

# Distracted: Academic Performance Differences Between Teen Users and Non-Users of MySpace and Other Communication Technology

Tamyra A. PIERCE

California State University, Fresno

Department of Mass Communication & Journalism

2225 East Ramon Ave M/S MF10

Fresno, CA 93740 USA

and

Roberto VACA

Sanger High School

1045 Bethel Avenue

Sanger, CA 93765 USA

## ABSTRACT

This study examined the differences in academic performance between teen users and non-users of various communication technologies. Participants included 517 high school students who completed a self-report survey. The results revealed that approximately ¾ of the teens had a MySpace account and a cell phone and more than ½ had an IM account. Results also showed that those who had a MySpace account, cell phone and IM had significantly lower grades than those who did not. Results also revealed that teens who used their MySpace, cell phone and IM while doing their homework reported having lower grades than those who did not use the technology while doing their homework. In addition, those who put off doing their homework to spend time on MySpace also reported lower grades than those who did not put off doing their homework to spend time with MySpace. Finally, results showed that 28% text messaged during class from always to frequently, and 5% reported text messaging during an exam from always to frequently.

**Keywords:** MySpace, Academic Performance, Communication Technology.

## BACKGROUND

In 1998, Vice President Al Gore stated, "we have made progress in reaching our goal of connecting all of the nation's schools and classrooms to the Internet by the year 2000" [1]. In the late 1990s, the Internet continued to grow and many were proclaiming the vast benefits computers and Internet access would have on schools and academic performance. In fact, some suggested that computers increased learning in specific academic areas such as mathematics and science [2]. However, over the

years, research findings have been less conclusive about the benefits of this technology on school performance [3].

The Internet can provide a wealth of educational resources for students and can be beneficial towards increasing academic performance; however, non-educational sites may do just the opposite. Specifically, many non-educational type sites may actually serve to distract young people from their school obligations.

Social networking sites (SNS) such as MySpace, have become an almost overnight phenomenon and are attracting young people by the millions, primarily to talk with friends or to make new friends. Given their popularity, many teens report spending vast amounts of time on their SNS, which is resulting in lower academic grades [4]. In addition, cell phones and instant messaging on the computer are also two popular communication tools for young people and may also be distracting young people and influencing their academic performance.

Given the newness of social networking sites, there is very limited scholarly research that has examined their connection to academic performance. Furthermore, little research has examined the influence of other technologies (such as cell phones and IM) on academic grades. Therefore, the purpose of this research is to look at teens' use of social networking sites, cell phones and instant messaging to determine if there are differences in academic performance between users and non-users of these communication devices.

## SOCIAL NETWORKING SITES

Although there are many different social networking sites available online (Xanga, Facebook, Friendstar, MySpace, etc), MySpace is considered the most popular SNS among users of all ages but especially among

adolescents [5]. Nielsen/Netratings reported that Myspace led the growth in networking sites in 2006 with a 367% increase. In addition to being the number one SNS, MySpace also has the highest retention rate with 67% of its visitors being returning visitors [6].

Chris DeWolfe and Tom Anderson originally created and launched MySpace in 2003 as an online source to promote their band, the Raveonettes, and other independent artists [7]; however, it quickly grew into much more than a site to learn and hear about new music. Today, MySpace is likened to an online diary in which users can post pictures of themselves, write blogs, include personal information about themselves, and post conservation boards that they engage in with other users. In 2006, there were reportedly more than 100 million users on MySpace, with an estimated 10 million users under the age of 17 [8]. However, "it now has over 140 million members and is growing at a rate of 150,000 new members worldwide each day" [9].

### **ADOLESCENTS' USE OF THE INTERNET**

In 2005, more than 21 million adolescents between the ages of 12 and 17 had access to and routinely used the Internet [10]. Instant messaging, chat rooms, and emails have given adolescents new ways to talk with their friends or make new friends. According to a recent survey of young people's use of the Internet, teens routinely communicate in chat rooms and IMs (instant messaging) and more than 85% state they use one or both on a daily basis [11]. Females, more than males, typically engage more heavily in chat rooms and other communication environments [12].

### **Teens' Use of Cell Phone**

Since the late 1990s, cell phone use among young people has been on the increase. In 2005, a Pew Internet research study found that approximately 33% of teens had a cell phone [13]. Of the 33% of teens who reported owning a cell phone, approximately 64% said they routinely sent text messages. In addition, of the young cell phone users, teenage girls tended to use text messaging much more than their male counterparts. Older teens (17 year olds) also reported sending more text messages on average than younger teens. Although cell phone use and text messaging has risen among U.S. teens, their popularity remains less than European teens (Linhart, Madden and Hitlin, 2005).

### **Media Influences on Poor Academic Performance**

Although there is very limited research on the

influence of various technologies on grades, a few studies have found some evidence the specific technology influences academic performance [14, 15, 16]. For instance, those who frequently watch non-educational programs on television tend to have lower academic grades than those who watch educational-type programs [17]. Sharif and Sargent (2006) found that adolescents who spent time watching movies, television or playing videogames after school, instead of doing their homework, were more likely to have lower grades [18]. In addition, other research suggests that girls' grades tend to be influenced more so than boys' by frequent media use [19].

Although some past research have examined the influence of computers and the Internet on grades, to date, no studies have examined teens' use of specific Internet sites, their use of cell phones or other technology and their influence on academic performance. Due to the lack of research in these areas, the following research questions are proposed:

RQ1a: How many teens report having a social networking site (MySpace, Xanga or Facebook) account?

RQ1b: How many teens report having a cell phone and text messaging?

RQ1c: How many teens report have an IM (instant message) account?

RQ2a: Is there a difference in grade fluctuation (lower, same, or higher) among those who have a MySpace account and those who do not?

RQ2b: Is there a difference in grade fluctuation among those who have an IM account and those who do not?

RQ2c: Is there a difference in grade fluctuation among those who have a cell phone account and those who do not?

RQ3a: Is there a difference in grade fluctuation among those who have their MySpace site open while doing their homework and those who do not?

RQ3b: Is there a difference in grade fluctuation among those who IM while doing their homework and those who do not?

RQ3c: Is there a difference in grade fluctuation among those who text message while doing their homework and those who do not?

RQ4a: Is there a difference in grade fluctuation among those who put off doing their homework to spend time on MySpace and those who do not?

RQ4b: Is there a difference in grade fluctuation among those who put off doing their homework to spend time

IMing and those who do not?

RQ4c: Is there a difference in grade fluctuation among those who put off doing their homework to spend time text messaging and those who do not?

RQ5a: How frequent do teens report using text messaging on their cell phones during class time?

RQ5b: How frequent do teens report using text messaging during class exams?

## METHODS

### Participants

The participants consisted of 517 students from three High Schools in a large western city. The age of the participants ranged from 14-20 with the average age being between 15-16 years old (68%). Fourteen percent were freshman, 43% sophomores, 27% juniors and 16% were seniors. The sample consisted of 201 males and 316 females.

### Procedures

Permission to conduct the surveys was first accessed from the individual school principals. Once entrance into the schools was obtained, a purposive selection of teachers was chosen to gain a sample of students from each school year (e.g., freshman, sophomore, junior, and senior). After obtaining consent from the teachers, parental permission forms were distributed to each student and students were asked to have one or both parents sign the form and then return it prior to the day of the surveys. Only those students with parental consent were allowed to complete the survey. The surveys were conducted in the students' classrooms and the teacher was present during all testing.. Each participant completed a questionnaire of 55 questions.

### Measures

The first part of the questionnaire consisted of demographic questions (age, sex, year in school), followed by a self-report of the students' grades last year and on the most recent progress report/report card. The next series of questions asked about their technology use: 1) if they had a SNS, IM, and cell phone (and text messaging), 2) how often they used these items, 3) how often they used other technology (such as videogames, iPods, etc), 4) how often and if they put off doing homework to spend time on SNS, IM, cell phone or other technology, 5) how often they used technology (SNS, IM, cell phone, etc) while doing homework, and other general usage questions. The next series of questions asked about the adolescents'

technology access and use. Items were assessed using both nominal (yes/no) and 5-point Likert-type scales.

## RESULTS

Research question 1a-1c asked if students had a SNS, cell phone/text messaging and/or instant messaging (IM). The following shows the distribution of scores:

- 72% of students reported to having a MySpace account
- 12% reported having a Xanga (SNS) account
- 3% reported having a Facebook (SNS) account
- 76% reported having a cell phone
- 62% reported having text-messaging
- 68% reported having an IM (instant messaging) address

Research questions 2 a-c asked if there was a difference in grade fluctuation between those who had a MySpace account, those who had an IM account and those with a cell phone/text messaging. First, in answering RQ2a, a significant difference was found. Those who had a MySpace account reported significantly lower grades than those who did not have a MySpace (or other SNS) account,  $\chi^2 (2) = 49.01$ , p. < .000. Next, a significant difference was found with RQ2b. Those who had an IM account reported significantly lower grades than those who did not have an IM account,  $\chi^2 (2) = 30.61$ , p. < .000. Finally, a significant difference was also found for research question 2c. Those who had a cell phone reported significantly lower grades than those who did not have a cell phone,  $\chi^2 (2) = 14.65$ , p. < .001. Those who had text messaging on their cell phone also reported lower grades as compared to those who did not have text messaging,  $\chi^2 (2) = 14.27$ , p. < .01.

Research questions 3a-c asked if there was a difference in grades between those who used various technologies (MySpace, IM, cell phone) while doing their homework. Results for RQ3a found a significant difference. Those who said they typically kept their MySpace open while doing homework reported significantly lower grades than those who did not keep their MySpace (or other SNS) open while doing homework,  $\chi^2 (6) = 145.51$ , p. < .000. Next, significant differences were found between those who kept their IM open while doing homework and those who did not (RQ3b). Those who typically kept their IM open while doing their homework reported significantly lower grades than those who did not keep their IM open,  $\chi^2 (6) = 40.44$ , p. < .000. Finally, significance was also

found for research question 3c. Those who said they text messaged or talked on their cell phone while doing homework reported significantly lower grades as compared to those who did not use their cell phone while doing their homework,  $\chi^2 (6) = 20.98$ ,  $p. < .005$ .

Research questions 4a-c asked if there were differences in grades between those “put off” doing their homework to spend time with their MySpace, IM or cell phone (text messaging). Results for research question 4a showed a significant difference. Those who said they often put off doing their homework to spend time with their MySpace account reported significantly lower grades than those who did not put off doing their homework,  $\chi^2 (10) = 119.14$ ,  $p. < .000$ . Significant differences were not found for RQ4b or RQ4c.

Finally, research questions 5a-b asked the frequency of cell phone use by students during class and during an exam (see Table 1).

**Table 1: Cell Phone Use in Class and During an Exam**

|                | Always | Frequently | Sometimes | Rarely | Never |
|----------------|--------|------------|-----------|--------|-------|
| During class   | 15%    | 13%        | 19%       | 12%    | 41%   |
| During an exam | 2%     | 3%         | 7%        | 15%    | 72%   |

## DISCUSSION

Although the results of this study do not reveal any “causal” link between grades and technology use, they do suggest that certain technology may be distracting teens from their homework, which may be linked to lower grades. Lower grades were found among those who had MySpace accounts, who kept the site open while doing homework, and among those who “put off” doing their homework to spend time on their MySpace account. As Kubey, Lavin & Barrows (2001) suggest, adolescents who spend a significant amount of time “non-educational” online sites instead of engaged in homework tend to have lower educational performance [20].

Similar results were found with IM and cell phone use. Those who reported having their IM and cell phone open/on while they did their homework tended to also have lower grades. Only a small percentage of students reported “putting off” their homework to spend time IMing or using their cell phones, and no differences in academic performance were found with this activity.

Finally, almost half of the students reported (from always to sometimes) text messaging someone during class-time. This would suggest that students may not be paying attention as carefully in class as they could. This too may be an additional distraction that influences grades. In addition to text messaging in class, some students also reported text messaging during an exam. Even though the results showed only a small percentage of students text messaged during an exam, this may suggest that teens are using cell phones as a source for cheating.

## CONCLUSION

Decades ago television was the “new technology” that was preoccupying young people and distracting them from their schoolwork. The Internet can be a source of education but specific sites or tools on the Internet may have little to no educational value and may actually distract and take time away from homework. Cell phones too have many benefits and have given parents a means by which to keep in contact with their child. However, parents may need to monitor their child’s use. Just as parents of past generations limited the use of television until “after” homework was completed, parents today may have to make similar guidelines. In addition, teachers may need to take notice of students’ use of cell phones in the classroom, especially if cell phones are becoming the new “note passing” tool in the classroom or worse yet, the new “cheating” tool.

## REFERENCES

- [1] A. Gore. Connecting all Americans for the 21st century: Telecommunications links in low income and rural communities. **Internet Access in Public Schools**, 998. Retrieved on March 3, 2000 from <http://nces.ed.gov>.
- [2] H. Wenglinsky. **Does it computer? The relationship between educational technology and student achievement in mathematics**. Princeton, NJ: Educational Testing Service, 1998.
- [3] J.M. Roschelle, R.D. Pea, C.M. Hoadley, D.N. Grodon, & B.M. Means. Changing how and what children learn in school with computer-based technologies. **Children and Computer Technology**, Vol. 10 No. 2, 2000, pp. 76-101.
- [4] C. Kelsey. **Generation myspace: Helping your teen to survive online adolescence**. NY: Marlowe & Company, 2007.

- [5] S. Odum. The dangers of MySpace.com for teens. **CBN News**. 2006. Retrieved September 11, 2006 from <http://www.cbn.com/cbnnews/usnews>.
- [6] J. Howe. The hit factory. **Wired**. Retrieve September 11, 2006 from [http://wired.com/wired/archive/13.11/myspace\\_pr.html](http://wired.com/wired/archive/13.11/myspace_pr.html).
- [7] S. Foo. The MySpace men. **Time Magazine**, Vol. 167, 2006, May, p. 138.
- [8] S. Bausch, & L. Han. Social networking sites grow 47 percent, year over year, reaching 45 percent of web users. **Nielsen-Netratings**. Retrieved May 26, 2006 from <http://www.nielsen-netratings.com>
- [9] C. Kelsey. **Generation myspace: Helping your teen to survive online adolescence**. NY: Marlowe & Company, 2007.
- [10] A. Lenhart. Protecting teens online. **Pew Internet and American Life Project**. 2005. Retrieved on April 24, 2006 from <http://www.pewinternet.org/>
- [11] D.R. Hughes. Recent statistics on internet dangers. Retrieved on May 28, 2006 from <http://www.protectkids.com/dangers/stats.htm>.
- [12] L. Louis. Net-generation attributes and seductive properties of the internet as predictors of online activities and internet addiction. **CyberPsychology & Behavior**, Vol.7, 2004, pp. 333-349.
- [13] A. Lenhart, M. Madden, & P. Hitlin. Youth are leading the transition to a fully wired and mobile nation. **Pew Internet & American Life Project**. 2005 Retrieved on April 16, 2007 from <http://www.perinternet.org/>
- [14] M. Morgan. Television and school performance. **Adolescent Medicine**, Vol. 4, 1993, pp. 607-622.
- [15] M. Fetler. Television viewing and school achievement. **Journal of Communication**, Vol. 34, 1984, pp. 104-118.
- [16] R.J. Hancox,, B.J. Milne., & R. Poulton. Association of television viewing during childhood with poor educational achievement. **Archive of Pediatric Adolescent Medicine**, Vol. 159, 2005, pp. 614-618.
- [17] Anderson, D.R., Huston, A.C., Schmitt, K.L., Linebarger, D. L., & Wright, J.C. Early childhood television viewing and adolescent behavior: The recontact study. **Monograph of Social Research Child Development**, Vol. 66, 2001, pp., I-I147.
- [18] I. Sharif. & J.D. Sargent. Association between television, movie, and video game exposure and school performance. **Pediatrics**, Vol. 118, 2006, pp. 1061-1070.
- [19] A.C. Huston, J.C. Wright, J. Marguis, S.B. Green. How young children spend their time: Television and other activities. **Developmental Psychology**, Vol. 35, 1999, pp. 43-51.
- [20] R. W. Kubey, M.J. Lavin, & J.R. Barrows. Internet use and collegiate academic performance decrements: Early findings. **Journal of Communication**, Vol. 51, No.2, 2001, pp. 366-382.