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EFFECTS OF VIDEO GAMES ON STUDENTS: TEST OF USES AND GRATIFICATION THEORY

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ABSTRACT

The study discusses the use of video games. Students have taken modern communication as purpose-oriented. The aim was to explore the habits of the students and their educational quality improvement. Uses and gratification was utilized as a central theory in the study. Survey questionnaire was adopted for getting data in field through convenient method of sampling. Chi-square test, One-way Analysis of Variance, Pearson correlation, regression analysis, r x c contingency table, and t-test for independent and correlated sample were used in analyzing the raw data. The phenomena of dender were related with Pakistani culture. Main languages were screened out and discussed the effects on users.

Keywords: Communication technology, students, video games

INTRODUCTION

The present era is the age of modern communication technology. Media technology is an integral part of teenager's lives in the twenty-first century. The world of electronic media, however, is changing dramatically. The vast majority of teenagers have access to multiple media. Most have internet and video game access, and a significant portion has a cellphone and an iPod. Videogames have become an important part of our culture. The term videogame in the broadest possible sense is a form of computer-based entertainment. Teenager plays video games for fun with the goal of progressing to the next level and eventually conquering the opponent, whether that's another player or the computer. What's more, the social aspect sharing tactics, experiences, and explanations helps cement what they've learned. Video gaming is pervasive in the lives of American teens young teens and older teens, girls and boys, and teens from across the socioeconomic spectrum. Opportunities for gaming are everywhere, and teens are playing video games frequently.

Educational video games, handheld devices, and media production tools can allow young students to see how complex language and other symbol systems attach to the world. From the first rock arrowheads to globe-spanning communications networks, humans have attempted to use technology in improving the length and quality of life. Video games are digital entertainment media that utilize both audio and visual channels to capture the audience's attention and immerse them in the developers' vision. In many cases, this involves putting the player in the role of an avatar that interacts with the in-game world. In essence, the player is the star of an interactive movie; he sees his avatar's actions portrayed on screen for his entertainment. It logically follows that the aesthetics for a video game should attain similar standards to those of a movie; the quality of both visuals and sound should be high.

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Vol. 1. No. 2. July 2012

The present study is aimed to focus the modern communication technologies containing Compact Disc in the presence of VCR, cable, internet, audio and video cassettes, etc. CDs containing different Games and vehicles race, Multidimensional Cartoons and wrestling and motion pictures English and Urdu, and poetic melodic. All these are characterized with magnificent entertainment and more important and highly accelerated with numerous violence incidents charged. All the above facts compel the researcher to take initiative for investigation the phenomenon. This study explored the amount and purpose of CDs' use as compared to other medium among male and female students of D.I. Khan City from different level of age groups.

BACKGROUND AND LITERATURE REVIEW

Over the past 25 years, a number of studies have looked at the effects of video games on children and adolescents. A majority of this research has examined associations between video game use and aggressive behavior, but there has also been some interest in the effects of video games on school performance. Video games are a fairly recent new form of entertainment, the first metaanalyses (Anderson & Bushman, 2001; Sherry, 2001) showed that there is a steadily growing body of research looking at their impact on players. The prominence of violent content in many types of games (Heintz-Knowles et al., 2001) and its potential association with aggression has attracted particular attention (Griffiths, 1999, 2000). At the time of writing, there appear to be a limited number of studies applying the television effects theory known as cultivation theory to the impact of video games on perceptions of the world and attitudes of gamers (Griffiths, 1999, 2000; Sherry, 2001; Subrahmanyam, Kraut, Greenfield, & Gross, 2001). A notable exception is, for instance, Anderson and Dill (2000) who looked at measures of crime likelihood and safety feelings in their study of aggressive thoughts, feelings and behavior (p. 778). The authors found no significant influence of playing videogames on the estimates of "crime likelihood" but did find a significant relationship between video game play and "safety feelings", even though it became non-significant when controlled for gender. These are interesting findings because they are the opposite of what television researchers would normally expect to find. Shanahan and Morgan (1999), in a metaanalysis of 5633 results from hundreds of studies conducted in the past 20 years, conclude that, in television research, evidence can only be found for ''first-order effects'' and not for ''second-order effects.'' They argue that such findings are "fully congruent with the cultivation theory which posits that television will teach us societal-level lessons about what ''the world'' is like, but not necessarily impact our perceptions of our own personal reality, where a much wider range of influences and everyday non-mediated experiences may play a stronger role" (p. 66). The label ''first-order effects'' refers to estimations of frequency and probability of aspects of social reality that seem to be empirically observable and verifiable in the real world, while ''second-order effects'' are opinions, beliefs and attitudes (Hawkins, Pingree, & Adler, 1987, p. 553; Hawkins & Pingree, 1990, p. 49; Shrum, 1995, p. 404). Arguably violence in video games differs from television violence (Dominick, 1984, p.138; Sherry, 2001).

The higher level of involvement may mean that violence in computer games has a much bigger impact than violence on television (Dill & Dill, 1998, p. 411; Griffiths, 1999; Anderson & Dill, 2000, p.772; Sherry, 2001, p. 411). A number of studies have shown a negative association between amount of video game play and school performance for children, adolescents, and college students (e.g. Harris & Wiliams 1985; Creasey & Myers, 1986; Lieberman, Chaffee, & Roberts, 1988; van Schie & Wiegman, 1997; Roberts, Foehr, Rideout, & Brodie, 1999; Anderson & Dill, 2000; Walsh, 2000).

Recent studies have shown that trait hostility may moderate the effects of playing violent video games (Lynch, 1994; Lynch, 1999; Anderson & Dill, 2000). Lynch (1994, 1999) has found that the physiological effects of playing violent video games may be even greater for children who already show more aggressive tendencies. Social learning theories of aggression (Anderson & Bushman, 2002; Huesmann, 1986; Patterson, DeBarysche, & Ramsey, 1989) have dominated most of the discussion of video game violence. Other research similarly suggests that Japanese culture tends to foster socially engaging emotions, whereas Western culture tends to foster socially disengaging emotions (Kitayama, Mesquita, & Karasawa, 2006).

People develop their own motives and needs to get their gratification or find a solution for their problems, which they meet through media consumption or non-media-based activity (Lucas & Sherry, 2004). For example: some people play video games to meet their need of entertainment and excitement, while others play video games to meet their social needs. The study by Ruggiero (2000) shows that the Uses & Gratifications theory has its starting roots in the 1940s where researchers studied why people kept listening to certain radio shows. The uses and gratifications theory is, according to McQuail (1994), a sub-tradition of media effects research.

Uses & Gratifications (1940)

The uses and gratifications approach is a central theory employed in communication studies for explaining the use of media. It is based on active recipients who select and use media in accordance with their motives and needs (Ruggiero 2000; Katz et al. 1974). Relaxation is another gratification dimension while playing video games. Since interactivity and success in games give users the feeling that they have power and can control events. Video games are frequently geared towards competition and challenge, as players strive to reach the next level or outplay other gamers.

Media Repertoires of Selective Theory

Media use and selectivity often focuses on single aspects of media related behaviors, e.g. the (absolute or relative) amount of use of certain media or content, the choice between a given set of options, or the strategies of choice applied in concrete reception situations. Media repertoires can be understood as integral part of lifestyles, they have to be interpreted with regard to their practical meaning. Moreover, the collective roots of habitués lead to milieu specific lifestyles with typical patterns of action which are also reflected by patterns of media use (Michel, 2003).

Script Theory

Huesmann (1986, 1998) proposed that when children observe violence in the mass media, they learn aggressive scripts. Scripts define situations and guide behavior: The person first selects a script to represent the situation and then assumes a role in the script. Once a script has been learned, it may be retrieved at some later time and used as a guide for behavior. This approach can be seen as a more specific and detailed account of social learning processes. Scripts are sets of particularly well-rehearsed, highly associated concepts in memory, often involving causal links, goals, and action plans.

AIMS OF THE STUDY

The study explored the effects of video games on students in a Pakistani school. As such, this study attempted to answer the following questions:

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Research Question I

What are the habits of the respondents in terms of using computer network especially as regards to CDs?

Research Question II

What is the time and attention level of the target group of respondents?

Research Question III

What are the outcomes of CDs use on their educational curriculum?

Research Question IV

What are the respondents' needs that were fulfilled as a result of video game exposure?

PROCEDURES OF THE STUDY

Methods

The study comprised 340 students (5^{th} to 12^{th} class) who play video games and use other CDs of movies of various languages. This survey was conducted in the city of Dera Ismail Khan. Convenience method of sampling was used due to the availability and accessibility of infinite respondents. A standardizes questionnaire was adopted for gathering data. Different schools were visited to reach at the target population. Both option were given to the respondents; 1-face to face interview and 2-questionnaire.

Data Analysis

This study employs both descriptive and inferential statistics in analyzing the raw data. Questions have been categorized numerically according to the nature of the data demand. The first category reflects the binomial test, correlation matrix. Chi-squared (X^2) as well as $r \times c$ Contingency table, one way analysis of variance, regression, Pearson correlation & one sample as well as paired sample tests also applied for analysis.

RESULTS AND DISCUSSION

Table 1: Chi-squared (X^2) 2×4 Contingent Table of the Respondents' Class Reading

5^{th}	**6^{th}**	**7^{th}**	**8^{th}**
15.25	18.77	21.41	27.57
9^{th}	**10^{th}**	**11^{th}**	**12^{th}**
36.75	45.23	51.59	66.43

Table 1 have been shown that X^2 = P-Value was = 0.987. The result concluded that there was a significant difference between classes in terms of their CDs usage. It is, therefore the data supported the null hypothesis

Class and mother tongue

Result of the r highlighted that both the factor has significant variance 1.4805 and 0.5195 respectively for mother tongue and classes. Mother tongue was strongly coefficient with class in which the child reads. The finding supports the null hypothesis.

Table 2: One-Sample Test of watching CDs with others

1-Lonely 2-Sister & brother 3-Friends and 4- All	t	df	Sig. (2-tailed)	Mean Difference
Very often	7.426	3	.005	25.2500
Often	6.956	3	.006	19.7500
Sometimes	8.078	3	.004	21.5000
Never	9.286	3	.003	16.2500
Don't Know	7.000	3	.006	1.7500

One-Sample Test of Table 2 showed that the test value =0 with df = 3. Children frequency watching CDs with others were .005, .006, 004, .003 & .006 respectively. This inference recorded that children uses all sources for watching CDs which supported null hypotheses.

Table 3: Frequency of watching the following CDs

	English	Indian	Indian	Pakistan	Pakistan	Stage Show	games	Sports
Indian movie	0.986							
Indian drama	0.277	0.115						
Pakistan movie	0.943	0.910	0.378					
Pakistan drama	0.080	-0.066	0.866	0.327				
Stage show	0.693	0.803	-0.500	0.567	-0.577			
Games	0.896	0.910	0.092	0.697	-0.266	0.738		
Sports	0.721	0.596	0.866	0.764	0.667	0.000	0.533	
Cartoons	0.878	0.934	-0.151	0.855	-0.174	0.905	0.751	0.348
Music	0.999	0.976	0.327	0.949	0.126	0.655	0.886	0.756
Graphics	0.877	0.798	0.632	0.956	0.548	0.316	0.613	0.913
Learning	0.999	0.976	0.327	0.949	0.126	0.655	0.886	0.756
N. geography	0.947	0.926	0.310	0.997	0.269	0.621	0.709	0.717

Table 4: Cartoons Music Graphics Learning

Music	0.855			
Graphics	0.667	0.897		
Learning	0.855	1.000	0.897	
N. geography	0.889	0.948	0.933	0.948

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Vol. 1. No. 2. July 2012

A correlation matrix of Table 3 indicated that there was correlation among all the variables. r was designed so that the correlation between various variables like English moves, Indian movies, Indian drama, Pakistan movies, Pakistan drama, stage show, games, sports, Cartoons, Music, Graphics, Learning & national geography=<>0. The data in the table showed the strength and the direction of a linear relationship between 13 variables. The result concluded that the null hypothesis was supported.

Table 5: Movies/Cartoons with Respect to Contents

	Action	**Violence**	**Romance**	**Suspense**	**Comedy**
Violence	0.774				
Romance	0.667	0.912			
Suspense	0.872	0.941	0.868		
Comedy	0.967	0.859	0.827	0.916	
New tech	0.895	0.941	0.756	0.933	0.896

Table 5 arranged the correlations between every pair into a matrix. The values given in the table represents the fraction of the variation in one variable that may be explained by the other variable relation like, violence relation with action, romance with violence, suspense with romance, comedy with suspense and new technology with comedy.

Table 6: Paired Sample t-test of the following CDs game

	Paired Mean Difference	**Standard Deviation**	**t**	**df**	**Sig. (2-tailed)**
Prince of Persia & Half line	1.5000	.5774	5.196	3	.014
Pain killer & shell shock	.2500	.9574	.522	3	.638
Chess master & Spiderman	-.2500	.5000	-1.000	3	.391
Hitman & Bad boys	.0000	1.1547	.000	3	1.000
Delta force & Lord of rings	-.5000	2.0817	-.480	3	.664
Max pyne & IGI-1, 2	-3.7500	1.8930	-3.962	3	.029
Sports/ cricket & Mission games	-.7500	1.2583	-1.192	3	.319

Paired Samples Test of Table 6 revealed that the t-value =5.20 with df = 3. Pain killer & shell shock (t=.52, p=.64), Chess master & Spiderman (t=-1.00, p=.39), Hitman & Bad boys (t=.000, p=1.0), Delta force & Lord of rings (t=-.480, p=.66), Max pyne & IGI-1, 2 (t=-3.962, p<.05) and Sports/ cricket & Mission games (t=-1.192, p=.32) having a significant paired group difference. The significant value=.014. There is a slight difference between the population & mean of the 7 groups of video games.

Tend to agree or disagree with CDs use

One-way analysis of variance indicated that there is significant difference among the responses. Although F- distribution= 0.05 & P=0.999.The null hypothesis, H_0 was not true in the within-sample mean difference and the between-sample mean; however, the between-sample difference was much larger than the within, we would not have to reject H_0.

Table 7: Correlation of Hard Words used by Children

	Also reply strongly	At the same level	Less than I was abused	Remain calm
Also reply strongly	1.00	.99**	.99**	.97**
p	.	.002	.002	.008
At the same level	.99**	1.00	.998**	.995**
p	.002	.	.00	.000
Less than I was abused	.99**	.998**	1.00	.99**
p	.002	.000	.	.001
Remain calm	.97**	.995**	.99**	1.00
p	.008	.000	.001	.

Table 7 described that there was a strong relationship among four variables. Pearson's r is 1.00, .987, .998 and .995 which are close to perfect relationship. The values are as well. In the table, significance values range from .000 to .998.

CONCLUSION AND RECOMMENDATIONS

This research focused on the evaluation of video games which determined the effects on the students and also screened out its uses and gratification. Gender differences were differentiated through empirical analysis which can be anchored with the cultural values in Pakistan. Mother tongue gratifies students with CD use. Pakistan is a country with at least six major languages and 58 minor ones.

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Vol. 1. No. 2. July 2012

The present researchers agreed with the findings since students have an opportunity to view violent movies on DVD/CD that are often uncensored and more intense in terms of violence than highly violent television movies that are often censored and include commercial interruptions as well. Although it seems obvious to many parents that different content is appropriate for different ages when they think about movies or music, many parents struggle with figuring how and when to introduce their kids to video games.

Based on the results of the current inquiry, uses and gratification research is recommended in future. The variables of this study demands co-analysis with demographic variables. The step will clearly demonstrate the relationship in a binding form of new results. Communication technology is composed of many forms of electronic communication. Those associated with the Internet, now accessible through both computers and mobile phones; include e-mail, instant messaging services, chat rooms, forums, social networking sites, interactive online gaming networks, and Web-logs (blogs). In addition, mobile phones enable their users to make telephone calls and send text messages. Communicating via technology occupies a unique middle ground between using spoken and written language for communication. Electronic discourse, such as that used in e-mails, text messages, or Internet chat rooms, often resembles writing that reads as if it were being spoken. Some researchers have termed this form of language “written speech” or “spoken writing.”

If parents are concerned that their child is spending too much time playing video games or appears preoccupied or obsessed with aggressive or violent video games, they should first set some limits (for example – playing the games for one hour after all homework is done) and try to encourage the child to participate in other activities. If there is continued concern about their child’s behavior or the effects of videogames, a consultation with a qualified mental health professional may be helpful.

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