

**Factors that Affect Grade Nine Students
in Al Moattasem International School, Saudi Arabia**

2021

Marion Terry, Ph.D.

Professor
Brandon University
Brandon, Canada

Amjad Malik, Ph.D.

Professor
University College of the North
Thompson, Canada

Sajeera Anju

Vice Principal
Al Moattasem International School
Al-Jubail, Saudi Arabia

Keywords: video games, video games effects, text messaging, cell phones, adolescence, teenagers, academic performance, school performance, school grades, self concept, self awareness, peer relationships, peer influence, parent child relationship, parental involvement in education, recreational activities, recreational sports

**Factors that Affect Grade Nine Students
in Al Moattasem International School, Saudi Arabia**

Marion Terry, Ph.D.
Professor
Brandon University
Brandon, Canada

Amjad Malik, Ph.D.
Professor
University College of the North
Thompson, Canada

Sajeera Anju
Vice Principal
Al Moattasem International School
Al-Jubail, Saudi Arabia

Abstract

Due to concerns expressed by high school counsellors, Dr. Malik and Dr. Terry developed a quantitative Likert-scale survey to examine the relationships between academic performance (defined as final marks) and recreational video gaming and texting. Questions about video gaming and texting were included with other questions about social relations, extra-curricular activities, and leisure-time activities. Al Moattasem International School in Saudi Arabia was the focus for data collection and analysis. Complete data sets were obtained for 13 grade 9 students, based on anonymized school records and questionnaire responses. The researchers determined Spearman rho correlations with calculations of two-tailed probability of error. For the 7 males, non-educational video gaming correlated with primarily negative school experiences and negative relationships with parents and peers. Male recreational texting also correlated with primarily negative school experiences and negative relationships with parents and peers. For the 6 females, non-educational video gaming correlated with primarily positive school experiences and negative relationships with parents and peers. Female recreational texting correlated with primarily positive school experiences and positive relationships with parents and peers. Other interesting male and female correlations involved other non-academic activities, peer relationships, and self-concept. In this report, the results are collated into 26 tables that reveal coefficients ranging from fair to perfect, based on correlating 261 pairs of variables concerning the following factors separated by gender: video games, texting, other non-academic activities, peers, parents, self-concept, and school. In consideration of their findings, the researchers recommend that educators advise parents and students of the adverse effects of playing video games and texting excessively.

Keywords: video games, video games effects, text messaging, cell phones, adolescence, teenagers, academic performance, school performance, school grades, self concept, self awareness, peer relationships, peer influence, parent child relationship, parental involvement in education, recreational activities, recreational sports

The researchers would like to acknowledge the research support provided by the administrators, teachers, and other Al Moattasem International School staff in Saudi Arabia.

Introduction

We conducted the research in partnership with Al Moattasem International School in Saudi Arabia. We initiated the study in response to concerns over the effects of non-educational video gaming and texting on students' school experiences. Educational professionals wanted to refer to research findings when they advised parents and school staff to monitor children's video gaming and texting activities. This report follows four other similar studies conducted in Canada, Pakistan, and Saudi Arabia (Terry, Malik, Sinclair, et al., 2013, 2014; Terry & Malik, 2014-15; 2018, 2020; Terry, Malik, & Chohan, 2020; Terry, Malik, & Hussain, 2021).

The research purpose was to examine the correlations between various factors and school experiences in grade 9. The factors included social relations (e.g., friends), extra-curricular activities (e.g., sports), and leisure-time activities (e.g., playing video games and texting).

Methodology

Research Participants

Complete sets of data were obtained for 13 of the grade 9 students from Al Moattasem International School in Saudi Arabia (7 boys and 6 girls).

Data Collection

Academic performance data consisted of the students' final marks (percentage grades in English, mathematics, and science – biology, chemistry, and physics).

Survey data consisted of the students' answers to 36 questionnaire items: demographics, parental support, peer relationships, extracurricular activities, school activities, self-esteem, self-advocacy, video games, and texting. (See the Appendix.)

Data Analysis

Correlational research requires at least 30 research subjects to produce statistically significant correlations. Separating the 13 grade 9 students by gender further reduced the overall statistical significance of our findings, but was important in order to test the expectation that there would be gender differences related to video gaming and texting – as conveyed to us by counselors, other educational professionals, parents, and other adults in the general community.

Of the 475 correlations that resulted (of which 324 have predictive value), 35 were statistically significant. The following classifications reflect the relative strength of the 261 Spearman rho correlations chosen for this report.

<u>coefficients</u>	<u>strength</u>	<u>predictability</u>
(+ or -) .400 to .499	fair	moderate
(+ or -) .500 to .599	good	fair
(+ or -) .600 to .699	very good	good
(+ or -) .700 to .799	excellent	very good
(+ or -) .800 to .899	superior	excellent
(+ or -) .900 to .999	almost perfect	superior

Results

For males, non-educational video gaming correlated with primarily negative school experiences and negative relationships with parents and peers. Recreational texting also correlated with primarily negative school experiences and negative relationships with parents and peers.

For females, non-educational video gaming correlated with primarily positive school experiences and negative relationships with parents and peers. Recreational texting correlated with primarily positive school experiences and positive relationships with parents and peers.

Other interesting male and female correlations involved other non-academic activities, peer relationships, and self-concept.

The following tables report correlations with strengths ranging from fair to superior. Statistically significant two-tailed low probabilities of error ($p < .01$ or $p < .05$) are indicated where relevant.

Males

Table 1 shares correlations regarding the number of hours that the adolescent boys spent playing video games. Time spent playing video games correlated negatively with feeling good in school, being told that they had a good attitude in school, being busy outside school, and playing sports. It also correlated positively with being sleepy in school, feeling good when playing video games, thinking that they played too much, spending time texting, messing up everything, feeling hurt when criticized, having friends who quit school, and fearing rejection by peers.

Table 1. Time Spent Playing Video Games

The more hours adolescent boys spend playing video games . . .	correlation strength	coefficient
<i>school</i>		
. . . the less they feel good in a classroom.	good	-.577
. . . the less teachers tell them that they have a good attitude.	excellent	-.728
. . . the more they feel sleepy in school.	almost perfect	+.914 $p < .01$
<i>video games</i>		
. . . the more they feel good while playing video games.	fair	+.488
. . . the more they think that they spend too much time playing video games.	superior	+.856
<i>texting</i>		
. . . the more hours they spend texting.	very good	+.687
<i>self-concept</i>		
. . . the more they feel like they mess up everything.	excellent	+.759 $p < .05$
. . . the more they are hurt by criticism.	superior	+.801 $p < .01$
<i>peers</i>		
. . . the more they have friends who dropped out of school.	good	+.595
. . . the more they fear being rejected by their friends.	excellent	+.706
<i>other non-academic activities</i>		
. . . the less they are busy outside of school.	fair	-.481
. . . the less frequently they play sports.	very good	-.673

Table 2 shares correlations regarding the adolescent boys' positive video game experiences. Wanting to have a video game in school correlated negatively with feeling good in school, and being told that they had a good attitude in school. It also correlated positively with feeling hurt when criticized, being busy outside school, and liking other activities more than school.

Feeling good when playing video games correlated negatively with liking their teachers, and being told that they had a good attitude in school. It also correlated positively with being sleepy in school, spending time texting, and messing up everything.

Feeling that video games were important correlated positively with earning high marks, being sleepy in school, spending time texting, feeling like other people were happier, and having friends who quit school. It also correlated negatively with liking their teachers, being told that they had a good attitude in school, being easy to get along with, and playing sports.

Table 2. Positive Video Game Experiences

The more adolescent boys want a video game club in school . . .	correlation strength	coefficient
<i>school</i> ... the less they feel good in a classroom ... the less teachers tell them that they have a good attitude.	good fair	-.564 -.411
<i>self-concept</i> ... the more they are hurt by criticism.	good	+.522
<i>other non-academic activities</i> ... the more they are busy outside of school. ... the more they like other activities more than school.	very good superior	+.689 +.820 p<.05
The more adolescent boys feel good while playing video games . . .	correlation strength	coefficient
<i>school</i> ... the less they like their teachers. ... the less teachers tell them that they have a good attitude. ... the more they feel sleepy in school.	good very good very good	-.529 -.669 +.663
<i>texting</i> ... the more hours they spend texting.	good	+.592
<i>self-concept</i> ... the more they feel like they mess up everything.	good	+.523
The more importance adolescent boys attach to video games . . .	correlation strength	coefficient
<i>school</i> ... the more likely they are to earn high marks in school. ... the less they like their teachers. ... the less teachers tell them that they have a good attitude. ... the more they feel sleepy in school.	good almost perfect excellent fair	+.540 -.904 p<.01 -.776 p<.05 +.404
<i>texting</i> ... the more hours they spend texting.	good	+.577

Table 2. Positive Video Game Experiences (continued)

The more importance adolescent boys attach to video games . . .	correlation strength	coefficient
<i>self-concept</i> . . . the more they feel like other people are happier than they are.	excellent	+ .732
<i>peers</i> . . . the less they feel like they are easy to get along with. . . . the more they have friends who dropped out of school.	excellent very good	-.728 +.674
<i>other non-academic activities</i> . . . the less frequently they play sports.	very good	-.687

Table 3 shares correlations regarding the adolescent boys' negative video game experiences. Thinking that they played too much correlated negatively with liking their teachers, being told that they had a good attitude in school, being easy to get along with, being busy outside school, liking other activities more than school, and playing sports. It also correlated positively with being sleepy in school, spending time texting, feeling hurt when criticized, having friends who quit school, and fearing rejection by peers.

Being told that they played video games too much correlated negatively with earning high marks, liking their teachers, being told that they had a good attitude in school, having friends who quit school, and playing sports. It also correlated positively with being sleepy in school, spending time texting, feeling like other people were happier, and being easy to get along with.

Table 3. Negative Video Game Experiences

The more adolescent boys think that they spend too much time playing video games . . .	correlation strength	coefficient
<i>school</i> . . . the less they like their teachers. . . . the less teachers tell them that they have a good attitude. . . . the more they feel sleepy in school.	very good very good excellent	-.626 -.673 +.725
<i>texting</i> . . . the more hours they spend texting.	very good	+.630
<i>self-concept</i> . . . the more they are hurt by criticism.	good	+.537
<i>peers</i> . . . the less they feel like they are easy to get along with. . . . the more they have friends who dropped out of school. . . . the more they fear being rejected by their friends.	fair superior good	-.490 +.817 $p < .05$ +.595
<i>other non-academic activities</i> . . . the less they are busy outside of school. . . . the less they like other activities more than school. . . . the less frequently they play sports.	fair fair superior	-.451 -.467 -.892 $p < .01$

Table 3. Negative Video Game Experiences (continued)

The more adolescent boys are told that they spend too much time playing video games . . .	correlation strength	coefficient
<i>school</i> . . . <i>the less likely they are to earn high marks in school.</i> . . . <i>the less they like their teachers.</i> . . . <i>the less teachers tell them that they have a good attitude.</i> . . . <i>the more they feel sleepy in school.</i>	good almost perfect excellent fair	-.540 -.904 p<.01 -.776 p<.05 +.404
<i>texting</i> . . . the more hours they spend texting.	good	+.577
<i>self-concept</i> . . . the more they feel like other people are happier than they are.	excellent	+.732
<i>peers</i> . . . the less they feel like they are easy to get along with. . . . the more they have friends who dropped out of school.	excellent very good	+.728 -.674
<i>other non-academic activities</i> . . . the less frequently they play sports.	very good	-.687

Table 4 shares correlations regarding the number of hours that the adolescent boys spent texting. Time spent texting correlated negatively with earning high marks, liking their teachers, and being told that they had a good attitude in school. It also correlated positively with being sleepy in school, falling behind in schoolwork, being told that they texted too much, feeling like other people were happier, messing up everything, feeling hurt when criticized, having friends who quit school, and fearing rejection by peers.

Table 4. Time Spent Texting

The more hours that adolescent boys spend texting . . .	correlation strength	coefficient
<i>school</i> . . . the less likely they are to earn high marks in school. . . . the less they like their teachers. . . . the less teachers tell them that they have a good attitude. . . . the more they feel sleepy in school. . . . the more they fall behind in their assignments.	very good good very good fair excellent	-.668 -.596 -.636 +.490 +.722
<i>texting</i> . . . the more they are told that they spend too much time texting.	good	+.592
<i>self-concept</i> . . . the more they feel like other people are happier than they are. . . . the more they feel like they mess up everything. . . . the more they are hurt by criticism.	fair good good	+.447 +.516 +.500
<i>peers</i> . . . the more they have friends who dropped out of school. . . . the more they fear being rejected by their friends.	very good very good	+.667 +.671
<i>parents</i> . . . the more their parents encourage them to do well in school.	fair	+.433

Table 5 shares correlations regarding the adolescent boys' positive texting experiences. Feeling that texting was important correlated negatively with earning high marks, liking their teachers, feeling hurt when criticized, and being easy to get along with. It also correlated positively with fearing rejection by peers, being encouraged by their parents, and being busy outside school.

Enjoying texting correlated negatively with being told that they had a good attitude in school. It also correlated positively with feeling like other people were happier.

Table 5. Positive Texting Experiences

The more importance that adolescent boys attach to texting . . .	correlation strength	coefficient
<i>school</i> . . . the less likely they are to earn high marks in school. . . . the less they like their teachers.	fair good	-.438 -.511
<i>self-concept</i> . . . the less they are hurt by criticism.	fair	-.422
<i>peers</i> . . . the less they feel like they are easy to get along with. . . . the more they fear being rejected by their friends.	good good	-.553 +.567
<i>parents</i> . . . the more their parents encourage them to do well in school.	excellent	+.732
<i>other non-academic activities</i> . . . the more they are busy outside of school.	good	+.522
The more adolescent boys enjoy texting . . .	correlation strength	coefficient
<i>school</i> . . . the less teachers tell them that they have a good attitude.	good	-.502
<i>self-concept</i> . . . the more they feel like other people are happier than they are.	very good	+.617

Table 6 shares correlations regarding the adolescent boys' negative texting experiences. Thinking that they texted too much correlated negatively with feeling good in school, liking their teachers, being easy to get along with, liking other activities more than school, and playing sports. It also correlated positively with feeling like other people were happier, messing up everything, and fearing rejection by peers.

Being told that they texted too much correlated negatively with earning high marks, liking their teachers, being told that they had a good attitude in school, being easy to get along with, and playing sports. It also correlated positively with being sleepy in school, and having friends who quit school.

Table 6. Negative Texting Experiences

The more adolescent boys think that they spend too much time texting . . .	correlation strength	coefficient
<i>school</i> . . . the less they feel good in a classroom. . . . the less they like their teachers.	very good very good	-.653 -.646
<i>self-concept</i> . . . the more they feel like other people are happier than they are. . . . the more they feel like they mess up everything.	good good	+.547 +.516
<i>peers</i> . . . the less they feel like they are easy to get along with. . . . the more they fear being rejected by their friends.	fair good	-.443 +.522
<i>other non-academic activities</i> . . . the less they like other activities more than school. . . . the less frequently they play sports.	good fair	-.500 -.420
The more adolescent boys are told that they spend too much time texting . . .	correlation strength	coefficient
<i>school</i> . . . the less likely they are to earn high marks in school. . . . the less they like their teachers. . . . the less teachers tell them that they have a good attitude. . . . the more they feel sleepy in school.	fair superior good fair	-.474 -.882 p<.01 -.502 +.497
<i>peers</i> . . . the less they feel like they are easy to get along with. . . . the more they have friends who dropped out of school.	superior almost perfect	-.828 p<.05 +.986 p<.01
<i>other non-academic activities</i> . . . the less frequently they play sports.	excellent	-.746

Table 7 shares correlations regarding the adolescent boys' non-academic activities other than playing video games and texting. Being busy outside school correlated positively with earning high marks, falling behind in schoolwork, and being encouraged by their parents. It also correlated negatively with being sleepy in school.

Liking other activities more than school correlated negatively with feeling good in school. It also correlated positively with messing up everything.

Playing sports correlated positively with liking their teachers, being told that they had a good attitude in school, being easy to get along with, and being encouraged by their parents. It also correlated negatively with being sleepy in school, feeling hurt when criticized, and having friends who quit school.

Table 7. Other Non-Academic Activities

The more adolescent boys are busy outside of school . . .	correlation strength	coefficient
<i>school</i> . . . the more likely they are to earn high marks in school. . . . the less they feel sleepy in school. . . . the more they fall behind in their assignments.	fair good good	+ .449 - .569 + .525
<i>parents</i> . . . the more their parents encourage them to do well in school.	good	+ .586
The more adolescent boys like other activities more than school . . .	correlation strength	coefficient
<i>school</i> . . . the less they feel good in a classroom.	very good	- .653
<i>self-concept</i> . . . the more they feel like they mess up everything.	good	+ .516
The more frequently adolescent boys play sports . . .	correlation strength	coefficient
<i>school</i> . . . the more they like their teachers. . . . the more teachers tell them that they have a good attitude. . . . the less they feel sleepy in school.	very good excellent very good	+ .647 + .733 - .676
<i>self-concept</i> . . . the less they are hurt by criticism.	fair	- .490
<i>peers</i> . . . the more they feel like they are easy to get along with. . . . the less they have friends who dropped out of school.	good excellent	+ .569 - .700
<i>parents</i> . . . the more their parents encourage them to do well in school.	fair	+ .424

Table 8 shares correlations regarding the adolescent boys' positive peer relationships. Being easy to get along with correlated positively with earning high marks, liking their teachers, and being told that they had a good attitude in school.

Table 8. Positive Peer Relationships

The more adolescent boys feel they are easy to get along with . . .	correlation strength	coefficient
<i>school</i> . . . the more likely they are to earn high marks in school. . . . the more they like their teachers. . . . the more teachers tell them that they have a good attitude.	good superior fair	+ .561 + .887 p<.01 + .426

Table 9 shares correlations regarding the adolescent boys' negative peer relationships. Having friends who dropped out of school correlated negatively with earning high marks, liking their teachers, and being told that they had a good attitude in school. It also correlated positively with being sleepy in school.

Being afraid of rejection by peers correlated negatively with feeling good in school, and being told that they had a good attitude in school. It also correlated positively with being sleepy in school, falling behind in their schoolwork, messing up everything, and feeling hurt when criticized.

Table 9. Negative Peer Relationships

The more adolescent boys have friends who quit school . . .	correlation strength	coefficient
<i>school</i> . . . the less likely they are to earn high marks in school. . . . the less they like their teachers. . . . the less teachers tell them that that they have a good attitude. . . . the more they feel sleepy in school.	good superior good fair	-.535 -.870 $p < .05$ -.542 +.490
The more adolescent boys fear being rejected by their friends . . .	correlation strength	coefficient
<i>school</i> . . . the less they feel good in a classroom. . . . the less teachers tell them that that they have a good attitude. . . . the more they feel sleepy in school. . . . the more they fall behind in their assignments. <i>self-concept</i> . . . the more they feel like they mess up everything. . . . the more they are hurt by criticism.	good good fair fair good excellent	-.501 -.538 +.407 +.452 +.593 +.745

Table 10 shares correlations regarding the adolescent boys' parental support. Being encouraged by their parents correlated positively with earning high marks. It also correlated negatively with falling behind in their schoolwork.

Table 10. Parental Support

The more adolescent boys are encouraged by their parents to do well in school . . .	correlation strength	coefficient
<i>school</i> . . . the more likely they are to earn high marks in school. . . . the less they fall behind in their assignments.	very good superior	+.694 -.702 $p < .05$

Table 11 shares correlations regarding the adolescent boys' negative self-concept. Feeling like other people were happier correlated positively with earning high marks.

Table 11. Negative Self-Concept

The more adolescent boys feel like other people are happier than they are . . .	correlation strength	coefficient
<i>school</i> . . . the more likely they are to earn high marks in school.	good	+.558

Table 12 shares correlations regarding the adolescent boys' positive school experiences. Liking their teachers correlated positively with earning high marks.

Table 12. Positive School Experiences

The more adolescent boys like their teachers . . .	correlation strength	coefficient
<i>school</i> . . . the more likely they are to earn high marks in school.	very good	+.677

Table 13 shares correlations regarding the adolescent boys' negative school experiences. Falling behind in their schoolwork correlated negatively with earning high marks.

Table 13. Negative School Experiences

The more adolescent boys fall behind in their assignments . . .	correlation strength	coefficient
<i>school</i> . . . the less likely they are to earn high marks in school.	superior	-.810 p<.05

Females

Table 14 shares correlations regarding the number of hours that the adolescent girls spent playing video games. Time spent playing video games correlated negatively with earning high marks, being sleepy in school, falling behind in their schoolwork, and being busy outside school. It also correlated positively with feeling good in school, liking their teachers, wanting to have a video game club in school, feeling good when playing video games, feeling that video games were important, being told that they played video games too much, feeling hurt when criticized, having friends who quit school, and being encouraged by their parents.

Table 14. Time Spent Playing Video Games

The more hours adolescent girls spend playing video games . . .	correlation strength	coefficient
<i>school</i>		
. . . the less likely they are to earn high marks in school.	fair	-.420
. . . the more they feel good in a classroom.	very good	+.660
. . . the more they like their teachers.	good	+.500
. . . the less they feel sleepy in school.	good	-.500
. . . the less they fall behind in their assignments.	superior	-.853 p<.05
<i>video games</i>		
. . . the more they want to have a video game club in school.	superior	+.880 p<.05
. . . the more they feel good while playing video games.	good	+.533
. . . the more importance they attach to playing video games.	very good	+.660
. . . the more they are told that they spend too much time playing video games.	very good	+.632
<i>self-concept</i>		
. . . the more they are hurt by criticism.	very good	+.632
<i>peers</i>		
. . . the more they have friends who dropped out of school.	very good	+.671
<i>parents</i>		
. . . the more their parents encourage them to do well in school.	fair	+.490
<i>other non-academic activities</i>		
. . . the less they are busy outside of school.	very good	-.612

Table 15 shares correlations regarding the adolescent girls' positive video game experiences. Wanting to have a video game club in school correlated negatively with earning high marks, being sleepy in school, falling behind in their schoolwork, having friends who quit school, being busy outside school, and liking other activities more than school. It also correlated positively with feeling good in school, being told that they had a good attitude in school, feeling hurt when criticized, fearing rejection by peers, and being encouraged by their parents.

Feeling good when playing video games correlated negatively with liking their teachers, spending time texting, and being easy to get along with. It also correlated positively with messing up everything, and liking other activities more than school.

Feeling that video games were important correlated negatively with liking their teachers, spending time texting, and being easy to get along with. It also correlated positively with messing up everything, and liking other activities more than school.

Table 15. Positive Video Game Experiences

The more adolescent girls want a video game club in school . . .	correlation strength	coefficient
<i>school</i> . . . the less likely they are to earn high marks in school. . . . the more they feel good in a classroom. . . . the more teachers tell them that they have a good attitude. . . . the less they feel sleepy in school. . . . the less they report falling behind in their assignments.	fair excellent fair very good almost perfect	-.493 +.742 +.492 -.660 -.938 p<.01
<i>self-concept</i> . . . the more they are hurt by criticism.	fair	+.417
<i>peers</i> . . . the less they have friends who dropped out of school. . . . the more they fear being rejected by their friends.	superior fair	-.820 p<.05 +.426
<i>parents</i> . . . the more their parents encourage them to do well in school.	excellent	+.718
<i>other non-academic activities</i> . . . the less they are busy outside of school. . . . the less they like other activities more than school.	superior very good	-.898 p<.05 -.696
The more adolescent girls feel good while playing video games . . .	correlation strength	coefficient
<i>school</i> . . . the less they like their teachers.	good	-.533
<i>texting</i> . . . the fewer hours they spend texting.	very good	-.652
<i>self-concept</i> . . . the more they feel like they mess up everything.	very good	+.652
<i>peers</i> . . . the less they feel like they are easy to get along with.	superior	-.836 p<.05
<i>other non-academic activities</i> . . . the more they like other activities more than school.	good	+.539
The more importance adolescent girls attach to video games . . .	correlation strength	coefficient
<i>school</i> . . . the less they like their teachers.	very good	-.660
<i>texting</i> . . . the fewer hours they spend texting.	very good	-.689
<i>self-concept</i> . . . the more they feel like they mess up everything.	very good	+.657
<i>peers</i> . . . the less they feel like they are easy to get along with.	superior	-.826 p<.05
<i>other non-academic activities</i> . . . the more they like other activities more than school.	fair	+.417

Table 16 shares correlations regarding the adolescent girls' negative video game experiences. Thinking that they played too much correlated negatively with feeling good in school, liking their teachers, being told that they had a good attitude in school, and spending time texting. It also correlated positively with feeling like other people were happier, messing up everything, being easy to get along with, and liking other activities more than school.

Being told that they played video games too much correlated positively with falling behind in their schoolwork, being easy to get along with, and having friends who quit school. It also correlated negatively with being busy outside school, and playing sports.

Table 16. Negative Video Game Experiences

The more adolescent girls think that they spend too much time playing video games . . .	correlation strength	coefficient
<i>school</i> ... the less they feel good in a classroom.	fair	-.440
... the less they like their teachers.	good	-.500
... the less teachers tell them that they have a good attitude.	very good	-.671
<i>texting</i> ... the fewer hours they spend texting.	very good	-.671
<i>self-concept</i> ... the more they feel like other people are happier than they are.	good	+.533
... the more they feel like they mess up everything.	good	+.533
<i>peers</i> ... the more they feel like they are easy to get along with.	almost perfect	+.980 p<.01
<i>other non-academic activities</i> ... the more they like other activities more than school.	very good	+.632
The more adolescent girls are told that they spend too much time playing video games . . .	correlation strength	coefficient
<i>school</i> ... the more they fall behind in their assignments.	good	+.539
<i>peers</i> ... the more they feel like they are easy to get along with.	fair	+.465
... the more they have friends who dropped out of school.	fair	+.424
<i>other non-academic activities</i> ... the less they are busy outside of school.	excellent	-.775
... the less frequently they play sports.	fair	-.447

Table 17 shares correlations regarding the number of hours that the adolescent girls spent texting. Time spent texting correlated positively with feeling good in school, being told that they had a good attitude in school, being easy to get along with, and fearing rejection by peers. It also correlated negatively with feeling like other people were happier, messing up everything, having friends who quit school, and liking other activities more than school.

Table 17. Time Spent Texting

The more hours that adolescent girls spend texting . . .	correlation strength	coefficient
<i>school</i>		
. . . the more they feel good in a classroom.	fair	+ .492
. . . the more teachers tell them that they have a good attitude.	good	+ .583
<i>self-concept</i>		
. . . the less they feel like other people are happier than they are.	good	- .581
. . . the less they feel like they mess up everything.	very good	- .636
<i>peers</i>		
. . . the more they feel like they are easy to get along with.	excellent	+ .730
. . . the less they have friends who dropped out of school.	fair	- .417
. . . the more they fear being rejected by their friends.	excellent	+ .767
<i>other non-academic activities</i>		
. . . the less they like other activities more than school.	excellent	- .707

Table 18 shares correlations regarding the adolescent girls' positive texting experiences. Feeling that texting was important correlated negatively with earning high marks, being sleepy in school, falling behind in their schoolwork, having friends who quit school, being busy outside school, liking other activities more than school, and playing sports. It also correlated positively with feeling good in school, and being encouraged by their parents.

Enjoying texting correlated negatively with earning high marks, being sleepy in school, falling behind in their schoolwork, being busy outside school, and liking other activities more than school. It also correlated positively with feeling good in school, being told that they had a good attitude in school, feeling hurt when criticized, being easy to get along with, having friends who quit school, fearing rejection by peers, and being encouraged by their parents.

Table 18. Positive Texting Experiences

The more importance that adolescent girls attach to texting . . .	correlation strength	coefficient
<i>school</i>		
. . . the less likely they are to earn high marks in school.	fair	- .403
. . . the more they feel good in a classroom.	fair	+ .469
. . . the less they feel sleepy in school.	excellent	- .746
. . . the less they fall behind in their assignments.	superior	- .894 p<.05
<i>peers</i>		
. . . the less they have friends who dropped out of school.	very good	- .636
<i>parents</i>		
. . . the more their parents encourage them to do well in school.	excellent	+ .783
<i>other non-academic activities</i>		
. . . the less they are busy outside of school.	superior	- .870 p<.05
. . . the less they like other activities more than school.	very good	- .674
. . . the less frequently they play sports.	good	- .503

Table 18. Positive Texting Experiences (continued)

The more adolescent girls enjoy texting . . .	correlation strength	coefficient
<i>school</i>		
. . . the less likely they are to earn high marks in school.	fair	-.429
. . . the more they feel good in a classroom.	superior	+.898 p<.05
. . . the more teachers tell them that they have a good attitude.	superior	+.822 p<.05
. . . the less they feel sleepy in school.	very good	-.612
. . . the less they fall behind in their assignments.	excellent	-.719
<i>self-concept</i>		
. . . the more they are hurt by criticism.	excellent	+.775
<i>peers</i>		
. . . the more they feel like they are easy to get along with.	excellent	+.700
. . . the less they have friends who dropped out of school.	excellent	+.730
. . . the more they fear being rejected by their friends.	fair	+.456
<i>parents</i>		
. . . the more their parents encourage them to do well in school.	excellent	+.700
<i>other non-academic activities</i>		
. . . the less they are busy outside of school.	good	-.500
. . . the less they like other activities more than school.	excellent	-.775

Table 19 shares correlations regarding the adolescent girls' negative texting experiences. Thinking that they texted too much correlated negatively with feeling like other people were happier, feeling hurt when criticized, and being easy to get along with. It also correlated positively with having friends who quit school, and liking other activities more than school.

Being told that they texted too much correlated negatively with earning high marks, being sleepy in school, falling behind in their schoolwork, feeling like other people were happier, messing up everything, being easy to get along with, having a busy life outside school, and playing sports. It also correlates positively with being encouraged by their parents.

Table 19. Negative Texting Experiences

The more adolescent girls think that they spend too much time texting . . .	correlation strength	coefficient
<i>self-concept</i>		
. . . the less they feel like other people are happier than they are.	fair	-.408
. . . the less they are hurt by criticism.	fair	-.447
<i>peers</i>		
. . . the less they feel like they are easy to get along with.	almost perfect	-.980 p<.01
. . . the more they have friends who dropped out of school.	fair	+.422
<i>other non-academic activities</i>		
. . . the more they like other activities more than school.	fair	+.447

Table 19. Negative Texting Experiences (continued)

The more adolescent girls are told that they spend too much time texting . . .	correlation strength	coefficient
<i>school</i>		
. . . the less likely they are to earn high marks in school.	excellent	-.735
. . . the less they feel sleepy in school.	good	-.500
. . . the less they fall behind in their assignments.	fair	-.426
<i>self-concept</i>		
. . . the less they feel like other people are happier than they are.	superior	-.866 p<.05
. . . the less they feel like they mess up everything.	fair	-.426
<i>peers</i>		
. . . the less they feel like they are easy to get along with.	fair	-.465
<i>parents</i>		
. . . the more their parents encourage them to do well in school.	fair	+.490
<i>other non-academic activities</i>		
. . . the less they have a busy life outside of school.	very good	-.612
. . . the less frequently they play sports.	excellent	-.707

Table 20 shares correlations regarding the adolescent girls' non-academic activities other than playing video games and texting. Being busy outside school correlated negatively with earning high marks, feeling good in school, fearing rejection by peers, and being encouraged by their parents. It also correlated positively with being sleepy in school, falling behind in their schoolwork, feeling like other people were happier, messing up everything, and having friends who quit school.

Liking other activities more than school correlated negatively with feeling good in school, being told that they have a good attitude in school, being easy to get along with, fearing rejection by peers, and being encouraged by their parents. It also correlated positively with being sleepy in school, falling behind in their schoolwork, feeling like other people were happier, messing up everything, and having friends who quit school.

Playing sports correlated negatively with earning high marks, liking their teachers, and being encouraged by their parents. It also correlated positively with being sleepy in school, falling behind in their schoolwork, feeling like other people were happier, messing up everything, and feeling hurt when criticized.

Table 20. Other Non-Academic Activities

The more adolescent girls are busy outside of school . . .	correlation strength	coefficient
<i>school</i>		
. . . the less likely they are to earn high marks in school.	fair	-.429
. . . the less they feel good in a classroom.	good	-.539
. . . the more they feel sleepy in school.	very good	+.612
. . . the more they fall behind in their assignments.	excellent	+.783

Table 20. Other Non-Academic Activities (continued)

The more adolescent girls are busy outside of school . . .	correlation strength	coefficient
<i>self-concept</i> . . . the more they feel like other people are happier than they are. . . . the more they feel like they mess up everything.	excellent fair	+.707 +.435
<i>peers</i> . . . the more they have friends who dropped out of school. . . . the less they fear being rejected by their friends.	excellent fair	+.730 -.456
<i>parents</i> . . . the less their parents encourage them to do well in school.	excellent	-.700
The more adolescent girls like other activities more than school . . .	correlation strength	coefficient
<i>school</i> . . . the less they feel good in a classroom. . . . the less teachers tell them that they have a good attitude. . . . the more they feel sleepy in school. . . . the more they fall behind in their assignments.	very good excellent very good very good	-.696 -.707 +.632 +.674
<i>self-concept</i> . . . the more they feel like other people are happier than they are. . . . the more they feel like they mess up everything.	good very good	+.548 +.674
<i>peers</i> . . . the less they feel like they are easy to get along with . . . the more they have friends who dropped out of school. . . . the less they fear being rejected by their friends.	excellent excellent good	-.775 +.707 -.566
<i>parents</i> . . . the less their parents encourage them to do well in school.	excellent	-.775
The more frequently adolescent girls play sports . . .	correlation strength	coefficient
<i>school</i> . . . the less likely they are to earn high marks in school. . . . the less they like their teachers . . . the more they feel sleepy in school. . . . the more they fall behind in their assignments.	good excellent excellent fair	-.594 -.707 +.707 +.402
<i>self-concept</i> . . . the more they feel other people are happier than they are. . . . the more they feel like they mess up everything. . . . the more they are hurt by criticism.	superior superior fair	+.816 p<.05 +.804 +.447
<i>parents</i> . . . the less their parents encourage them to do well in school.	very good	-.693

Table 21 shares correlations regarding the adolescent girls' positive peer relationships. Being easy to get along with correlated positively with feeling good in school, liking their teachers, being told that they had a good attitude in school, and being encouraged by their parents. It also correlated negatively with messing up everything.

Table 21. Positive Peer Relationships

The more adolescent girls feel they are easy to get along with . . .	correlation strength	coefficient
<i>school</i>		
. . . the more they feel good in a classroom.	good	+ .539
. . . the more they like their teachers.	fair	+ .490
. . . the more teachers tell them that they have a good attitude.	excellent	+ .730
<i>self-concept</i>		
. . . the less likely they are to feel like they mess up everything.	very good	- .609
<i>parents</i>		
. . . the more their parents encourage them to do well in school.	good	+ .500

Table 22 shares correlations regarding the adolescent girls' negative peer relationships. Having friends who quit school correlated negatively with feeling good in school, liking their teachers, being told that they had a good attitude in school, and feeling hurt when criticized. It also correlated positively with falling behind in their schoolwork.

Fearing rejection by peers correlated negatively with feeling good in school, and being told that they had a good attitude in school.

Table 22. Negative Peer Relationships

The more adolescent girls have friends who quit school . . .	correlation strength	coefficient
<i>school</i>		
. . . the less they feel good in a classroom.	superior	- .820 p<.05
. . . the less they like their teachers.	fair	- .447
. . . the less teachers tell them that they have a good attitude.	fair	- .417
. . . the more they fall behind in their assignments.	very good	+ .636
<i>self-concept</i>		
. . . the less they are hurt by criticism.	fair	- .424
The more adolescent girls fear being rejected by their friends . . .	correlation strength	coefficient
<i>school</i>		
. . . the less they feel good in a classroom.	excellent	- .721
. . . the less teachers tell them that they have a good attitude.	fair	- .433

Table 23 shares correlations regarding the adolescent girls' parental support. Being encouraged by their parents correlated positively with earning high marks, feeling good in school, liking their teachers, and being told that they had a good attitude in school. It also correlated negatively with being sleepy in school, falling behind in their schoolwork, feeling like other people were happier, and messing up everything.

Table 23. Parental Support

The more adolescent girls are encouraged by their parents to do well in school . . .	correlation strength	coefficient
<i>school</i>		
. . . the more likely they are to earn high marks in school.	excellent	+.789
. . . the more they feel good in a classroom.	good	+.539
. . . the more they like their teachers.	fair	+.490
. . . the more teachers tell them that they have a good attitude.	excellent	+.730
. . . the less they feel sleepy in school.	almost perfect	-.980 p<.01
. . . the less they fall behind in their assignments.	superior	-.870 p<.05
<i>self-concept</i>		
. . . the less they feel like other people are happier than they are.	fair	-.495
. . . the less they feel like they mess up everything.	very good	-.609

Table 24 shares correlations regarding the adolescent girls' negative self-concept. Feeling like other people were happier correlated negatively with earning high marks.

Table 24. Negative Self-Concept

The more adolescent girls feel like other people are happier than they are . . .	correlation strength	coefficient
<i>school</i>		
. . . the less likely they are to earn high marks in school.	fair	-.485

Table 25 shares correlations regarding the adolescent girls' positive school experiences. Feeling good in school, liking their teachers, and being told that they had a good attitude in school correlated positively with earning high marks.

Table 25. Positive School Experiences

The more adolescent girls feel good in a classroom . . .	correlation strength	coefficient
<i>school</i>		
. . . the more likely they are to earn high marks in school.	fair	+.462

Table 25. Positive School Experiences (continued)

The more adolescent girls like their teachers . . .	correlation strength	coefficient
<i>school</i> . . . the more likely they are to earn high marks in school.	fair	+ .420
The more teachers tell adolescent girls that they have a good attitude . . .	correlation strength	coefficient
<i>school</i> . . . the more likely they are to earn high marks in school.	excellent	+ .736

Table 26 shares correlations regarding the adolescent girls' negative school experiences. Being sleepy in school and falling behind in their schoolwork correlated negatively with earning high marks.

Table 26. Negative School Experiences

The more adolescent girls feel sleepy in school . . .	correlation strength	coefficient
<i>school</i> . . . the less likely they are to earn high marks in school.	superior	-.840 p<.05
The more adolescent girls fall behind in their assignments . . .	correlation strength	coefficient
<i>school</i> . . . the less likely they are to earn high marks in school.	very good	-.687

Discussion

For this report, we chose to share the correlations with strengths ranging from fair to almost perfect (.400-.999), because these correlations had moderate to superior predictability levels. We omitted the correlations with strengths ranging from slight to moderate (.100-.399), because these correlations had limited or no predictability.

Our findings are remarkable in that such a small research sample yielded notable correlations, many of which were statistically significant. Replicating the study in other similar schools would ascertain whether our results are generalizable.

Appendix

FACTORS THAT AFFECT ACADEMIC PERFORMANCE IN GRADE NINE

*Unless otherwise indicated, 1 means that you strongly disagree.
2 means that you disagree.
3 means that you agree.
4 means that you strongly agree.*

Section One

I am: **1** - male **2** - female

1 2

My parents encourage me to do well in school.

1 2 3 4

How old are you?

What language(s) do you speak at home?

Section Two

I think that I am easy to get along with.

1 2 3 4

Several of my friends quit school.

1 2 3 4

Section Three

There should be a video game club in school.

1 2 3 4

I have a busy life outside of school.

1 2 3 4

I like other activities more than school classes.

1 2 3 4

I play sports frequently.

1 2 3 4

I play video games every day: **1** - no **2** - 1 or 2 hrs **3** - 3 or 4 hrs **4** - 5 or 6 hrs

1 2 3 4

I text with my friends every day: **1** - no **2** - 1 or 2 hrs **3** - 3 or 4 hrs **4** - 5 or 6 hrs

1 2 3 4

Section Four

I feel good being in a classroom.

1 2 3 4

I like most my teachers.

1 2 3 4

I feel sleepy during classes.

1 2 3 4

I do not keep up with my assignments.

1 2 3 4

Teachers say I have a good attitude.

1 2 3 4

Section Five

Playing video games makes me feel good. 1 2 3 4

Texting is important in my life. 1 2 3 4

I enjoy texting with my friends. 1 2 3 4

Video games are important in my life. 1 2 3 4

Section Six

Most people around me seem happier than me. 1 2 3 4

I mess up everything I do. 1 2 3 4

I am afraid of being rejected by my friends. 1 2 3 4

I feel really hurt when I am criticized. 1 2 3 4

Section Seven

I think I play video games too much. 1 2 3 4

I have been told that I play video games too much. 1 2 3 4

Section Eight

I think I spend too much time texting. 1 2 3 4

I have been told that I spend too much time texting. 1 2 3 4

References

- Terry, M., Malik, A., Sinclair, D., Fines, C., & Terry, S. (2013). The effect of playing video games on academic performance and peer relations in grade nine. *Proceedings of the 41st Annual CSSE Conference 2013*.
- Terry, M., Malik, A., Sinclair, D., Fines, C., & Terry, S. (2014). Factors that affect academic performance in grade nine: Focus on video games. *International Journal of Humanities and Social Science*, 4(10), 1-15. <http://www.ijhssnet.com/journal/index/2696>
- Terry, M., & Malik, A. (2014-15). Factors that affect grade nine students. *The MERN Journal*, 10, 11-16.
- Terry, M., & Malik, A. (2018). *Video gaming as a factor that affects academic performance in grade nine*. (ED583492)
- Terry, M., & Malik, A. (2020). *Factors that affect grade nine students in northern Canada*. (ED603633)
- Terry, M., Malik A, & Chohan, B. (2020). *Factors that affect grade nine students in Rawalpindi, Pakistan*. (ED603620)
- Terry, M., Malik, A., & Hussain, K. (2021). *Factors that affect grade nine students in a Pakistan International School in Saudi Arabia*. (ED613309)