children because blood and gore would be featured in those games with graphic realism. Ironically, Tom was involved when the boys designed *Ultimate Manslaughter* which they said should be rated 16. Tom's belief about the potential bad influences of video game violence are similar to that of local authorities. Both the FPB and parents who participated in studies conducted by the Board (e.g. Chetty & Basson, 2007) are concerned about violence potentially threatening the child's sense of security and well-being. Studies such as Jeong, Biocca, and Bohil's (2012) American study have also found that graphic realism in video game violence is associated with higher feelings of presence (feeling

immersed in the game), and feelings of aggression during play. There were other instances of participants' agreement that video game content can be harmful to players, most particularly younger players.

As with Basson's (2015) study, the children presented an awareness of the potential impact of video game violence at an individual level. For example, Tom (Fountain School, 10, boy) mentioned that he thought parents were worried that children would re-enact the violence experienced in video games. Numerous institutions and researchers have voiced similar concerns (e.g. Ybarra, et. al., 2014; Media Violence Commission, 2012; Farrell, 2005). Consistent with responses given by participants aged 16 to 39+ in the FPB's 2013 Convergence Report (Film and Publication Board, 2013), participants agreed that violence should form part of a game's rating. Tom (Fountain School, 10, boy) also noted the potential of children getting addicted to the violence in video games. Addiction was one of the parental concerns raised in Chetty and Basson's (2007) local study. Tom's (Fountain School, 10, boy) thoughts were similar to Shawn's (Fountain School, 10, boy), but added that it was only children who played video games rated 16 or 18 that were at risk. Both displayed an awareness of adult concerns around video game violence similar to the participants in Burn's (2013) work. Here, Shawn and Tom were suggesting that children younger than 10 years who played age-inappropriate video games were at risk. De Vane & Squire's (2008) participants were also against the idea of younger children playing video games rated 18, arguing that due to an underdeveloped sense of self the children may become obsessed with and/or imitate the violence they experience in video games. Apart from showing understandings of the need for age ratings, some participants also presented hegemonic views on how the content ratings function.

The FPB's guidelines require that the more frequent and intense the violence, the higher the age rating. Jackson (Fountain School, 10, boy) described frequency of violence identically to the FPB's definition. Intensity is determined in part by how graphic (vivid) the violence is, and whether it is at a distance or close up (Film & Publication Board, 2006). Other participants in the qualitative study held similar views about how games should be rated in terms of intensity. For instance, blood increased the brutality of games and should be rated higher because, as Diana (Fountain School, 10, girl) suggests, there's "shooting each other and there's blood everywhere and guns and knives". Both games the children from the Fountain School designed as an exercise received age ratings due to the violent content. The boys' game, *Ultimate Manslaughter*, was

given a higher age rating. Violence was a key instrument to success in the game and was described as quite vivid and frequent. The girls' game, *The World of Justin Bieber*, on the other hand had a lower rating due to there being less frequent violence and gore.

A further example of the understanding was shown by Arnold (Fountain School, 10, boy) requesting a LEGO video game with higher frequency of violence even though graphically the games were similar. Ruben (Fountain School, 10, boy) and Tom (Fountain School, 10, boy) shared similar feelings and spoke of the highly stylized nature of the violence in *LEGO Pirates of the Caribbean* saying that the violence in LEGO games equated to "smashing LEGO blocks". The distinction between this and other forms of violence they described such as decapitation and people being shot is interesting in part because the FPB rates games PG if they include "minimal violence in playful, comic or highly stylised settings" (Department of Home Affairs, 2009, p. 17), and the children seem to agree with the rating of *LEGO Pirates of the Caribbean* because the violence appears stylized (in the form of LEGO blocks).

In summation, children seem to have some information on ratings, but more is needed. Specifically, they need more technical information such as what the content descriptor letters stand for. The need for media literacy could be addressed by including information on media ratings in the school curriculum. Libraries could also incorporate more technical information in their facilities therefore allowing librarians to better explain ratings to children in the library. However, the children used the information they did understand to inform some of their video game choices. They engaged with the ratings as a guide for how action-packed the game might be, for example. Therefore, the ratings contributed to the contexts of play which informed the tweens' play practices and perceptions of violence. The amount and quality of violence in video games also helped shape the children's beliefs about retaliatory violence.

Beliefs about retaliatory violence

The qualitative data revealed that participants drew clear distinctions between violence in real life, and in video games. While interpersonal violence in the children's life-worlds was seen as ugly and to be avoided, violence in video games was sought after and considered fun. So, where violence is retaliatory in a narrative sense in games, children will engage with it instrumentally to complete the game. The use of violence is sometimes coded into the rules and unavoidable if one wants to complete a game. Despite, or perhaps because of the inevitability and cleanness (i.e. the

actions remain in the game and there are no negative consequences for players) of video game violence, children were drawn to it. So much so, that some participants worried that young children may imitate the representations of violence in games in their life-worlds.

Some participants from the qualitative study worried that children might imitate the violence seen in video games, and most violence in video games was justified by being presented as unavoidable and justified because it was retaliatory. Further, two children described using a boxing game as a way of learning to defend themselves, a real-life application of a video game. Zillman (1998) suggests that people who are fearful of being victims of violence are more likely to approve of retaliatory violence. As such, the qualitative data raised the question of whether there was congruence between children's beliefs about retaliatory violence in video games and in real life. Drawing from my qualitative data it was thus hypothesised that the tweens' beliefs about retaliatory violence in video games were not congruent with their beliefs about retaliatory violence in real life.

At face value, the correlational result of the quantitative study contradicted my hypothesis: the moderate positive correlation ($r = 0.424$) found between attitudes towards retaliatory violence in video games and in real life could be read as suggesting that feeling positively about video game violence is associated with feeling positively about violence in one's life-world. Furthermore, 21.50% ($n = 46$) of the participants had positive totals for the Real Life portion of the questionnaire, suggesting supportive beliefs about retaliatory violence in their life-worlds similar to the South African children in Parkes' (2007) study. However, there is more to these results than is initially apparent.

The total scores participants could have for their attitudes ranged from -9 to 9 with 0 being neutral. The most common score for Video Game Total was 1 (denoting a marginally positive outlook on retaliatory violence in video games), while the most common score for the Real Life Total was -3 (denoting a negative outlook on retaliatory violence in real life). A dependent samples t-test showed the difference between the Video Game Total and the Real Life Total scores to be statistically significant ($t(214) = 7.915$; $p < 0.001$). These findings tell two interconnected stories. Firstly, it shows that much as children supported the idea of retaliatory violence in games, the support was tentative. It's possible, as the qualitative data suggests, that children engaged with narratively justified retaliatory violence as instrumental violence solely within games, i.e. used the violence simply as the necessary ludic actions to progress in a game.

Secondly, since the difference between the Video Game Total and the Real Life Total was found to be statistically significant, it can be said that the children have different beliefs about retaliatory violence in video games, and in their life-worlds, as per the qualitative data.

The results from my study are in line with DeCamp and Ferguson's (2017) finding that children often seek out fictional violence while mostly avoiding violence in their life-worlds. Results from my study contribute further evidence that children process fictional violence differently to violence in the world around them (DeCamp & Ferguson, 2017). Further, nearly half of the participants who appeared to support the idea of retaliatory violence in real life, i.e. 10% (n = 22) of the overall sample, only gave it marginal support as shown by scores of 1 or 2 out of 9.

Another contribution of my study is that no significant gender or location differences were found in the quantitative data despite there being differences shown in the qualitative data. The qualitative data provide more context (Jones, 2002) while the quantitative data begins to generalise the findings. Here, generally tweens have marginal support for retaliatory violence in video games and perceive the violence differently to violence in their life-worlds. There are also contextual nuances such as their exposure to violence in their life-worlds which inform the general picture.

That the children's SES did not have significant quantitative impact, was counter-intuitive given the differences in results from the qualitative data. The result is also counter-intuitive given Zillman's (1998) assertion that people fearful of being victims of violence are more likely to approve of retaliatory violence. The children in the low SES settings would have more exposure to violence in their life-worlds as seen in previous literature (Herrero Romero, et al., 2019) and the qualitative results, and therefore might be fearful of being victims of violence. However, it is likely that, while overall the children differentiated between beliefs about retaliatory violence in real life and in video games, the details of the differentiation were informed by their specific contexts. For example, the Fountain School children spoke more to there being direct parental supervision, while children from Khayelitsha mentioned the dangers of their surroundings. Both of these help create a more detailed context of the participants' beliefs.

The majority of quantitative participants felt that "It's okay to do whatever it takes to protect myself" (63.21%, n = 134) and "You should respect people who are strong and can

defend themselves and protect others" (67.30%, n = 142) in their life-worlds. Participants in Parkes's (2007) local study discussed the use of retaliatory violence as a form of justice. They associated being able to use retaliatory violence with adulthood and masculinity (Parkes, 2007). Notwithstanding that and Padmanabhanunni and Gerbrandt's (2018) results showing boys being more likely to support retaliation, my results did not show a significant gender difference. However, there was support for retaliation as a form of defence. Also, as with Mancane (Lumumba Library, 10, boy) from the qualitative study, my quantitative participants supported the idea of defending oneself and others.

These results are similar to Funk, and colleagues' (2004) findings wherein exposure to video game violence had a positive link to pro-violence attitudes. Their concern was that the demonstration and reinforcement of violent actions, desensitisation to real life consequences of violence by presentation of pro-violence attitudes, and alterations of cognitive processing were mechanisms for how media violence could influence people. They argued that people mostly (and hopefully) are more exposed to media violence than violence in their life-worlds, but if they start viewing violence as normative, there may be dire consequences. My study, however, provides more nuance in that children were asked about their beliefs concerning retaliatory violence both in video games and in their life-worlds. Despite a difference in beliefs, there was a positive correlation between beliefs about retaliatory violence in video games and in children's life-worlds. This finding supports the concern around children who have positive beliefs about violence in video games and their life-worlds. Although, data showed that having positive beliefs for both would only be in extreme cases, i.e., only those who were heavily supportive of retaliatory violence in video games were supportive of retaliatory violence in non-mediated situations too. Also, children who support retaliatory violence in their life-worlds will likely seek out games featuring retaliatory violence (Markey, et al., 2015).

There is an interesting similarity between the findings of this study and that of Neuse and Samura's (2018) study. Their study involved interviewing adolescents in the US about their views on cheating in video games and in their life-worlds. Results in that study showed that adolescents thought that cheating in video games was a part of the experience and thus acceptable, but cheating in life, especially academically, was not acceptable (Neuse & Samura, 2018). Some participants from my qualitative study also indicated using cheats in video games, e.g. Robert (Fountain School, 10, boy) explained that he used cheats in *Grand Theft Auto:*

Liberty City (Rockstar North, 2005) to obtain a tank because he had accidentally killed a character and the police were after him. Another example came from Ruben (Fountain School, 10, boy), who reported that he uses cheats to get all the weapons and collectables in games, which allows him to focus more on killing characters in the games.

Neuse and Samura's (2018) participants suggested that cheating in games forms part of the overall experience. Using cheats can serve the purpose of allowing players to skip sections of the game they do not want to play or be invincible against attack and so easily progress through the game. A player's gaming experience can therefore be enhanced while the player does not experience any negative consequences for their in-game cheating in their life-world. Other data from Neuse and Samura's (2018) participants showed that they felt that in-game punishment was an indicator of when something was morally wrong. Participant accounts from my qualitative study were similar to that line of thought in relation to violence. When mentioning when it was wrong to kill characters, Robert (Fountain School, 10, boy) explained that in the *Assassin's Creed* games "if you kill people around you, you lose life and the guards find you". While not cheating, killing inappropriate characters in those games is presented as wrong to players because it is punished in a way that stifles gameplay. Players then engage with the norms and ideologies presented in the video games, e.g. only enemy combatants are to be attacked.

This result may be an illustration of the moral management that takes place in games as found by Klimmt and colleagues (2006). Klimmt and colleagues (2006) investigated players' strategies in coping with moral concerns that would arise from violent actions in the real world. Players manage moral concerns by using strategies such as distinguishing between actions in games and actions in life, holding game violence as necessary for success, using narrative justifications, and viewing violence as self-defence (Klimmt, et al., 2006). They found that when video game violence is viewed as a by-product of a good performance, it is not enjoyed in and of itself but is carried out because it has to be for the game to be enjoyable and/or to progress in or win the game.

An example provided in that study was of a participant who had played *F. E. A. R.* (Warner Bros. Interactive Entertainment, 2005) and described killing enemies because he had to, otherwise they would have triggered the alarm and enemy reinforcements would arrive (Klimmt, et al., 2006). The current data appear to reflect a similar standpoint by participants in my own study. The game remains a game and so children can have a positive outlook on violence in

games. The marginally positive outlook my quantitative participants showed toward retaliatory violence in video games speaks to the children keeping the video game and their life-world contexts separate. Supporting the quantitative data are qualitative examples such as Ruben's drawing showing scenes from his three favourite games. He wrote equivalent sentences for each saying he liked to perform the action depicted in the drawing. Two of the three scenes were of his video game character killing an enemy, and one was of him scoring a goal in football. Killing and scoring goals were being presented as ways of winning in the games, and so he was able to take pleasure in both despite him knowing that killing people is generally wrong in life. The ludic rules of the game, coupled with the lack of real-life consequences, tell him that killing in the game is equivalent to scoring a goal in real life.

Another example from the qualitative data was Arnold (Fountain School, 10, boy) explaining that "when I have to attack someone, I will, in games". This example shows some agreement with the idea that one can enjoy violent video games without necessarily enjoying the violence (Krcmar & Kean, 2005). In some instances, both the qualitative and quantitative data supports Sauer, Drummond & Nova's (2015) findings showing that players sometimes report doing things in games they would not necessarily enjoy in their life-worlds, in order to gain rewards or satisfaction from the game. An example from this study would be Robert (Fountain School, 10, boy) explaining that sometimes he has to kill guards because the game dictates it. Many respondents in the Klimmt, et al. (2006) study claimed that video game violence and real-life violence cannot be compared because of the virtuality of the former, and as such video game violence is morally irrelevant. Similarly, Arnold claimed that "in a game like this I don't see blood, I don't see violence" [emphasis added]. Another example was Lungelo (Lumumba Library, 10, boy) describing gang violence in a *Grand Theft Auto* game and explaining " ndiyayazi ba yigame [it's just a game]".

In the Fountain School example, the participants spoke of violence as something removed from their environments. Their views were informed by the othering of violence as something not done and actually unsuitable in their communities. In the Lumumba Library example, the children had more limited access to video games, but also had more exposure to violence in their communities. They spoke of violence as something close to them, and as something negative. Those who enjoyed the *Wii Sports Boxing* game and spoke of using it to learn self-defence regarded the violence in the game as a part of it, but not something to be toyed with. They drew a

line between fighting in the game and fighting in their life-worlds: fighting was acceptable in the game, but only fight in their life-worlds to protect oneself or others (as most video game protagonists do). Their distinction between violence in real life and in video games seems informed by being aware of the consequences of using violence, as they have seen/heard in their surroundings. Additionally, the location and functions of playing video games may assist in creating the distinction. Especially for those playing in the library, video games served a purpose similar to that of Bray and colleagues' (2010) findings that play (including video games) in an economically advantaged area of Cape Town served a tool to keep children indoors due to parents feeling that it would be safer for them than being on the streets.

Normativities

Children balance different norms when they play video games, and also in their day to day lives. When playing a video game they encounter the norms of the video game itself. Those norms usually dictate that a player must use violence to achieve a goal, and that said violence is justified because it is against enemy combatants, and in retaliation for a transgression by the enemy. While engaging with these norms, the children also drew on the norms established by their parents that state that they should not be using violence whether in video games or otherwise. Furthermore, they particularly drew on the parental norm that they must not play games with a far higher age rating without some form of supervision. The children also engaged with peer norms that told them efficient uses of violence in video games showed expertise and were to be celebrated. However, peer norms around the uses of violence in non-mediated scenarios argue that children ought not to interfere in other children's fights (e.g. Xolani getting embroiled in a fight he tried to stop). This example is similar to the societal norms that show children that they ought to avoid fights and gangs in their environments because these are things of which to be afraid.

The only symmetrical norm that was encountered was a common understanding that children ought to respect a person or character that can defend themselves and protect others. The narrative concept of the hero appears to hit close to home when children have indirect or direct exposure to violent crime. Some go as far as "training" using video games so that they can defend their homes and families. Linked to this, it makes sense that the children would still not support using retaliatory violence in non-mediated scenarios, because of the norm that states that

parents ought to advise children not to use violence even when using it is necessary. As such, the children, despite their ignorance regarding ratings, were in a position that tended to be protective from the potential negative effects of video game violence because their active engagement with video game violence involved understanding it according to the separate norms of video games, and the generally non-violent norms of their communities in South Africa.

"There can be no keener revelation of a society's soul than the way in which it treats its children" (Mandela, 1995). Examining the data in the context of media violence exposure being a risk factor for aggression (Khurana, et al., 2018), it can be said that how society treats children plays a large role in how they engage with video game violence. To speculate: A child who has very little parental monitoring but is also in a family environment where violence is used to solve most problems may end up being more supportive of retaliatory violence in both video games and their surroundings. If, when the child acts violently, the environmental response is positive, e.g. peer approval, or a lack of negative consequence from authority figures, that feedback may encourage violent behaviour, which then feeds back to the child's environment. Conversely, if a child is in an environment like the one suggested by Khurana and colleagues (2018) where there is less parental conflict, more parental monitoring (including monitoring of their gaming), and an encouragement of self-regulation, then the child may play fewer video games with high violent content, but also, will have fewer negative outcomes, e.g. aggressive behaviour.

Directions for future research

My results highlight gaps in local data around children's access to games. The results also provide a snapshot of gaming in South Africa prior to the proliferation of smartphone use in the country. While some local data on consoles exists, children's access through mobile devices is unclear. Local data tends to focus on mid to high SES. My data has shown that low SES access to video games is more ubiquitous than would be intuitively expected. Such access has likely changed over the years. Regular surveys of phone use should include questions about children's access. Data is also needed on children's use of video games rooms in local libraries. Who children, particularly younger children, play video games with (whether in-person or online) is also unclear and should be further researched. Understanding children's access to video games can aid in better protecting children from cyberbullying, and assisting parents in mediating their video game play.

Building from the data showing that children were not very familiar with the FPB logo or content ratings, and qualitative participants showing better recognition of PEGI rating information, it would be prudent to test recognition rates for both sets of rating information in both children and adults. Doing so could help fine tune the local rating system and provide the FPB with information vital to improving their public service. Further studies could also investigate at what age children begin to notice the rating information, and how closely linked this may be with their acknowledging the differences between films/video games and their social environments.

Similar studies to the ones mentioned above can also be done to gauge the levels of parental input in gatekeeping and mediation of video game play in different socio-economic groups in South Africa. Livingstone and colleagues (2018) note that parents and carers in the United Kingdom often share digital media activities with children. Adequate data on the topic in the Global South are lacking, and having such data can aid in informing more studies on the contexts in which South African children play video games. Added to this could be a more in-depth study on what video games are played in South Africa, and by whom. My data revealed that access to video games was not as sparse for residents of lower SES communities as previously believed. This prevalence of video game play justifies investigating what games are most popular for children in those communities as a way of answering questions around what differences are present in playing practices and responses to the video games which are informed by context.

Furthermore, the differences seen in how boys and girls engaged with violence in the video games designed in my qualitative study warrant further investigation. Boys appeared to use violence in games as displays of expertise. Their engagement with violence in games served as displays of their aspirational masculinity. Studies to further clarify any differences between how boys and girls interpret displays of violence in video games, especially in their tweens, could produce rich data. Explorations on peer values and how those link to violence in games could also further our understanding of the roles violence in games plays to children as they approach adolescence. Further qualitative studies could also explore the situated meanings of violence in relation to children's own life stories and life-worlds.

Following from the abovementioned studies, a quantitative study similar to my study could act as a screening for congruence between beliefs about retaliatory violence in video

games and in their life-worlds. Participants with high congruence, i.e. who have positive beliefs about retaliatory violence in both their life-worlds and video games, can then take part in a qualitative study that would delve more into their beliefs about violence, and what informs said beliefs. Such a follow-up study can aid in examining if children with no history of aggression become aggressive after video game play, children with a history of aggression become aggressive after video game play, or something completely different. It can also help provide more clarity in the mechanisms suggested in Effects research while acknowledging the agency of children as per cultural studies.

Practical implications

There are some important practical implications that have come from the data collected in both studies. These implications and suggestions pertain mainly to ratings, but also to video game play for children. Some suggestions were directly given by participants in the qualitative study, while others have been formed through analysis of the patterns seen in both the qualitative and quantitative data.

Firstly, South African ratings should be consistently and prominently placed on the cover of all games so that consumers are well aware of what they are buying/renting. Online gaming platforms accomplish the communication of international ratings, and there have been some improvements on physical game covers since the time of data collection. However, FPB ratings are not included. For example, games available on the Google Play Store feature International Age Rating Coalition (IARC) ratings. Those ratings are informed by national/regional rating bodies such as the ESRB for North and South America, PEGI for Europe and the Middle East, Australian Classification Board (ACB) for Australia, and the Game Rating and Admission Committee (GRAC) in South Korea. Africa and specifically South Africa use the generic IARC ratings and content descriptors, and so do not have locally normed information available for players playing mobile games from the Google Play Store. The FPB should apply to the IARC for their ratings to be included.

Secondly, pictures/symbols could be used for FPB content descriptors rather than letters so that customers will deal with less ambiguity. The goal of the rating system is to "provide information that can be used to control access for vulnerable individuals" (Funk, et al., 1999, p. 284). For the ratings to do this, they need to be visible, and easily understood by consumers.

Information posters could and should also be displayed in shops that sell video games so that consumers can see what the different content descriptions stand for. A prudent course of action would be to further engage with child samples and work with them as well as adults to refine the classification guidelines and information flow around them. A 2013 report by the FPB presenting that 66% of the sample thought the guidelines needed revision supports this suggestion. Further support for the suggestion can be found in Basson's (2015) finding that the general perception in South Africa is that the classification decisions (i.e. what ratings and content descriptors films/games are given) are inappropriate and inconsistent.

Perhaps a general review of the age rating system should be undertaken to ensure that the guidelines are according to the wider cultural norms, as studies have found that different countries and regions implement regulations differently according to their norms (Hamid & Shiratuddin, 2018). Doing this within South Africa's varied cultural landscape could be a complicated task, but yet still a most worthwhile one. Importantly, transparency will be needed so that when parents and other consumers view ratings they are aware whether they are based more on cultural norms or research on potential harm (Haugland, 2018).

Having a symbol-based content rating system similar to the one PEGI uses could help in dispelling any ambiguity when caregivers and/or children select games. A study conducted in the Netherlands by Gosselt, de Jong, and van Hoof (2012) tested if using pictogram warning labels from PEGI had a forbidden fruit effect (i.e. encouraged children to choose those games) in children aged nine to eleven, and found the labels to be safe, contrary to previous studies. A similar study could be conducted in South Africa to pilot the use of pictograms for the FPB content descriptor symbols.

Another suggestion by the qualitative participants was to regulate sales by having different shops sell to different age groups. This suggestion could never work, and online stores do have mechanisms in place to prevent the sale of age-inappropriate content. Physical stores are still present in South Africa though. Much as stores are not able to show trailers or demos of games rated higher than PG, the covers of age-inappropriate games are still on shelves.

Participants in my qualitative study may have made their suggestion for different shops because they were aware of how video game covers form an intrusive marketing technique that has no regard for who might see the marketing. The Film and Publications Act (1996) currently states that trailers and demos of games presented in stores must be rated A or PG only. If a game

with a higher rating is to be demonstrated or have a trailer shown this must be done in separate and access-controlled space. Covers can still be suggestive, and that may have influenced the children's suggestion though. Children have access to the cover images in both physical and online stores. Local online shopping sites do not consistently feature age ratings of games, and have no explanations of the age ratings and content descriptors.

The FPB's (2013) Convergence Report suggests that strict controls are in place at cinemas and in most stores. As such, point of sale restrictions can be implemented for video games as they have been for cinema. However, parents usually have the final say in what games are bought/rented, and that is how some children are exposed to age-inappropriate content. Some do not or cannot explain the guidelines and their rationale to their children (Basson, 2015). Therefore, greater media literacy campaigns are needed so both caregivers and children are educated on the age ratings, content descriptors and the reasons behind them.

Also, participants from both the qualitative and quantitative groups noted that they play games with family members, which can lead to lower internalisation of in-game behaviours when the games are age-appropriate (Coyne, et al., 2016). Still, sometimes, like with some of the qualitative participants, older family members allow the children to play age-inappropriate games. The children's suggestions on how to improve the rating system and glimpses into their understanding of the rating systems show the importance of studies into consumers' understanding of ratings and the effectiveness of the rating systems, as recommended by Stadler (2004). Caregivers should also monitor what children play and assist in contextualising the actions of the in-game characters for the children playing.

The integration of discussion and the study of games in the school curriculum could aid in building literacy not only around but ratings but narratives concerning violence. My data shows that children have sophisticated ideas and beliefs about video games and their elements, but these could be further developed through formal schooling. Gaming can be a tool for media and information literacy (Nicholson, 2016). My data suggests that children respond positively to a deeper engagement with games as an entertainment, artistic and literary medium and interact in a social space which provides social capital, fun and competition with their friends.

Targeted games, i.e. games focused on specific concepts and topics, can be easily integrated into school curricula due to their short completion time (Groff, et al., 2016). Targeted games could therefore be used as a creative way of formally building children's media literacy.

Media literacy can also be included in literature curricula to provide formal guidance to children on how to decode messages in video game content, advertisements, as well as film and television. Groff and colleagues (2016) discussed a Scottish educator who developed a narrative project based around *Guitar Hero* (Harmonix, 2005). Students engaged with the narrative of the project (they were members of the band and had to complete tasks such as contract negotiations and tour budgeting) and adhered to the educational standards the project set out to achieve (Groff et al., 2016). Such project based learning could be a way of circumventing the cost barriers of using video games in under-resourced South African classrooms. The previous example also highlights the use of commercial off-the-shelf games as classroom learning tools (Becker and Gopin, 2016).

Tapping into narrative elements of games can also foster more meaningful engagement with video game content. Becker and Nicholson (2016) discuss meaningful gamification[32], i.e. using game elements to assist users in finding a personal connection to a non-game purpose. In schooling, meaningful gamification aids students in engaging with course materials in personally relevant ways (Becker & Nicholson, 2016). Game design exercises such as the one I used in the qualitative study can be expanded to where children are required to create the narrative of a game given certain parameters by their teachers. Becker and Nicholson (2016) provide examples of how narrative can enhance meaningful gamification through such means, and having students do reflective exercises wherein they connect the narrative, game content, and their life-worlds. Such exercises would be useful in helping local children reflect critically on issues around violence, their own experiences of violence, e.g. bullying, while also learning about the world.

Another suggestion would be implementing video games in school libraries or extra-curricular clubs. There is a long history of games in libraries, especially in the Global North (Nicholson, 2016). Having video games in libraries and extra-curricular clubs would serve the purpose of keeping video games appealing to children, while having them being played in a supervised environment where play activities with others can be monitored, and positive types of play can be encouraged. Given that the video games would be age-appropriate, this could also help encourage the children to play more games with similar age ratings and themes, while their use in the formal school curriculum would provide opportunities for children to reflect on their meanings in relation to their own lives and their social contexts. The video game room in

[32] Gamification is the use of game elements for non-gaming purposes (Becker & Nicholson, 2016).

Lumumba Library provided language learning opportunities (Becker & Gopin, 2016) through the librarian reading out instructions and explaining what some words on screen meant. The video game areas must also have FPB rating information prominently displayed so that teachers, caregivers and children are able to engage with them and gain the necessary familiarity with them.

Conclusion

The short answer to the long question of how children between 10 and 12 perceive violence in video games is that they perceive it as integral to the rules of games and different to violence in their life-worlds. In addition, the tweens in this study interpret representations of violence in age-appropriate games as cartoonish, and something far removed from the violence they could witness or experience in their life-worlds.

Despite acknowledging the graphical realness in some age-inappropriate games, the tweens still held the violence in age-inappropriate games as something different to the violence in their life-worlds. They did however feel that it was important that the age-inappropriate games be rated as such because other, usually younger, children would be at risk of imitating the violence presented in such games. Within peer groups, violence formed part of the social capital of expertise, e.g. defeating more enemies in a game, showed prowess. Conversely, violent behaviour with one's peers did not build social capital.

A major contribution of the study is that it adds to literature about children and violence, and play, particularly in the Global South. Specifically, nuances in children's perceptions of representations of violence were revealed. Having access to games with age-inappropriate violence also assisted in the children's maturity aspirations: they felt they could handle interacting with age-inappropriate violence (while others could not). The children's views were informed by their parents and peers, but also the unreality cues present within the video games. Also, while there was a positive relationship between the tweens' beliefs about retaliatory violence in video games and in their life-worlds, they felt negatively about retaliatory violence in their life-worlds, but marginally positively about retaliatory violence in video games. In uncovering these findings my study made contributions towards highlighting the link between the general patterns and local specificities of video game play in South Africa.

The first general pattern was that the majority of tweens play video games frequently. However, local playing practices determined by SES informed how players navigated access and turn taking. For example, while the general pattern was that most children played at home, children in lower SES settings played on phones or at a friend's house. Similarly, most tweens did not know the FPB ratings, but some, usually in the suburbs, recognised the PEGI ratings. Most tweens recognised how important ratings are, and the role parents have to play in guiding children around ratings, but the township tweens also relied on librarians when playing games.

While quantitatively there were not many differences between girls and boys, there were qualitative differences highlighted, such as boys playing games featuring violence more frequently. Generally, tweens responded to video game violence as something distinct from violence in their life-worlds. More specifically, their responses were linked to how present violence was in their life-worlds and how violence was contextualised in both their life-worlds and video games.

Overall, concerns about children playing video games containing violence are not unfounded. Media violence exposure seems almost inevitable given the proliferation of video games. Still, children should be acknowledged as being able to actively decode and interpret the content of video games. They are able to, and seemingly do differentiate between violence in video games and violence in their life-worlds. This differentiation is informed in part by contextualisation by their caregivers and peers. Tweens' contexts provide appropriate cues on behaviour. Video games, even when age-inappropriate, are played in certain contexts. These contexts of play provide ways for children to continue to draw clear distinctions between the video games and their life-worlds. The better equipped societies get children to be in distinguishing between violence and representations of violence, the less concerned people will be with how children keep themselves entertained. To borrow from the adage "it takes a village to raise a child", video games, peers, parents and ratings all come together to develop tweens' responses to video game violence.

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Appendix A
Focus Group Questions

1. What do you play games on?
2. [Probe] Why do you play some on x and some on y?
3. [Probe] Are there games you prefer on one or the other?
4. [Probe] Why?
5. Who first taught you to play games?
6. What was the first game you ever played?
7. [Stemmed from discussion] Do you think certain games should be restricted for your age?
8. [Probe] Why don't you think a game like Call of Duty should be played by you?
9. Do you recognize this (the FPB logo)?
10. Do you recognize these two things (PEGI graphics for violence and fear)?
11. Would you prefer (the FPB) use letters or pictures?
12. [Stemmed from discussion] Do you think (the absence of blood) would affect the overall rating for you?
13. [Stemmed from discussion] (Your parents say that violent games are) a bad influence? What do you think?
14. [Probe] Do you think that people might (imitate the violence) though?
15. [Probe] Ok, but how small (i.e. young)?
16. Do you think they should include fear as one of the things they rate?
17. When you see the symbol for fear, will you put the game back?

Focus Group 2

1. You said things like that happen around here. Does that make the game any different to you guys?
2. [Probe] You said killing people was fun. Like, how?

Appendix B
Game Design Worksheet

The following will be constructed as a worksheet for the children to write their responses on. Asking them to draw may provide very varied results in terms of detail (some are not good at drawing), and providing them with pictures to use may get messy since they will only have select references and cannot really use their imagination. They will be, therefore, asked to describe characters, setting, weapons, etc. where appropriate (they will do this worksheet for a scary, action, "fun" and puzzle game). The basic form is below.

Please make up your own _____ game

What is the title of your game?

What makes your game a _____ game?

Is there a story in the game (if so, what)?

Is there any fighting in the game?

Please say why?

If it is there, how often is it there?

What type?

Are there weapons [if yes, what type]?

Is there blood in the game (if so, how much)?

What happened when someone is defeated/loses?

Why did you choose that as what happens?

How do you win?

[Verbal] What age rating does it have (who should be allowed to play this game) and why?

Appendix C
Quantitative Study Questionnaire

Instructions

These questions are about what films you watch and what video games you play. There are no right or wrong answers. Please answer the questions in the ways you are shown below.

Some questions have boxes. For these questions please put an "**X**" in the ONE box that is most true for you.

For example:

Are you a boy or a girl?

❑ Boy ❑ Girl

Some questions ask you to whether you agree with a sentence or not. Please put an "**X**" in the ONE box that is most true for you.

For example:

I like ice cream

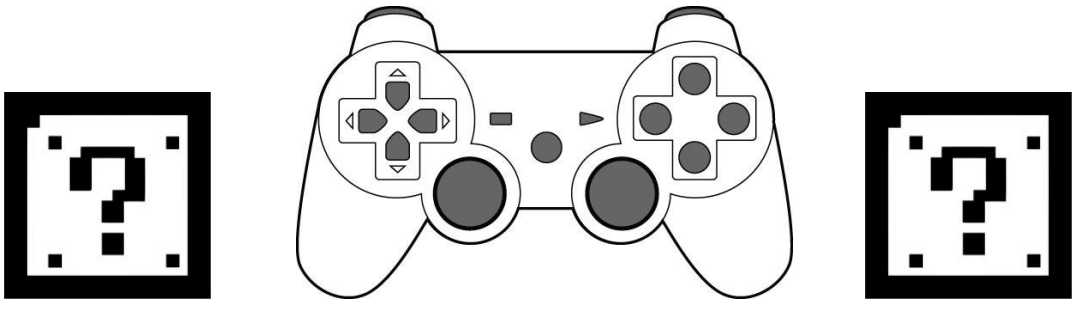
❑ Disagree ❑ Neutral ❑ Agree

Some questions give you a space to write an answer. Please write in the answer that is most true for you.

For example:

The date today is: _____

Please turn over to the next page when you have been told to.



Imiyalelo

Le mibuzo imalunga neefilimu ozibukelayo kunye nemidlalo yeTV oyidlalayo. Akukho mibuzo iyiyo okanye ingeyiyo. Nceda uyiphendule imibuzo ngendlela ebonakaliswe ngayo apha ngezantsi.

Eminye imibuzo inebhokisi. Kule mibuzo nceda ufake u**"X"** kwibhokisi **ENYE** leyo ichanekileyo kuwe.

Umzekelo:

Uyinkwenkwe okanye intombazana?

❑ Inkwenkwe ❑ Intombazana

Eminye imibuzo ikubuza ukuba ingaba uyavumelana nesivakalisi okanye awuvumelani naso. Nceda ufake u"**X**" kwibhokisi **ENYE** leyo ichanekileyo kuwe.

Umzekelo:

Ndiyayithanda i-ayisikhrimu

❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavumelana

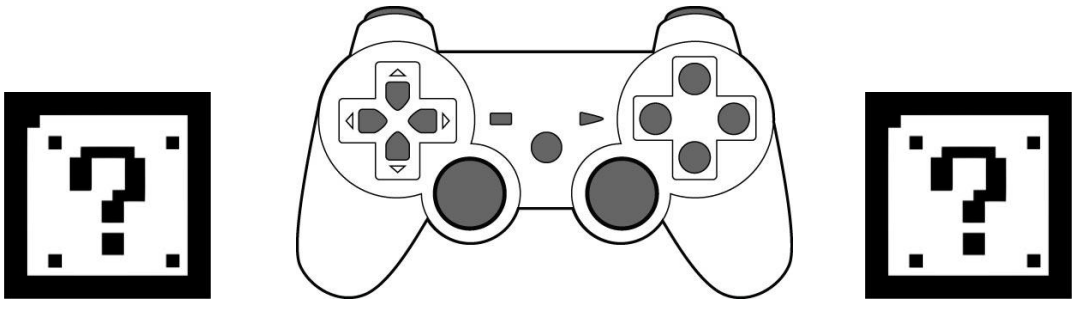
Eminye imibuzo iyakunika indawo yokubhala impendulo. Nceda ubhale impendulo leyo ichanekileyo kuwe.

Umzekelo:

Namhlanje kungolwesingaphi:

_____

Nceda udlulele kwiphepha elilandelayo xa uceliwe ukuba wenze njalo.



1. Do you recognize this symbol?

❑Yes ❑No

If yes, please write what it is: _____

2. Video game covers sometimes have letters on them saying what is in the game. Do you know what these letters stand for?

V: _____

S: _____

L: _____

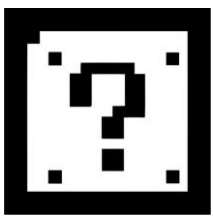
H: _____

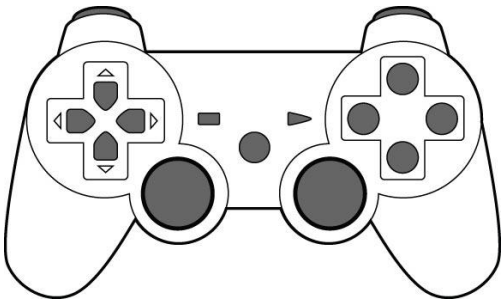
N: _____

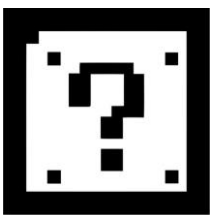
SV: _____

D: _____

P: _____







1. Uyawunakana lo mzobo?

❑Ewe ❑Hayi

Ukuba uyawunakana, nceda ubhale ukuba uyintoni:

_____

2. Umphandle wemidlalo yeTV ngamanye amaxesha ibanemibhalo yonobumba kuyo leyo ichaza into equlathwe ngumdlalo lowo. Ingaba uyakwazi okumelwe ngaba nobumba?

V: _____

S: _____

L: _____

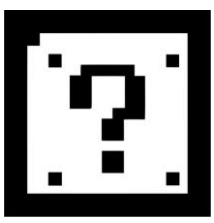
H: _____

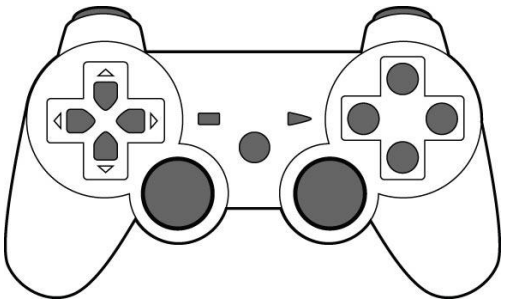
N: _____

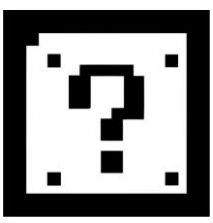
SV: _____

D: _____

P: _____







What are your 3 favourite television shows/films?

Title #1 (First favourite TV show/film):_____

What is the age rating of this TV show/film?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

Title #2 (Second favourite TV show/film):_____

What is the age rating of this TV show/film?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

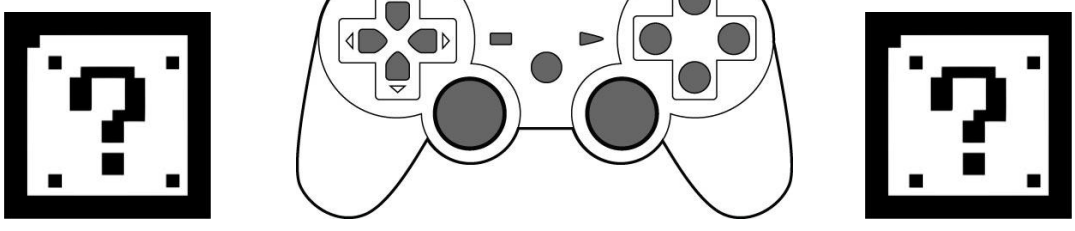
Title #3 (Third favourite TV show/film):_____

What is the age rating of this TV show/film?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

3. How often do you play video games?
❑ Never ❑ A Little ❑ A lot

4. Where do you play video games?

_____



Yeyiphi imidlalo emithathu yeTV/ifilimu oyithandayo?

Isihloko #1 (Umdlalo weTV/ifilimu owuthandayo):_____

Ulungiselelwe abantwana abaneminyaka emingaphi lo mdlalo weTV/ifilimu?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

Isihloko #2 (Owesibini umdlalo owuthandayo weTV/ifilimu):_____

Ulungiselelwe abantwana abaneminyaka emingaphi lo mdlalo weTV/ifilimu?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

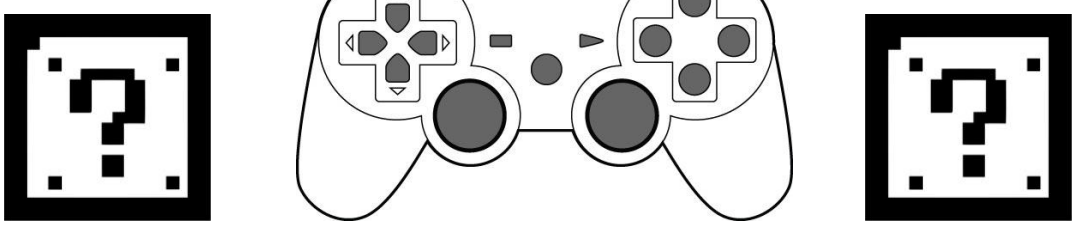
Isihloko #3 (Owesithathu umdlalo owuthandayo weTV/ifilimu):_____

Ulungiselelwe abantwana abaneminyaka emingaphi lo mdlalo weTV/ifilimu?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

3. Uyidlala amaxesha amangaphi imidlalo yeTV?
❑ Andiyidlali kwaphela ❑ ixesha elincinci ❑ amaxesha amaninzi

4. Uyidlala phi le midlalo yeTV?

_____



5. What are your 3 favourite video games?

Title #1 (First favourite video game):_____

What is the age rating of this video game?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

Title #2 (Second favourite video game):_____

What is the age rating of this video game?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

Title #3 (Third favourite video game):_____

What is the age rating of this video game?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

6. What's the most violent video game you have ever played?

_____

7. What is your favourite TV channel

_____

8. What is your favourite website?

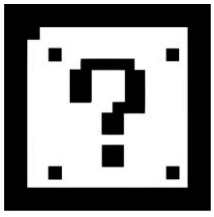
_____

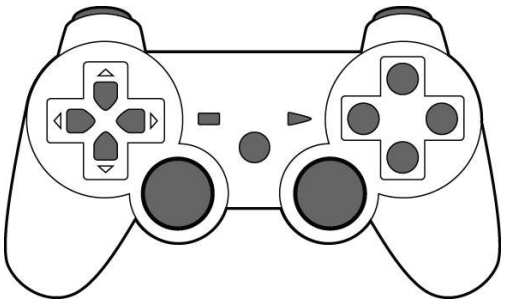
9. What is your favourite radio station?

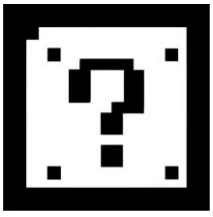
_____

10. What is your favourite app (computer or smartphone application)?

_____







5. Yeyiphi imidlalo yeTV oyithandayo wena emithathu (3)?

Isihloko #1 (Owokuqala umdlalo weTV owuthandayo): _____

Ulungiselelwe ukuba ubukelwe ngabantwana abaneminyaka emingaphi lo mdlalo weTV?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

Isihloko #2 (Owesibini umdlalo weTV owuthandayo): _____

Ulungiselelwe ukuba ubukelwe ngabantwana abaneminyaka emingaphi lo mdlalo weTV?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

Isihloko #3 (Owesithathu umdlalo weTV owuthandayo): _____

Ulungiselelwe ukuba ubukelwe ngabantwana abaneminyaka emingaphi lo mdlalo weTV?
❑ PG ❑ 7-9 PG ❑ 10-12 PG ❑ 13 ❑ 16 ❑18

6. Ngowuphi umdlalo weTV obonakalisa ingozi okhe wawubukela?

_____

7. Leliphi ijelo le-TV olithandayo

_____

8. Yeyiphi iwebhusayithi oyithandayo?

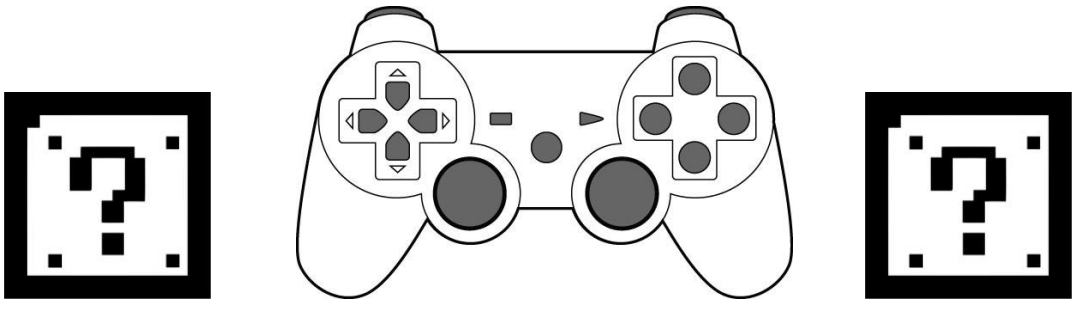
_____

9. Leliphi iziko likanomathotholo olithandayo?

_____

10. Yeyiphi (ikhompyutha okanye ifoni oyisebenzisayo)?

_____



The next questions are about **REAL LIFE**. Please answer by ticking the box that best describes how you feel.

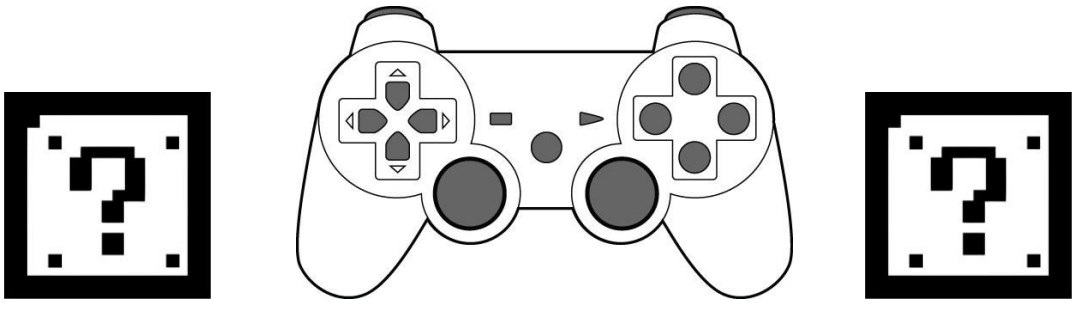
1. If a person hits you, you should hit them back
   ❑ Disagree ❑ Neutral ❑ Agree

2. It's okay to beat up a person for badmouthing me or my family
   ❑ Disagree ❑ Neutral ❑ Agree

3. It's okay to carry a knife or a gun if you live in a rough neighbourhood
   ❑ Disagree ❑ Neutral ❑ Agree

4. It's okay to do whatever it takes to protect myself
   ❑ Disagree ❑ Neutral ❑ Agree

5. It's good to have a gun
   ❑ Disagree ❑ Neutral ❑ Agree



Imibuzo elandelayo ingo**BOMI ESIBUPHILAYO**. Nceda uphendule ngokuthi wenze iphawu kwibhokisi leyo ikuchaza ukuba uva njani.

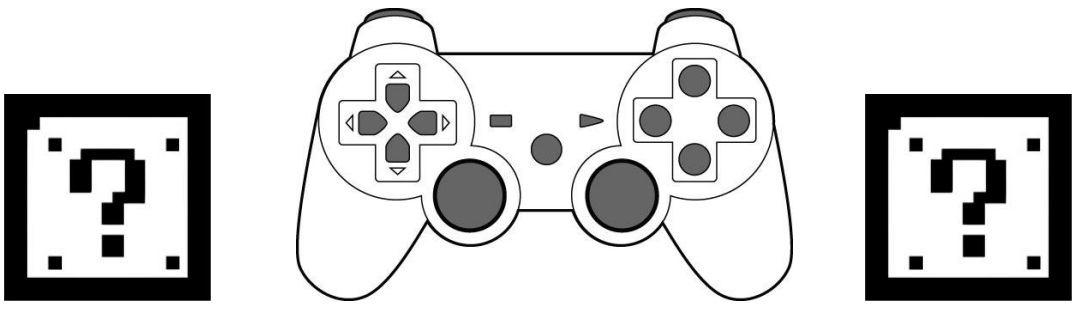
1. Ukuba umntu uyakubetha, kufuneka uphindise
   ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

2. Akulungile ukubetha umntu othethe kakubi ngawe okanye usapho lwakho
   ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

3. Kulungile ukuphatha imela okanye umpu ukuba uhlala kwindawo enobundlobongela
   ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

4. Kulungile okwenza nantoni na xa ndizikhusela
   ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

5. Kulungile ukuba ube nompu
   ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

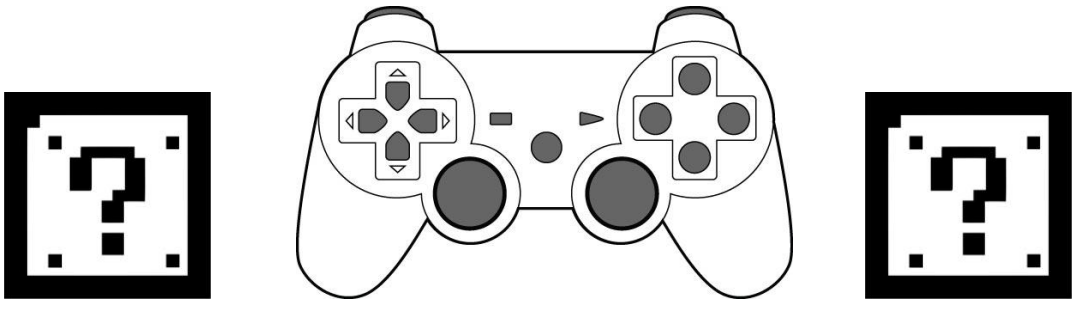


6. Parents should tell their children to use violence if necessary
   ❑ Disagree ❑ Neutral ❑ Agree

7. If someone tries to start a fight with you, you should walk away
   ❑ Disagree ❑ Neutral ❑ Agree

8. You should stop being friends with people that hit and fight with you
   ❑ Disagree ❑ Neutral ❑ Agree

9. You should respect people who are strong and can defend themselves and protect others
   ❑ Disagree ❑ Neutral ❑ Agree

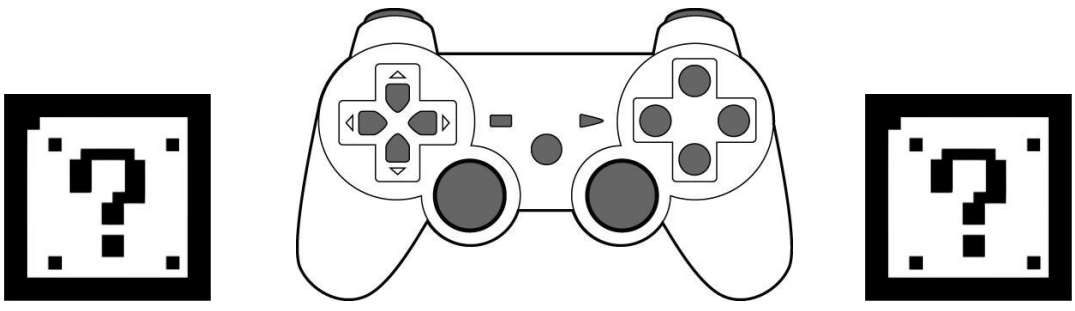


6. Abazali kufuneka baxelele abantwana babo ukuba basebenzise ubundlobongela ukuba kuyimfuneko
   ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

7. Ukuba omnye ufuna ukulwa nawe, kufuneka ubaleke umshiye apho
   ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

8. Kufuneka uyeke ukuba nabahlobo ababethayo nabo balwa kunye nawe
   ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

9. Kufuneka ubahloniphe abadlali beselula/imidlalo ye-TV abo bayimelayo into baze bakhusele bona kunye nabanye abantu
   ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma



The next questions are about **CELLPHONE or VIDEO GAMES**. Please answer by ticking the box that best describes how you feel.

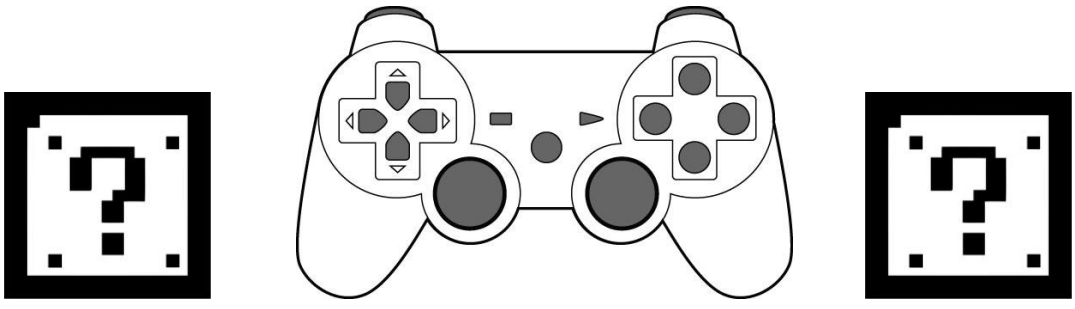
10. In a cellphone/video game if a person hits you, you should hit them back
    ❑ Disagree ❑ Neutral ❑ Agree

11. In a cellphone/video game it's okay to beat up a person for badmouthing me or my family
    ❑ Disagree ❑ Neutral ❑ Agree

12. In a cellphone/video game it's okay to carry a knife or a gun if your character walks through a rough neighbourhood
    ❑ Disagree ❑ Neutral ❑ Agree

13. It's okay to do whatever it takes to protect myself in a cellphone/video game
    ❑ Disagree ❑ Neutral ❑ Agree

14. It's good to have a gun in a cellphone/video game
    ❑ Disagree ❑ Neutral ❑ Agree



Imibuzo elandelayo iqulathe i**SELULA okanye IMIDLALO YE-TV**. Nceda uphendule ngokuthi wenze iphawu kulo bhokisi ikuchaza ngokupheleleyo ukuba uva njani na.

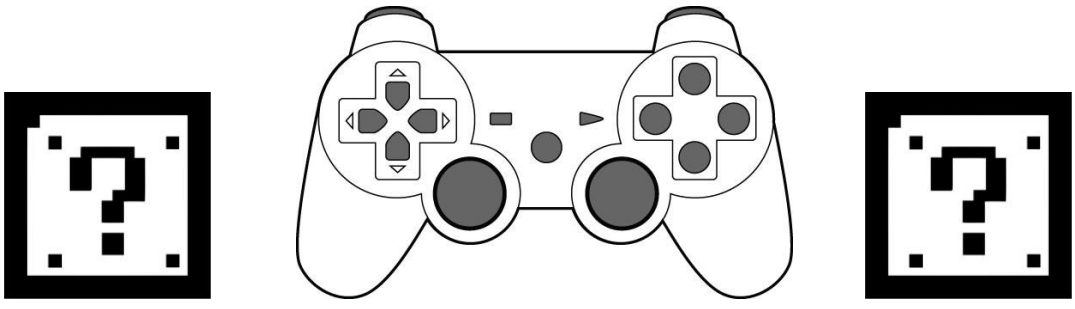
10. Kwiselula/umdlalo we-TV ukuba omnye umntu uyakubetha, kufuneka uziphindezele
    ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

11. Kwiselula/umdlalo we-TV kulungile ukuba umbethe umntu othethe ngawe kakubi okanye usapho lwakho
    ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

12. Kwiselula/umdlalo we-TV kulungile ukuba uphathe imela okanye umpu ukuba umntu uhamba kwindawo enobundlobongela
    ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

13. Kulungile ukuba ndenze nantoni na ukuzikhusela kwiselula/umdlalo we-TV
    ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

14. Kulungile ukuba nompu kwiselula/umdlalo we-TV
    ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma



15. Parents should tell their children to use violence if necessary in a cellphone/video game

    ❑ Disagree ❑ Neutral ❑ Agree

16. In a cellphone/video game, if someone tries to start a fight with you, you should walk away

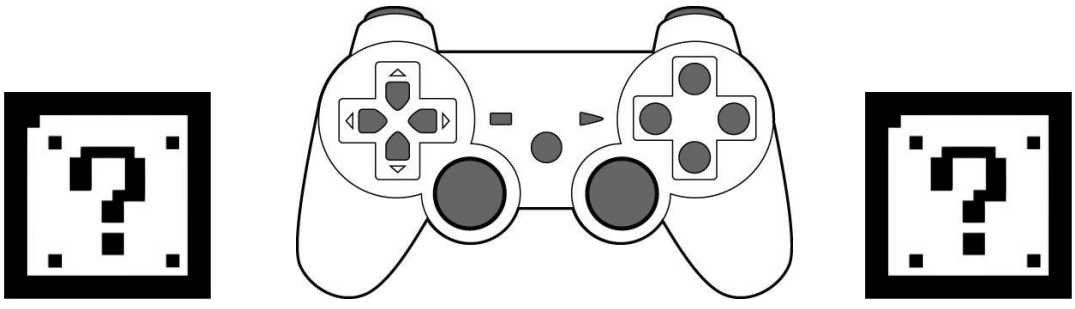
    ❑ Disagree ❑ Neutral ❑ Agree

17. You should stop playing cellphone/video games if you have to fight in them

    ❑ Disagree ❑ Neutral ❑ Agree

18. You should respect cellphone/video game characters who are strong and can defend themselves and protect others

    ❑ Disagree ❑ Neutral ❑ Agree

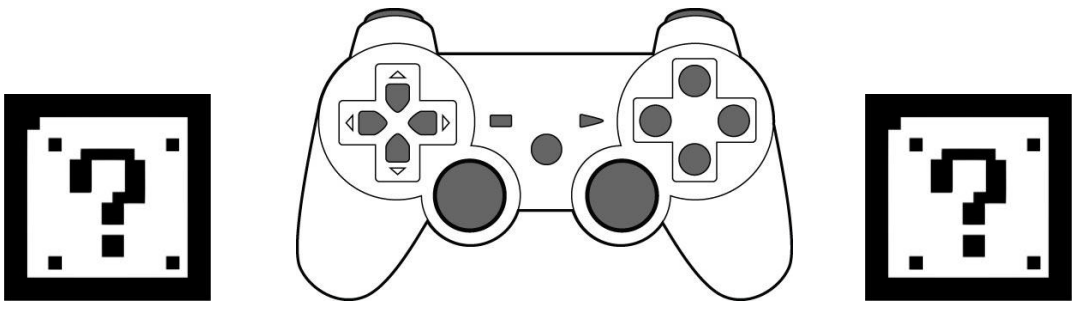


15. Abazali kufuneka babaxelele abantwana babo ukuba basebenzise ubundlobongela ukuba kufanelekile kwiselula/umdlalo we-TV
    ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

16. Kwiselula/umdlalo we-TV, ukuba ubani ufuna ukulwa nawe, kufuneka umbaleke
    ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

17. Kufuneka uyeke ukudlala ngeselula/umdlalo we-TV ukuba kufuneka uzilwele
    ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma

18. Kufuneka ubahloniphe abadlali beselula/imidlalo ye-TV abo bayimelayo into baze bakhusele bona kunye nabanye abantu
    ❑ Andivumelani ❑ Andiqinisekanga ❑ Ndiyavuma



Appendix D
Consent Letter

Consent to participate in a research study

Dear parent/guardian

Responses to video game violence: Rondebosch children and represented violence in digital games.

Overview

I am from the University of Cape Town's Centre for Film and Media Studies. I am running a study on the meanings children attach to video game violence as part of my PhD thesis. The study aims to find out what children think video game violence is and what meanings they attach to it. This will be examined in terms of the current rating system and what parents think video game violence is and may develop a better approach to rating games in South Africa. Your child's assistance is requested for the study.

Description of Procedures

If you decide to participate in the study your child's time will be required. Your child's involvement will be at his/her school in the afternoon extra-mural slots. Your child will be observed and filmed playing video games that are age appropriate. This will happen 4 times during afternoon extra-mural slots and will not interfere with any classroom activities. The child will be asked to keep a journal of their game playing outside of those slots and fill in a questionnaire on what real violence they have experienced (i.e. witnessed or been a victim of). Lastly, your child will also be invited to be part of a group discussion that will run for approximately 90 minutes where we will discuss what the child defines video game violence as, and what meanings, if any, they attach to it.

Risks and Inconveniences

The children will participate during the school's extra-mural activity slots and so will not miss out on academic lessons or need to be picked up later than usual on the given days. The games your child will play have all been carefully selected so that they are

age-appropriate. Examples of games they might play are Kung Fu Panda (PG), Ratchet & Clank (PG), Pirates of the Caribbean: At the world's end (13) and Batman: Arkham Asylum (13). While "violence" in these games is typically that seen in cartoons (for instance, in Ratchet Clank, enemies break into small gears when hit by the player's character), and so unlikely to cause distress, there is a small possibility that some images may frighten a child if they have not seen them in games before. If your child feels in any way uncomfortable they can withdraw from that part of the study, or even from the study altogether. At the beginning of the study, you and your child will be provided with the contact details for the Child Guidance Clinic at the University of Cape Town, in case your child is very distressed at any point during the study. I will be present whenever the games are played, so they will always be played under adult supervision.

Benefits

We are hoping to understand better how children understand representations of violence in video games, and possibly even to understand better approaches to rating systems for such games.

Costs and Economic Considerations

Participation in the study is free. Snacks will be provided during the group discussions. Costs to your child will be approximately 5 and half hours during extra-mural activity time during the week.

Confidentiality

Information about your child obtained for this study will be kept confidential. The recordings made are for research purposes only. The observation sessions will be recorded so that the game content can be described when writing the thesis. The group discussions will be recorded so what is said can be transcribed for the thesis. Your child's name and other identifying information will not be kept with the interview information. When the data is transcribed pseudonyms will be used instead of the participants' real names. Transcribed data will be in text format and digitally archived (video tapes will not be archived). The information obtained from the study will not be made available to anyone else. Any reports or publications about the study will not identify you or any other study participant even where quotes are used.

Voluntary participation

Please understand that **your child's participation is voluntary** and s/he is not being forced to take part in this study. However, we would really appreciate it if s/he does agree to participate. If s/he chooses not to take part, s/he will not be affected in any way whatsoever. If s/he agrees to participate, s/he may stop me at any time and tell me that s/he doesn't want to go on with the interview. If s/he does this there will also be no penalties and s/he will NOT be prejudiced in ANY way at school.

Questions and Further Information

Any study-related questions, problems or emergencies should be directed to the following researchers:

Mr. Muya Koloko	082 - 594 - 2203
Dr. Marion Walton, Centre for Film and Media Studies	021 - 650 - 3885
Dr. Catherine Ward, Department of Psychology	021 - 650 - 3422
Centre for Film and Media Studies	021 - 650 - 2852
UCT Child Guidance Clinic	021 - 650 - 3900

CONSENT/ ASSENT

I hereby agree to my child's participating in research regarding video game violence. I understand that s/he is participating freely and without being forced in any way to do so. I also understand that s/he can stop this interview at any point should s/he not want to continue and that this decision will not in any way affect him/her negatively.

I understand that this is a research project whose purpose is not necessarily to benefit him/her personally.

I have received the telephone number of a person to contact should I need to speak about any issues which may arise in this interview.

I understand that this consent form will not be linked to the group discussions, and that my child's answers will remain anonymous.

I understand that the same procedures will apply to my involvement in the study.

…….. ……
Signature of parent/guardian **Date**

…….. ……
Signature of researcher **Date**

I also give consent for the focus group discussion and observations to be tape-recorded.

…….. ……
Signature of parent/guardian **Date**

…….. ……
Signature of researcher **Date**

Faculty of Humanities
Postgraduate Administration
University of Cape Town

Room 1.05, Beattie Building
Private Bag X3, Rondebosch 7701
Tel: +27 (0) 21 650 4414 Fax: +27 021 650 5751
E-mail: anne.wegerhoff@uct.ac.za
Website: http://www.humanities.uct.ac.za/postgraduate/gradschool/aboutus/

23 May 2012

Dear Mr Koloko

PhD PROPOSAL

I have pleasure in advising that your research proposal as detailed below has been accepted by the Centre for Film & Media Studies, and the Faculty of Humanities, and was recommended to the Doctoral Degrees Board for approval in the Dean's Circular HUM 03/2012. You will receive formal notification of your candidature from the DDB in due course.

I have attached the Doctoral Degrees Board guidelines for supervisors and candidates for your information.

Best wishes

ANNE WEGERHOFF
GRADUATE PROGRAMMES OFFICER

cc Dr M Walton, Dr C Ward

Name	Student #	1st Reg	Title	Supervisor	Co-supervisor
Koloko M	KLKMUY001	27 July 2010	Responses to video game violence: Rondebosch children and represented violence in digital games	Dr M Walton	Dr C Ward

UNIVERSITY OF CAPE TOWN

DC: HUM /

FACULTY OF HUMANITIES - CANDIDATURE FORM

DOCTORATE (A research proposal must accompany this form)	RESEARCH MASTERS (A research proposal must accompany this form)	C/W MASTERS

SECTION A: (To be completed by candidate)

Surname	KOLOKO				First Name(s)	MUYA NZO'OLA
Title	(Mr)	Ms	Mrs	Miss	Student No	KLKMUY001
Address	22 SILWOOD COURT					
CAMPGROUND ROAD						
RONDEBOSCH 7700						
Telephone(Home					Work/Cell	0825942203

Note:Your UCT Email address is the default email address for all official communication – make sure that you access it regularly.

Department: Centre for Film and Media Studies

Title of Dissertation: Responses to video game violence: Rondebosch children and represented violence in digital games

Qualifications held:

Degree/Diploma	Major(s) &) Subjects	Month/Year awarded	University
MA	Psychological Research	2010	UCT

Signature of candidate: _____ Date: _____

SECTION B: (To be completed by HOD & Dean) The above-mentioned applicant has been accepted as a PhD / Masters candidate.

	Name	Signature	Date
Supervisor	M WALTON		15/03/2012
Co-supervisor	C. WARD		28/3/2012.
HOD	T. GLENN		29/3/2012
Deputy-Dean: Research	A. SPIEGEL		11.04.2012
Ethics approval obtained where applicable	on behalf of Departmental Ethics Comm		15/03/2012

UNIVERSITY OF CAPE TOWN

Department of Psychology

University of Cape Town Rondebosch 7701 South Africa
Telephone (021) 650 3414
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7 April 2015

Mr M. Koloko
Department of Psychology
University of Cape Town
Rondebosch

Dear Mr Koloko,

I am pleased to inform you that ethical clearance has been given by an Ethics Review Committee of the Faculty of Humanities for your study, **Responses to video game violence: Rondebosch children and represented violence in digital games.** The reference number is PSY2015-001.

I wish you all the best for your study.

Yours sincerely,

Johann Louw PhD
Professor
Chair: Ethics Review Committee

Western Cape Government
Education

Directorate: Research

Audrey.wyngaard@westerncape.gov.za
tel: +27 021 467 9272
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Private Bag x9114, Cape Town, 8000
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REFERENCE: 20150422-46592
ENQUIRIES: Dr A T Wyngaard

Mr Muya Koloko
22 Silwood Court
Campground Road
Rondebosch
7700

Dear Mr Muya Koloko

RESEARCH PROPOSAL: RESPONSES TO VIDEO GAME VIOLENCE: RONDEBOSCH CHILDREN AND REPRESENTED VIOLENCE IN DIGITAL GAMES

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **28 April 2015 till 25 June 2015**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
7. Should you wish to extend the period of your survey, please contact Dr A.T Wyngaard at the contact numbers above quoting the reference number?
8. A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
9. Your research will be limited to the list of schools as forwarded to the Western Cape Education Department.
10. A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

    The Director: Research Services
    Western Cape Education Department
    Private Bag X9114
    CAPE TOWN
    8000

We wish you success in your research.

Kind regards.
Signed: Dr Audrey T Wyngaard
Directorate: Research
DATE: 22 April 2015

Appendix F
Quantitative Study Tables

Table 5

Demographic frequencies for the entire participant sample (N = 217)

School	**Boys *n* (%)**	**Girls *n* (%)**	**Total Count *n* (%)**
Fountain School	15 (46.9)	17 (53.1)	32 (100)
Grassy Park	25 (46.3)	29 (53.7)	54 (100)
St Francis	9 (40.9)	13 (59.1)	22 (100)
Khaya	62 (56.9)	47 (43.1)	109 (100)
Total	**111 (51.2)**	**106 (48.9)**	**217 (100)**

Table 6

Recognition of Film and Publication Board logo by gender (n = 216)

Gender	**FPB Logo Recognition**		**Total n (%)**
	No n (%)	**Yes n (%)**	
Boys	71 (65.1)	38 (34.9)	109 (100)
Girls	64 (59.8)	43 (40.2)	107 (100)
Total	**135 (62.5)**	**81(37.5)**	**216 (100)**

Table 7

Recognition of Film and Publication Board logo by school (n = 216)

School	**FPB Logo Recognition**		**Total n (%)**
	No n (%)	**Yes n (%)**	
Fountain School	5 (15.6)	27 (84.4)	32 (100)
Grassy Park	19 (35.9)	34 (64.2)	53 (100)
Khaya	95 (87.2)	14 (12.8)	109 (100)
St Francis	16 (72.7)	6 (27.3)	22 (100)
Total	**135 (62.5)**	**81 (37.5)**	**216 (100)**

Table 8

Recognition of Film and Publication Board content descriptors (n = 217)

Classification Symbol	**Recognized n (%)**	**Not Recognized n (%)**
Violence (V)	105 (48.3)	112 (51.6)
Sex (S)	94 (43.4)	123 (56.6)
Language (L)	105 (48.3)	112 (51.6)
Horror (H)	4 (1.9)	213 (98.1)
Nudity (N)	36 (16.6)	181 (83.4)
Sexual Violence (SV)	52 (24.0)	165 (76.0)
Drugs (D)	6 (2.8)	211 (97.2)
Prejudice (P)	6 (2.8)	211 (97.2)

Table 9

Recognition of Traditional Content Descriptors by SES (n = 217)

SES	**FPB Symbol Recognition**					
	V	**n (%)**	**S**	**n (%)**	**L**	**n (%)**
	No	**Yes**	**No**	**Yes**	**No**	**Yes**
Mid	27 (12.4)	59 (27.2)	35 (16.1)	51 (23.5)	30 (13.8)	56 (25.8)
Low	85 (39.2)	44 (20.3)	88 (40.6)	41 (18.9)	82 (37.8)	48 (22.1)
Total	**112 (51.6)**	**103 (47.5)**	**123 (56.7)**	**92 (42.4)**	**112 (51.6)**	**104 (47.9)**

Table 10

Frequency of Video Game Play (n = 205)

Video Game Play	**Frequency n (%)**
Never	7 (3.4)
A Little	84 (40.9)
A Lot	114 (55.6)

Table 11

Frequency of Video Game Play by Gender (n = 205)

Video Game Play	**Girls n (%)**	**Boys n (%)**	**Total n (%)**
Never	5 (71.4)	2 (28.6)	7 (100)
A Little	57 (67.9)	27 (32.1)	84 (100)
A Lot	36 (31.6)	76 (66.7)	114 (100)
Total	**98 (100)**	**105 (100)**	**205 (100)**

Table 12

Frequency of Video Game Play by SES (n = 205)

Video Game Play	**Mid**	**Low**	**Total**
Never	3 (42.9)	4 (57.1)	7 (100)
A Little	40 (47.6)	44 (52.4)	84 (100)
A Lot	40 (35.1)	72 (63.2)	114 (100)
Total	**83 (100)**	**120 (100)**	**205 (100)**

Table 13

Crosstabulation of Frequency of Video Game Play and recognition of Film and Publication logo (n = 205)

How often Video Games are Played	**FPB Logo Recognition**		**Total *n* (%)**
	No *n* (%)	**Yes *n* (%)**	
Never	5 (71.4)	2 (28.6)	7 (100)
A little	49 (58.3)	35 (41.7)	84 (100)
A Lot	72 (63.7)	41 (36.3)	113 (100)
Total	**126 (61.8)**	**78 (38.2)**	**204 (100)**

Table 14

Crosstabulation of Frequency of Video Game Play and recognition of Violence Content Descriptor (n = 203)

How often Video Games are Played	**FPB Symbol Recognition**	
	V	
	No *n* (%)	**Yes *n* (%)**
Never	4 (1.9)	3 (1.5)
A little	39 (19.2)	44 (21.7)
A Lot	60 (29.6)	53 (26.1)
Total	**103 (50.7)**	**100 (49.3)**

Table 15

Locations of participants' video game play (n = 195)

Location of Video Game Play	**Frequency *n* (%)**
Home	111 (56.9)
Phone	29 (14.9)
Shop	15 (7.7)
Family Member's home	14 (7.2)
Friend's	10 (5.1)
School	2 (1.0)
Internet Café	1 (0.5)

Table 16

List of Favourite Video Games played (n = 599)

Title	**Age Rating**	**Content Descriptors**	**Frequency *n* (%)**
Grand Theft Auto	18	D, L, N, P, S, SV, V	43 (7.2)
Need for Speed	10-12 PG	V	22 (6.7)
FIFA	PG		17 (2.8)
King of Fighters	13	V	14 (2.3)
Snake	PG		14 (2.3)
Tekken	16	V	6 (1.0)
God of War	18	V	5 (0.8)
WWE	13	V	4 (0.7)
Mortal Kombat	18	H, L, P, V	4 (0.7)
Call of Duty	16	V	4 (0.7)

Table 17

Age Rating of Favourite Video Games, and Participant Recognition of FPB Logo

FPB Symbol Recognised					**Video Game Rating**				
	Game 1	***n* (%)**		**Game 2**	***n* (%)**		**Game 3**	***n* (%)**	
	13	**16**	**18**	**13**	**16**	**18**	**13**	**16**	**18**
No	19 (61.3)	6 (50.0)	9 (39.1)	17 (65.4)	7 (53.9)	5 (29.4)	17 (65.4)	6 (66.7)	7 (41.2)
Yes	12 (38.7)	6 (50.0)	14 (60.9)	9 (34.6)	6 (46.2)	12 (70.6)	9 (34.6)	3 (33.3)	10 (52.8)
Total	**31 (100)**	**12 (100)**	**23 (100)**	**26 (100)**	**13 (100)**	**17 (100)**	**26 (100)**	**9 (100)**	**17 (100)**

Table 18

List of Most Violent Video Games played (n = 180)

Title	**Age Rating**	**Content Descriptors**	**Frequency *n* (%)**
Grand Theft Auto	18	D, L, N, P, S, SV, V	35 (19.4)
God of War	18	V	8 (4.4)
WWE	13	V	6 (3.3)
King of Fighters	13	V	6 (3.3)
Gangsters	13	V	5 (2.8)
Snake	PG		5 (2.8)
Hitman	18	L, V	3 (1.7)
Mortal Kombat	18	H, L, P, V	2 (1.1)
Call of Duty	16	V	1(0.6)
Street Fighter	13	V	1(0.6)

Table 19

Valence of Total Scores for beliefs about Retaliatory Violence in Real Life, and in Video Games (n = 215)

Valence	**Real Life *n* (%)**	**Video Games *n* (%)**
Positive	46 (21.5)	141 (65.9)
Neutral	24 (11.2)	10 (4.7)
Negative	144 (67.3)	64 (29.9)

Table 20

Destructive testing of key theoretical links between support for retaliatory violence in video games (Video Game Total), in real life, gender (Participant Gender), how often video games are played, and the age ratings of a participant's favourite film and video game

(n = 212)

	Variables partialed in Destructive Testing of Correlation between Video Game Totals and Real Life Totals			
	Video Game Total	**Participant Gender**	**How Often Video Games are Played**	**Age Rating of Favourite Video Game**
RLT				
Correlation (r)	0.42	0.41	0.39	0.39
Variance Explained (%)	17.9	16.4	15.5	15.3