

Video Game Culture: Leisure and Play Preferences of B.C. Teens



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Introduction

As industry legend has it, the first video game ‘Space Wars’ took a multi-million dollar, room size PDP1 computer in the basement of MIT to play the first video game. Yet, because it demonstrated the novel possibility of using computers for fun, Steve Russell’s invention has had a profound impact on contemporary children’s culture. By applying the same cybernetic principles of ‘interactivity’ -- originally associated with automation and office technology -- to children’s entertainment, he created an entirely new medium out of the TV screen. Indeed, just three decades after its invention, video gaming became the fastest growing and most profitable children’s cultural industry which is expected to garner an estimated \$30 billion in 1998 for the corporations that manufacture, design and sell them.

Mario, Sonic and Crash Bandycoot are as familiar as Mickey, Donald and Bugs were in previous generations. Mortal Kombat and Doom are household names. Indeed the video game industry has become the most active and dynamic merchandisers of culture to the young. It has already won 30% of the US toy market, earning \$8.8 billion in the US alone—a share which is larger than the Hollywood box-office gross (\$5.2 billion) and ten times the amount spent on the production of children’s television (Haynes and Dinsey, 1995). And with the help of their growing global marketing efforts, video game culture is developing a loyal following of millions, who prefer interacting in cyber-play rather than ‘vegging-out’ in front of the television, hanging around with friends or playing street sports. Just as parents were becoming accustomed to the fact that their kids were spending close to three hours a day with television, the video

game came along and began changing children's leisure. This report is about the impact of that invention on Canadian youth.

The growth of this new play culture has not been publically acknowledged. Comparing it with the more glamourized internet technology Stiles (1995), notes that this industries astounding success is due to the manufacturers' constant innovations in technology and programming. The current home consoles (sold for under \$200 in Canada) pack as much processing capacity as thousands of those original PDP's and 10 times that of the latest Pentium PC's. Moreover, recent advances in 3D graphics means kids are playing the latest versions of Doom, Mortal Kombat, and Final Fantasy on extremely advanced 10 MIP consoles with computational speeds and graphics display chips exceeding those of most engineering workstations. In his book *Being Digital* (1995), Nicholas Negroponte of the MIT media lab similarly claims that the growth of video gaming is just another indication of the way computers are increasingly transforming so many aspects of human communication. "We are not waiting on any invention. It is here. It is now. It is almost genetic in its nature, in that each generation will become more digital than the proceeding one. The control bits of that digital future are more than ever before in the hands of the young. Nothing could make me happier."

Whether we agree with his optimism or not, there is little doubt that our children's popular entertainment is becoming increasingly hi-tech. Video games emerge from the convergence of the twentieth century's two most important communication technologies—the computer and television and this 'hybrid' is already profoundly changing the way children play and learn.

Douglas Rushkoff, in his book *Playing the Future*, says "While their parents may condemn Nintendo as mindless and masterbatory, kids who have mastered video gaming early on stand a better chance of exploiting the real but mediated inter-activity that will make itself available to them by the time they hit techno-puberty in their teens." He goes on to quote Timothy Leary to support his optimism about the impact of kids interactive entertainment: "The importance of the Nintendo phenomenon is about equal to that of the Gutenberg Printing press. Here you had a new generation of kids who grew up knowing that they could change whats on the screen."

Yet as this report documents, the video game industry has not only been selling our kids on digital technology, but also a unique entertainment experience which has already dramatically affected the way kids allocate and spend their leisure time. Indeed, according to Eugene Provenzo (1991), one of the first to examine this emerging cultural trend, the real significance of video game technology for contemporary childhood is that:

It represents the first stages in the creation of a new type of television—an interactive medium as different from traditional televisions as television is from radio. The remaining years of this decade will see the emergence and definition of this new media form in much the same way the late 1940's and early 1950's saw television emerge as a powerful social and cultural force. (p. 105)

Yet as Provenzo notes, this hybrid technology offers a novel and confusing blend of TV's *spectatorship* with the computers *interactive play*. It is confusing at least to parents, because although the computer chips makes play more 'dynamic' and 'controllable', the contents and themes of these games appear to be extensions of escapist TV fare. Have we really transcended and reversed the effects of television in this new digital playground he wonders when so much of it resonates with action-adventure fantasy and cartoon violence. Noting that "[T]he largest single target audience will no doubt be children" Provenzo worries that video game industry is simply extending the troubled TV culture of the past : "If the video game industry is going to provide the foundation for the development of interactive television, then concerned parents and educators have cause for considerable alarm. During the past decade, the video game industry has developed games whose social content has been overwhelmingly violent, sexist, and even racist."

Indeed, bathed in a maniacal aggressiveness, filled with a postmodern cynicism and urging a new tribalism of virtual comradeship, the offerings from the multimedia entertainment industries has increasingly caught the eye of the popular press. What new identities and values are they inculcating in the coming generations they ask. What activities and social relations are being eroded by children's increasing fascination with the screen. Several writers have speculated on the addictiveness of interactive entertainment for some children (Kubey 1996, Keepers 1992, Griffiths 1994) and others have remarked on the frenzied aggressive themes borrowed from action adventure films and television (Kinder 1994) and brutal so prevalent in the world of interactive entertainment (Anderson and Ford 1986, Durkin 1996, Funk 1997). Yet compared with television, there is a remarkably limited research literature on the questions of aggressiveness, isolation and addiction of young people to video games.

Despite its ascent as the fastest growing entertainment industry, there is remarkably little academic study of the development and acceptance of this new medium and even less of its impact on children's culture. As cultural critic of virtual media, Allucquère Rosanne Stone (1995) recently observed, "there seems no question that a significant proportion of young people will spend a significant and increasing proportion of their waking-hours playing computer based games." She goes on to add that, "it is entirely possible that computer-based games will turn out to be the major unacknowledged source of socialization and education in industrialized

countries before the 1990s have run their course" (p. 26-27). Video games have already been incorporated into the daily routines of 65% of all U.S. households, and 85% of those with male children. When figures for game systems are measured against recent Statistics Canada estimates that PC's have penetrated just 40% of Canadian households and the internet only about 20%, the video game appears to be by far the more important children's communication medium (Statistics Canada, 1997). So when it comes to discussing the cultural impact of computers on childhood we should pay a little more attention to the growth of home game systems, arcade gaming, and increasingly virtual theme parks.

Although the Bureau of Broadcast Measurement (BBM) is beginning to measure internet use, and Statistics Canada now includes computers and modems in its inventories of home technologies, there is very little reliable public data on video games, their use, or why children choose to play them, let alone their impact on children's culture. Stone attributes this to the feeling on the part of many academics that computer games are beneath serious attention, or worse simply a blip on the more important screen of the coming age of digital communication. Unfortunately, the consequence of this attitude is that we run the risk of ignoring one of the most dynamic and influential forces shaping children's culture today.

The present research, therefore, was undertaken to understand the growing significance of children's video game play by providing data on Canadian teenagers' involvement, interest and motives for gaming. Although the industry studies the gaming market extensively, the data is proprietary. This report provides therefore the first public survey of B.C. teen's attitudes and behaviors around video game play. The research objectives which guided the development of the survey can be summarized as follows:

1. to gain awareness of the distribution of video game technology in the homes of teenagers.
2. to document the importance of video games in the lives of teens, specifically looking at how, when, where, and with whom they played.
3. to examine teens' leisure time and how they integrated video gaming into their entertainment preferences.
4. to explore the kinds of games they enjoyed and their motivations for playing them.
5. to learn about teens' opinions and concerns around gaming, especially around the issues of violence and addiction.

6. to examine the way their families controlled or influenced their play habits.

Overall, this study sought to understand one key question:

Why are so many young people today turning on their video game consoles in search of excitement, distraction and solace among the various other options for leisure, self-development and entertainment?

Study Design

This report overviews Canadian teenagers leisure preferences, television viewing and video game play. It sought to understand why so many young people are turning to video games among the various other options for leisure and entertainment available to them in the leisure market. In particular, the survey provides data on the following areas:

- *Ownership of video game and computer technology*
- *The importance of video game play in young people's lives– when, where and with whom they play*
- *The experience of play*
- *Teenagers' game preferences*
- *Young people's opinions on violence and addiction*
- *Leisure preferences*
- *Household rules and the regulation of game play*
- *The attitudes and motivations of the 'heavy player'*

This study was quantitative in nature and consisted of a six page questionnaire which was completed by 647 kids between the ages of 11 and 18. The sample was gathered from schools throughout the province of British Columbia. The schools were selected to ensure a representative sample, which included teens from urban, suburban, and small town environments, as well as from diverse socio-economic backgrounds. The survey commenced during the spring school session in 1996 and finished by the end of the fall session of the same year.

The report itself is organized in two parts. The **first part** presents the results for B.C. teens in general, along with a more detailed analysis of gender differences. The **second part** examines video game play from the point of view of the 'heavy' player. In particular, their attitudes and behaviors are compared and contrasted to 'light' players. For the purposes of analysis we *defined heavy players as those who spent more than seven hours per week* playing and light players as those who played for three hours or less.

The summary of findings presented below follows the general outline of the report with the exception of the data on heavy players, which is integrated throughout rather than reported separately.

Organization of the Report

The report is organized into two parts. The first part consists of seven sections and reports the results for B.C. teenagers in general. In addition, these sections include more detailed analyses exploring the similarities and differences that existed between boys and girls. In these analyses gender was treated as an independent variable and a variety of statistical tools were used to determine whether or not it was related to video game play. In general, we found that there were many differences between the attitudes and behavior of boys and girls. As a result, we report boys and girls' responses alongside the overall findings for teenagers. Further, when a relationship between gaming and gender was found to be statistically significant we have identified them with an asterisk (*). A statistically significant relationship means that the difference found between boys and girls in the sample is highly likely to hold for the population as a whole. For example, in this survey we found a relationship between gender and the amount of time spent viewing television. As mentioned above, boys watched on average 15 hours of television per week while girls watched less, on average 11 hours. Using the statistical test 'analysis of variance' (ANOVA), we determined that that this difference was significant at the 0.05 level. In other words, the probability that this difference reflects a true difference between boys and girls in the population is greater than 95 per cent. We also tested differences at the 0.01 level. A statistically significant difference at the 0.01 level would mean that we are 99 per cent certain it holds for the population.

In the second part of this report, we shift our focus from gender issues to an analysis of the data from the point of view of "heavy players". The responses to the questions in the survey are examined once again, though the analysis is conducted using *playtime* as an independent variable. In

particular, we examine the responses given by those teens that were highly devoted players, regular players, and those that didn't play or played only occasionally. The information provided in this section thus fosters an understanding of the differences between 'afficiandos' and the average teen who is a moderate player. As well, it provides detailed information on the appeal of video games for those kids who were intensely involved with them.

Sample Demographics: Sex and Age

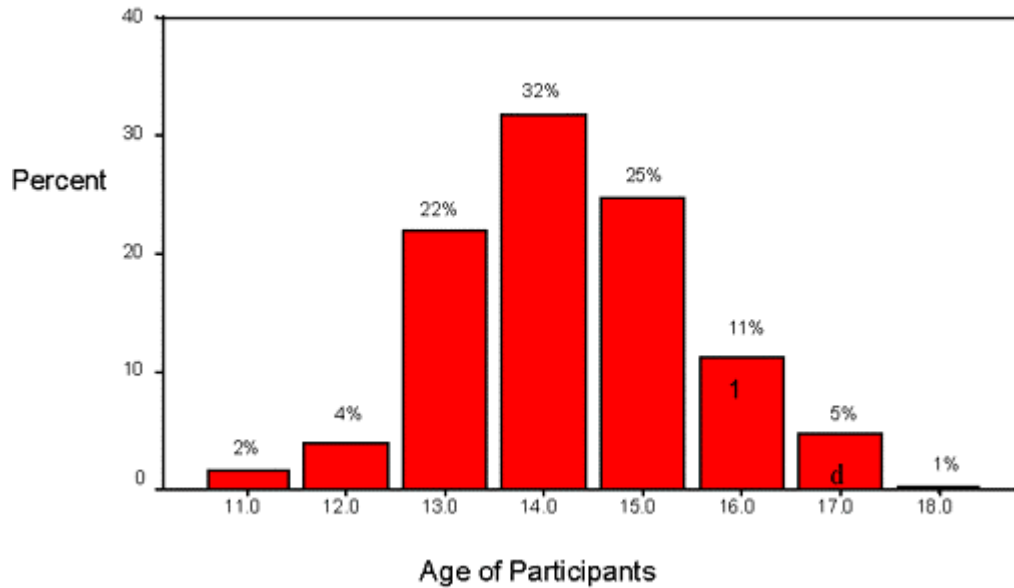
Of the 647 teenagers who participated in the study, slightly more than half were boys. In total, there were 351 males (54 per cent of respondents) and 295 females (46 per cent) that completed the survey (Table i).

Table i: Number of participants by gender

Gender	Number of Participants	Percentage
Male	351	54
Female	295	46
Total	647	100

The age of the participants ranged from 11 to 18 years, though 80 percent of them were between 13 and 15 years (Figure i). Because our sample had such a narrow age range and did not include young children or older adults, we did not explore the relationship between age and video game play. This report, therefore, provides information primarily on the thoughts and experiences of youth in their early and middle teens.

Figure i: Proportion of participants by age



Summary of Findings

Ownership of video game technology

Widespread ownership of both hardware and software was found throughout the province. For example, 95 per cent of the teens surveyed said they had access to either a video game machine or home computer and a similar proportion (90 per cent) said they owned at least some video games.

There was no difference between girls and boys for the ownership of *one* video game machine. Eighty percent reported owning one machine, however, boys (41 per cent) were more likely to own two or more machines than girls (28 per cent). As well, boys (58 per cent) were more likely to own a home computer than girls (44 per cent).

Surprisingly, there was little relationship found between ownership of hardware and the amount of time spent playing. However, heavy players were more likely to own a home computer and were quicker to purchase

newer game machines such as the Nintendo 64 and the Panasonic 3 DO released just prior to the survey.

Participants were asked how much their parents had invested in video game and computer technology. Teens estimated that their families had spent approximately \$2800 on computer and video game hardware and about \$430 on video game software.

There was no difference found between families of boys or girls for expenditure on hardware, but families of male children did report spending more (\$477) on games than families of females (\$352).

Heavy players reported owning more games (23 on average) and spending more on them (\$500) than light players (17 games on average; \$410). Extensive collections of +50 games were owned by a large number of heavy players (17 per cent) and a small proportion of light players (9 per cent).

Video game play

The results of the survey indicated that video game play has become a common leisure activity among B.C. teens. Eighty per cent of teens said they played at least occasionally and the average amount of time spent gaming for the sample was 5 hours per week.

There was considerable variability found in the amount of time that kids spent playing. Fifty per cent of the sample spent less than three hours per week playing games, the rest were equally divided between regular players who spent anywhere from three to seven hours a week and heavy players who spent over seven hours a week gaming.

The survey also revealed that video games were largely a male pastime. Boys, for example, said they spent twice as much time playing (6 hours per week) as girls (less than 3 hours per week). This finding supports the male preference for video games found in other international studies (Durkin, 1995).

By and large, video game play has become a domestic activity with the majority of youth playing at home (46 per cent of respondents) or at a friend's house (25 per cent). In comparison, only 17 per cent said they played at an arcade.

The social dimension of play

In order to assess the social dimension of game play, teens were asked to specify how often they played alone, or with their family and friends.

In general, adolescents played more often with their siblings than their parents. A large proportion of teens said they played at least sometimes with their brother (50 per cent of respondents) and with their sisters (25 per cent). Only a small proportion played at least sometimes with their fathers (18 per cent) or mothers (7 per cent).

Teens prefer to play games with their friends. 22 per cent of our sample, reported that most of their friends played games. Not surprisingly, boys had significantly more friends who played than girls. Heavy players were divided: 40 per cent reported having mostly gamer friends while 51 per cent reported having only a few friends that played.

It thus appeared that there were at least two types of heavy gamers: for one group, gaming was a highly social activity forged around networks of gamer friendships—a gamer culture who talked and lived video gaming. However, for others video games are played to kill time when friends are not available. Many heavy players, in fact said gaming was their favorite solitary activity.

The experience of play

One of the aims of this study was to understand *why* video games were so compelling. One way of gaining insight into motivations was to assess the desired emotional experience of game play. Teens were given a list of emotions and asked to indicate the degree to which they applied to gaming.

The majority of teenagers (over 80 per cent) said that playing them produced a pleasant, exiting, challenging, and interesting experience. A great number of teens also felt gaming to be involving (77 per cent) and at times frustrating (63 per cent). We found that boys and girls experienced games differently, with boys more likely to associate positive emotions with play (e.g. pleasing, exciting, and involving) and girls more likely to associate negative emotions with play (e.g. frustrating, boring, and stressful).

Heavy players were almost in total agreement in their description of play. They said that playing video games was exciting (98 per cent of heavy

players), interesting (96 per cent), pleasant (92 per cent) and involving (90 per cent). This supports the perception of the video game as a 'pleasure machine' (Brody, 1992). The survey also revealed some large and significant differences between players. For example, a higher proportion of heavy players described video games as exciting, interesting, and involving than light players. In addition, heavy players reported experiencing these emotions much more intensely than other players.

Video game preferences

Genre preferences

Participants were asked to rate their enjoyment of games of the following eight genres: action, puzzle, educational, fighting/combat, sports, racing, role play/adventure, and simulation games. For each category a mean rating was calculated.

In general, the sports, racing, action, and fighting genres were preferred, with 40 to 50 per cent of respondents saying they liked them, while 30 per cent said they disliked them. When asked to choose one favourite game, the choice was overwhelmingly within the dominant action-adventure meta-genre. Given the complexity of contemporary game designs which combines aspects of different genres, the old categories no longer serve to adequately characterize the aspects of games preferred by gamers.

Though no genre emerged as a favorite, male heavy players developed different preferences than light players. For example, male heavy players preferred games with lots of action (60 per cent) and fighting (61 per cent) compared to male light players (39 and 35 per cent respectively). In contrast, male light players were more likely to enjoy playing educational or puzzle solving games.

Characteristics of a good game

When asked to rate the importance of various elements of a game, teens were more explicit about their preferences. Teenagers agreed that the most important characteristics in a game were those that contributed to its

realism. For example, more than 75 per cent of all respondents felt that realistic graphics, good sound effects, lots of control, and good characters to play were crucial to a good video game. Also considered important were the features of unpredictability (75 per cent of respondents), excitement (73 per cent), good weapons (72 per cent), and an interesting story (67 per cent).

Significant gender differences were found for many of the elements of a good game. In particular, boys felt each feature to be more important than girls did, however, the largest differences were found for action and weapons. Most boys felt good weapons (85 per cent) and lots of action (70 per cent) were necessary for a good game. In contrast, 55 per cent of women felt weapons were important and only 25 per cent of women felt action was important.

Heavy players rated all elements, particularly the presence of excitement and good characters, as more important to a good game than did light players.

Young people's opinions on violence and addiction

The youth surveyed were in agreement with much of the criticism made against the harmful effects of violent games on 'other kids' and the potential for video game addiction among their peers.

The majority (85 per cent) of teenagers concluded that games had some harmful influence on kids that played them. In particular, 25 per cent felt that violent games had a bad influence on vulnerable kids, 34 per cent felt they had a negative influence on some kids, and 27 per cent believed violent games to have a significant negative effect on many players. Only 15 per cent thought violent games had no harmful consequences at all. Girls were found to be significantly more critical of video games than boys.

As there has been little empirical research on what makes a game violent, we asked teens to rate a variety of scenarios for their contribution to the violence of a game. Participants generally felt that the most violent scenarios were those of sexual assault (85 per cent of respondents) and gore (83 per cent). Teenagers also said that the use of weapons of any kind (65 per cent), punching and kicking (57 per cent), and verbal abuse (53 per cent) were important in making a game appear violent. Girls perceived all scenarios to be more violent, especially those of sexual assault, verbal abuse and kidnapping.

Teenagers were also asked to comment on whether or not they felt kids became addicted to playing video games. The majority of respondents

agreed that video games could be addictive. In particular, 24 per cent of the respondents felt that many were totally dependent on video games, 34 per cent believed that some kids played them obsessively, and another 30 per cent felt some played them too much. Only five per cent said that video games were not addictive. Again, girls tended to be much harsher critics of video games than boys.

There was no significant relationship found between the amount of play and concern around violence or addiction. However, we did find a slight tendency for heavy players to view video games less negatively than lighter players.

Leisure preferences

An important dimension in the formation of gamer culture is the relation between video games and other leisure activities. In particular, we wanted to understand teenagers' *preferences* for a variety of recreational activities including video games. We also sought to explore the kinds of activities that kids gave up in order to play games.

Other leisure activities

The most popular pastimes for teenagers were social and physical activities. Almost all of the youth surveyed said they enjoyed social events such as 'hanging around with friends' (91 per cent) or 'going into town for food or movies' (83 per cent). A large majority also said they liked physical activities such as playing outdoors (74 per cent) and competitive sports (62 per cent). Generally, few reported disliking these forms of recreation.

Boys and girls expressed different tastes in leisure activities. For example 'hanging around and talking' or 'going out on the town' were more popular with girls than with boys, though boys did report enjoying these activities as well. Girls were also much more enthusiastic about going shopping, reading and creative activities than boys. On the other hand, boys enjoyed competitive sports and watching TV more than girls, though girls also enjoyed these activities. The activity that stood out most clearly as a male pastime was video game play. Indeed, for girls this was the activity they disliked most.

When the leisure preferences of heavy players were examined, it was apparent that though these kids did enjoy playing video games they had not overtaken other forms of leisure activities. For example, heavy players preferred hanging around with friends, going out in town, and watching

TV to video games. However, heavy players were more likely to enjoy playing games than doing physical activities.

Interest in video games

In order to establish the appeal of video game play and to see what proportion of kids considered themselves to be "gamers" we asked them to indicate their level of interest in games.

In general, the appeal of gaming was rather low. The majority of teens said they were just 'sort of interested' (46 per cent) or not interested at all (37 per cent) in playing games. Only 14 per cent of young people considered themselves to be 'really into' games. Most of these enthusiasts were boys (22 per cent of male respondents), though there were a number of girls (6 per cent) who were also deeply 'into' games.

Though a large proportion of heavy players said they were 'really into' games, we were surprised to find that the majority (55 per cent) were only 'sort of' interested. Why these kids *spend so much time in an activity that is not what they really want to be doing* is a matter that merits further investigation.

Displacement

When teens play video games they report sometimes give up other activities to do so. We found that the most common activity to be sacrificed on this digital alter was the drugery. Homework and chores were cited by 21 per cent of all respondents as something they often gave up. Teenagers were more reluctant to miss out on family activities (8 per cent of respondents), other leisure activities (7 per cent), and time with friends (5 per cent) in the pursuit of their fascination with video games.

We found that boys were slightly more likely to displace all activities than girls. Nevertheless, even for boys the level of displacement was relatively low, which generally supports our conclusion that for most kids, video games simply 'fill up' free solitary time. When youths were asked to state what they most enjoyed doing when alone, video games became the most popular activity for boys (28 per cent).

It was clear that for heavy players displacement was a more common issue than for light players. They reported putting off their homework and chores (37 per cent) as well as family activities (18 per cent) far more often. They also occasionally missed out on leisure activities (13 per cent)

or spending time with their friends (10 per cent) to a greater degree. This general displacement pattern was found across all male heavy players. Female heavy players normally missed out only on doing their homework or chores. But they rarely displaced any other activity.

Video games and television

An obvious general question concerns how video game play compares to television, as an attractive form of electronic entertainment.

We found that teens generally found watching television more enjoyable than playing video games. However, when gender was analyzed, it appeared that boys reported that both activities were equally enjoyable, while girls would much rather watch television than play video games.

Teens reported a diversity of viewing habits. On average they reported spending 13 hours a week watching television (somewhat below Statistics Canada figures). The majority of teens watched somewhere between 4 and 20 hours per week and a minority of teens said they watched in excess of 30 hours (9 per cent) or did not watch at all (6 per cent).

The survey revealed gender differences in the use of both television and video games. In particular, boys seemed to use these as *complementary* forms of entertainment. That is, the boys who spent the most time playing video games also reported the most TV watching. In fact, male heavy players watched on average 20 hours of television a week, almost double the amount that other males and females watched. Keeping in mind that heavy players were kids who spent at least 7 hours a week playing games, the combined activities of television and video game play took up nearly 30 hours per week, if not more. This pattern of complementary media use was not found for girls who seemed to trade off TV and video game play.

Participants were also asked to rate the types of shows they liked to watch (e.g. sports, comedy/sitcom etc). Genre preferences for television were much more clearly defined than for video games. In particular, a preference was found for *entertainment* oriented programs over *information* based programs. For example, teens liked watching sitcoms (82 per cent), films (73 per cent), action shows (70 per cent), and cartoons (53 per cent). In contrast, teenagers generally disliked advertisements (10 per cent), infomercials (11 per cent), educational programs (14 per cent), news (15 per cent), and nature shows (18 per cent).

Girls and boys reported stereotypical viewing preferences. In particular, males enjoy watching sports and action shows whereas females were keener on drama. Different viewing tastes were also found among heavy and light players. Both male and female heavy players tended to enjoy watching cartoons more than light players, suggesting the existence of shared entertainment value for cartoons and video games.

Household rules around video games and television

The survey indicated that the majority of parents allowed their teenagers to freely use both television and video games. However, teens were more likely to report the presence of rules around the use of television (39 per cent of respondents) than video games (22 per cent). This was the case regardless of how much time the teens actually played.

For both TV and video games, household rules tended to focus on *when* teens used these media rather than on the *content* of the games or shows. For example, while 40 per cent of respondents had to finish their homework and chores before playing, only 15 per cent had restrictions around the kinds of games they could play. This was taken to indicate that parents were most concerned about the amount of time that adolescents dedicated to these activities.

Few teenagers reported getting in trouble for breaking household rules concerning video gaming. One interpretation of this finding was that teens typically maintained a good balance between important activities and their use of video games and television. However, those that played a lot did report getting into trouble more often. For instance, light players generally reported 'never' getting in trouble for playing video games whereas heavy players typically said they 'rarely' did. This difference was significant and was found for both female and male gamers.

Conclusion: Key Findings and Future Directions for Research

From this survey we are able to conclude that playing video games on PC, console or net is well established among teens in British Columbia. Between home and arcade, playing video games has become a normal and frequent part their leisure time activities.

Gaming was found to be especially appealing for boys who not only spent more time playing but reported higher levels of interest and enjoyment in video games. At present, however, we have only a limited understanding of the reasons that games are so much more attractive to boys. But based on patterns of play preference we feel that video games have been designed to appeal to the kinds of emotional experiences that boys more than girls seek for their leisure activities.

It is hard to draw conclusions from this survey concerning the social dimension of video game play. For many of the male 'gamers', video gaming was part of a network of friendships and social affiliations making gaming into a cool thing. Yet for others playing was an isolating and solitary activity -- undertaken alone or within the sibling relationships when there was nothing better to do. One limitation of the present survey, however, was that it did not assess the quality of these relationships nor did it explore what kids got out of them. Future *qualitative* research is needed to develop our understanding of these issues.

We found that the industries genre classifications were not very helpful in distinguishing the games that teens most enjoyed. We think that although gamers do form preferences for certain kinds of games, this only stimulates an interest in video game play *in general*. This blending of genres reflects trends in game design, which blends features of many genres making older distinctions seem obsolete to players. As such, we think researchers need to develop a better understanding of the distinctions and criteria that gamers themselves use to differentiate between games.

The survey revealed that the emotional experience of game play was intense, characterized by strong feelings of pleasure, excitement, and involvement. As such, it would appear that much of the appeal of video games lies in the feelings of emersion that are acheived when television is made 'interactive'.

Overall, the study suggests that for the majority of BC teens, electronic entertainment has not displaced those traditional social recreational pursuits of teenagers - sports, malls, and hanging in groups. For the majority of teens, social and physical activities remained the most desirable diversions. However, the study also found that for some teens,

these preferred recreational activities weren't always possible; when friends and planned activities were not possible TV and video game use absorbed a significant amount of their leisure time.

The main surprise came from the fact that the young people we surveyed were largely in agreement with the criticism of harmful effects of violent games and the potential for video game addiction. Many of them felt that there were some negative consequences associated with playing violent games and that many kids played too much. It was also surprising that given these concerns parents did not monitor or control their children's game play. Parents rarely played video games with their kids and they set fewer rules around gaming than they did for TV. Whether this reflects a belief that their children's video game play is educational, unproblematic or just uncontrollable is not clear; but when it comes to heavy players who report letting go of homework and chores, this reluctance to get involved needs further exploration.