



# The Negative Effects of Social Media and Video Games on the Self-Perception of Adolescents

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## Abstract

Adolescents spend much of their time using social media and playing video games. These platforms allow for social interaction and social comparison. These exchanges may impact self-perception. The present study aimed to investigate the effects of social media and video games on the self-perception of adolescents. This longitudinal study uses secondary data from Changing Climates of Conflict: A Social Network Experiment in 56 Schools New Jersey, 2012-2013. Higher social media use was associated with higher positive self-perception and video game usage was associated with lower self-perception. A T test and Pearson's Correlate was used to test the hypotheses. School social workers can utilize the research to inform their practice and help them educate adolescents on the positive and negative effects of social media and video game use on self-perception.



## Introduction

### Significance of Study

In the United States there are 214 million people that play video games and 70% of them are minors under 18 years old (Entertainment Software Association, 2020). As for users of social media sites, there are 7 out of 10 Americans that use them regularly (Auxier and Anderson, 2021). A Pew Research Center Survey in 2018 found that 95% of teens had access to smartphones (Andersen and Jiang, 2018).

### Purpose of Research

Empirical research suggests that adolescence is an important developmental period for self-concept formation which includes self-perception (Sebastian et al., 2018). Social media and video games have the means for social comparison, social interaction and can possibly have effects on self-concept or self-perception.

### Purpose of this study

This study aims to explore how social media and video games affect self-perception of adolescents. This study hypothesizes that excessive use of social media and video games has negative effects on self-perception in adolescents.

### Implications in Field of School Social Work

Due to the pandemic, many educational institutions relied on virtual learning and lockdowns compelled students to stay at home relying on their technology. There is an importance in understanding how these tools interact with adolescents and their development. Professionals need to be prepared to guide on how to safely use social media and video games.

## Literature Review

- There is a growing body of research on the effects of social media on self-perception, although there are few studies and some focus on adult participants and the data is still useful. There needs to be more research on adolescents (Vries and Rinaldo 2015; Barry et al, 2017; Sabik et al 2020).
- One study showed that negative self-perception was associated with increased negative social comparison when using social networking sites (Vries and Ronaldo, 2015).
- There are some inconclusive studies on the link between video games and self-esteem. One youth study however with 500 participants concluded that the use of video games was correlated with lower self-esteem and self-concept (Jackson, 2009).
- In another study, positive effects of video game usage was studied but the results were inconclusive. Researchers have acknowledged that video games and self-esteem is an under-researched area in the social sciences (Ingram & Cangemi 2019).
- In the field of Social Work, the person-in-environment is a primary lens used when working with individuals, families, and communities. One common theory is Bronfenbrenner's ecological theory which theorizes that a child's development is affected by different systems. The first environment is the microsystem, which includes the child's biology, parents, school and a few other elements The different systems interact to affect the child.



## Methods

### Research Design

A secondary data from Changing Climates of Conflict: A Social Network Experiment in 56 Schools New Jersey, 2012-2013. This study provides data on human behavior from 56 public middle schools in New Jersey. The current study examines a subset of the original data, focusing on the impact of social media and video game usage on the participant's self perception.

### Sample and Sampling Method

The participants ( $N = 24,191$ ) were 5th ( $n = 1,922$ ), 6th ( $n = 5,910$ ), 7th ( $n = 7422$ ) and 8th grade ( $n = 7747$ ) middle school students enrolled at 56 public middle schools in New Jersey.

### Data Collection

The University researchers worked alongside the New Jersey Department of Education to collect survey data. The public middle schools in the study were emailed about the research study. There were no incentives provided to the schools that participated beyond the research study being cost-free

### Measures

**Social Media Usage:** Participants were asked whether they use the following social media platforms: Facebook, Myspace, Twitter, Tumblr, Instagram, Formspring, Waywire, Google+, and other social media. Responses could be a yes or a no (1="I do use...", 0="I do not use"). A sum score of all 9 items was calculated to indicate the overall level of Social Media usage.

### Video Game Usage:

**Self-Perception:** Participants were asked to rate themselves if they perceive themselves as: "trouble-maker," "drama queen," "having enemies," "popular," "a leader," "nice," "respected," "loyal friend," "friends with all types of students," and "staying out of conflicts." Each item was rated 0 or 1 where 0 meant "no" and 1 meant "yes." Total sum scores of the items were used for analysis.



Table 1

Sociodemographic characteristics of Participants ( $N=24,191$ )

Characteristic	n	%
Gender		
Girl	11,997	49.1
Boy	12,439	50.9
Grade		
5 <sup>th</sup> grade	1,922	8.4
6 <sup>th</sup> grade	5,910	25.7
7 <sup>th</sup> grade	7,422	32.3
8 <sup>th</sup> grade	7,747	33.7
Ethnicity		
Black	2,079	9.3
Hispanic/Latino	4,345	17.8
Asian-American	1,128	5.0
Caribbean	424	1.9
South Asian	269	1.2
White	14,334	35.9
Other	2,096	9.4
Language spoken at home		
Speaks only English at home	14,342	63.1
Speaks only another language at home	706	3.1
Speaks only English and another language at home	7,671	33.8
Mother went to college		
Mother didn't go to college	5,546	26.3
Mother went to college	15,502	73.7
I live with both parents		
No	5,901	26.1
Yes: lives with both parents	16,687	73.9

## Results

### Social Media Usage and Self-Perception

Pearson correlation coefficients were computed among social media usage. The results of the correlational analyses showed that the correlation was statistically significant.  $r = .026, p < .001$ ; higher levels of social media use were associated with higher level of self-perception. The direction of the correlation is positive and the strength of the association is weak.  $p = < .001$ .

### Video Game Usage and Self-Perception

The results of independent sample t-test showed a significant difference in self-perception  $t(11734.56) = 110070.17, p < .001$ . The mean self-perception score of those who do not play video games ( $M=6.31, SD = 1.86$ ) was significantly higher than the mean self-perception of individuals who do play video games ( $M=6.03, SD=1.93$ ). Pearson's correlation suggests that no video game usage is correlated with higher self-perception.

Figure 1

Relationship between Self-Perception and Video Game Usage

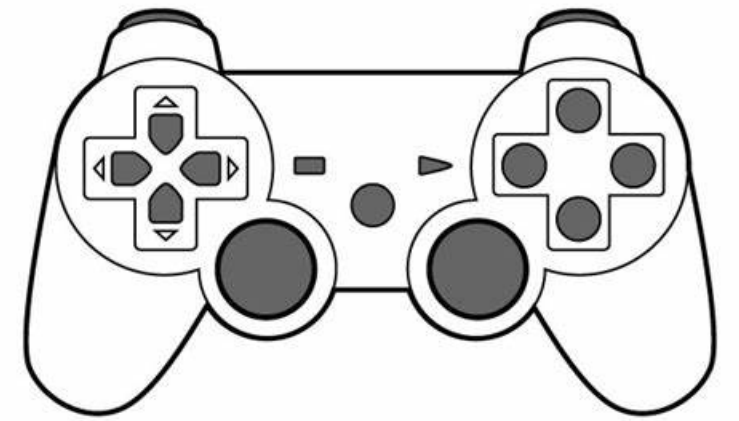
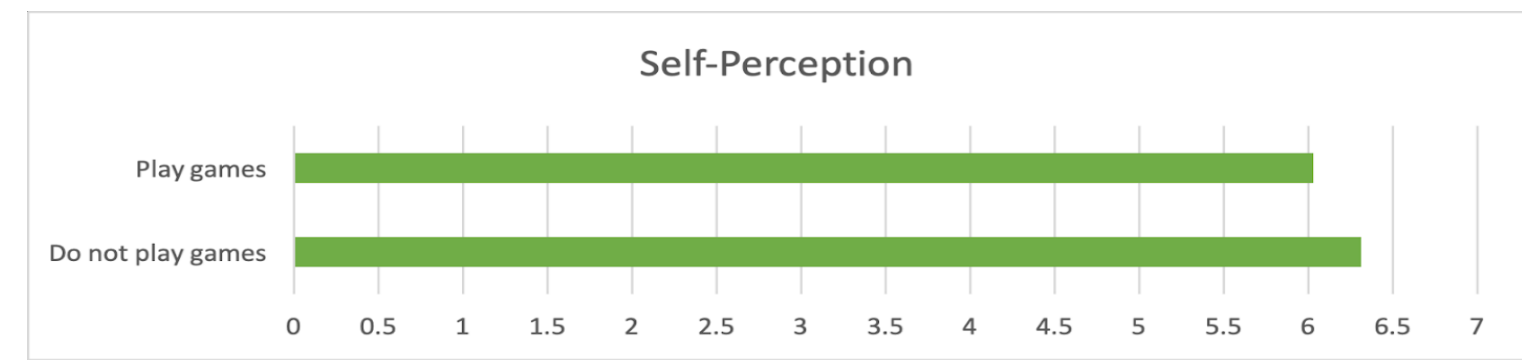
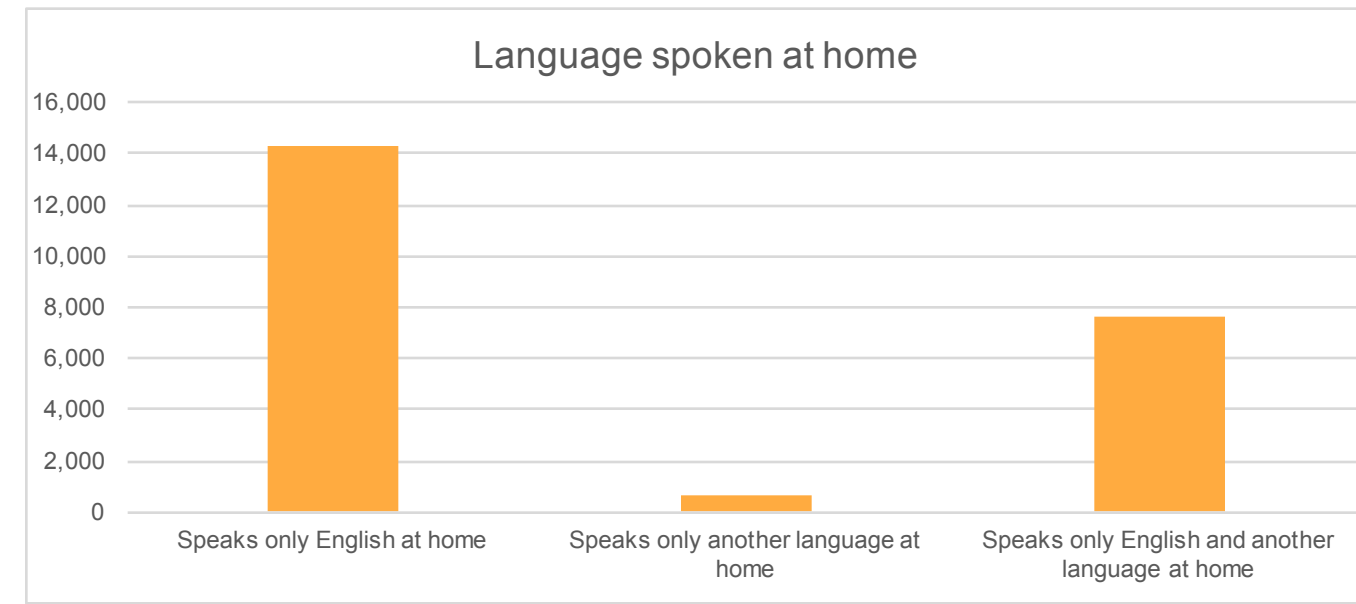


Figure 2

Frequency Analysis of Language Spoken at Home



## Strengths and Limitations

This current study has some strengths and limitations. The study used a sample of diverse group of adolescents in terms of racial and ethnic composition, grade level, language spoken at home and many other sociodemographic variations. This helps the sample be more generalizable. Another strength of this study is that it is longitudinal and measures at two different times to see change over time. A limitation of this study is that it does not measure the frequency of use of video games. It does not look into the types of video games used and also does not measure the frequency of social media use in terms of moderate or heavy use.

## Conclusion

The current study partially supported the hypothesis but also rejected it with mixed results as social media use had positive effects on self-perception while video game use had negative effects on self-perception. This study adds to the literature that lacks in the area of social media use and video game use effects on the self-perception of adolescents. School Social workers can inform their practice with this study and area of research and gain a better understanding as to helping students find a balance with social media and video game use. Adolescence is an important time in development and technology use should be researched to understand their effects on adolescent self-perception.

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