VIDEO GAMES ADDICTION:
POSITIVE AND NEGATIVE EFFECTS OF PLAYING VIDEO GAMES ON YOUTH AND CHILDREN

Master's (one year) thesis in Informatics (15 credits)
Usman Ahmed
Inam Ullah

Spring 2013MAGI01

UNIVERSITY OF BORÅS
SCHOOL OF BUSINESS AND IT
Title: <Video Games Addiction: POSITIVE AND NEGATIVE EFFECTS OF PLAYING VIDEO GAMES ON YOUTH AND CHILDREN>

Year: 2013

Author/s: <Usman Ahmed, Inam Ullah>

Abstract:

Mankind has developed a lot in the field of Information Technology (IT), Computer Science and Media entertainment. Video games are also the most popular form of media entertainment and gaming environment. It has been popular long before the new generation video games idea was ever thought by the video game designers. Through our research we tried to investigate the positive and negative effects of video games on youth and children. This form of entertainment is more designed attracted among the people, due to the high sophisticated music and environment, which catches every eye. We not only analyzed the previous attempts in this area, but also tried to add some contribution to it. The excessive use of video games makes it more damaging effects on a young mind. Parents and teachers should keep a check on youngsters, and also the companies who design such violent games should keep in account that, what they show through these video games must have some logical or educational value. Many children and youngsters we found through our survey like to play video games because they do not have any other entertaining options. Violent video games are the most appreciated one among children and young people because of the detailed high quality graphics, more realistic images, use of artificial intelligence, complex game strategies, intelligent game inference engines and human-machine interaction. Parents should keep check on their children and select such video games for them which teach their children some useful things and beneficial for them in studies and near future. The teachers in school should also talk more about the advantages of educative games or physical games to develop the young minds more professional and realistic, rather than creating fantasy and fake imaginations. Our survey and research showed us that due to the high attraction of the video games, positive and negative effects are going side by side. Many youth and children do not take the video games seriously and just play them as any another game, while some video game players have disturbed their studies and health by playing the video games for many hours. Many children and young generation denied calling it as an addiction or bad habit. If violence and killing a life is entertainment then human beings will consider it, as a fun and modern society cannot be defined as civilized. This is what we found from our research and survey.

Keywords: Video Games, Video Game Addiction, Entertainment, Violent video games, Violence, Positive Effects, Negative Effects.
Acknowledgements

This is our little effort to identify the problems and various difficulties being created through violent video games. Technology should be used for the benefits of human beings and not for their destruction, both mentally and physically. We want a change in the field of video games and to remove the violent factors from the video games is what we tried to highlight through this thesis.

We are thankful to ALLAH Almighty for giving us the peaceful life and we are thankful for our Parents to help us grow and to reach certain achievements in life and future.

Our great thanks go to all of our Teachers and Advisors of Högskolan I Borås.

Borås, June 2013
Contents

1. Introduction ........................................................................................................................................... 1
   1.1 Background ........................................................................................................................................ 1
   1.2 Statement of the Problems .................................................................................................................. 2
   1.3 Purpose of study .................................................................................................................................. 2
   1.4 Research Questions ............................................................................................................................ 3
   1.5 Target Group ...................................................................................................................................... 3
   1.6 Expected outcome ............................................................................................................................... 4
   1.7 Previous Background of Author ......................................................................................................... 4
   1.8 Structure of the thesis ......................................................................................................................... 6

2. Research Design .................................................................................................................................... 7
   2.1 Research Perspective: ....................................................................................................................... 7
   2.2 Research Strategy ............................................................................................................................... 8
   2.3 Data Collection Procedures: .............................................................................................................. 10
   2.4 Data Analysis Procedure .................................................................................................................. 11
   2.5 Strategies for validating findings ...................................................................................................... 12
   2.6 Result presentation method ............................................................................................................... 12

3. Theoretical Study ................................................................................................................................. 13
   3.1 Key Concepts .................................................................................................................................... 13
   3.2 Relevant Subject Area ......................................................................................................................... 14
      3.2.1 Human Psychology ........................................................................................................................ 14
      3.2.2 Addiction .................................................................................................................................... 14
      3.2.3 Video game categories: ................................................................................................................ 15
      3.2.4 Child Psychology ........................................................................................................................ 15
   3.3 Previous research ............................................................................................................................... 15
   3.4 Summary of theoretical findings ....................................................................................................... 17
   3.5 Arguments for an empirical study ...................................................................................................... 18
   3.6 Relevant Literature Source ............................................................................................................... 19
   3.7 Video games ...................................................................................................................................... 20
   3.8 Brief History of Video games .......................................................................................................... 21
   3.9 Types of video Games ....................................................................................................................... 26
   3.10 Positive Effects of playing video games .......................................................................................... 28
   3.11 Addiction .......................................................................................................................................... 29
   3.12 Human Psychology ......................................................................................................................... 30
3.13 Child Psychology ................................................................. 31
3.14 Violence .............................................................................. 32
3.15 Aggression .......................................................................... 35
3.16 Effect on studies ................................................................. 36
4. Empirical Survey ..................................................................... 37
  4.1. Purpose .............................................................................. 37
  4.2. Sampling ............................................................................ 37
  4.3. The Interviews .................................................................... 37
  4.4. The First Interview ............................................................ 38
  4.5. The Second Interview ....................................................... 39
  4.6. The Third Interview .......................................................... 39
  4.7. The Fourth Interview ....................................................... 40
  4.8. The Questionnaire ............................................................ 41
  4.9. Empirical Research Results ............................................. 41
  4.10. Result percentage of the questionnaire distributed .......... 43
5. Analysis and Result ............................................................... 53
  5.1. Analysis ............................................................................. 53
  5.2 Result Summary ................................................................... 55
6. Discussion ............................................................................... 57
  6.1. Conclusions ....................................................................... 57
  6.2. Implications for Informatics ............................................. 58
  6.3. Method Evaluation ............................................................ 58
  6.4. Result Evaluation ............................................................. 59
  6.5. Possibilities to generalize ................................................. 60
  6.6. Ideas for continued research ............................................. 60
References .................................................................................. 61
Appendix 1 .................................................................................. 64
Appendix 2 .................................................................................. 65
<table>
<thead>
<tr>
<th>FIGURES</th>
<th>PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>6</td>
</tr>
<tr>
<td>Figure 2</td>
<td>8</td>
</tr>
<tr>
<td>Figure 3</td>
<td>9</td>
</tr>
<tr>
<td>Figure 4</td>
<td>11</td>
</tr>
<tr>
<td>Figure 5</td>
<td>14</td>
</tr>
<tr>
<td>Figure 6</td>
<td>17</td>
</tr>
<tr>
<td>Figure 7.1</td>
<td>22</td>
</tr>
<tr>
<td>Figure 7.2</td>
<td>22</td>
</tr>
<tr>
<td>Figure 8.1</td>
<td>23</td>
</tr>
<tr>
<td>Figure 8.2</td>
<td>23</td>
</tr>
<tr>
<td>Figure 9.1</td>
<td>24</td>
</tr>
<tr>
<td>Figure 9.2</td>
<td>24</td>
</tr>
<tr>
<td>Figure 10.1</td>
<td>25</td>
</tr>
<tr>
<td>Figure 10.2</td>
<td>25</td>
</tr>
<tr>
<td>Figure 11</td>
<td>34</td>
</tr>
<tr>
<td>Figure 12</td>
<td>35</td>
</tr>
<tr>
<td>Figure 13</td>
<td>43</td>
</tr>
<tr>
<td>Figure 14</td>
<td>44</td>
</tr>
<tr>
<td>Figure 15</td>
<td>44</td>
</tr>
<tr>
<td>Figure 16</td>
<td>44</td>
</tr>
<tr>
<td>Figure 17</td>
<td>45</td>
</tr>
<tr>
<td>Figure 18</td>
<td>45</td>
</tr>
<tr>
<td>Figure 19</td>
<td>45</td>
</tr>
<tr>
<td>Figure 20</td>
<td>46</td>
</tr>
<tr>
<td>Figure 21</td>
<td>46</td>
</tr>
<tr>
<td>Figure 22</td>
<td>46</td>
</tr>
<tr>
<td>Figure 23</td>
<td>47</td>
</tr>
<tr>
<td>Figure 24</td>
<td>47</td>
</tr>
<tr>
<td>Figure 25</td>
<td>48</td>
</tr>
<tr>
<td>Figure 26</td>
<td>48</td>
</tr>
<tr>
<td>Figure 27</td>
<td>48</td>
</tr>
<tr>
<td>Figure 28</td>
<td>49</td>
</tr>
<tr>
<td>Figure 29</td>
<td>49</td>
</tr>
<tr>
<td>Figure 30</td>
<td>49</td>
</tr>
<tr>
<td>Figure 31</td>
<td>50</td>
</tr>
<tr>
<td>Figure 32</td>
<td>50</td>
</tr>
<tr>
<td>Figure 33</td>
<td>50</td>
</tr>
<tr>
<td>Figure 34</td>
<td>51</td>
</tr>
<tr>
<td>Figure 35</td>
<td>51</td>
</tr>
<tr>
<td>Figure 36</td>
<td>51</td>
</tr>
<tr>
<td>Figure 37</td>
<td>52</td>
</tr>
</tbody>
</table>
1. Introduction

1.1 Background

World of the Video games have proved itself as an attractive entertaining industry in this modern world. Being a large industry it has also brought some effects on our society especially on our youth and children. These effects can be described as of two kinds, Positive effects and Negative effects. The effects depend on the nature of games and also the age limit of the players who play these games (Xue-min, 2009), (McCormick, 2001). In this study we have tried to conclude physical and psychological positive and negative effects of playing video games. Our aim of the study is a step towards knowledge creation and grows awareness in society. We tried to find out the negative effects of playing video games and tried to highlight what are the ethical responsibilities of different stockholders in the gaming world.

Many top-selling videogames have a lot of violence elements and harmful content, which have and can cause negative social effects especially on young minds. However, videogames are also very popular media among youth and have many characteristics that can also make them excellent teaching tools. Teachers & Educators can take advantage of the positive learning characteristics of video games with the use of well-designed software, but should also be aware of potential negative issues such as anti-social content and cyber game addiction (Kuo-Kuang et al., 2007).

In early ages of video games, they were used just for fun and entertainment and to reduce stress of daily life, but with passage of the time people got addicted to it, which generated in form of creating some bad habits, affects their families and social life as well. It implies that while playing video games have some positive good effects on the player but on the other hand, it also have negative effects on the player (Xue-min, 2009), (Prensky2002).

Our study covers the consequences of the Video games on youth and children, both positive and negative effects from the video games through ethical and personal perspective. This study gives an overview about what are the possible consequences of video games, their effects on video games player, approach to tackle them in advance while developing and playing the games. Video game companies should also take into consideration the ethical values, possible consequences along with the market strategy. Video games, where they play a vital role in children learning, Academic career, Innovation skills improvement and personality build up but if they are not adopted according to some criteria then it can badly affect the minds of youth and children(Wan Rozali et al., 2007), (McCormick, 2001). The issues for awareness and ethical responsibilities has been highlighted to safe our next generation from the negative effects of the Video games. We have suggested further research questions in the study.
1.2 Statement of the Problems

“The mere formulation of a problem is far more often essential than its solutions, which may merely a matter of mathematical or experimental skill. To raise new questions, new possibilities, to regard old problems from a new angle require creative imagination & marks real advance in science.” (Einstein, 1938).

A research problem refers to some difficulty that the researcher experience in the context of both a theoretical or practical situation and how he/she obtain a certain solution for that. For the last couple of years Information Technology growth increased very rapidly which facilitates human being in every field of life. Information technology plays a major role in today’s life. Without usage of the information technology in 21st century the life is very tedious and complicated. Information technology is a part of our lives and in every aspect of life we are connected directly or indirectly with it. It makes our life easy and comfortable, but along with all of the facilities and advantages sometimes it also creates problems for us when it is misused or over used. The most utilization of computers by children is for video games. In the terminology of information technology, it is called the overuse of video games that can result in isolation of video game player or on the other hand we can say isolation from social activities and bound the video games player in a virtual gaming life. Limits his/her interaction with real world life, kills their social activities, some time indulge them in drugs, badly affect their behavior and make them addicted.

The main issue with playing video games is that the video games are designed for human minds and choices, when someone start playing video game, they enjoy it during playing and are feel satisfaction and on every winning or reaching some level of achievement, it makes them more attracted towards playing more and to win it again and again, with the passage of time this behavior takes them to the abnormality and addiction (Anderson and Bushman, 2001).

According to Przybylski et al., “The Motivating Role of Violence in Video Games” the players play for more reasons than entertainment as many games satisfy both basic psychological needs and players gets reward, freedom and self esteem while playing the games (Przybylski et al., 2009).

1.3 Purpose of study

Large impressive body of research has been done on violent television (TV) channels and films stating their aggressive effects and drawbacks on the youth and children, but always less focus and attention on playing violent video games and their aggressive and bad effects on youth and children, which is the big reason of playing these violence video games.

This study gives successful knowledge creation to such problems and uncovers the hidden realities that can harm the young video game players intentionally or unintentionally.

The second reason of selecting this topic is that one of our friend and also few youngsters in our family had the same problem of extreme video game playing habits. They spend a lot of time playing video games without caring about their diet, health and about their studies. Our study is about creating awareness and knowledge in people about this disease, as many people do not have any idea about it at all.
Researchers believe that video game addiction has now become a major debatable issue because of the increasing number of the video games produced every year. They believe that playing video game is one of the main daily life activities, not only to children but also for adults. The reason behind the addiction and massive use is its attractiveness, ease-of-use, engagement, and aesthetical appearance in these video games due to use of detailed high quality graphics, more realistic images, use of artificial intelligence, complex game strategies, intelligent game inference engines and human-machine interaction, all these factor force the video game player to stay with the video game for a long time and get addicted badly (Xue- min, 2009), (Wan Rozali et al., 2007).

It is a very addressable issue in today’s life because majority of our youth and children are affected forms this disease and most of the people including parents do not know about the long-term ill effects of playing video games. Experimental, longitudinal and meta-analytic data indicate that playing violent video games increases aggression, hostility, and aggressive thoughts. In violence video games the player tends to perform act of violence to get the desire destination, killing other and fighting is considered to be the most important and practical part of the video game. Players learn from experience more than from watching or their knowledge, so as a consequence of performing violent activities in games player can be more violent in his daily life activities. Getting reward and encouragement for doing violent tasks in game will encourage and motivate the young generation to do the same thing in real world scenarios (Wan Rozali et al., 2007). The purpose of this study is therefore to create an understanding and awareness amongst people for successful knowledge creation. To do so, we investigate individual factors, family factors, social and environmental factors affected by game addiction among youth and children.

1.4 Research Questions

Main Question: What are the Factors being effected by Video Games addiction among youth and children?

Sub Question 1: What are the individual factors, family factors, social and environmental factors affected by video games addiction among the youth and children.

Sub Question 2: What are the possible positive effects of playing video games on youth and children?

Sub Question 3: What are the possible negative effects of playing video games on youth and children?

1.5 Target Group

Our target groups for this study are

Children,

Youth,
Parents.

Teachers.

This study contributes towards successful knowledge creation of the video games and their effects on player and society. Our main target groups in this study are players of the video games (both youth and children) whereas groups of other people and the community can also take knowledge form this research work. They gain healthy knowledge and material about the video game addiction and its effects. For instance the target group of this research also includes parents, because of reading this research work they will also knew about the bad effects and harmful effects of playing video games and guide their children in a better way avoid them to be addicted. Teachers can also gain knowledge and know how to aware students about video game addiction, effects on their lives, studies, on society and culture. They can teach them in schools if they have any subject related to video games and guide students about video games and their effects, which is also a successful knowledge creation. The result of the study can also be used to make decisions about future knowledge strategies and for the designers of the video games. The study and result can be helpful for researchers in future research.

1.6 Expected outcome

Expected outcomes and benefits of the study is to acknowledging relationship between playing video game and aware the people about its learning achievements, its good effects and aggressiveness and bad impacts on youth and children.

Achieve awareness in responsible body of the school/college, teachers and other staff of the school/college having interaction with youth and children.

Achieve awareness in parents and other family members.

Helpful for administration, teachers, parents and other people having interaction with youth and children to find out, set plans and remedies in order to solve problems of youth and children who addicted from video games.

The result can be used to make decisions about future knowledge strategies and the organizations of video games.

Study and result is also helpful for researchers in future research.

1.7 Previous Background of Author

We are two authors writing this thesis and our own experience about this subject comes directly from the own experience of playing video games in our young age and also we find out different changes in the games we used to play before and the modern games played by people these days including 3D games and video game simulators as well. We did not have the habitual problems of our own. We learned lot of new things from the previous researchers, which we did not know before. Our previous field of study is related to Information

~ 4
Technology where we studied about designing and programming on computer games but was not familiar about the individual factors, family factors, social and environmental factors affected game addiction among youth and children.

We studied a subject of HIS Human Information System here at the Högskolan I Borås, which showed psychological behavior of humans towards technology and how they accept or brings changes in their lives. Interest in field of Informatics and our thesis Topic can make us reach new goals and learn a lot from own experience and previous as well.
1.8 Structure of the thesis

The following model describes our thesis structure.

Figure 1: Thesis Structure Model
2. Research Design

In this chapter we have described the methods that how the study will be completed and also what approach we have chosen. Our main aim through this research is to answer the research questions. We will show the overview of the choice of methods used for data collection procedure, results and analysis.

2.1 Research Perspective:

The two main scientific perspectives are positivism and hermeneutics also described by Ann Lind (Lind, 2005), and according to the topic of our thesis we want to create a definable knowledge based on the effects of video games on young people and children according to hermeneutic perspective.

According to John Van Buren in the translated version of the book by Martin Heidegger the word Hermeneutics is form from interpreting, interpretation. Its etymology is obscure. (vanBuren, 1999). “Hermeneutics dealt with two aspects of interpretation which will be encountered again: firstly, the problems of analyzing texts in a way that looked beyond the surface features (e.g. of a parable), and secondly, the problems of verifying the analysis so produced” (Wallace at al., 2003). In our case, we choose the hermeneutic approach with qualitative research, which suits better without field of research and we can get, a better chances to get the answers for our questions through interviews from the respondents. We cannot be sure about any research design, because there are different results out comes from any research design depending on the questions and the reply from the respondents. The factors affected by video games addiction can be investigated by quantitative research or qualitative research method, but we have applied qualitative research approach because hermeneutic perspective prefers qualitative data and our main objective is to find a solution to reduce the negative effects of video games on young people and children. These all can be done by the guideline provided by qualitative research to have a thorough interview and questionnaire from the people who plays these videos games. A qualitative research instead takes it starting point in the opinion that every phenomenon consists of a unique combination of attributes that cannot be measured. Therefore other types of methods will be used (Lind, 2005). Qualitative research is based in the assumption that researcher construct social reality in the form of meanings and interpretations, and that these constructions tend to be enduring and situational. Qualitative research methods focus on the question of what, when, where, how, and why. Qualitative research methods create knowledge in a specific case study, and the other more general conclusions are only a hypothesis.
This model for Qualitative design shows our main objective or goal in this thesis and the research questions formed to achieve this objective with validity in the end. “Qualitative research is mainly descriptive and involves the collection and analysis of data about meanings, attitudes and beliefs.” (Walsh at al., 2003).

2.2 Research Strategy:

In order to clarify the research strategy it is important that the researcher states the role of the theoretical and the empirical study. The theory in a study can be used in different ways. For example the theoretical material can influence the researcher when selecting data and it can also be used for analysis. The theory can also be a result of the research (from the collected and analyzed data) (Lind, 2005). According to Walsh’s research strategy is an overall methodology and a decision about the data tactics to be used, and is also different from the data collection method. Research strategy also defines the general approach to the research investigation (Walsh at al., 2003).
The Figure 3 diagram shows how a researcher can start a research and plan for the initial stages for a research; the grounds or foundation of research is based on such factors. A lot of different kind of research methodologies can be used to do some experiments, read literature or previous research work, surveys, reviews, action research, descriptive studies or case studies. Through Empirical research we will try to find out new ideas to find a cure for the problem of video game addiction on the youth and children. We also looked back at the research being done on the same topic by former researchers, and also studied their ideas and theories. Empirical research, on the other side, follows the development of new ideas, which is used for verify the theoretical findings (Gratton et al., 2010).

Gubrim and Holstein suggested four traditions for qualitative research. They are as following.

1. “Naturalism: seeks to understand social reality in its own terms, as it really is, provides rich descriptions of people and interaction in natural settings.”
2. “Ethno methodology: seeks to understand how social order is created through talk and interaction, has a naturalistic orientation.”

3. “Emotionalism: exhibits a concern with subjectivity and gaining access to inside experience, concern with the inner reality of humans.”

4. “Postmodernism: there is an emphasis on method talks, sensitive to the different ways social reality can be constructed.”

2.3 Data Collection Procedures:

This section shows our data collection procedure and during the process of data finding, we searched books, articles and websites for the theoretical research about the topic of video games addiction and its effects on young people and children. Every researcher first priority is to find relevant data about some topic, which can also give answers to the research questions. We followed footsteps of the previous research done by this field and a thorough study of books and articles cleared and answered the question we have selected for our thesis. To validate the author’s literature, we checked previous publications and made sure that the literature is authentic. Our empirical part of the research consist of two different sections of data collection, one is questionnaire and second is interview from the people in the society. Our thesis image is about the video game effects on young people and children, so for that purpose we selected Fjärdingskolan and Högskolan I Borås. They give us a clear image of the research question we have prepared and the questions raised during the theoretical study will have a clear answer.

Questions for the interview and questionnaires were made especially with easy wordings, because they were to be from general public without any complex wordings from the informatics or psychological background. We are not doing any experiments, as there is no research question regarding or contributing to such issue. The children in our interview were at the age of 8-13 and in high school level at the age of 19-25.

The empirical research approach we selected consist of interview and questionnaire, through which we put some questions for the general public and conducted interview on a paper form and the questionnaire were distributed among people as well both in paper form and online questionnaire filling as well.

Structure of our Data Collection Procedure can be best judged from the diagram below. Through which step-by-step figures shows how the whole process is carried out and end result is generated.
2.4 Data Analysis Procedure

The data analysis procedure is a very important part of a research work. For our study on the video games addiction, we will follow the qualitative comparative analysis because we are using qualitative approach for our study. The qualitative comparative analysis is a logical deterministic technique. The data analysis procedure for our study is designed in a way to gather points of our interest, discuss them and to identify the practices that contributes and helpful in creating the myth of video gaming addiction.

As we discuss in previous parts about the way to collecting data, we will do theoretical study and support our data with the help of empirical results. Our research is a case study on playing video games addiction, based on qualitative comparative analysis where we take theoretical knowledge from different researchers and analyze it with our empirical findings. The theoretical knowledge in our study shows problem area of the playing video games will be compared with empirical findings to get rid of physical and psychological problems faced by our youth and children due to playing these video games.
2.5 Strategies for validating findings

Evaluation is a very important part of a research work. According to Robson, the evaluation is assessment of the value (or worth or merit) of something. The “something” focused on here is some kind of innovation, or intervention, project, or service (Robson, 2004).

Kaplan, et al. 2005, mentions in the study that the evaluation method is used to validate the findings of the research. They argue that the research can be rich and more meaningful if we evaluate the quality of the research (Kaplan et al., 2005).

Considering characters of the research, validity and reliability, are the main concepts that will be evaluated during our qualitative study on video games addiction.

In the qualitative researches validity is a major challenge for the researchers. As we mention before our study on video games addiction is hermeneutics, it is very important for us to prove the validity of our study. In case of the validity in a research, all findings should be as they expected to be (Saunders, et al. 2009). While on the other hand reliability of a research is also very important to take in to account. According to Saunders, et al argue that reliability in a research is to make sure that the data collection and data analysis will leads to consistent results or not? The measures can repeat in other occasions or not? And other observers can observe similar observations or not? (Saunders et al. 2009).

In our study on video game addiction, theoretical findings and empirical approaches for finding solutions are used. In theoretical findings we try to extract previous findings from the reliable literature sources and then in empirical approach cross functional interviews and questionnaires will taken for finding the accurate measures which is very helpful in the research studies. Major part of the research work is based on the empirical surveys, questionnaires and findings from the past research work in the field of video games. The empirical findings in our study will support our theoretical part.

2.6 Result presentation method

The results of our study on video games addiction will be presented in textual format answering the questions of the research, while we will also use tables, diagrams, models and descriptions, where necessary to support the data and to provide better understanding for the readers. The text citation in our study is done using the Harvard System. Words taken from books in original form are shown in quotes.
3. Theoretical Study

In this chapter we described our research questions in a form of a table. We showed history of video games and their initial stages, which is evolved into modern 3D games. Different form of Human Psychology is also described in this chapter.

3.1 Key Concepts

Our key concepts are related to our research questions, which we had mentioned already in chapter number 1. The research questions of our thesis are related to the concept and idea of our thesis topic. The Individual factors, family factors, social and environmental factors all affected game addiction among youth. Both positive and negative effects of video games on youth and children are also our concept included in our research questions. Ottamanelli gave a brief definition of addiction in his book Children and Addiction “The addictive behavior is often viewed as an unwanted facet of the afflicted individual and attributed to a ghoulish homunculus residing within some concealed unconscious terrain, manipulating its helpless victim to think bad thoughts and do bad things.” (Ottmanelli et al., 1995).

Video game addiction is not like any other drug addictions but it is actually the excessive use of technology and player who plays them spend more and more time on computers, which affects their health, family and social life. Like any other technology invented by human it has negative and positive effects on human beings.

Addiction: The word Addiction according to many writers is not the appropriate word for this kind of human relation with computers. As Margaret Shotton tried to explain in her book and find difficulty in explaining the word addiction being used for video games and the terminology of human interaction with computer in this manner. She wrote, “The anecdotal reports had freely used the term addiction, compulsion, and obsession to define the condition of extensive computer usage.” (Shotton, 1989).

Video games: Most favorite entertaining area of the modern computer technology is video games, which is very much popular among people of any age and area of life. Different of games are popular these days and among these games the more violent video games and characters used in these games put a very negative image on young minds of youth and children. Negative and Positive effects of video games is also one of our research work.

Negative and Positive effects of video games: The characters used in video games puts a great impression of their appearance being shown inside the game on young minds, as they are being designed to be more eye catching both during game time and a lot of publicity being given by the advertising agencies to promote the game. Effects can be positive if the game is designed on bases of education and entertainment purposes only. Negative effects will be produced on the young minds due to the extreme violation shown in these games, such as games like GTA, Hitman, Manhunt, and many more violent games like these, which shows the killing of a human being is considered the main achievement inside the game.

Psychological perspective on Game Addiction: This is also part of thesis research, which will show the psychological changes occur in a young mind after playing video game for a longer period of time, this cannot happen just in one night or a day, but takes time to occur. Which includes physical changes as well, lack of interest in eating food can also occur. The

~ 13 ~
reactions on a players body and facial becomes same during playing any other normal physical games

3.2 Relevant Subject Area

Relation between subject areas related to our research questions can be best described in a form of a diagram. Many subject areas can be identified from the key concepts described above.

![Diagram](attachment:relevant_subject_area.png)

Figure 5: Relevant Subject Area.

All of the above subjects are considered in our thesis with perspective of different authors and researchers. Video game addiction as many researchers thinks, do not start in an overnight game playing on computer or play station etc., but slowly became a habitual or obsession as many researchers believe.

3.2.1 Human Psychology: One of the vast fields of social sciences with endless researches and theories being made by many psychologists around the world. Being shown in the diagram as a relevant subject in this area, human psychology have relation with video games and becoming an addictive person is one such behavior of human mind. Getting the inner desires of doing violent things, which is not possible in real life is also part of such addiction.

3.2.2 Addiction: As we have narrated before what Shotton, 1989 described in her book, addiction is not an appropriate word for this problem, but rather called dependency on
Computer. She did conduct this research with university students and school children to trace their inherent characteristics as computer users, the motives for their computer involvement and the existence among them of computer “dependency”, which she distinguished from “addiction”. Video games addiction as known to researchers is a never ending research field, which includes human behavior changes, children behavior and their mentality and aggressiveness also enhances due to excessive use of video games.

3.2.3 Video game categories:

- **Entertainment Games:** Certain games called entertaining games which are funny or nonviolent or which do not show a life being taken by any point, even just for the requirement of the game to achieve certain goal. These kinds of games can also be used on educational bases as well.

- **Educational Games:** Best teacher in classroom for modern studies and easy ways to educate young mind in a more visual way is a key concept of educational games. Schools, Colleges and Universities of modern days have emerged with such techniques to educate their students.

- **Violent Games:** The main subject area of our thesis is the violent games and their effects on youth and children. Such games are designed to show characters and stages inside the game, which can be achieved by taking a life inside the game. These games provoke violence in young mind and because of less consideration from their parents or guardians that what type of games a certain age of children can play. Many people take these games as a part of entertaining their children like any other cartoon movie or animated characters, while they are busy in their daily routine life. Gentile narrated from (Walsh et al., 2001) and (Thompson et al., 2001) in his book that many children prefer to play violent games, this is because what is considered as a “violent” game is rated by the companies who classify these games as less violence games, the game industry see less violence in these games than the actual parents of the children see in these games (Gentile, 2003).

3.2.4 Child Psychology: Psychologists believe that Children’s minds have a certain form of learning ability and taking greater impression of what they see in front of them. Their mind focuses on certain things, which are colorful and attractive. Violent games of modern age have all these capabilities in catching the eye of every child, because the violence shown in these types of games is merely considered as a bad effect on young mind. Loud and fast music also plays the role in attraction to certain violence-based games. The relevance of this subject area in our thesis plays an important role and the positive and negative effects of video games on children are more observed in our thesis.

3.3 Previous research

In light of our thesis topic “Video games effects on youth and children both in positive and negative way”, we studied several books regarding the research being done in this one of a unique kind of field, which has interaction with Social sciences and Information Technology / Informatics. This unique kind of addiction, which we mentioned in section 3.1, is not exactly considered as an addiction but rather a behavior change due to excessive use of video games. Shotton, calls it computer dependency, which she wrote in her book about an argument about
the term whether it should be called addiction or computer dependency. According to Margaret many people will not refer it as dependency but a more similar word like hackers, computer addicts, and game addicts can be used to clarify the problem with general public (Shotton, 1989).

Clark et al., calls game addiction as experiences that have been designed to be rewarding as possible, other drugs like cocaine, heroin, and alcohol addictions can be called behavioral addiction. Games are designed in such a way, which makes the gamer feel like he or she is doing a very difficult and heavy task. They further added in their book that video games are not drugs but rather a heightened and idealized experience (Clark et al., 2009).

In a publication from “International Clearinghouse for children and violence on the screen” combined research of different authors in the field of video games, in their book called “Children in the new Media Landscape”, they wrote, “Electronic games have also been used for therapeutic purposes”. They have also pointed research being done on the possible harmful influences, such as increased player acceptance of violence as a useful means to solve conflicts, desensitization to violence, increased aggression, addiction, isolation, disregard for homework and outdoor activities, and also health issues, like epileptic fits, cramps etc.” (vonFeilitzenet al., 2000).

Vorderer and Bryant also stated what Shotton said about the word “addiction” in her book, she correctly suggested not using the word “addiction” but rather “dependency”, which applies to a particular category of a person whom playing video games is not simply a preoccupation, but also serve special social and psychological functions in their lives. We have talked already about related research Shotton have done in section 3.1. Vorderer and Bryant further says in their book that when it comes to talk about positive effects of video games, most often it is in the context of the educational games and when it comes to entertainment video games, it is usually the negative effects such as alienation, addiction, and violent behaviors that are discussed. However a growing number of empirical studies have indicated that nonviolent entertainment games can also produce positive outcomes (Vorderer et al., 2006).

Sanger et al wrote in their book that it has also been suggested that the time spent on video games displaces other more worthwhile activities such as reading and indulging in more traditional games and sports. By this Sanger and Wilson means, the time spend over video games can be divided into more physical work out and exercises, which is very important for children and their body growth (Sanger et al., 1997).

Anderson and Dill explained Multiple-Episode General Aggression Model, in which they showed long-term effects of violent games. By long term they meant excessive use of violent games, which comes into effect after any person changes his or her behavior to addiction and according to Shotton, 1989, becomes total dependent on computer (Anderson et al., 2000). The figure 6 shows the different effects of repeated violent game playing and the different aggressive phases, which increases aggression in a personality. These changes can occur in a person, who is more intact or playing violent games. The aggressive personality of a person has its own way of thinking and tackling problems. They look at every aspect in life with a very high level of aggression and almost do things faster and with a lot of errors and mistakes.
3.4 Summary of theoretical findings

The theoretical findings for our main question and sub questions of our thesis are clarified through the previous research done by writers and researchers on the video games effects on youth and children. The key concepts we used in our thesis are, Human Psychology, Addiction, Child Psychology, Types of Games and Laws for Games. Keeping in mind all these subject areas will help us to build a result on the basis of our theoretical findings and clarify our sub questions as well. If we want to find a solution or cure to all the addictions and bad social behaviors being generated because of the excessive use of video games in the mind of youth and children, then we must collaborate with the previous theories presented by researchers in this manner. The theories, which we discussed by previous researchers in section 3.1 and 3.3 shows the different behavioral changes occur in a human brain while having all the violence media form presented to him/her as in a form of entertainment.

Sub Question 1: The individual factors, family factors, social and environmental factors affected by video game addiction among the youth and children.

In light to the theoretical findings, the purpose of this sub question in our thesis is to show the different factors affected by video games. Different researchers presented their theory and point of view, which vary from time to time, because of the different forms of videos games being changed since the first violent game ever made. The controversial violent games are the
main cause of these factors being affected. Following the key concepts mentioned in chapter 3 can help finding an answer to this question through theoretical findings. These factors are highly affected areas because a human life is a combination of these factors i.e. social, family and environmental. These factors work as a base of a normal human being life. Any changes both positive and negative can be harmful and impressions can stay longer in a form of disease or disability both to body and mind. We tried to find the question answer by reading the previous work done in the field of Human Psychology and Child Psychology in section 3.12& 3.13 of this chapter.

Sub Question 2: The possible positive effects of playing video games on youth and children?

From researches it is clear that everything having meaningful results can put a better and useful impression on young minds. As applied theory from the previous researchers in section 3.3, positive effects can vary from mind building video games to tactical and logical idea generating games. This can help creating a positive thinking in the minds of the young people, who adapt effects more quickly compared to adults. To create a solid base for a positive sensible life of human being, a positive effect can be brought by these videos games. Instead of showing how to kill or eliminate a human character inside a game, we can make the idea in different direction by pointing out that inside a game stage, if you help a needy person in any situation or helping a woman or helpless child in any form inside the game environment, can bring a difference in how children should be grown up, because the society needs a positive thinking human being for the beneficiary of other human beings.

Sub Question 3: The possible negative effects of playing video games on youth and children?

The most dangerous effects being occurred by the violent games can end into a criminal mind being trained by these violent games, which shows a human body as a piece of enjoyment inside the game environment. The reason companies make such violent games and put the character more attractive is to gain attention of people and provide them entertainment, which results in the practical form being done by the people who are addicted to these games and the violence being shown inside it. One time playing these games does not consider any negative effects; many researchers consider this as excessive use of violent games, which slowly makes a negative impression about a human life being taken just to achieve a level or reward inside a game. Through theoretical findings the answer to this question is well debated by many writers and researchers and some do not even call it an addiction but as an obsession behavior of human being.

3.5 Arguments for an empirical study

To answer the questions arise during the theoretical findings, we decided to have an empirical study, which is far closer than a theoretical achievement, because it is the face to face
interaction with people from daily life and their reactions and replies to our questionnaire, designed on the sub questions of our thesis. One good purpose of having an empirical study is to see the real answers from the people who are affected by these violent games. Some of the people did not even agreed to call it violent or did not even consider these games as a violent character generating inside their mind, which makes them do such acts of violence. Empirical study shows the different point of view of people who were being interviewed as detail given in further chapter 4. A clear answer for the theoretical study findings being achieved from the empirical study, in the form of interview and questionnaire we brain storm the people about this issue and gained answers for our subject areas as well. In our theoretical studies we have studied the old theories about the game addiction, which is different from the actual affects we find in the people we interviewed and after checking the questionnaires. Difference such as the character of these video games are based on real life characters and also more eye catching then before, which most of the young generation and children wants to copy and adopt in real life. Just like any other movie many youngsters are copying actor’s style and dialogues.

3.6 Relevant Literature Source

For relevant literature sources our way to approach is deep study of scientific generals, conference papers and books related to video games and their effects on youth and children. According to Kuhn scientific textbooks contain the results of previous research and accepted examples of scientific practice thus supplying a base for further research (Kuhn, 1996).

Our criterion is to select the trust worthy resources from already published literature by checking the credibility of both authors and publishers. Our priority for literature sources is to find scientific generals and conference paper published in IEEE. For further research papers and books, we access university of Boras database, LIBRIS, EBSCO’s database, Google scholar and ACM Digital Library. Some of the papers related to our study are mention below.

Xue-min Zhang, Mao Li, Bin Yang, Liu Chang article: Violent Components and Interactive Mode of Computer Video Game on Player's Negative Social Effect was published in 2009 at third International Symposium on Intelligent Information Technology Application. The research was done in Beijing Normal University, School of Psychology, Beijing, China. This literature is very closely related to our research investigation especially with violent video games, aggressive thoughts and behavior.

Video Games: Issues and Problems written by Wan Ayuni Wan Rozali, SitiHafizahAb Hamid, and Mas IdajuMdSabri at Information and Communications Technology, 2007. ICICT 2007. ITI 5th International Conference. In this article authors discuss lots of issues and problems of video games and their effects on video game players.

On Video Game: Heaven or Hell, Computer-Aided Design and Computer Graphics, 2007 10th IEEE International Conference by Kuo-Kuang Fan, Pei-Chi Ho and Yung-Fu Hu, all of three are Associate Professors in china Universities. In this article authors discuss video games addiction and violent video games and their effects on children.

Delgado-Mata, C.; Ruvalcaba-Manzano, R.; Quezada-Patino, O.; Gomez-Pimentel, D. and Ibanez-Martinez, J. article: Low cost video game technology to measure and improve motor skills in children was published in September 2009, Nairobi, Kenya, IEEE
AFRICON. In this publication authors discuss both negative and positive effects of video games especially focus on positive and good use of video games with some good examples.


Karen E. Dill article: The Influence of Video Games on Youth: Implications for Learning in the New Millennium, In Technology Addictions, Icfai University Press, India was published in 2009, discuss about influence of video games on youth.


Book: Young Children, Videos and Computer Games: Issues for Teachers and Parents

By Jack Sanger, Jane Wilson, Bryn Davies, and Roger Whitakke. The Falmer press publishes it in 1997. It is very related to our study. Authors discuss about young children’s playing video and computer games and issues for teachers and parents.

Book: Game Addiction The Experience and the Effects

Written by AvNeils Clark and P. Shavaun Scott. Published by McFarland & company Inc in 2009. In this book authors discuss about video games addiction, how and why people got addicted and their effects on children psychology.

3.7 Video games

Our main research question for our study is, what are the factors being effected by Video Games addiction among youth and children? To explain our research question in detail we have three sub questions, which we explain in detail later.

Sub question1: What are the individual factors, family factors, social and environmental factors affected by video game addiction among youth and children?

Sub question 2: What are the possible positive effects of playing video games on youth and children?

Sub question 3: What are the possible negative effects of playing video games on youth and children?
First we must have to introduce you about, what are the video games and a brief history about video games.

**Video games** also known as electronic games, we can also call it computer games if we specifically play it on personal computers (PC) rather than a dedicated video game console or arcade machine. These games involve human interaction with electronic devices through some user interface. In video game the world video traditionally referred to a display device, in general also called cathode ray tube, which is used for display in different electronic devices for example television (TV) and computer monitors etc., but now a days it implies any kind of display device that can produce 2 or 3 dimensional images. In video gaming world platform is called an interface where we can play video games. Personal computers, laptops, touch screens and mobile phones are different platforms where one can play video game through different input devices called game controllers. Different kind of game controllers are used for modern age video games that might be a mouse of a system, a keyboard, a gamepad or a joystick depends on the nature and type of the game and which platform we are using (Baer, 1972).

The video game is now considered as everything from the work to the play; as narrative, simulation, performance, remediation, and art; a potential tool for education or an object of study for behavioral psychology; as a playground for social interaction; and, of course, as a toy and a medium of entertainment (Wolf, 2005).

### 3.8 Brief History of Video games

Here we have given a brief touch to the video games history. The history of video games starts in the early cathode ray tube-based missile defense systems, which are introduced in the late 1940s. Based on these programs further growth of video games was done during the 1950s. By the late 1950s till the 1960s, more video games were developed (mostly on mainframe computers), gradually increasing in sophistication and complexity. After that a series of video games starts and developers design different video games for different platforms, arcade then on mainframe computers, consoles and then video games comes home to personal computer users and now handheld games.

In 1952 the game named TicTacToe which is introduced by A.S.Douglas on a EDSAC vacuum-tube after that in 1958 another game named Tennis for two was designed by William Higginbotham which involves hitting a ball over a net and was displayed using an oscilloscope (also known as a scope, CRO, DSO or, an O-scope, is a type of electronic test instrument that allows observation of constantly varying signal voltages, usually as a two-dimensional graph) connected to analog Donner computer. In this game each player used a controller with a dial for altering trajectory and a button for hitting the ball. Sound effects were a side effect of the relays, which made the game run. No one realized its significance.
In 1961-1962 Steve Russell at MIT using vector graphics for the DEC PDP-1 computer designed SpaceWar. SpaceWar involves two players; each player controlled a spaceship capable of firing missiles. A black hole at the center of the screen created a circular gravitational field.
In 1971 the birth of commercial games start with the SpaceWar (under of the name of Computer War) designed by Nolan Bushnell [Nutting], it was the first commercial arcade game. With the start of SpaceWar a total of 1,500 machines were produced but it was not a success as many people found it too difficult to play and was too sophisticated for market.

In video games world with the release of the video game named Pong in 1972, a new form of entertainment became commercially available. In Pong game, two players tried to hit an electronic ball back and forth. Over 19,000 Pong arcade machines were sold (kick-starting the
era of arcade games). From these humble beginnings, a revolution in the entertainment industry was born. Douglas in his book A COMPLETE GUIDE FOR PARENTS AND PROFESSIONALS compare video games industry with film industry he writes that Interactive game revenues are now significantly greater than the domestic film industry (Gentile, 2003).

Further Douglas in his book refer Cohen and give some statistics about the sale of video games worldwide which is $20 billion annually, furthermore he explain that the play station video game console, which began as a side project at Sony, now represents $6 billion of the company’s $20 billion in annual sales (Gentile, 2003), (Cohen, 2000).

Figure 9.1: The Pong arcade machine by Atari (Overmars, 2012)

Figure 9.2: The Pong arcade machine by Atari (Overmars, 2012)
In researchers point of view the very first violent video game introduced by Exidy Games in 1976, which was named Death Race. It was a controversial arcade game.

Death Race was a freestanding, driving simulator arcade game. In that video game player can have drive the car over the little stick figures that ran around on the display screen. Player has to follow stick figures by car and when the car hit the stick figures, it changes to tiny gravestones with some crosses. With every hit to stick figures a little cross, which indicates grave appears on the display screen. It was a really controversial video game because of its violent behavior and after a period of time TV stations started to get complaints from irate parents and teachers of the children that this was a terrible example to set for children and they feel changes in behavior of their children. After death race, Exidy got lot of coverage in news channels which boost their sales doubled or quadrupled (Gentile, 2003).

![Image with game interface]

**Figure 10.1:** The game Death Race, causing controversy (Overmars, 2012)

![Game poster]

**Figure 10.2:** The game Death Race, causing controversy (Overmars, 2012)
After Death Race a chain of violence video games started and lot of violent games came to the market. Parents buy these games as a fun for their children without considering the violent factors and its side effects on their children’s life. Death Race give a start to the violence factor in video games which gets worse and worse day by day and now killing, kicking, boxing, shooting and blood is the main theme of a violent game.(Esposito, 2012)

3.9 Types of video Games

In early days video games are programmed only for children for fun and entertainment but now a day the situation is completely different. No one can specify Video games to a specific age group and gender people, everybody (children, teenagers, and mature people) like to play video games because of its nice attractive animation with fine background and sound quality. From the couple of years video gaming industry is expanding very rapidly, every day a junk of video games comes to the market that’s why there is no doubt in saying that video gaming industry is the 2nd largest industry after Hollywood.

There are different types of video games available in the market ranging from traditional simple card games to more advanced adventurous, puzzle and fighting games. In this section we will try to point out some types of the video games developed by gaming industry and our young generation using them.

There are many types of video games among them some are following:

- **Puzzle Video Games:**

  Puzzle video games aim is to think and figure out solution of a problem. These video games involve some problems/steps the users have to solve. These games are designed to test the intelligence of the user and get reward and feel satisfaction when they solve the problem.

- **Action Video Games**

  Action video games are really popular amongst youth especially guys, these type of video games require quick response, accurate timing and efficiency to get the desire goal. These video games involve thrill, boxing, kicking and killing to overcome obstacles and to get reward.

- **Fighting Video Games**

  Fighting video games involves lot of action and fight. The player has to fight with enemy by kicking, boxing, shooting etc. to get reward and achieve the desired level. These video games usually involves two or more characters who can fight one-to-one or hand-to-hand combat situation, in which one character is controlled by user through buttons and arrow keys and the second character is usually controlled by computer or another user. Humans represent fighters
in these games or some animated character. Street fighter is best example of fighting games in which to characters can fight with each other to defeat each other.

- **Shooting Video Games**

Shooting video games involves different kind of projectile weapons, such as different kind of pistols, guns, hand grenade and missiles etc. In these games player concentrate on target and shoot it to get reward, that target could be birds, animals or may be human, depend on the nature of the game.

- **Racing Video Games**

Racing video games are also very popular amongst youth and children. In these types of video games player can play against computer or another user. Racing video games are often sold in the market in the sports category but there are lots of other violence factors involved in these racing games as well. There are different categories of racing games available in the market for example bike racing, motor racing etc.

- **Adult Video Games**

Adult video games provide erotic entertainment to the player rather than just playing game. A wide range of adult video games is available in the market. These adult video games are a bit different from normal videogame we play on our play station or personal computer, because in these video games the reward can be a visual representation of partially or fully nudity or sexual activity rather than points.

- **Sports Video Games**

Sports video games are adapted from existing real world traditional physical sports for example tennis, football, baseball, running, boxing, karate, basketball, squash and cricket etc. In sports games one of the bestselling series is FIFA video game series, which is really popular in gamers.

- **Adventure Video Games**

Adventure video games involve some story, plot and kind of puzzle solving to achieve desired level or goal. These kinds of games are well designed with fine historical places and attractive background.
Simulation Video Games

Simulation video games are different from normal games; these kinds of video games are designed to simulate aspects of real or fictional reality. These kinds of games involve intelligence and accuracy to solve a problem. There are two broad categories of simulation games, training simulation and management simulation.

Training simulation games are used for training and learning purposes and to stimulate real life situations while management simulation games refer to build/improve management skills of game player.

Card Video Games

Card video games are similar as we play cards in real life, in these games player can play cards with computer or another player.

3.10 Positive Effects of playing video games

According to Kuo-Kuang, et al in the article “On Video Game: Heaven or Hell “ define that most of the video gamers defend the video game by addressing advantages of playing video games. They give examples of some visible benefits of video gaming, there artistic and entertainment contributions. Book written by Steven Johnson, “Everything Bad Is Good For You”, describes that video games in fact demand far more from a player than traditional games we play. To start and get use to with a video game, the player must first determine the objectives in the video game, as well as how to complete it. They have to learn the game controls to control their imaginary characters in the video game and learn how the human machine interface works. It requires player of the video game to think and make a strategy to solve the problems and achieve the desired goal that is a good activity and exercise for the brain (Johnson, 2006), (Kuo-Kuang et al., 2007).

Our Sub Question 2 “What are the possible positive effects of playing video games on youth and children?” deals with this part of our subject area.

Some researchers (Wan Rozali et al., 2007) believe that some students performed well in school due to playing video games at home. For the claim he based the facts that the video games had given players some additional knowledge, skills and need them to think about and to solve the problems in order to achieve the desired goal and win the game for example Red Alert, Tycoon Pizza and Big Fish's Mystery Case Files Raven Hearst.

“Educational games that offer total-learning environments can include games that introduce students to a specific foreign language; the games teach students basic vocabulary and grammar, allow students to move at their own pace, offer electronic conversation partners, and include tests, re-tests, and feedback.” (Mubireek, 2003).

Xue-min Zhang, et al in the article Violent Components and Interactive Mode of Computer Video Game on Player's Negative Social Effect mention some positive and good effects of video games on players, but still there is a condition to have positive effects, if one uses the game in a proper way and limited time period. “Playing games have positive effects on player,
either, and if we use it in a correct way, it may be a suitable way to develop our basic
cognitive processing, thinking and problem-solving skills.” (Xue-min, 2009).

Tzeng writes in his study Optimizing Challenges and Skills in the Design of an
Educational Computer Game and Exploring Adolescents” Gaming Beliefs, that computer
games are an effective classroom strategy for students to amplify motivation and cognition
(Tzeng, 1999).

There are lot of video games which are designed and use for training purpose, Carlos, et al in
his article Low Cost Video Game Technology to Measure and Improve Motor Skills in
Children give a really interesting example of a video game launched by United States of
America (USA) military named America’s Army in 2002 for pre-training and also for
engaging future recruits. It was a really successful idea, with a population of nearly ten
million registered players for that video game. In the video game players learn lot of valuable
information. Players learn different rules of engagement and teamwork-based operations, to
name a few.

“Video games in particular and graphic simulation in general, are well suited for training.
That is, the training with the use of video games is well justified where training on the real
artifact is costly (or not feasible to perform).” (Delgado-Mata et al., 2009)

As I mention above about Xue-min Zhang, et al article Violent Components and Interactive
Mode of Computer Video Game on Player's Negative Social Effect, that “Playing game have
positive effects on player, either, and if we use it in a correct way”. So games like America’s
Army if we using in a correct way, it has lot of social, environmental and economical benefits.
Training of a pilot is not ideal to perform on the airplane. A little mistake can cost the lives
and additionally the cost of a high priced airplane also, which is a huge risk of both life and
money. Video games also plays great role in medical industry, a surgeon should not be trained
directly on a living person as a mistake might cause risk of the life of patient, so it is cost
effective solution in the medical industry if a surgeon or a doctor do his/her practice on such a
game which gives them real time environment.

But one of the biggest problem which motivates and gives us courage to write the thesis is
negative effects and misuse of video games by our new generation, which are far more then
there positive effects from which most of our children, youth, their parents and teacher are
totally unaware.

3.11 Addiction

One of the most important subject areas of our study is video games addiction. “Video games
have been the subject of controversy due to the depiction causing addiction and even violent
behavior” (Kuo-Kuang et al., 2007).

Our Sub question 3 “What are the possible negative effects of playing video games on youth
and children?” can deal with this part of subject area.

“Video games have become part of young adult life since 30 years. It affects their daily
activities and the way they think and behave.” (Wan Rozali et al., 2007).

Kuo-Kuang in his article on Video games: Heaven or Hell, describe in detailed about the
origin of video games addiction, he stated that the origin of the term “video game addiction”
correlates closely with another term, “Internet addiction disorder”. The term “Internet addiction disorder” was first introduced by Ivan Goldberg M. D. in 1995, he referred to the part of pathological gambling in Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (DSM-IV) and defined the term “Internet addiction disorder” (IAD). These criteria were originally posted as a joke by Goldberg as a parody of the strict format of the DSM. Goldberg did not actually believe that IAD existed. Afterwards the subsequent researchers Kimberly Young, Mark Griffiths and John Charlton have investigated the idea of IAD further and attempted to create more accurate diagnostic criteria for Internet Addiction Disorder (Kuo-Kuang et al., 2007).

“When people devote themselves to and persevere in doing certain activities, the symptoms of addiction occur. Instead of opposing these activities, the society would encourage in doing so, people even think it is good for you.” (Kuo-Kuang et al, 2007). Kuo-Kuang, et al in the article On Video Game: Heaven or Hell discuss about violence video games, said that other forms of media (Print and Electronic), video games have been the subject of frequent controversy and censorship, due to the depiction of graphic violence, sexual themes, consumption of illegal drugs or alcohol in some games etc. Critics of video games sometimes include parents' groups, politicians, organized religion groups, and other special interest groups. They argue that various video games have been accused of causing addiction and even violent behavior. Later on he discuss in his study about addicted gamers that they are seen as low-class, proto-violent addicted and dangerous kids, learning to express repressed anger and aggression and sociopathic-ally isolated from others because of spending long time on playing video games (Kuo-Kuang et al., 2007).

Wan Rozali, et al in the article on Video Games: Issues and Problems says that the increasing number of games produced every year makes playing games one of main daily activities not only to children but also to adults, and reason for that is, video games are one type of applications or software available to the general public that have a very high demand based on its attractiveness, addictiveness, ease-of-use, engagement, and aesthetical appearance. These demands have made designers and developers of video games to use the latest technique in electronics, artificial intelligence, multimedia, use of high quality computer graphic, computer simulation, and human-machine interaction to make them more future enhanced, up-to-date and attractive for the game player. These entire factors force the video game player to stay with the video game for a long time and get addicted badly (Wan Rozali et al., 2007).

Researchers believe that by exposing under the violent or amorous contents for a long period of time, young men could easily commit crimes (Kuo-Kuang et al., 2007).

3.12 Human Psychology

Wan Rozali, et al in the article “On Video Games: Issues and Problems” define some issue related to human psychology affected by sexual content in video games. He gives an interesting example of Japanese companies, using sexual content in video games. He describes that sexual content in these video games is the main theme to attract teenagers and adults to buy and play these video games. Video gaming companies take advantage of teenager’s age because in that period of life they are not up to so mature level of mentality to make a solid decision. But we cannot say all video gaming companies do the same, some well-known multinational companies such as Nintendo and Sony discourage this trend and
avoid to publishing these sexual themes in video games. One famous video game using these themes is Cluster's Revenge, which was really controversial for its racism as well as its sexuality contents. Another example of adult games is Sierra's Leisure Suit Larry. In Sierra's Leisure Suit Larry they use the theme to motivate game player to have sex with another partner. In that video game player have to convince women to have sex with him to achieve the desired goal. The sexuality issue here is the action showing partial nudity with increasing graphical quality over the years (Wan Rozali et al., 2007).

A really interesting meta-analysis done by Aderson and Bushman in 2001 on “Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosaically behavior”, figures out players” heart rate and blood pressure. The results of that meta-analysis was quite interesting, it suggested that, besides the aggressive behavior and affects, playing violent video game did also increase the physiological arousal of the players (Anderson, 2001).

“In the aspect of vocation, more and more managers are concerning about their internet addicted vassals working without vigor)” (Kuo-Kuang et al., 2007).

Researchers believe that most of the managers in big organizations using internet monitoring software to prevent their staff from internet resources abusing or to do anything not connected with their work. The reason managers give to use these internet monitoring software is that the internet addiction causes those abusers physical or mental damages, such as carpal tunnel syndrome, back strain, eyestrain, headache, shoulder ache, even the excessive fatigue caused by lacking of sleep may decrease their immune system which can effects their work performance and also their personal and family life. (Kuo-Kuang et al., 2007)

Due to spending long time playing video games they got lot of physical and psychological problems, which can affect them physically, psychologically, affect their family life and social behavior. Our sub question 1: What are the individual factors, family factors, social and environmental factors affected by video game addiction among the youth and children? deals with this subject area. In later chapters we do some knowledge sharing and give some solutions how to avoid our new generation not to play with this fire, which can only harmful for them but also from their family and society.

### 3.13 Child Psychology

Lot of the video games can have a very bad effect on child’s psychology and on their behavior. Wan Rozali, et al in the article on video Games: Issues and Problems mention that videogames cause children to sit alone in the television room or in front of the computer for many hours to play video games. They feel more comfortable to sit in the front of an electronic machine rather than have physical activities of playing outside as they exercise to improve their health and social skills by playing with other children. This behavior of isolation can also affect their study performance, grades and behavior with their friends and family members (Wan Rozali et al., 2007). This subject area support our main research question which is “What are the Factors being effected by Video games addiction among youth and children?” and deals with our sub question “What are the individual factors, family factors, social and environmental factors affected by game addiction among youth and children?”

~ 31 ~
But on the other hand researchers (Wan Rozali et al., 2007) also believe that some video games can have good effects on children and enhance children's social interaction because many video games in the gaming world are multiplayer, where two or more players can have competing with each other on the same television or computer screen, which is also a source of communication.

Third era, the ten years period of online game playing from 1995 to 2005, when the online games are on their peak and really popular amongst youth and children. Person shooter, killing, kicking and punching type of violence video games, where one can hurt another to get the destination have increasingly predominated the market. In that period of time the popularity of these violence video games had enormous impact on people's everyday life, especially on youth and children’s social development and on the psychology (Xue-min, 2009).

Carlos, et al in his article “Low Cost Video Game Technology to Measure and Improve Motor Skills in Children” stated that “Unfortunately, several children are overweight or even obese because they spend a lot of time watching television(TV) or playing nonphysical video games, instead of performing physical activities.” Carlos, et al mentions that children’s development is also affected because of being not a part of the physical activities and exercises (Delgado-Mata et al., 2009).

It is really important for children to have some physical activities and play some outdoor games which are good for their growth and development, as it contributes to cognitive, physical, social and emotional wellbeing of youth and children, instead of sitting in front TV or computer for long time.

### 3.14 Violence

Our Sub question 3 “What are the possible negative effects of playing video games on youth?” where we focus and investigate different factors being effected by video games among youth and children. Our sub question 3 deals with the following part of subject area and we try to figure out how video games affect our youth and children.

Basic purpose of video games was to be entertaining, challenging, educational and to reduce stress but most of the current video games are full violent element. Recently a study done on content analysis of video games which show that as many as 89% of video games contain some violent contents and due to playing these violent video games youth and children got changes in their personality and in their life style. They get aggressive behaviors, aggressive cognitions, aggressive emotions and physiological arousal and decrease their pro-social behaviors and educational level. The majority of these video games players are youth (Gentile et al., 2004).

“Violent video game as one part of a violent culture that many children and adults inhabit, it plays more important role in today society.”(Xue-min, 2009). Xue-min et al., believes that due to playing violent video games, increase player’s aggressive behaviors, aggressive cognitions, they got psychological arousal, hostility and other negative reactions which can not only effect their lives but it can also affect others connected with them directly or indirectly.
A really interesting research was done by Dill in 1998 on video games. In that research report they writes about the video game’s world leader, Nintendo, sold an average of three games every second in the 12 years period from 1983 to 1995, if we calculate the time duration and number of games sold per second so the total of one billion video games were sold in just only 12 years duration, that means one game for every teenager on earth (Dill et al., 1998).

But it was the really beginning of the gaming industry, so one can imagine how many games are being sold per second now in the 21th century.

Later, on-line play had been introduced which gained great popularity in gaming industry. With the popularity of online gaming, opens new ways for video game players, it enables players to play with from several to hundreds of other competitors from all over the world. After a boost of online gaming, playing video games is not an individual or two to three gamer activity anymore; it became more social activity in the gaming world. Xue-min in his article “Violent Components and Interactive Mode of Computer Video Game on Player's Negative Social Effect” give a survey report done in china in 2007, 2008. He said that the total sale of playing computer game in 2008 was 409.9 million; this number of playing computer games was 15% higher than 2007 which was 366.7 million. He further argues that by the end of 2008 this figure increased more. By the end of 2008, more than 50% of Chinese internet users played at least one online game. And the interesting figure which relates to our research questions and studies is that there are 49.36 millions frequent game players and amongst those, 40.17 million of the video games players are adolescents. Its mean majority of our young generation is addicted from video games and it increases surprisingly every year. He mentions that many of adolescents spend lot of time and money on playing video games and got addicted to them.

Xue-min, et al reports that many of the parents and school teachers started to worry about their children about playing violent video games and there negative influence on their lives. Including Xue-min many other researchers believe that playing too much video game may cause depression problems, psychological arousal, negative reactions and violence in the young generation(Xue-min, 2009). Berkowicz in his study “The contagion of violence: An S- R mediational analysis of some of the effects of observed aggression”, Andison in his study “T.V. violence and viewer aggression: Accumulation of study results. Public Opinion Quarterly” and Eron, an American Psychologist in his study “Parent-child interaction, television violence, and aggression of children”, found some interesting facts and statistics about the children who watched violence television (TV) subsequently act more aggressive than other children, in their daily life routine (Berkowicz,1970), (Andison,1977), (Eron, 1982).

While Silvern and Williamson presented a paper on aggression in young children and video game play at the bi-ennial meeting of the society for research in child development, in which they do arguments about watching television (TV) and playing video games, they mention that both watching television and playing video game has similar effects on a mind (Silvern et al., 1983).

So according to Silvern, if there are similarities between watching television and playing video games then both have similar effects on a mind. We expected as well that playing violent video game could affect children daily life, their studies, their aggression potential and cause changes in their behavior with family and friends (Silvern et al., 1983).

Gentile in the study “The effects of violent video game habits on adolescent hostility aggressive behaviors, and school performance” did an analysis of 607 students. In that report
they mention that the students who expose themselves to play more violence video game were more hostile, aggressive and more likely to be involved in physical fights with others (Gentile et al., 2004).

Figure 11: Three violent components during game playing (Xue-min, 2009)
### 3.15 Aggression

Anderson and Bushman in their study focus on aggressive behavior of children affected by playing video games. According to Anderson and Bushman aggression is the “behavior intended to harm another individual who is motivated to avoid that harm.”

If we more elaborate Anderson and Bushman idea of aggression, so aggression due to playing violence video games is kind of a behavior and there’s an innocent victim. But during our study on the topic of aggression, we came to know that many of the researchers in their study did not only mention actions, but they are also much worried about the video game players and point out their thoughts and attitudes. In our thesis “Effect of video games playing on youth and children”, the used word “aggression” does not only mean “aggressive behaviors”

![Figure 12: Competition, cooperation and single in violent and nonviolent game (Xue-min, 2009)](image)
but also “aggressive fantasy” in youth and children due to playing violence video games (Anderson, 2001).

When the video games became popular in the late 1970s, it is noted that most of the video games make aggression in the youth and children. This has led some researchers to believe that children become more aggressive after playing such video games (Koop, 1982).

Anderson and Bushman in their study “Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior” did a meta-analysis and discussed 54 independent tests of relation between video game violence and aggression. From these 54 independent tests they conclude that playing violent video games have lot of negative effects on a child brain, these violent video games cause to increases aggressive behaviors, aggressive cognitions, aggressive emotions and physiological arousal while decreasing pro-social behaviors of the video game player (Anderson, 2001).

3.16 Effect on studies

Researchers believe that extreme level of playing video game can affect school performance of children, adolescents and college students. Wan Rozali, et al in the article “Video Games: Issues and Problems” explain with some examples about playing video games and their effects on youth and children. He says that high school students who report spending more time playing video games or who report spending more money on video games had poorer grades in their studies (Wan Rozali et al., 2007).

Xue-min in the article “Violent Components and Interactive Mode of Computer Video Game on Player's Negative Social Effect” describes that sitting for long time in front of television (TV) or computer system and playing too much video games may cause depression, psychological arousal, negative reactions and violence in the adolescents and students who play video games for long time are not interested in their studies which effect their grades and school performance (Xue-min, 2009).

As Wan Rozali, et al in his article on “Video Games: Issues and Problems” mentions that videogames cause children to sit alone in the television room or in front of the computer for many hours to play video games. They feel more comfortable to sit in the front to play video games rather than have physical activities of playing outside as they exercise to improve their health and social skills by playing with others. This behavior of isolation can affect their study performance, grades and behavior with others (Wan Rozali et al., 2007).

Xue-min Zhang, et al in his article “Violent Components and Interactive Mode of Computer Video Game on Player's Negative Social Effect” refers a really interesting research done by Mehrabian and Wixon’s on “Preference for individual video games as a function of their emotional effects on players”. They mention in their research that college student’s hostile feelings increased when they just imagine playing video games (Mehrabianet al., 1986).
4. Empirical Survey

4.1. Purpose

This chapter is about the empirical survey, which we have used in our thesis. We will also describe how we did our thesis research and which method of research we have specified. Purpose of empirical survey is to find the answers of those questions, which are raised during theoretical research. For this reason we have selected qualitative research method. Our topic is about video games addiction in youth and children, so for this purpose we choose the empirical research method by making a questionnaire and conducted few interview as well. We gave this questionnaire to different age groups of video game players. Different views and ideas can be gathered by this form of research, many people will not agree on some point and many will agree, so we gave an open choice of multiple answers to each question in our questionnaire.

Most of the researchers do the same technique because instead of gathering materials, one can perform this research and take the general idea about this addiction from general normal life people who have some relatives or own kids having this problem. They can better show us their thoughts and views about this psychological disorder by having their own experience. The knowledge gathered through this method will show a better picture of why people get addicted to video games and what are the negative and positive effects on them as well as their social life, health issues and other daily routine life matters. From the theoretical finding we can clarify answers to our research questions but through empirical survey we can verify these question more precisely. After conducting this empirical survey the data gathered from it will show signs of discovering methods and ideas to prevent the negative effects of video games on children and young people, and also this information can be shared with general public as an awareness of this addictive behavior and its effects.

4.2. Sampling

According to Steven, sampling is the small portion of a population, which is selected for observation about the whole population, instead of checking one by one (Thompson, 1945). We discussed our research strategy earlier in chapter 2. We have gathered information from different age groups in primary schools and University of Borås to obtain a sample from these questionnaires and make estimation about the video addiction and its effects on young people and children. In chapter 2.2.2, we have described that we will do inductive research approach, which goes from a small point of observation to a more advance form of broader generalizations.

4.3. The Interviews

Interview means the internal view of individuals, before taking interview from them. We first explained the purpose of our interview and the basics of our research, which helped them understand the main issue of this interview and with this explanation
they had better answers, because without any idea they would have guess, it is another scientific research and many people would have refused to take part in it due to the complexity of the term “Video Game Addiction”. According to Gubrium and Holstein interviewer coordinates a conversation which is directed towards achieving the exact information needed and the interviewer decides the topic, place of interview, rules about the questions and explanation of what will be the questions about and then conducts an interview from a person who will response to those questions (Gubrium, et al., 2001). We selected 20 questions for our interview. If the interviewees did not understand the questions we explained them further.

4.4. The First Interview

We followed the same theory of Gubrium and explained the term Addiction and the relation to Video Games. Also we explained that we are doing a thesis research on this subject. Our age group for this interview was age 8 to 25 people from both genders. For our first interview we selected Högskolan I Borås, because of the different age group of people, we asked to record the interview via mobile phone, which was the only handy and affordable recording device for us. We ensured the people by not disclosing their real identity. Our questions were simple and more related to our research questions; they really replied us very openly about their experiences and judgment of video games. How they play it and how much time they spend on playing each video game. What types of video games are most popular and where they play these video games. They play with friends or family, and as a competition of solo game player. Interesting finding was made by taking this interview, which normally cannot be found upon researching books and journals, because of the nature of games changes day by day. Many young people showed their favorite games, which they were carrying in their school bags. We conducted this interview outside the school and in cafeteria where there was much chance to talk with as many students as possible. The purpose of our interview was that they can be brainstorm a lot and their own experience can help us do changes in our questionnaire as well. We also had a great chance to meet their parents, very few students agreed on giving us addresses of their houses to meet their elders or parents and ask them few questions about the research we are doing. This was a very great help for our research question.

Most of the students preferred the more action packed games and adventurous games. The reason of their choice was that some of the games are actual English movie characters such as Indiana Jones, Lara Craft, The Punisher, The Mummy Returns, Delta Force and Hit man etc. These video games are actual movies made by Hollywood, which is a big reason for the popularity of these movies as well. Some students preferred mission or strategic type of video games, such as Assassin’s Creed, Medal of Honor, Call of Duty, and Prince of Persia etc. These video games have adventurous locations and techniques used from real life situation makes them more popular among teenagers. One question during our interview was very time consuming for them: “Is playing video games really an addiction or just a hobby?” Very few admitted it as an addiction, because of their social outing is very limited, they have very few friends or their houses are in such location where there is not so much entertainment as it is in city locality. This is the only entertainment they can have at home and it is available any time. Many students were not interested in taking part in the interview because from their point of view, playing video games is not an addiction.
4.5. The Second Interview

We followed the path by gaining access to the local Fjärdingskolan with children at the age of 8 to 13. First we met the principal “Per Kettisenand”, we asked his permission to take a small interview from the students inside the school. After one week we went back to the school and he helped us a lot and informed all the teachers about this interview in their morning meeting. Per Kettisen also gave us a class finding map of the school so it can be easy to find classes around the school. The classes that we visited had total strength of 15 to 20 children. All the teachers were very helpful as well and even though our medium of speech was English, but still the children understood us very well, very few children could not communicate in English or were too shy to talk. We presented our names and our purpose very clearly first to the teachers of the school and then to the students. Many children enjoyed the conversation, once they got used to the situation. They talked a lot about video games and their personal computers and other devices inside their homes and their choice of video games that they play. It is mostly games related to color and cartoon characters, also their choice of video games were very wide, which some comes from children’s movies such as Batman, Spiderman, Teletubbies, Car Racing (Sports bikes and Motorcycles) etc. We asked question about the games selection and many children agreed on violent games, mission games and full of action pack scenes. We asked easy questions, which are not so difficult for them and we used less technical words. Upon asking do you ever read if the game is suitable for your age, they replied we do not even care for this and also the shop keeper do not care for the age limit described on the box of that DVD which they buy. As we asked the children about their sleeping behavior, we found out that they go to bed very late for their age. They go to bed around 10pm and 11pm and that’s because of playing video games. That is definitely too late and not healthy enough for this age. We conducted our interviews in six classes, totally. We did not want to conduct more of the questions, as their class timings were very limited and they have to study as well.

4.6. The Third Interview

Our third interview is in relation with the first interview we took at Högskolan, where some of Our third interview is in relation with the first interview we took at Högskolan, where some of the students gave us their home address on the commitment of not disclosing their identity in public. We could interview only four families around Borås, as the access to other families was not possible due to transportation and also some of the parents did not agreed on giving us time for this interview. The families who agreed on meeting us and after explaining the purpose and idea behind this interview, they took great interest. We gave them full surety on not mentioning their details in our research or general public. We started asking questions about their child behavior before and after playing video games. Their response was according to the third sub question of our research, negative effects of video games on youth and children. They told us that their children school grades were much affected by their addiction to video games and many changes happened in their behavior as well. They had a lack of sleep and the proper meals intake was also disturbed. Some interviewed parents denied that their child is video game addicted. In their eyes the child’s behavior is normal and they couldn’t see any change in their school grades.

One family showed their family picture more clearly by disclosing that their son was addicted to video games, which they showed us by taking us to the room where he plays video games.
all day and even all weekend’s night, without sleeping on weekends. The room of that
guy was very messy, clothes and shoes were thrown away in a very disordered form. Walls of
the room were full of action pact characters and signs of violence were very much visible due
to the spray paint used on the walls. His parents also tried to concern doctor for his day by day
change in behavior and anger management plan was set by a psychologist. Upon our contact
with the same student inside school, he did not consider this as an addiction and explained
that his life is normal without any influence from video games. We asked his choice of video
games he played, which were based on violent games like Tekken 5, GTA also known as
Grand Theft Auto, Manhunt etc. These were his more favorite video games among many
others. We tried to contact his classmates, who told us about his aggressive behavior and
smoking problem as well. This gave us a lot of help in doing research about the question
regarding negative effects of video games on youth. Further interview could not be taken due
to the lack of interest from the young man. Plus we could not add more details, as we were
not allowed to ask further questions.

4.7. The Fourth Interview

Our thesis research question was about the individual, family and environmental factors
affected by video game addiction. Above interviews were taken from the people who were
having this addiction or related in some way or another to this problem themselves. Most
concern were the young mind of the children being affected by these games, which does not
mean a game should be full of violence in order to destroy a young mind, but in a form of
colorful cartoon character doing things like killing some object inside the game or breaking
glasses, doors and car windows. These actions can put negative effect on young minds. They
will copy these actions and try to experiment in real life, which can cause and may cause a
serious accident or permanent damage to their body. Our fourth interview is from some
teachers of both schools. Teachers accepted our request and after few days of waiting for our
appointment, we got the chance to meet them inside the school but after duty hours.

Most of the teachers took the problem of addiction very seriously and they told us about their
students grades and study graph which was going in depths due to lack of interest in studies
and lack of interest in attending the school on time. The student which we discussed in our
first interview was mentioned and a great example of such addictive behavior. His whole
record of studies was compared with dates from when he was admitted in this school up till
now. There was a major change in his previous studies and current study progress. Also some
teachers always point this problem in their class to their students for not taking these action
figures and characters of action packed video games seriously as they are fiction based
characters and nothing such can happen in reality. We asked about the other students who do
play these games but their education level and study progress are not affected. Because of the
low time being spend on video games. Teachers of these institutes proposed the same idea of
producing such games which can produce positive effects on young minds, and which can
create some knowledge in their life, useful for future studies. Such games can be made inform
of educational base simulation, which are more colorful to enjoy by children at the age of 5 to
to 12 and with a lot of characters defining real meaning of some form of educative materials.
This idea is also part of our research questions, which are the positive effects of video games
on youth and children.
4.8. The Questionnaire

As a part of qualitative research in the empirical studies our questionnaire is designed according to the research questions. Our questionnaire is composition of simple question of multiple choices and empty blank spaces to fill. Due to personal identification we did not put the name section in this questionnaire, as it will be totally used in our thesis as a research material and we do not want to create any social problems for people who participated in this research. They took great interest by filling it and they shared their own experiences and some shared their friend’s addictive habits as well. Many totally disagreed with such addiction to video games at all. Questions selected were all based on the qualitative research we have done on studying previous research being done before us. We selected our questions on individual, family and environmental factors affected by video game addiction. Qualitative research is what we mentioned in chapter 2 the method we have used.

This questionnaire was distributed among people from age 19 to 25. Total numbers of respondents were 70, from which we took out the percentage of the results. We selected people of age 19 and above because of gaining more idea and their thoughts of this addiction. Questions were put in the questionnaire to highlight the problems both physically and psychological happened or being happening to the people effected by video games. The questionnaire was given to people who were not even related to video game addiction and they were just normal computer users. Questionnaire is divided into three parts with different options of answers. In the end of this chapter the percentage of results are described in form of charts and graphs.

Questionnaire was presented in hard paper form to be filled by the respondents” own choice and to select any desire answer. Questionnaire was based on three parts, mainly personal, family, social and environmental factors. We distributed this questionnaire among students in Högskolan i Borås as well, giving each and every person to fill the questionnaire in their own choice of time, two days or more. A lot of feedback was received, which we stored in hard paper form in a file as a record for our thesis material.

4.9. Empirical Research Results

Upon conclusion from our interview and questionnaire, which are part of our empirical research, brain storming people about the research on video addiction on youth and children. We agreed on one thing that youth and children are a foundation of every nation around the world and very important factor inside any society, because this generation grows up and follows the footsteps of their elders. These and all other factors affected by video game addiction are mentioned below in the result of our empirical research.

Sub Question 1. What are the individual factors, family factors, social and environmental factors affected by game addiction among youth and children?

Video games addiction is a serious matter these days, because of the more violence shown through this form of visual media, which is always sold in market on the name of entertainment and just an ordinary game or hobby for young people and children. Behind these violence games is a very hard and bitter truth hidden, which is called addiction to these
games and use of these games in extreme, turns the young minds very much aggressive. They want to do the things which are not possible in routine life, some of them do act according to what they see through these games, which is shown in a form of reward if they break or damage something, even a human body. Individual factors affected by video games are so many, from a physical perspective of changes in a child body, due to lack of proper diet and sleeping disorder. Most of the families provide these games as a normal toy for children and they want their children to stay in home and play safe, but this is not the case. Playing safe means safe mind and body, in most of the physical games, children do get hurt physically but in playing violence games their mind is damaged and they consider killing a human being or breaking a car and hitting people with car is a normal thing and inside the game its shown as a reward for killing human beings. As shown in video games like Grand Theft Auto GTA, and Medal of Honor, or any other combat or action packed games. Through our empirical research method we found many young people having these games considered as a normal thing to do. But once they get addicted they try to do the same things as in real life for fun, because a young mind is always curious about things, which are presented to them very bright and highlighted in a colorful manner with fast loud music.

**Sub Question 2. What are the possible positive effects of playing video games on youth and children?**

Through our interview we talked to parents and teachers and they show their interest and gave suggestion in making such video games which do not show violence or killing a human being or damaging someone property for fun or reward. Teachers specially insisted of creating such characters inside these games which acts as a teacher and which provide some knowledge through playing these video games, these kind of games are available in market these days, like playing Chess, Cross words, Scrabble, Building an Empire or Navigational simulators for young people and children. They can learn a lot from these games. The main idea behind our question is that technology should be used to develop young people’s mind and not to destroy them and not to show something bad in a more attractive way. Because children initial learning days are very important for future studies and development, it is like turning a glass or steel in any shape you want. They can be more creative and knowledgeable if their training is done in a more educated environment, because their brain picks up things more quickly than any adult mind. A positive development of violent video games could be, to insert a timer in the game, to limit the playtime. This shortens the time spend sitting around playing video games, and the game will resume after the given time on the screen is completed. By this suggestion a player will not waste all his daily time on playing the only game just to obtain few points or golden coins as mentioned in the game to make it more attractive, because it is human nature of achieving some goal and making it an important issue or ego problem.

**Sub Question 3. What are the possible negative effects of playing video games on youth and children?**

During our interview we found one such young teenager age 19, who had the problems of game addiction. His parents were very concern about his health and life that was totally damaged by his behavior. He is living in an intact family together with his parents. His mother and father have a good job. Neither had his friends a bad influence on him. Just the inner violence behavior was provoked with the video game addiction and his behavior was

~ 42~
totally changed. This was also visible in his school grades, when we asked in our fourth interview from the teachers of his school. These effects can be cured and many researchers believe that if nothing can be done, total ban on playing these games is the only solution for this addiction. But it cannot be solved like that in these modern times; these negative effects will stay inside the mind of these young children. Proper solution can be created inside these games by making them more human mind friendly and nonviolence. Companies who make these games have presented a limit of age group for such games, they also show that the following is PG 16 or PG 12, according to them it is less violence, but most of the parents do not think as they think. These companies have to sell their products somehow and by attracting young customers. The negative effects were more visible of playing the video games for longer hours, which was visible in some questionnaire replies we got from the people who filled out questionnaires. One of the negative effects was sleep disorder that we noticed from the duration of playing these games every day and how many days in a week. This is also a serious negative impact of the video games on young people, sleeping disorder can affect their educational routine and they would avoid less physical games.

4.10. Result percentage of the questionnaire distributed


1. Age:
Age group was selected at the age of 8-13 at Fjärdingskolan in Borås. In Högskolan I Borås the age group was selected at the age of 19-25. In general public age limit was different. This included teachers and parents.

2. Gender:
70 people were given this questionnaire, among these 70 people, percentage of male were 75% and female 25%.

Figure 13
3. Education level:
40% of the interviewed students are in school. 42% are in high school and the small rest of 18% is in College/University.

![Figure 14](image_url)

4. How often you play per week?
Most of the interviewees play every day, 33% or once a week, 35% video games. 22% said that they play often whereas 10% gave other information.

![Figure 15](image_url)

5. How do you play the video games?
More than half of the interviewees play video games alone. 30% play video games with their friends, 10% with their siblings and only 4% with their parents.

![Figure 16](image_url)

~ 44 ~
6. Which age did you start playing video games?
The most interviewees started playing video games at the age of 5-10. 10% starts at the age between 12-15 and 5% at the age between 15-20.

7. Duration of playing video games every time you play?
The time the interviewed pupils play video games is in 20% 1-2 hours, in 15% 2-5 hours. Most of the interviewees play 3-8 hours (40%). 15% play 10-15 hours and 10% even play up to 24 hours.

8. If some time you do not play than how do you feel?
35% of the interviewees” don’t feel a different if not playing for some time and 25% feel normal. 10% feel irritating and 15% feel angry. 15% gave different information.
Part 2: Family Factors.

1. Whom you live with?
10% live together with their father and 60% with their mother. 30% live together with both parents.

2. Parent’s marital status.
10% of the parents are together, 40% are separated and 30% are divorced. In 15% either one parent are deceased and in 5% both parents are deceased.

3. Your parents know that you play video games.
In 85% the parents don’t know when their child plays video games. Only 15% of the parents are informed about that.
Part 3. Social and Environmental Factors:

1. What type of video games do you prefer or mostly play?
35% of the interviewees prefer to play action/escape video games. Sports video games are preferred by 20%. 5% play simulation games, 10% strategic planning, 15% racing adventurous games, 5% fighting games, 10% role playing games and 5% like to play puzzle games.

![Figure 23](image)

2. Have you read the video games manual before playing the actual video game?
80% of the players never read the manual before playing. 5% do read the manual sometimes and 15% read the manual every time before playing the video game.

![Figure 24](image)
3. Do your parents approve video games for you?
25% of the parents approve the video games for their children. 60% never and 15% occasionally approve their children’s video games.

4. Are you playing video games as a hobby?
For 50% of the interviewees, playing video games is a hobby. For 35% it is not a hobby and 15% gave other information.

5. Do you download video games from internet or buy?
60% do and 25% do not download games from the internet. 15% doesn’t comment this question.
6. Level of your studies \ grades compare to now and before?
10% answered that their level of studies is poor, 30% said fair, 35% good, 10% excellent and 15% normal compared to now and before starting to play video games.

![Figure 28](image)

7. Do you think video games can become an addiction?
Only 20% of the children and teenagers think that playing video games can become an addiction. 75% think one cannot become addicted and 5% said maybe there is a possibility of becoming addicted.

![Figure 29](image)

8. Do you feel any changes in your behavior after playing video games?
30% do not feel changes in their behavior, 30% do feel changes and 40% have never thought about it.

![Figure 30](image)
9. Do you get angry or frustrated when you lose a game?
65% of the players feel angry when losing a game. 35% do not get angry when losing a game.

![Figure 31](image)

10. If angry what is your reaction?
15% cry when they get angry, 45% fight with their friends, 20% shout and 20% didn’t make any comment on that question.

![Figure 32](image)

11. Do you want to apply or copy the actions you watch in video games in real life?
20% said they want apply the action seen in the video game in real life. 35% never want to do this and 45% said that they sometimes want to do this.

![Figure 33](image)
12. Do you agree if violent games should be stopped from playing?
95% agree that one should stop playing violent video games. 5% disagree.

![Figure 34](image)

13. Do you think a PAUSE should come during playing a game?
60% agree that there should be a pause during the game, 40% disagree.

![Figure 35](image)

14. Why do you think violent games are more attractive?
20% think violent games are more fun to play, 30% think its adventurous, 40% experience it thrilling and 10% think it's the best thing to spend time.

![Figure 36](image)
15. If the themes of video game are changed from violence to beneficial, will you still play them?
65% of the interviewees say that they would continue playing games by a change to a non-violent game. 35% disagree.

16. Do you think violent games can destroy young people’s mind and abilities?
15% said video games do not destroy young people’s mind, whereas 60% agreed. 25% doesn’t answer this question.

17. If violence games are stopped from market, will that be good or not?
25% think it would be good to remove violent games from the market, 60% said it is not a good idea and for 15% it wouldn’t make a difference.
5. Analysis and Result

After all, the research strategy we had followed in our thesis, the outcome of both the empirical and theoretical survey is clarified in this chapter. A result is been shown by our analysis of the questionnaire, which were filled by the students and the interviews we had conducted. The conclusion is being defined to enlighten the answers of our research questions.

5.1. Analysis

Following questions and sub questions were raised in our thesis and on the basis of these questions we are presenting a conclusion for all the problems raised due to the video game addiction and the behavioral changes raised among young people and children.

Main Question: What are the Factors being effected by Video games addiction among youth and children?

As we studied and come across the literature and previous research being done on this field, we found that many researchers consider this addiction as a normal human behavior, which is caused by the inside ego generated, when playing some game getting into a competition. Human beings have competitive behavior and they want to win every challenge, sports or competition.

Sub Q.1. What are the individual factors, family factors, social and environmental factors?

As described in chapter 3, section 3.1 Margaret Shotton described three terms for excessive use of computer, which are addiction, compulsion and obsession. This is what we found in our interview as well, which we conducted from local schools here in Borås. Among all the teenagers many described it as a normal game and hobby as just like in any other physical game. They compete with each other and their obsession rises whenever they lose, they try to win at any mean and give full time for that game or sports. Slowly they want to win this video game at any mean possible and that is why they do not care for time, health or even family and friends relations. It is the inside ego that makes them stay and play these games, which according to researchers is named as addiction and the main theme of our thesis are the positive and negative effects of video game addiction. We asked questions about family and friends from different age group of people. Many respondents gave us feedback through questionnaire and others replied through interview.

Sub Q.2. What are the possible positive effects of playing video games on youth and children?

Through our questionnaire we found out that the time young people spend playing video games (level of addiction) differs and is dependent on the environment they life in and their age. Many companies offer solutions to stop young children from playing violence games. Therefore a warning screen pops up in the beginning of the game. But the effect of this warning screen is not very successful; the players do not even desire to read it, because of the lengthy scripture, using laws and regulations. The video game industries also write in these warnings that the following game is suitable for a specific age of people and
underage people should not use or tend to play these video games. These ratings are
categories by age and parental guidance is advised. Many parents think that those games are
not suitable for any age of children, because the level of violence is selected by the
companies who produce these games and according to them violence have a level to define.
It is not accepted by many parents and not recommended for their children. Our interview
with some parents also showed that video games are a form of entertainment; due to
their living situation more outside the cities they have limited possibilities to meet friends
or do sports activities. So for them these games are merely type of another sport. Some
parents were deeply concerned what they see in these games, showing violence and killing
people for bonus gaining and points collecting during the game. According to them there
should be a total ban on these types of video games, which shows violence in an
entertaining and gentle form. Some respondents said that playing video games keep the
children away from doing some bad habits outside their home, which their parents might
not find out. Playing video games keeps them stay inside home and parents can have a
watchful eye on them and their activities.

Sub Q.3. What are the possible negative effects of playing video games on youth and
children?

Our review of previous research shows that many people have an addiction to video games
due to their social isolation they spend a lot of time playing video games. Health,
psychological and social problems, are put a side just for the satisfaction of playing video
games. Our research strategy is an inductive research strategy. Therefore we started to gather
information about the addiction and the causes of such behavior. This strategy works on a
bottom up manner, where we select a specific issue and reach for general issues. The effects
of video games highlighted in our interviews and questionnaire were not different as
compared to the previous research, because the gaming industry is changed, but the addictive
behavior of people is the same and increases more and more due to the attractive features and
popular movies advertising for games related to them. Hollywood movie characters have great
impact on these video games. Famous actors like Chuck Norris, Bruce Lee, Arnold
Schwarzenegger, etc. have been introduced in these video games, which even attracted people
who did not had any chance of starting to play these games. Many respondents replied as if
they were so much in favor of these games and through which they can express their feelings
towards society and the things they cannot do practically, which are very horrifying actions,
such as killing a person, hit someone with a car or to throw out their anger on someone. These
and many other negative factors can rise because of playing violent video games.

Interview taken from the teachers of the local schools in Borås, explained their thoughts about
these games as having a total negative impact on young minds, because according to them the
learning age of every child is very crucial and very much consideration is required to raise a
child to make them compete in society and only positive thinking and positive abilities can
help them in having a successful future. However video games can build an imaginary world,
full of violence and bad habits. Some children or teenagers start to life in their own “world”
and watching the video game characters in danger or even kill them to gain points becomes
“normal” to them.
5.2 Result Summary

Result summery is based in light of the theoretical study we have done for our research from previous literature study and the empirical study, which we had concluded through a questionnaire. The main purpose of our thesis is the effects of a form of media, which is most popular and mostly criticized these days for its violence form known to many people as video games and computer games. We got the result from our empirical research method through the questionnaires we distributed among different age groups of students. The three parts of the questionnaire gave us results about personal factors, family factors, social and environmental factors. Our research questions were the base of creating this questionnaire and enlightened certain areas of major effectiveness in a life of a young person and a child. If there is a chance we would like to spread this information in the society through printed medias, social media websites and the Högskolan i Borås web site.

- We divided the effects into negative and positive effects on youth and children. The reason to select youth and children is because the main age groups among society using the video games are mostly young people and children. They are quickly attracted to such video games and quickly adapt the characters and environment of these video games. Our empirical survey through our questionnaire showed the age group of such people, the duration of playing video games and their educational record showed an effect of playing these video games.

- We also disclosed the popularity of different types of video games played by youth and children. The video games vary from type and nature. Depending on age not every child or teenager we interviewed or gave questionnaire was an addict. Just a general idea was taken from them to insure the addiction among these unknown individuals. After checking the data gathered from these questionnaires we check the category of Video games selection and then compares their educational record with the time they spend on playing video games. And that gave us a clear picture of how much there life and education has been affected by playing these video games.

- The teachers we interviewed through our empirical study approach as interviews told us to develop such educational games, which do not show a life taken just for the sake of achieving a level or points inside the game. But this can be changed to a life saved from any form of danger or teach a helping behavior, to develop inside the young minds.

- The interviewed parents showed the result of the lack of awareness and many parents think that video games are another form of entertainment just like movies or cartoons. But some of the parents are really concerned about the violence being showed on the name of entertainment in these video games.

- We also got a result of social and environmental factors from our empirical study approach through conducting several interviews. It became apparent that the children playing video games as a hobby, do not consider this as an addiction or maybe they are not so familiar with the meaning of addiction. They just name it as another hobby or sports.

- Companies developing and launching these games also give a warning screen before every game and they have selected age groups for certain games, as known as “Parental Guidance system”.

- Our research through the questionnaire and interviews also showed the physical, social and academic changes in the lives of these young people by playing video games. And the easy access to such violence video game is also a debatable issue.

~ 55~
Many interviewed people either defined their playing habits very rarely which we can call a normal usage of such games or either they do not care for the violence character shown inside these video games at all. They consider them imaginary and do not consider them in real life.

From our empirical study approach we found out that most of the young people prefer to play videos games rather than normal sports with more physical efforts. They have different excuse for playing video games. Some say they live too much outside the city to have easy access to sports clubs and their friends.
6. Discussion

Purpose of this chapter is to draw a conclusion, which is generated after the combination of results from both theoretical and empirical studies. We will also describe our own experiences during the research work we have done and the empirical study approach we followed.

6.1. Conclusions

Every society in any country is faced to some challenges. Many overcome them by getting solution from technology itself, for example for power consumption, solar energy, hydro energy and wind energy, which is gained by different means and generators. But if the problem arises from the technology itself and especially the technology or media equipment’s like video games, which are directly connected with our new generation, then this is a worst case scenario for a society and the people living inside the society. Video games have both positive and negative impacts and effects on young people and children, and this is a part of our thesis as well. We have three sub questions regarding positive and negative effects. Every man made technology has its own positive and negative effects, depending on the user and their use of this technology. Advancement comes inside the technology itself by rapid changes and user demands.

Our thesis is based on the three sub questions regarding individual factors, social factors, family factors and environmental factors, along with positive and negative effects of playing video games on youth and children. We gathered different information from different literature resources and books and we did our own theoretical and empirical findings. The combination of these answers is converted into a form of results, which shows the player’s ages, their choice of selection in video games, duration of hours they play video games and side effects evolving by playing video games. Addiction as explained in chapter 3 is becoming a psychological disorder in human beings. Many types of addiction can be seen in people, which they get from some kind of an obsessed behavior by gaining inner satisfaction. Either it can be a drug or some other kind of sexual addiction or habitual behaviors, which will be normal for them but may be not for others. Another main aim of our thesis is to point out the negative effects on youth and children, because every society has strong foundation if the young generation is strong enough and having strong will power to hurdle every problem. Their minds are very strong in early life and can pick any form of technology and media equipment very easily as compared to a mature adult human brain. Our thesis topic is a combination of both social sciences and Information sciences. This thesis is based on a problem, which is both scientifically and socially well known for its uniqueness and a lot of research work have been done and is still going on. The researchers have changed their research strategy because of many different forms of game addiction and different cases have been raised. The theme and environment of playing these games have changed; media equipment and hardware have also changed. As we mentioned in early chapters, addiction do not come in one night or just by experiencing something only once. It comes in form due to excessive use of something beyond the control of the person himself or herself.

The bottleneck we tried to remove is the removal of negative effects and how to reduce the negative mentality and thinking generated among the youth and children by playing these violent video games. We gathered information from the previous researches point of view, which they have done by doing some experiments and empirical finding approach of their
own. We also concluded empirical study approach by having a questionnaire as described in the end of this thesis and interviews from our target group (primary school and high-school students, teachers and parents) as we described closer in chapter 4. This is a psychological disorder or problem, which can be cured by therapy and complete solution, can be found by having a sharp eye over the media entertainment equipment by the parents or guardians.

During our fourth interview as described in the chapter 4, teachers presented the idea of making nonviolent video games and instead of killing or hurting some humans, they should be changed into a more advance form of educational video games or social life style development tool. These games can be used to develop the thinking capability of young generation, by changing the violent stages and levels inside the video game into a more attractive field of education. Killing or hurting a human being or destroying something should not be shown as a part of the video game only for the sake of completing a stage. These harmful scenes can be replaced by showing an educational or light entertainment scene for changing the violence games into more learning based video games. These video games could be simulators for learning purpose, showing how to recycle the waste material, exploring new things in the life, explaining how a special machine works, having chemical experiments or enjoyable 3D games. These kinds of video games can open children’s mind and fill up the gaps of curiosity. We need a future of prosperity and reality bases society, and not a corrupt, nonhuman behavior and thinking, which is not best solution to have a solid state of future for upcoming new generations.

6.2. Implications for Informatics

As for the implications for informatics, our thesis is related to informatics, information technology and computer based programming and consoles for video games. The basic purpose of our thesis is to highlight the dangerous effects of the video games on young people and children, and give some research suggestions for the reduction of the harmful effects of the video games upon the young people and children. Also these mediums of entertainment and media equipment have the high level of human being contact and interaction because of the popularity, its attraction and media exposure. Technology itself is not harmful, but the excessive or misuse makes it more harmful for the human beings. We cannot neglect the negative causes generated by violent video games. Human interaction is also very important part in Informatics, and the social science subjects as Human Psychology and Child Psychology is interrelated to it. Different video games companies can use this knowledge and think for a minute for the sake of the mentality growth of young generation and to make them understand that violence is not solution for everything.

6.3. Method Evaluation

This subject is different in a sense that it deals with Informatics, Social Sciences and as well as with Human Psychology. So, gathering information and making a sequence of how to start the thesis was a bit confusing, because we studied lot of previous research papers and books related to different fields of study. The main idea behind this topic was to enlighten the positive and negative effects of playing video games on young people and children. We have shown in chapter 1 of our thesis the idea by setting research questions and in chapter 2 we have shown the research methods and strategy for our research. We
followed both theoretical and empirical research methods. And inside the empirical research method we further divided it into two data collection procedures, which are interviews and questionnaires. For this kind of research, a public point of view about this topic is must, because we studied in theoretical part about the subject, in which many authors have shown their own experience and their findings related to this field.

Taking an interview was the challenging part, where to start and from who to ask questions. We elaborated a questionnaire for an interview and as printouts. The question we selected was made to help us receiving the knowledge we were looking for and compared to our research question. The theoretical part was about studying the previous research and the exact idea of how this research can be completed. We also gave questionnaire to many people for easy and quick reply, because the interview was just a general idea and was not possible to take from many people, due to the short time. We selected two schools in Borås, where number of voluntary students took part in giving us a short interview about videos games and their likes and dislikes about certain video games. In the start of interview it was difficult to explain them our topic, because ordinary and non-informatics related people had difficulty to understand the purpose of our interview. We believe that the interview and questionnaire from the general public brought us a great help and answers to the research questions.

Before asking these questions from general public, we tested these questions by our friends and that made less threat to have a misunderstanding the questions when asked from general public and inside the schools.

6.4. Result Evaluation

We can evaluate our result on the quality of data collectivity, authentic literature source and the result we found through our empirical research methods (interviews and survey). We discussed and defined our thesis research strategy in chapter 2. Our research is based on video game addiction and the results came crystal clear, when we approached the real life people, keeping in mind the subject sensitivity and based the research questions and the questions we introduced in our questionnaire to give us a solid result. Through our data collecting method and interview we found great number of answers to questions from the public, but a lot of similar answers came as well. Previous researcher did the same strategy to find out their answers in doing interviews and experiments.

We validated some of the results taken from the theoretical findings but to validate them we used an empirical approach. The reason therefore was that we may not understand something theoretical, which cannot be possible in reality. The data collecting procedure showed us that the data we collected was according to the questions we have put out and the results came out related to our theoretical data. The meaning is, that the human psychology can have many changes with passage of time and technology can bring new psychological and physical problems if used in an excessive way.

We showed our results to some senior students and specialist from this field, who evaluated it for us; this gave us the idea for having valid results from our interview. After the interviews, we checked the outcome of them and we excluded the non-valid parts.
6.5. Possibilities to generalize

Our research on video game addiction came from the path of human psychology and child psychology. After a thorough study of theoretical findings, we conducted our empirical research, which showed and cleared all the doubts and gave us the clues to work on such topic. In our empirical research we collected data from schools in Borås using interviews and surveys. We found the reaction and changes of behavior among young people and children and the reaction they told themselves when they play video games. This means the behavior changes and the reaction of being stopped from playing video games leads to anger and frustration. Many consider it as a fun and many consider it as an indoor adventure. Different researchers can use our research findings. Also video game companies can change the theme of their video games to more humble, human and social friendly environment. The violence factor can be reduced and the video games can act more like a virtual teacher, rather than a mind destroyer and creating an imaginary world inside a young mind.

6.6. Ideas for continued research

As a field of different changes and technology factors involved in video games, this research can be taken to next level, because a lot of work have been done on it and is still going on. Our research is a part of this race and our idea is to reduce the violence factor from these video games, because training a young mind in a violence environment and giving the idea that killing a human life or destroying something inside a video game is a merely fun based factor. Through our research many young children and young people admitted that it is imaginary based world, but this reaction and watching violent scenes can make them hyper and aggressive. Future research can include the total restriction of these kinds of violent video games, just like they started slowly introducing violent games, so with the same pace they can change the themes of these video games by making it helpful virtual media or a virtual teacher who can play and educate them at the same time.

Building a good future and having strong minds are the most precious resource of a country in this modern age of media, which should be destroyed by imaginary and violence media forms in the name of fun and entertainment. Our ideas can be used in schools and high schools and the teachers should facilitate the young generation with creativity and not imaginary fictional character building inside their mind. As well as the companies who design these video games can put a theme for creativity and nonviolent characters. Video game companies can set a time lapse during games, which will automatically pause any video game from playing further more to a certain period of time. Through this system, a video game player can have a break between the duration of playing the video game, which will help in not becoming an addict to these video games and encourage them to do some other healthy activities during that period of time. Parental rights should be strictly displayed through media publicity. Video game sellers should strictly check eligible user age, before selling a video game with age level restriction.

~ 60~
References


Dill, K. E. The Influence of Video Games on Youth: Implications for Learning in the New Millennium. Lenoir-Rhyne College.

Einstein, Albert. (1938). Physicist and Nobel Laureate. The evolution of physics


~ 62 ~


Appendix 1

Interview Questions:

1. What is your favorite video game and why?
2. How many hours do you spend time playing video games?
3. Do you think it is good for your health and eye sight?
4. Do you play with permission from your parents?
5. How many hours do you sleep?
6. What time do you study?
7. Do you play any physical games other than video games?
8. Does your other sibling play video games with you?
9. Do you get angry if your parents or someone else stop you from playing video games?
10. Do you think violence should be removed from the video games?
11. Will you play such game in which you do not have to shot or kill someone?
12. Will you play such game in which you have to help someone or save them?
13. Would you prefer outdoor physical games or video games?
14. Do you think video games should have a time gap between each interval of playing video games?
15. Do you think violent video games should be stopped from being played and considered illegal?
Appendix 2

Questionnaire Title:
A study on different factors affecting Video games Addiction among youth and children.

Part 1: Personal Factors.
1. Age …years.
2. Gender
   A. Male
   B. Female.
3. Education Level:
   A. School
   B. High School
   C. College/University.
4. How often you play in a week:
   A. Every day
   B. Once a week
   C. One or Two days in a week
   D. Often
   E. Others.
5. How do you play video games:
   A. Alone
   B. With Friends
   C. Siblings
   D. Parents
6. Which age did you started playing video games:
   A. Age 5 to 10.
   B. Age 12 to 15.
   C. Age 15 to 20.
7. Duration of playing video game each time of playing:
   A. 1 to 2 hours
   B. 2 to 5 hours
   C. 3 to 8 hours
   D. 10 to 15 hours
   E. 15 to 24 hours

8. If some time you do not play how you feel.
   A. Indifferent
   B. Normal
   C. Irritating
   D. Angry

**Part 2: Family Factors.**

1. Whom you live with.
   A. Father
   B. Mother
   C. Both.

2. Father and Mother marital status.
   A. Together
   B. Separated
   C. Divorce
   D. Either one deceased
   E. Both deceased.

3. Your parent knows when you play video games.
   A. Yes
   B. No.
Part 3. Social and Environmental Factors:

1. What type of video game do you prefer or mostly play?
   A. Action / Escape
   B. Sports
   C. Simulation
   D. Strategic planning
   E. Racing Adventurous
   F. Fighting
   G. Role Playing
   H. Puzzle Games

2. Do you read the video games manual before playing the actual video game?
   A. Every time
   B. Sometimes
   C. Never

3. Do your Parents approve games for you?
   A. Always
   B. Never
   C. Occasionally

4. Are you playing video games as a hobby?
   A. Yes
   B. No
   C. Others.

5. Do you download games free from Internet or Buy?
   A. Yes
   B. No
   C. Other.

6. Level of your Studies / Grades compare to now and before.
   A. Poor
   B. Fair
   C. Good
   D. Excellent
   E. Normal.

7. Do you think video games can become an addiction?
A. Yes
B. No
C. May be

8. Do you feel any changes in your behavior after playing violent games?
   A. Yes
   B. No
   C. Never thought about it.

9. Do you feel angry or frustrated when you lose a game?
   A. Yes
   B. No

10. If angry what is your reaction:
    A. Cry
    B. Fight with friends
    C. Shouting
    D. Others

11. Do you want to apply or copy the actions you watch in videos games in real life?
    A. Yes
    B. Never
    C. Sometimes.

12. Do you agree violent games should be stopped from playing?
    A. Yes
    B. No

13. Do you think a PAUSE should come during playing a game?
    A. Yes
    B. No

~ 68~
14. Why do you think violent games are more attractive?
   A. Fun to Play
   B. Adventurous
   C. Thrilling
   D. Best thing to spend time.

15. If the themes of video game are changed from violence to beneficial, will you still play them?
   A. Yes
   B. No

16. Do you think violent games can destroy young people’s mind and abilities?
   A. Yes
   B. No

17. If violence games are stopped from market, will that be good or not.
   A. Good
   B. Not Good
   C. No difference.
University of Borås is a modern university in the city center. We give courses in business administration and informatics, library and information science, fashion and textiles, behavioral sciences and teacher education, engineering and health sciences.

In the School of Business and IT (HIT), we have focused on the students' future needs. Therefore we have created programs in which employability is a key word. Subject integration and contextualization are other important concepts. The department has closeness, both between students and teachers as well as between industry and education.

Our courses in business administration give students the opportunity to learn more about different businesses and governments and how governance and organization of these activities take place. They may also learn about society development and organizations' adaptation to the outside world. They have the opportunity to improve their ability to analyze, develop and control activities, whether they want to engage in auditing, management or marketing.

Among our IT courses, there's always something for those who want to design the future of IT-based communications, analyze the needs and demands on organizations' information to design their content structures, integrating IT and business development, developing their ability to analyze and design business processes or focus on programming and development of good use of IT in enterprises and organizations.

The research in the school is well recognized and oriented towards professionalism as well as design and development. The overall research profile is Business-IT-Services which combine knowledge and skills in informatics as well as in business administration. The research is profession-oriented, which is reflected in the research, in many cases conducted on action research-based grounds, with businesses and government organizations at local, national and international arenas. The research design and professional orientation is manifested also in Innovation Lab, which is the department's and university's unit for research-supporting system development.

Visiting address: Järnvägsgatan 5 · Postal address: Allégatan 1, SE-501 90 Borås

Phone: +46 33435 40 00 · E-mail: inst.hit@hb.se · Web: www.hb.se/hit