

VIDEO GAMES AND THEIR RELATIONSHIP TO THE AGGRESSIVE BEHAVIOR OF INTERMEDIATE SCHOOL STUDENTS IN SAUDI ARABIA

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ABSTRACT: *This study aimed at finding out video games and their relationship to aggressive behavior of intermediate school students in Saudi Arabia. The sample of the study consisted of (500) male and female students in Al-Qurayat Governorate in Saudi Arabia. The researcher used the descriptive – correlational methodology. Two tools were developed and applied on sample subjects after finding their validity and reliability. The results of the study indicated that the level of using video games among intermediate school students in Saudi Arabia was medium. The level of aggressive behavior among intermediate school students in Saudi Arabia was medium too. There was a positive significant relationship at ($\alpha \leq 0.05$) between the use of video games and the aggressive behavior of intermediate school students in Saudi Arabia. There were significant differences between correlation coefficients for males and females in favor of males. There were significant differences in favor of second and third grade students. Among the recommendations of the study is the following: Reducing the time spent by children in playing video games, so that they do not have more than two hours a day.*

KEYWORDS: Video games, Aggressive behavior, Saudi Intermediate schools.

INTRODUCTION

In light of the recent technological changes and the huge information boom that have made the world like a small village resulting in positive and negative behaviors. This behavioral effect may be a product of the way this technology is used. It is noted that a large number of children have taken technology, and especially video games the bulk of their time. The electronic games in general and video games in particular, are the most important phenomena that accompanied scientific progress and technological revolution. Since the inception of the primitive programming languages, those interested in this field have been quick to develop these games that have attracted the attention of the world and have been accepted and successful in most categories of society (Al – Kamil, 2009). These games have an impact on the behavior of children. They act on aggressive behavior in the child's personality. The child does not realize how dangerous these games are to behavior, values, tradition and religion.

The growing aggressive behavior of the child as a result of repeated practice of these games makes him an individual tends to crime and to kill sensibly. Thus a collision occurs between him and his peers or even with adults. They also make him tend to social isolation and introversion, which negatively affects his intellectual, personal and social development. He instead of sitting

with the family or chatting with them, goes to play games that make him prefer to talk to family members. The majority of children imitate their favorite heroes in video games. This is what makes them tend to imitation that affects in the future in their personalities and dependence on themselves and trust in them (Queider, 2012).

According to Greenfield (2017), Anderson, a professor and department head of psychology at the Ohio State University, and a leading researcher in violence involving video games, has pointed out that violent video games promote aggression in children. After direct exposure to violence in the media, an increase in the tendency towards aggressive behavior is promoted by several factors, including; increasing aggressive ideas, which in turn, increase the probability that any minor or vague provocation will be interpreted in an aggressive manner, increase aggressive feelings, increased general excitement (e.g.: increased heart rate), which leads to increased tendency towards aggressive behaviors, and direct imitation of aggressive behaviors observed. Hence, because the school is the second social institution after the house in terms of the impact on raising and caring for the child, it must play its role in the best way of educating students of the disadvantages that result from the use of these games. The importance of the school is attributed to its important educational process and the refinement of the children's minds. It is its natural job to receive children at an early age, thus becoming the first station to deal with them immediately after the family, which puts it in a strategic educational position and a comprehensive monitoring that enables it to discover the abilities of children, and discover negative and positive tendencies in their personalities. Perhaps one of the most negative aspects of school life is the aspect of the aggressive behavior of some children towards their peers in school (Al – Fokaha, 2001).

The problem of the study and its questions

Video games have become an important source of entertainment for children and young people. They spend a lot of time playing as a recreational tool. Studies have shown that the majority of games played by teenagers and children tend to violence, war and fighting. These games have been very popular in recent years in Arab countries in general and Saudi Arabia in particular. This is due to the special features of these games as a recreational way, as they mimic the real world. Moreover, they are easily accessible, because they can be practiced at home and anywhere, because they are available on several tools like: mobile phone, laptop, and desktop computers, online and board games. They are also available in the video game halls.

The weakness of the control devices on the shops of electronic games and games centers, and the lack of monitoring of families when their children are watching games, and lack of awareness about the dangers of electronic games, there is an urgent need to know the behavioral, health and social effects of online games on children.

The proliferation of electronic games, which rely on excitement to intimidate and kill others and the destruction of their property unlawfully, has shown negative effects on the behavior of users (Salamhe & Al-Ajeely, 2016), especially after the events of the Arab Spring, which carries live

scenes simulating what they practice through electronic games. So children are more inclined to play the scenes and motor events they see and move easily from playing to practice. This was confirmed by some teachers in Saudi schools as a result of their observation of the behavior of their students. In light of the foregoing, the researcher considers that these games have a huge impact on children, and hence this study came to find out the impact of video games on the development of aggressive behavior at a sample of intermediate school students in Saudi Arabia by answering the following questions:

- What is the level of using video games among intermediate school students in Saudi Arabia?
- What is the level of aggressive behavior among intermediate school students in Saudi Arabia?
- Is there a significant relationship at ($\alpha \leq 0.05$) between the using of video games and the aggressive behavior of intermediate school students in Saudi Arabia?
- Is the correlation between the use of video games and the aggressive behavior of intermediate school students in Saudi Arabia vary according to the different stages and sex?

Objective of the study

This study aimed at the following:

- Finding out the level of using video games among middle school students in Saudi Arabia.
- Finding out the level of aggressive behavior among middle school students in Saudi Arabia.
- Detection of the correlational relationship between the use of video games and aggressive behavior among middle school students in Saudi Arabia.

Importance of the study

The importance of this study comes from the importance of the age stage that has been addressed, which is the middle grades, which represent the age stage of the adolescent years, which is witnessing the development of student behavior and personality formation. It also helps inform parents, school administrators, teachers, educational counselors and official authorities responsible for licensing the games, as well as students themselves on the aggressive behavior of using video games. Therefore, can be guided by the findings of the study and recommendations when you want to buy these games or in the production of new electronic games.

Conceptual and operational definitions:

- Video games: Is an activity in which players engage in an artificial dispute governed by certain rules and operated by computer or mobile phone, television and video (Al – Hadlak, 2011).

The operational definition of video games is:

Interaction games that can be connected through the internet and some devices such as smart phones, and play station.

- Aggressive behavior: Is a behavior that appears to be offensive to others in different forms, such as physical assault, physical harm, or verbal assault such as insulting or even committing symbolic aggression by showing discontent and resentment (Al – Qarouti, 2001).

The operational definition of aggressive behavior is the mark obtained by the student on the scale of aggressive behavior used in this study.

Limitations and delimitations of the study:

This study was limited to intermediate school students in Qurayat Governorate, Saudi Arabia during the second semester of the academic year 2017/2018. The results of the study are determined by the sample, measurement tools and the validity and reliability of the two tools. The results of the study may only be generalized to the population from which the sample was withdrawn and the similar populations.

Theoretical literature and previous studies

This part includes a presentation of the theoretical literature and previous studies related to the subject of the study:

Electronic games

The definition of video games:

The video game can be defined as the sum of the media activities of a media nature, including an interactive dimension and images in a composite state created more than 30 years ago in Japan and the United States of America. It is a flourishing industry. Video games have invented by groups and development teams that are composed of several specialties most notably (Nimrod, 2008):

1. Specialized designers in visualizing game based design such as rules, graphics and beautiful scenery.
2. Artists specialized in the production of the visual content of mobile characters of the game such as heroes', monsters, ball and cars.
3. Technician programmers specialized in the development of the game engine, the steering buttons and various control devices.

Between entertainment, sport and culture, the video game directly or indirectly affects a large number of players and actors working on their production, promote, develop, and make it more professional and distinguished as journalists, advertisers and owners of the internet and owners of the halls of networks and organizers of periodicals and in the end are traded money to form a video game so “a real social phenomenon” (Falak, 2009).

On the one hand, the characteristics of video games can be limited to being a device that conveys to the child the content and the idea clearly, makes it an effective influence in promoting the

process and acquiring the linguistic, cognitive and cultural skills. But also the skills acquisition, as it develops its mental and intellectual abilities and motivates him to think, learn, and renewing his daily information as well as opening up new horizons in science and technology. Video games are an important means for the child to use them. They are a recreational, educational and awareness tool that help him in many areas of social life (Alawash, 2007).

From the characteristics of video games they provide entertainment social entertainment, encourage team work, collaboration, strengthen the academic skills of the child, increase his self-confidence, increase the ability to solve the problems facing him, gain distinct increase in coordination and speed, the activation of memory, strength and determination. The basic thing that cannot be forgotten in video game features is that it uses modern technologies. On the social side, the most striking thing is the use of these games in psychotherapy for children, rehabilitation and treatment of those suffering from cognitive neurodegenerative disorders.

Al-Saad (2005) has conducted several field video game. She concluded that while some studies emphasize the positive effects of electronic games on the behavior of children and their achievement, but there are also negative effects on them, and society. In her view, some electronic games are violent, lead to a doubling of functional physiological agitation, the accumulation of feelings and ideas of aggression, a decline in social behavior, and have negative effects on the health of children as obesity. It also provided an important list of studies and research that prove the great role played by these games.

Aggressive behavior

The concept of aggressive behavior:

Each human behavior aims to achieve, and aggressive behavior is a behavioral manifestation of vent or projection of the individual suffering acute emotional crises, as the individual tends to behave destructive or aggressive towards the other (Al – Majthob, 2009).

Al-Batoosh (2007) indicated that the aggressive behavior is linked to the developmental characteristics of children. In some cases, the severity and frequency of aggressive behaviors are striking in some children, so that they are above reasonable limits. Aggressiveness in these children may be associated with other types of emotional and behavioral disorders, or it is a distinctive feature of the emotional or behavioral disorder experienced by some children. This aggression may persist in these children and worsen during later stages of growth to become a prominent feature in their personalities, which requires intervention and try to treat this problem to help them to adapt and grow healthy.

Seasar argues that aggressive behavior is an educated emotional response that shifts with the growth of the child, especially in the second year, to functional aggression (Al-Fasfos, 2006).

Measuring the aggressive behavior

The measurement of aggressive behavior is one of the difficulties faced by those interested in studying this behavior, because this behavior is very complex. The difficulty of measuring the behavior of aggressive behavior is the contrasting views that tried to explain this behavior. The method used by the researcher to measure aggressive behavior necessarily depends on his interpretation of it and on the reasons that are believed to be behind it. Therefore, there are many methods of measuring aggressive behavior, and the most common methods are the following (Al-Khateeb, 2001):

- Direct observation.
- Measuring aggressive behavior in terms of its consequences.
- Self – reports.
- Self – follow – up.
- Peers estimation.
- Estimation measures.
- Measures of behavioral assessment.

Previous studies

The following is a presentation of some of the previous studies that dealt with the subject of electronic games and aggressive behavior arranged chronologically and as follows:

Sherry (2001) conducted a study aimed at analyzing a series of studies on the impact of electronic games on aggressive behavior. Thirty two studies published between 1975 – 2000 were analyzed. All of these studies aimed at identifying the impact of violence seen by adolescents through online games on their aggressive behavior. These studies included samples of adolescents aged (14-22). The results indicated that the impact of violence through playing electronic games was less significant than the impact of the violence shown on television. The type of violence involved in electronic games is also evident in the aggressive behavior patterns of adolescents.

Uhlmann and Swanson (2004) carried out a study aimed at finding out the exposure to violence in video games and to increase automatic violence. The study sample consisted of (120) students playing violent games and were able to evaluate themselves on the scale of implicit violence. The results indicated that exposure to violent video games predicts a higher level of self – aggressive, self – concept, and the exposure to violence in video games contributes to the learning of spontaneous violent responses.

Gentilea, Lyndercm and Walsh (2004) conducted a study aimed at understanding the impact of violence in online games on adolescent aggression. The sample of the study consisted of (617) students of the eighth and ninth grades distributed on four schools. The results indicated that students who were exposed to a longer time, games had a higher level of aggression. Hostility has been shown to mediate the relationship between violence derived from video games and related outcomes.

Carnagey and Anderson (2005) conducted a study aimed at finding out the effects of rewards and punishment in electronic games on the feelings and behavior associated with aggression. Three experiments have been conducted to identify the impact of aggressive acts in electronic games, which contribute to the occurrence of rewards and punishment. Participants took part in one of three versions of the electronic game itself. The first version showed that all acts of aggression reinforce the second version that all acts of aggression are punished, while the third version creates conditions where there is no aggression. After the completion of the three experimental situations, emotions, and ideas, aggressive emotions were measured as a reward for aggressive behavior.

Al-Gharrawi (2006) conducted a study aimed at finding out the forms of aggressive behavior of children in different age stages, and shed light on the forms of aggressive behavior of children according to the different level of cultural and how aggressive behavior varies by sex, and the detection of differences in aggression according to the Gregorian order in the family and the detection of differences in aggression according to the type of brothers in the family. The study sample consisted of (1243) students from: elementary, intermediate and secondary levels, aged 8-16 years. The socio – cultural level form and the aggressive behavior measure were used for children of both sexes. The most significant results indicated that there were no significant differences between males and females in negative aggression and significant differences between males and females in aggressive behavior (physical, aggression, verbal, self and property in favor of the males). There were no significant differences between the socio – cultural level (the low and high levels) in aggression in favor of the low socio – cultural level.

Nobuki, et.al. (2007) conducted a study on the impact of video games on aggressive child behavior and pro – social behavior. The study aimed at identifying the effect of video games on children. Consumer time was measured to use video games by the child, and what are the scenes which the child is exposed to? and which one is the best? As well as measuring aggressive behavior and pro-social behavior, as “dependent variables”. The results showed that children who supported social behavior were exposed to more supportive views of society, and showed a stronger preference for non – violent games, while children who showed aggressive behavior had a stronger preference for violent games.

Al-Hashash (2008) carried out a study aimed at investigating the effect of some video games on the aggressive behavior of high school students in public schools in the State of Kuwait. The results showed significant differences between students’ mean scores due to the effect of some video games, in favor of the experimental group.

Moyer (2008) conducted a study aimed at investigating the behavior of video games play with motivation research using a social knowledge model with social adaptation, aggression, self-motivation and knowledge skill. The results showed that the use of video games peaked at the end of childhood for early adolescence, and decreases with age. In most cases, children pointed out that their play for video games was rarely supervised by parents, and that parents rarely set

the time for play, or find laws that relate to acceptable types of games. Video games are common feature in the lives of most children and adolescents.

Al-Ghamdi (2011) studied the impact of video games on children's drawings in late childhood in Saudi Arabia. The descriptive approach was used by analyzing children's drawings to discover the impact of video games on children's drawings. The results of the study showed a number of symbols of violence, murder and theft in the drawings of children as a result of their violent video games, which don't fit their age.

Al-Sheikha (2011) conducted a study aimed at understanding the relationship between television programs, violent electronic games and aggressive behavior. The study sample consisted of (764) students. The following tools were used in this study: aggressive behavior scale, a measure of sensitivity, measuring the role of violence in television and electronic games. The study found that there were significant differences between the mean of the experimental group and the mean score of the control group in the aggressive behavior of sixth grade students due to the effect of some electronic games on aggressive behavior in favor of the experimental group.

Yang (2012) conducted a study in China aimed at finding out the relationship between the experiences of some teenagers in playing video games online and between sex and their favorite video games, aggressive behaviors, violence and experiences related to electronic bullying, or exposure to electronic bullying. The sample of the study consisted of (1069) adolescents. They were selected by the intentional method. The criteria for participation in video games have been used to measure violence and aggression, electronic bullying scale and measure the level of use of online games in the data collection process. The results indicated a positive and significant correlation between adolescents' preferences for online games and their level of aggression, and their exposure to electronic bullying, and there is an indirect correlation between the preference for violent games and the exposure to electronic bullying during video games through the internet.

Qweider (2012) studied the impact of video games on the behavior of Algerian children in the early stage in the capital Algiers. The study sample consisted of (200) children. They were between 7-12 years old. The results indicated that the majority of children exercise video games for more than five hours a day, which affected their health and concentration in the study. They preferred sports, warfare and combat, making them vulnerable to aggressive behaviors.

Sukkyung (2015) conducted a study on the impact of violent video games on adolescent social behavior. The study sample consisted of (1242) students. The results indicated that violent video games had a significant direct impact on aggressive behavior and had a significant indirect impact on social behavior, specifically there was a close relationship between sympathy, violent video games, and positive social behavior.

Al-Sawalha, Al-Awaimer and Al-Alimat (2016) conducted a study aimed at discovering the relationship between violent electronic games and the aggressive behavior and social behavior of

kindergarten children from parents' point of view in the capital Amman. A questionnaire consisting of two axes: aggressive behavior and social behavior was distributed to a sample of (100) parents. The results showed significant differences in the relationship between the electronic games and the aggressive behavior of kindergarten children from parents' point of view, and there were no significant differences in the relationship between the violent electronic games and the social behavior of kindergarten children from parents' point of view.

The position of the current study of previous studies:

By reference to the previous studies that have been presented, it has been noticed the following:

- Some previous studies dealt with the effect of video games on aggressive behavior such as Qweider's study (2012), Nobuko's, et.al. (2007) study and Sukkyung's study (2015). While other studies dealt with the impact of video games on the individual in general and to clarify their positive and negative impact as the study of Al-Ghamdi (2011).
- In the previous studies, the sample varied in terms of the target category. Some of them were on the first stage students, such as the Qweider (2012) study. Others have been applied to high school students such as Al-Hashash (2008).
- Previous studies have differed in the tool used and the software used in their analysis.

As to the benefits of previous studies, the researcher believes that these studies serve as the source of many of the important information that directed her in the current study, in terms of its choice, or determining its problem, methodology and appropriate procedures to achieve its objectives.

The current study is an extension of this field, which is expected to add to the results of previous studies. The present study differed from previous studies, in its purpose and sample, as this study came to reveal the relationship between the use of video games and aggressive behavior among intermediate school students in Saudi Arabia.

METHOD AND PROCEDURES

This study was based on the descriptive – correlational methodology to discover the relationship between the use of video games and aggressive behavior among intermediate school students in the Kingdom of Saudi Arabia.

Population of the Study

The population of the study consisted of all intermediate school students in Al-Qurayat governorate. Their number is (9534) male and female students.

The study sample

The sample of the study was chosen from intermediate school students in public and private schools in Al-Qurayat Governorate in Saudi Arabia, by using a simple random sample method. The sample size was determined by using the statistical table. The sample number was (500) male and female students.

Table (1)
Distribution of sample subjects according to personal variables

Variables	Category	Frequency	Percentage
Sex	Male	245	49
	Female	255	51
	Total	500	100
Class	First	167	33.4
	Second	166	33.2
	Third	167	33.4
	Total	500	100

Study tools

The first tool (The scale of using video games): The researcher developed this scale through the use of studies, research and theses related to the subject of the study. The aim of this scale is to clarify the relationship between the uses of video games and the aggressive behavior of intermediate school students.

The second tool (Aggressive behavior scale). The researcher developed this scale through referring to previous studies, research and related theses. The aim of this scale is to discover the aggressive behavior of students.

Validity of the first tool

To verify the validity of the study tool, the method of “face validity” was adopted. The tool was presented, in its initial form, to ten arbitrators who hold a doctorate degree in education and educational guidance from faculty members in Jordanian and Saudi universities. They have been asked to make their comments and opinions about the tool items, and add any item they deem appropriate. The item that received an approval rate of 80% or more was taken, taking into consideration the proposed additions and observations.

Reliability of the first tool

In order to verify the reliability of the tool, reliability was calculated using Cronbach – Alpha formula to measure the internal consistency of all tool dimensions.

Validity of the second tool

The method of “face validity” was used to verify the validity of the tool. The tool was presented to ten arbitrators from Jordanian and Saudi universities, who hold doctorate degree in education and educational guidance. The item that received an approval rate of 80% or more was taken, taking into consideration the proposed additions, modification and observations.

Reliability of the second tool

Cronbach – Alpha formula was used to verify the reliability of the tool, through measuring the internal consistency of the tool. The reliability of the two tools was found by using (test – retest) method on a sample of (40) male and female students out of the study sample. The Pearson correlation coefficient was calculated between the first and second applications for each tool. Table (2) clarifies that.

Table (2)

Reliability coefficients for the study scales by using test – retest and Cronbach – Alpha formula

Scale	Test – retest method	Internal consistency method
Video games	0.95	0.98
Aggressive behavior	0.96	0.99

Table (2) shows that the test – retest coefficients were high for both scales. The correlation coefficient was (0.95) for the video game scale and (0.96) for the aggressive behavior scale. The internal consistency coefficient was (0.98) for the video games scale and (0.99) for the aggressive behavior scale.

Study procedures

After the preparation and development of the study tools, in their final form and to verify their validity and reliability the researcher conducted the following procedures:

- Determining the number of sample subjects.
- Obtaining the official approval to facilitate the search task.
- Distribution of the study tools to the sample subjects.
- Obtaining the responses of the sample subjects about the study tools.
- Analyzing the responses and conducting the statistical processing.

Study variables

The study included the following variables:

First: Independent variables:

- Sex.
- Class.

Second: Dependent variables:

- The correlation between the use of video games and aggressive behavior.

Statistical manipulation

The following statistical tools were used:

- To answer questions one and two, means, and standard deviations were calculated.

- To answer question three, means, standard deviations and Pearson correlation coefficient were calculated.
- To answer question four, means, standard deviations and (Z) test were calculated.

RESULTS AND DISCUSSION

This part includes the results reached and discussed in accordance with the study questions. Results related to the answer of the first question:

What is the level of using video games among intermediate school students in Saudi Arabia?

To answer this question means and standard deviations for each item were calculated and the dimension of “Video games” as a whole. Table (3) clarifies that.

Table (3)

Means, standard deviations, ranks and levels of the items of the dimension “video games” as a whole (n = 500)

No.	Item	Mean	S.D.	Rank	level
1	I play video games most of the day.	3.04	1.76	1	Medium
18	I prefer video games on other games.	2.98	1.80	2	Medium
10	I Watch for a late time to play video games.	2.97	1.80	3	Medium
2	I spend my leisure time with video games.	2.96	1.79	4	Medium
3	I find it difficult to leave playing video games.	2.96	1.80	4	Medium
5	I feel sad if the video game I use is broken.	2.96	1.80	4	Medium
11	I refuse to participate in family activities to play video games.	2.96	1.81	4	Medium
12	I forget the meal schedule because I am busy with video games.	2.96	1.81	4	Medium
No.	Item	Mean	S.D.	Rank	Degree
16	I think playing with violent video games improves my combat skills.	2.96	1.81	4	Medium
20	Get started immediately when I wake up to play video games.	2.96	1.80	4	Medium
17	My differences with the family have increased because of playing video games.	2.95	1.81	11	Medium
4	I go home to play video games.	2.95	1.80	11	Medium
7	I feel nervous when I cannot play with video games.	2.95	1.81	11	Medium
13	I neglected my homework because I was playing video games.	2.95	1.81	11	Medium
14	I prefer playing video games combat.	2.95	1.81	11	Medium
19	I imitate some combat movements after finishing the game.	2.95	1.81	11	Medium
6	My family’s attempts to prevent me from playing video games didn’t work.	2.94	1.80	17	Medium
9	I do not care for others, while playing video games.	2.94	1.81	17	Medium
15	I am busy playing video game about eating.	2.94	1.81	17	Medium
8	I continue playing video games even if I am sick.	2.93	1.80	20	Medium
Total Score		2.96	1.79	-	Medium

Table (3) shows that the means of the items ranged from (3.04 – 2.93) and in a medium degree. Item (1) that states “I play video games most of the day”, came in the first rank. Its mean was (3.04) with a standard deviation of (1.76), followed by item (18) that states “I prefer video games

on other games”, with a mean of (2.98) and a standard deviation of (1.80). Item (8) that states “I continue playing video games even if I am sick” came in the final rank. Its mean was (2.93) and a standard deviation f (1.80).

This result is due to the availability of leisure time and luxury life for teenage students, who spend their time playing video games, as well as parents’ fear of walking their children with bad companions, providing them with the right atmosphere to spend time at home by playing video games.

Results related to the answer of the second question:

What is the level of aggressive behavior among intermediate school students in Saudi Arabia?

To answer this question means and standard deviations for each item were calculated and the “aggressive behavior” dimension as a whole. Table (4) shows that.

Table (4)
Means, standard deviations, ranks and levels of the items of the dimension “video games” as a whole (n = 500)

No.	Item	Mean	S.D.	Rank	Level
1	I tend to challenge others by discussing them.	3.09	1.72	1	Medium
14	I prefer watching wrestling and boxing programs.	3.06	1.73	2	Medium
16	I cannot afford to citizen others.	3.06	1.72	2	Medium
15	I cannot control myself when I am angry.	3.05	1.73	4	Medium
7	I want to insult those who insult me.	3.05	1.75	4	Medium
3	I insult to those who provoke me.	3.04	1.73	6	Medium
11	I can beat anyone who provokes me.	3.04	1.71	6	Medium
9	When I get angry I threw things in front of me.	3.03	1.73	8	Medium
13	I enjoy torturing animals.	3.03	1.74	8	Medium
6	I speak to others with a loud voice.	3.02	1.73	10	Medium
10	I love to participate in student fights.	3.02	1.73	10	Medium
12	When I get angry, I hit my head with my hand.	3.02	1.73	10	Medium
8	I describe those who do not like bad qualities.	3.00	1.74	13	Medium
17	I feel like I have a desire to hurt my competitors while playing.	3.00	1.74	13	Medium
20	When I get angry from someone I look at him without respect.	3.00	1.75	13	Medium
19	I feel pleasure in hurting others.	3.00	1.74	13	Medium
21	I quarrel with others without justification.	3.00	1.74	13	Medium
18	I hurt others if I lose when playing with them.	2.99	1.74	18	Medium
5	I call others with nick names they hate.	2.98	1.74	19	Medium
22	I tend to destroy the books and tools of my colleagues in retaliation for them.	2.97	1.75	20	Medium
4	I spread bad rumors against the person who bothers me.	2.96	1.74	21	Medium
2	I tend to ridicule others.	2.96	1.75	21	Medium
Total score		3.02	1.71	-	Medium

Table (4) shows that the means of the items ranged from (3.09 – 2.96) and in a medium degree. Item (1) that states “I tend to challenge others by discussing them” came in the first rank with a mean of (3.09) and a standard deviation of (1.72). Item (14) that states “I prefer watching wrestling and boxing programs” came in the second rank. Its mean was (3.06) and a standard deviation of (1.73). While item (4) that states “I spread bad rumors against the person who bothers me” and item (2) that states “I tend to ridicule others” came in the final rank with a mean of (2.96) and standard deviations of (1.74) and (1.75) respectively.

This is due to the nature of the prevailing atmosphere and the culture between their families and the application of what they see in front of them, as social behavior is one of the social problems that occur continuously between individuals in various school life situations, and insufficient cognitive abilities of some individuals and their inability to understand and interpret the behavioral attitudes of their provocateurs, intentionally or unintentionally. As a result, many hostile confrontations may result in psychological and physical harm to a number of individuals.

Results related to the answer of the third question:

Is there a significant relationship at ($\alpha \leq 0.05$) between the using of video games and the aggressive behavior of intermediate school students in Saudi Arabia? To answer this question Pearson correlation coefficient was calculated between the use of video games and aggressive behavior among intermediate school students in Saudi Arabia. Table (5) shows that.

Table (5)

Correlational relationship between the use of video games and aggressive behavior of intermediate school students in Saudi Arabia (n = 500)

Dimension	Video games	Level of significance
Aggressive behavior	Pearson correlation	Level of significance
	0.95	0.000

Table (5) shows a positive significant correlational relationship at ($\alpha \leq 0.05$). This indicates that there is a positive and high correlation between the use of video games and aggressive behavior among intermediate school students in Saudi Arabia. The value of correlation coefficient was (0.95) at (0.000).

This is because some teenagers play violent games heavily. It had emerged many scientific studies that dealt with this phenomenon and its negative effects. These games are characterized by interaction between them and the child, and require the child to adopt the aggressive personality to play. And that aggressive behavior among students takes various forms, including the commission of offenses incitement out to obey the teacher, and refuse to carry out teacher’s orders, as well as, to disrupt the study by boycotting, with beatings, insulting and smashing school furniture.

Results related to the answer of the fourth question:

Is the correlation between the use of video games and the aggressive behavior of intermediate school students in Saudi Arabia vary according to the different stages and sex?

To answer this question, Pearson correlation coefficient was calculated between the use of video games and aggressive behavior according to sex and grade variables, and finding (Z_r) values for correlation coefficients, and comparing them to calculate the (Z) value according the following formula:

$$Z = \frac{Z_{r1} - Z_{r2}}{\sqrt{\frac{1}{(n_1 - 3)} + \frac{1}{(n_2 - 3)}}}$$

Whereas:

n_1, n_2 : The size of the first and second samples.

Z_1 : Fischer's mark corresponds to the correlation coefficient in the first sample.

Z_2 : Fischer's mark corresponds to the correlation coefficient in the second sample.

Table (6)

The results of the correlational relationship and (Z) values between the use of video games and aggressive behavior among intermediate school students in Saudi Arabia according to sex variable

Variable	Category	Number	Correlation coefficient	Zr value	Z value
Sex	Male	245	**0.988	2.443	*10.78
	Female	255	**0.90	1.472	

Table (6) shows that the correlation coefficient between video games and aggressive behavior among intermediate school students in Saudi Arabia for males was (0.988), while for females was (0.90), which were significant correlation coefficients at ($\alpha \leq 0.05$). The Z value for the differences was (10.78). This value is significant and bigger than the standard value (1.96). Thus there are significant differences between correlation coefficients for males and females in favor of males.

Table (7)

The results of the correlational relationship and (Z) values between the use of video games and aggressive behavior among intermediate school students in Saudi Arabia according to grade variable

Variable	Category	Number	Correlation coefficient	Zr value	Z value		
					First	Second	Third
Grade	First	167	**0.824	1.172	-	*11.49	*15.64
	Second	166	**0.986	2.443		-	*4.72
	Third	167	**0.996	2.994			-

Table (7) shows that the correlation coefficient between video games and aggressive behavior among intermediate school students in Saudi Arabia for first grade was (0.824), for second grade was (0.986) and for third grade was (0.996). The Z value for differences was (11.49). This value is significant and bigger than the standard value (1.96). The differences were in favor of second grade students.

The results showed significant differences in the correlation coefficients between the first and third grades. The Z value was (15.64) in favor of third grade. The correlation coefficient was (0.996), while the correlation coefficient for first grade was (0.824). The results also showed significant differences in the correlation coefficients between the second and third grades. The Z value was (4.72) in favor of third grade students, with a correlation coefficient of (0.996) while the correlation coefficient for second grade was (0.986).

It can be said that the higher the level of the grade, the greater the correlation between the use of video games and aggressive behavior among students in Saudi Arabia. This is because violent people are attracted to these games, and that the time spent by the student previously and is playing electronic games is inversely proportional to the level of academic achievement. Violent video games provide a platform for learning and practicing violent solutions to conflict situations. Soon, these games begin to influence aggressive behavior as they allow the individual to think aggressively. The longer the duration of the exercise of these games, the more the impact on the human mind and his behavior more deep. The methods of education and socialization play an important role in learning behavioral methods through which individuals can achieve their goals.

RECOMMENDATIONS

- Parents should be sensitized to their children and ban these games from their homes.
- Reducing the time spent by children in playing video games, so that they do not have more than two hours a day.
- Parents can deal with the impact of violent video games by playing with their children or talking to them about these games.
- Be wary of preaching to older children as well as teenagers.
- Broadcasting awareness messages for parents, teachers and students about the pros and cons of video games.
- Adhere to the instructions of the World Health Organization regarding the permitted time periods for playing video games.
- Providing educational clubs and programs that offer excitement and thrill in lieu of video games.
- Conducting a similar study to the current study applied to different age groups, and their relationship to other psychological variables.

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