

# Writing, Technology and Teens

Teens write a lot, but they do not think of their emails, instant and text messages as writing. This disconnect matters because teens believe good writing is an essential skill for success and that more writing instruction at school would help them.

April 24,2008

Amanda Lenhart, Senior Research Specialist

Sousan Arafeh, Principal, Research Images

Aaron Smith, Research Specialist

Alexandra Rankin Macgill, Project Manager

Pew Internet & American Life Project 1615 L Street, NW – Suite 700 Washington, D.C. 20036

### Summary of Findings

Teenagers' lives are filled with writing. All teens write for school, and 93% of teens say they write for their own pleasure. Most notably, the vast majority of teens have eagerly embraced written communication with their peers as they share messages on their social network pages, in emails and instant messages online, and through fast-paced thumb choreography on their cell phones. Parents believe that their children write more as teens than they did at that age.

This raises a major question: What, if anything, connects the formal writing teens do and the informal e-communication they exchange on digital screens? A considerable number of educators and children's advocates worry that James Billington, the Librarian of Congress, was right when he recently suggested that young Americans' electronic communication might be damaging "the basic unit of human thought – the sentence."<sup>1</sup> They are concerned that the quality of writing by young Americans is being degraded by their electronic communication, with its carefree spelling, lax punctuation and grammar, and its acronym shortcuts. Others wonder if this return to text-driven communication is instead inspiring new appreciation for writing among teens.

While the debate about the relationship between e-communication and formal writing is on-going, few have systematically talked to teens to see what they have to say about the state of writing in their lives. Responding to this information gap, the Pew Internet & American Life Project and National Commission on Writing conducted a national telephone survey and focus groups to see what teens and their parents say about the role and impact of technological writing on both in-school and out-of-school writing. The report that follows looks at teens' basic definition of writing, explores the various kinds of writing they do, seeks their assessment about what impact e-communication has on their writing, and probes for their guidance about how writing instruction might be improved.

At the core, the digital age presents a paradox. Most teenagers spend a considerable amount of their life composing texts, but they do not think that a lot of the material they create electronically is *real* writing. The act of exchanging emails, instant messages, texts, and social network posts is communication that carries the same weight to teens as phone calls and between-class hallway greetings.

At the same time that teens disassociate e-communication with "writing," they also strongly believe that good writing is a critical skill to achieving success – and their

<sup>&</sup>lt;sup>1</sup> Dillon, Sam. "In Test, Few Students are Proficient Writers," The New York Times, April 3, 2008. http://www.nytimes.com/2008/04/03/education/03cnd-

writing.html?em&ex=1207454400&en=a866a90118b1f389&ei=5087%0A

parents agree. Moreover, teens are filled with insights and critiques of the current state of writing instruction as well as ideas about how to make in-school writing instruction better and more useful.

#### Even though teens are heavily embedded in a tech-rich world, they do not believe that communication over the internet or text messaging is writing.

The main reason teens use the internet and cell phones is to exploit their communication features.<sup>2</sup> <sup>3</sup> Yet despite the nearly ubiquitous use of these tools by teens, they see an important distinction between the "writing" they do for school and outside of school for personal reasons, and the "communication" they enjoy via instant messaging, phone text messaging, email and social networking sites.

- 85% of teens ages 12-17 engage at least occasionally in some form of electronic personal communication, which includes text messaging, sending email or instant messages, or posting comments on social networking sites.
- 60% of teens do not think of these electronic texts as "writing."

Teens generally do not believe that technology negatively influences the quality of their writing, but they do acknowledge that the informal styles of writing that mark the use of these text-based technologies for many teens do occasionally filter into their school work. Overall, nearly two-thirds of teens (64%) say they incorporate some informal styles from their text-based communications into their writing at school.

- 50% of teens say they sometimes use informal writing styles instead of proper capitalization and punctuation in their school assignments;
- 38% say they have used text shortcuts in school work such as "LOL" (which stands for "laugh out loud");
- 25% have used emoticons (symbols like smiley faces ) in school work.

For more information on teens and electronic communication, please see Part 4: Electronic Communication starting on page 21.

#### The impact of technology on writing is hardly a frivolous issue because most believe that good writing is important to teens' future success.

Both teens and their parents say that good writing is an essential skill for later success in life.

<sup>&</sup>lt;sup>2</sup> Analysis of daily communications choices is based on all teens, regardless of technology ownership. 3 Lenhart, Amanda, Madden, Mary & Hitlin, Paul. (2005) "Teens and Technology: Youth are Leading the Transition to a Fully Wired and Mobile Nation," Pew Internet & American Life Project, Washington, DC, July 27, 2005

- 83% of parents of teens feel there is a greater need to write well today than there was 20 years ago.
- 86% of teens believe good writing is important to success in life some 56% describe it as essential and another 30% describe it as important.

Parents also believe that their children write more now than they did when they were teens.

48% of teenagers' parents believe that their child is writing more than the parent did during their teen years; 31% say their child is writing less; and 20% believe it is about the same now as in the past.

Recognition of the importance of good writing is particularly high in black households and among families with lower levels of education.

- 94% of black parents say that good writing skills are more important now than in the past, compared with 82% of white parents and 79% of English-speaking Hispanic parents.
- 88% of parents with a high school degree or less say that writing is more important in today's world, compared with 80% of parents with at least some college experience.

For more information on this topic, please visit Part 6: Parental Attitudes toward Writing and Technology starting on page 36 and Part 7: The Way Teens See Their Writing and What Would Improve It on page 42.

### Teens are motivated to write by relevant topics, high expectations, an interested audience and opportunities to write creatively.

Teens write for a variety of reasons—as part of a school assignment, to get a good grade, to stay in touch with friends, to share their artistic creations with others or simply to put their thoughts to paper (whether virtual or otherwise). In our focus groups, teens said they are motivated to write when they can select topics that are relevant to their lives and interests, and report greater enjoyment of school writing when they have the opportunity to write creatively. Having teachers or other adults who challenge them, present them with interesting curricula and give them detailed feedback also serves as a motivator for teens. Teens also report writing for an audience motivates them to write and write well.

For more on why teens write and what motivates them, please see Part 8: What Teens Tell Us Encourages Them to Write, which starts on page 51.

### Writing for school is a nearly every-day activity for teens, but most assignments are short.

Most teens write something nearly every day for school, but the average writing assignment is a paragraph to one page in length.

- 50% of teens say their school work requires writing every day; 35% say they write several times a week. The remaining 15% of teens write less often for school.
- 82% of teens report that their typical school writing assignment is a paragraph to one page in length.
- White teens are significantly more likely than English-speaking Hispanic teens (but not blacks) to create presentations for school (72% of whites and 58% of Hispanics do this).

The internet is also a primary source for research done at or for school. 94% of teens use the internet at least occasionally to do research for school, and nearly half (48%) report doing so once a week or more often.

For more information, please visit Part 3: Teens and Their Writing Habits on page 10 in the main report.

### Teens believe that the writing instruction they receive in school could be improved.

Most teens feel that additional instruction and focus on writing in school would help improve their writing even further. Our survey asked teens whether their writing skills would be improved by two potential changes to their school curricula: teachers having them spend more time writing in class, and teachers using more computer-based tools (such as games, writing help programs or websites, or multimedia) to teach writing.

Overall, 82% of teens feel that additional in-class writing time would improve their writing abilities and 78% feel the same way about their teachers using computer-based writing tools.

For more on this topic please see Part 7: The Way Teens See Their Writing and What Would Improve It starting on page 42.

### Non-school writing, while less common than school writing, is still widespread among teens.

Outside of a dedicated few, non-school writing is done less often than school writing, and varies a bit by gender and race/ethnicity. Boys are the least likely to write for personal enjoyment outside of school. Girls and black teens are more likely to keep a journal than other teens. Black teens are also more likely to write music or lyrics on their own time.

- 47% of black teens write in a journal, compared with 31% of white teens.
- 37% of black teens write music or lyrics, while 23% of white teens do.
- 49% of girls keep a journal; 20% of boys do.
- 26% of boys say they never write for personal enjoyment outside of school.

For more on non-school writing, please see Part 3: Teens and Their Writing Habits on page 10 and Part 8: What Teens Tell Us Encourages Them to Write starting on page 51.

### Multi-channel teens and gadget owners do not write any more – or less – than their counterparts, but bloggers are more prolific.

Teens who communicate frequently with friends, and teens who own more technology tools such as computers or cell phones do not write more for school or for themselves than less communicative and less gadget-rich teens. Teen bloggers, however, are prolific writers online *and* offline.

- 47% of teen bloggers write outside of school for personal reasons several times a week or more compared to 33% of teens without blogs.
- 65% of teen bloggers believe that writing is essential to later success in life; 53% of non-bloggers say the same.

For more on teens and electronic communication, please see Part 4: Electronic Communication on page 21 in the full report.

### Teens more often write by hand for both out-of-school writing and school work.

Most teens mix and match longhand and computers based on tool availability, assignment requirements and personal preference. When teens write they report that they most often write by hand, though they also often write using computers as well. Out-of-school personal writing is more likely than school writing to be done by hand, but longhand is the more common mode for both purposes.

72% of teens say they usually (but not exclusively) write the material they are composing for their personal enjoyment outside of school by hand; 65% say they usually write their school assignments by hand.

For more on the technologies teens use for writing, please see Part 3: Teens and Their Writing Habits starting on page 10.

### As tech-savvy as they are, teens do not believe that writing with computers makes a big difference in the quality of their writing.

Teens appreciate the ability to revise and edit easily on a computer, but do not feel that use of computers makes their writing better or improves the quality of their ideas.

15% of teens say their internet-based writing of materials such as emails and instant messages has helped improve their overall writing while 11% say it has harmed their writing. Some 73% of teens say this kind of writing makes no difference to their school writing. 17% of teens say their internet-based writing has helped the personal writing they do that is not for school, while 6% say it has made their personal writing worse. Some 77% believe this kind of writing makes no difference to their personal writing.

When it comes to using technology for school or non-school writing, teens believe that when they use computers to write they are more inclined to edit and revise their texts (57% say that).

For more on teen attitudes toward technologies' influence on their writing, please see Part 7: The Way Teens See Their Writing and What Would Improve It, which begins on page 42.

# Parents are generally more positive than their teen children about the effect of computers and text-based communication tools on their child's writing.

Parents are somewhat more likely to believe that computers have a positive influence on their teen's writing, while teens are more likely to believe computers have no discernible effect.

27% of parents think the internet writing their teen does makes their teen child a better writer, and 27% think it makes the teen a poorer writer. Some 40% say it makes no difference.

On specific characteristics of the impact of tech-based writing, this is how parents' and teens' views match up:

| The Impact of Technology on Writing<br>Do you think using computers makes students more likely to? |  |   |
|--|--|---|
|  | Parents<br>(responding<br>about their<br>children) | Teens<br>(responding<br>about students<br>in general) |
| Positive Attributes  | Agree  | Agree   |
| Write better because they can revise and edit easily   | 69%  | 59%   |
| Present ideas clearly  | 54   | 44  |
| Be creative  | 50   | 44  |
| Communicate well   | 43   | 36  |
| Negative Attributes  |  |   |
| Take short cuts and not put effort into writing  | 45   | 49  |
| Use poor spelling and grammar  | 40   | 42  |
| Write too fast and be careless   | 40   | 41  |
| Have a short attention span  | 22   | 28  |

*Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.* 

For more details on parent and teens attitudes toward writing, please see Part 6: Parental Attitudes toward Writing and Technology on page 36 and Part 7: The Way Teens See Their Writing and What Would Improve It on page 42.

### Teens enjoy non-school writing, and to a lesser extent, the writing they do for school.

Enjoyment of personal, non-school writing does not always translate into enjoyment of school-based writing. Fully 93% of those ages 12-17 say they have done some writing outside of school in the past year and more than a third of them write consistently and regularly. Half (49%) of all teens say they enjoy the writing they do outside of school "a great deal," compared with just 17% who enjoy the writing they do for school with a similar intensity.

Teens who enjoy their school writing more are more likely to engage in creative writing at school compared to teens who report very little enjoyment of school writing (81% vs. 69%). In our focus groups, teens report being motivated to write by relevant, interesting, self-selected topics, and attention and feedback from engaged adults who challenged them.

For more details on teen enjoyment of writing and writing motivations, please see Part 8: What Teens Tell Us Encourages Them To Write starting on page 51.

| Writing, Technology and Teens: Summary of Findings at a Glance  |
|---|
| Even though teens are heavily embedded in a tech-rich world, they do not believe that communication over the internet or text messaging is writing.                                       |
| The impact of technology on writing is hardly a frivolous issue because most believe that good writing is important to teens' future success.   |
| Teens are motivated to write by relevant topics, high expectations, an interested audience and opportunities to write creatively.   |
| Writing for school is a nearly every-day activity for teens, but most assignments are short.  |
| Teens believe that the writing instruction they receive in school could be improved.  |
| Non-school writing, while less common than school writing, is still widespread among teens.   |
| Multi-channel teens and gadget owners do not write any more or less than their counterparts, but bloggers are more prolific.  |
| Teens more often write by hand for both out-of-school writing and school work.  |
| As tech-savvy as they are, teens do not believe that writing with computers makes a big difference in the quality of their writing.   |
| Parents are generally more positive than their teen children about the effect of computers and text-<br>based communication tools on their child's writing.                               |
| Teens enjoy non-school writing, and to a lesser extent, the writing they do for school.   |
| Source: Lenhart, Amanda; Arafeh, Sousan; Smith, Aaron and Rankin Macgill, Alexandra. Writing, Technology and Teens, Washington, DC: Pew Internet & American Life Project, April 24, 2008. |

This Pew Internet & American Life Project study was done in partnership with the National Commission on Writing, an initiative of The College Board. This report is based on the findings of a national representative random digit dial telephone survey of teens 12-17 and a parent or guardian, and a series of focus groups with teens. All numerical data was gathered through telephone interviews conducted by Princeton Survey Research Associates between September 19 and November 16, 2007, from a sample of 700 parent child pairs. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling and other random effects is +/- 4.7%. Eight focus groups were conducted by Research Images with teens 12-17 in four US cities in the summer of 2007. For more details on the methods used to gather the data in this report, please see the Methodology section beginning on page 65 of the full report.

Pew Internet & American Life Project, 1615 L Street, NW, Suite 700, Washington, DC 20036 202-419-4514 http://www.pewinternet.org



**Summary of Findings** 

Acknowledgements

**Part 1. Introduction** 

Part 2. The Lives of Teens and Their Technology

Part 3. Teens and Their Writing Habits

Part 4. Electronic Communication

Part 5. The Relationship between Writing, Communication and Technology Ownership

Part 6. Parental Attitudes toward Writing and Technology

Part 7. The Way Teens See Their Writing and What Would Improve It

Part 8. What Teens Tell Us Encourages Them to Write

Methodology

On behalf of the Pew Internet & American Life Project, the authors would like to acknowledge the contributions to this study by the following people: Alan Heaps and Sandra Riley of The College Board, Richard Sterling and Judy Buchanan of the National Writing Project, as well as the members of the Advisory Board to the National Commission on Writing and Jessica Vitak, Pew Internet Research Intern.

<u>About this partnership</u>: In the Spring of 2007, the Pew Internet & American Life Project and the National Commission on Writing joined together to undertake a multi-modal study of the relationship between writing and technology for America's youth. Funds for this research were provided by The College Board and the Pew Internet Project provided support for staff time devoted to it. The National Commission on Writing and The College Board may make policy recommendations to legislators and educators based on these results. The Pew Internet Project is non-partisan and should not be considered an advocate for those recommendations. The Project does not advocate for any policy outcome or policy change.

<u>About the Pew Internet & American Life Project:</u> The Pew Internet Project is a nonprofit, non-partisan think tank that explores the impact of the Internet on children, families, communities, the work place, schools, health care and civic/political life. The Project aims to be an authoritative source for timely information on the Internet's growth and societal impact. Support for the project is provided by The Pew Charitable Trusts. The project's Web site: <u>http://www.pewinternet.org</u>

<u>About the National Commission on Writing for America's Families, Schools and Colleges:</u> In an effort to focus national attention on the teaching and learning of writing, the College Board established the National Commission on Writing for America's Families, Schools, and Colleges in September 2002. The decision to create the Commission was animated in part by the Board's plans to offer a writing assessment in 2005 as part of the new SAT®, but the larger motivation lay in the growing concern within the education, business, and policy-making communities that the level of writing in the United States is not what it should be. http://www.writingcommission.org/

<u>About Princeton Survey Research Associates:</u> PSRA conducted the survey that is covered in this report. It is an independent research company specializing in social and policy work. The firm designs, conducts, and analyzes surveys worldwide. Its expertise also includes qualitative research and content analysis. With offices in Princeton, New Jersey, and Washington, D.C., PSRA serves the needs of clients around the nation and the world. The firm can be reached at 911 Commons Way, Princeton, NJ 08540, by telephone at 609-924-9204, or by email at <u>ResearchNJ@PSRA.com</u>

<u>About Research Images</u>: Research Images conducted the focus groups that helped guide the development of the PRSA survey and were the source of the quotes noted in the report. Research Images provides independent research, evaluation, and strategicplanning services to public and private organizations nationally and internationally. It specializes in using qualitative methods to inform policy and has strong subject area expertise in social uses of technology in education and non-education settings. Contact Research Images at 202-321-0676 or info@researchimages.com.



### Introduction

Research in K-12 schools, colleges and universities has prompted concern among advocates, educators and policy makers that many young Americans do not possess strong writing skills. Individuals with poor writing skills frequently face limited career options and lower earnings potential, and society as a whole pays a significant cost when growing numbers of students need additional writing remediation to succeed in the workforce.

Some of the concern about the writing skills of Americans focuses on university students and adults in the workplace. Up to two-thirds of salaried jobs at large American companies require writing of some kind, and a recent survey of American corporations and government entities found that good writing skills are vital to gaining a job and advancing in one's place of employment.<sup>4</sup> Yet despite the widely acknowledged importance of writing in the job market, a recent National Writing Commission survey of deans, administrators and writing counselors at four-year public colleges and universities uncovered widespread concern that students at these institutions are failing to produce good writing defined by "clarity, accuracy and logical thinking," among other characteristics.<sup>5</sup>

However, in the case of school-aged children, the most recent (2007) National Assessment of Educational Progress writing assessment found some modest progress. The 2007 Nation's Report Card on writing showed that while there has not been any change in the number of students writing at the higher "proficient" level between 2002 and 2007,<sup>6</sup> a smaller number of youth were writing below basic levels of competence—13% of 8<sup>th</sup> graders, and 18% of 12<sup>th</sup> graders scored below a basic level of writing proficiency, down from the 15% of eighth graders and 26% of twelfth graders in 2002 writing below the basic level.<sup>7</sup>

Technology is also a major part of this picture. As previous Pew Internet Project research suggests, technology is an integral part of the lives of teens today. Nearly all (94%) American adolescents use the internet, and those who go online tend to do so multiple

<sup>&</sup>lt;sup>4</sup> National Commission on Writing for America's Families, Schools and Colleges. (2004). *Writing: A ticket to work or a ticket out*. New York, NY.

<sup>&</sup>lt;sup>5</sup> National Commission on Writing. (2006). Writing: The View From Campus, National Commission on Writing for America's Families, Schools and Colleges. Note: the definition given to respondents contained eight elements of good writing: accuracy, clarity, conciseness, scientific precision, visual appeal, logic, documentation and support, and spelling, grammar and composition.

<sup>&</sup>lt;sup>6</sup> In the 2002 "Nation's Report Card" on writing, 31% of 8<sup>th</sup> graders wrote with "proficiency," as did 33% in 2007. Among 12<sup>th</sup> graders, 24% were proficient writers in 2002, as were 24% in 2007.

<sup>&</sup>lt;sup>7</sup> http://nationsreportcard.gov/writing\_2007/w0001.asp

times throughout the day. Moreover, technology is increasingly found in the classroom, and teachers and schools often expect students to have access and prior exposure to technology in addition to the training they receive in school. Personal computers and writing are inextricably linked, and many teens spend hours a day locked in textual communication with friend on cell phones, laptops, desktops and other mobile devices. To understand the state of writing today among youth, we must also understand the technological sphere than teens inhabit and where writing and technology intersect. To fully understand the strengths and weaknesses of writing instruction today, we must understand the role that technology plays in this realm.

Beyond an assessment of the influence of technology, what is largely missing from this research assessing the state of writing in the United States is the voice of students themselves.<sup>8</sup>

To fill this gap, the Pew Internet & American Life Project and the National Writing Commission joined to explore young people's experiences with writing and technology. This research was motivated by a desire to answer several questions, including:

- How do teens define writing?
- How does writing fit into their lives?
- What role do electronic technologies such as computers and cell phones, or communication platforms such as email or online social networks, play in the writing process?
- Do teens consider their electronic communications to be writing, or think that they have an impact on the quality of their writing overall?
- What do teens find enjoyable about the writing they do for school and personal reasons outside of school?
- What are teens' experiences with writing instruction?
- What suggestions do teens have for ways that schools could improve writing instruction and the experience of learning to write?

To answer these questions, we constructed a multi-part research project using qualitative and quantitative methods. First, we conducted a total of 8 focus groups in 4 cities (Southwest, Northeast, Midwest, West Coast) with boys and girls ages 12-17. Two of these groups were mixed sex and age, while the other six groups were single sex (either all boys or all girls) for each of the 7/8<sup>th</sup> grade, 9/10<sup>th</sup> grade, and 11/12<sup>th</sup> grade age ranges. We used the focus group findings to inform the construction of the second part of our study, a national telephone survey administered by random digit dial to a representative cross-section of 700 parent/child pairs during September, October and November of 2007.

<sup>&</sup>lt;sup>8</sup> An exception is "Technology and Teens: The Impact of High Technology on Learning to Writing" – which reports on focus groups among parents, teachers and students conducted for the National Writing Project in June 2006. <u>http://www.nwp.org/</u>

Conducting the focus groups revealed two particular challenges of this project. First, it is often hard to tease out what teens think about writing without imposing established definitions of writing upon the discussion. Second, it is also very difficult to talk with young adults about writing with technology because technology is often "invisible" to them in their daily lives.

Despite these challenges, we were able to learn that teens' experiences with writing are complicated, in part because the technologies available to them for writing have extended the range of writing genres in which they can participate on a daily basis. We also learned that teens tend to uphold traditional definitions of writing such that the socially oriented writing they do using electronic devices is considered "communication" (and not "writing") even though it is text-based.

In the report that follows, we share the findings of our national survey with quotes from the focus groups interspersed to provide context and insight into the way teens experience writing and technology in their lives. The information is instructive. Writing today is not what it was yesterday. New technologies and new job tasks have changed the meaning of what it means to write and write well. Our educational institutions know they must review what constitutes effective instructional practice to ensure that writing curricula and instructional methods support writing excellence, incorporate technology, and engage and motivate students at all ages.



### The Lives of Teens and Their Technology

Technology suffuses the lives of teens. Almost all American adolescents use the internet, and those who go online tend to do so multiple times throughout the day. Moreover, technology is increasingly found in the classroom, and teachers and schools often expect students to have access and prior exposure to technology in addition to the training they receive in school. In order to understand what it means to be a teenager today, one must understand the technological context of teens' lives, and this chapter charts some baseline dimensions of teens' technology ownership and use.

#### Nearly all teens use the internet.

The internet is fully entrenched in the lives of young people—94% of teens now go online to use the internet or email. While teen internet usage now approaches or exceeds 90% or more for nearly all demographic and socioeconomic categories, access is higher in some groups (such as whites and teens from higher-income families) than in others (such as Hispanics and those from lower-income households).

| Teen Internet Usage     |                                 |  |
|-------------------------|---------------------------------|--|
|                         | % who use the internet or email |  |
| All teens               | 94%                             |  |
| Gender                  |                                 |  |
| Girls                   | 95                              |  |
| Boys                    | 93                              |  |
| Age                     |                                 |  |
| 12-14                   | 92                              |  |
| 15-17                   | 96                              |  |
| Race/Ethnicity          |                                 |  |
| White                   | 96^                             |  |
| Black                   | 92                              |  |
| Hispanic                | 87^                             |  |
| Annual Household Income |                                 |  |
| Less than \$30,000      | 86†                             |  |
| \$30,000-\$49,999       | 93                              |  |
| \$50,000-\$74,999       | 96≁                             |  |
| \$75,000+               | 97 •                            |  |

Source: Pew Internet Project Teen/Parent Survey on Writing, Sept.-Nov 2007. Margin of error is  $\pm 5\%$ . ^ indicates numbers are significant to each other in each section. The % with  $\dagger$  is significant. to all the other numbers with a  $\blacklozenge$  in the column, but the other numbers with a  $\blacklozenge$  in the column are not significant to each other.

### Teens go online from a wide range of locations. Schools and libraries play important roles in teen internet access.

The location from which a teen uses the internet often determines the quality of his or her online experience. Factors that vary by location such as connection speed, hours of operation, and the presence of internet filters and other safety features often impact how long teens can spend online, which sites they can visit, and how easily they can access the technology. Among teenage internet users, 89% go online from home, 77% do so from school, 71% do so from a friend or relative's house and 60% do so from a library.

| Where Teens Use the Internet<br>% of teens who use the internet from |      |     |      |
|--|------|-----|------|
| Home School Library  |      |     |      |
| All Teens  | 89%  | 77% | 60%  |
| Gender   |      |     |      |
| Girls  | 91   | 76  | 59   |
| Boys   | 86   | 78  | 60   |
| Age  |      |     |      |
| 12-14  | 89   | 71^ | 58   |
| 15-17  | 89   | 82^ | 61   |
| Race/Ethnicity   |      |     |      |
| White  | 91^  | 78  | 59   |
| Black  | 80^  | 83  | 69^  |
| Hispanic   | 85   | 69  | 53^  |
| Annual Household Income  |      |     |      |
| Less than \$30,000   | 70†  | 75≁ | 72†  |
| \$30,000-\$49,999  | 86*  | 88† | 63   |
| \$50,000-\$74,999  | 87 🖌 | 72≁ | 55+  |
| \$75,000+  | 99*  | 74≁ | 57 🖌 |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . ^ mean that the numbers are significant to each other in each column. The percentage with  $\dagger$  next to it is significant to all the other numbers with a  $\blacklozenge$  in the column, but the other numbers with a  $\blacklozenge$  in the column are not significant to each other.

Schools and libraries play a particularly important role in providing internet access to minorities and teens in lower-income households. For example, 99% of online teens in households earning \$75,000 or more per year use the internet from home, while 74% go online from school and 57% go online from a library. By contrast, just 70% of online teens in households earning less than \$30,000 per year go online from home, but 75% have access at school and 72% go online from the library.

#### Part 2. The Lives of Teens and Their Technology

For many minority and lower-income teens, schools and libraries serve as a primary source of internet access. While 93% of teenage internet users go online from more than one location, schools and libraries serve as a primary source of internet access for many minority and lower-income teens. Among online teens living in households earning less than \$30,000 per year, 56% go online most often from home, one quarter (26%) do so from school and 17% go online most often from somewhere else (such as a library or friend's house). By contrast, 87% of teens in households earning more than \$75,000 per year go online most often from home, and just 11% go online primarily from school. Just 1% of high-income teens rely primarily on somewhere other than school or home for internet access.

Similarly, one quarter of online black teens use the internet most often from school, while 63% get most of their internet access at home. In contrast, eight in ten white teens (81%) go online primarily from home and just 15% do so primarily from school. Age also plays a role in where teens go online, as older teens are more likely to go online from school or from a friend or relative's house.

Our focus group participants indicated that where and how they use computers for their school work often depends on the requirements of their writing assignments as well as their access to technology:

Yes, at my school the library is open from like 6:45 till the bell rings in the morning and then after school you can go in there for about an hour. - 9/11<sup>th</sup> Grade Boy, Southwestern City.

I use my computer at home -- I usually don't use the computer at school....Because sometimes our writing doesn't have to be typed so I usually just do it written. And usually we don't have the time to type on the computer at school so I usually just do it at home. -  $7/8^{th}$  Grade Boy, Midwestern City.

### A majority of teens have access to a broadband internet connection at home.

Previous research by the Pew Internet & American Life Project suggests that broadband internet access is qualitatively different from dial-up internet access, and fundamentally changes the way that the internet is used.<sup>9</sup> High-speed, always-on internet access allows the internet to serve as a go-to resource for information, where large files and multimedia websites and content can be seamlessly enjoyed, shared and received. Conversely, dial-up access can limit the utility of even relatively simple online applications, as noted by one of our focus group participants:

I don't use email too much either, just because my computer is slow. I have dial up.  $- 11/12^{th}$  Grade Boy, Northeastern City.

<sup>&</sup>lt;sup>9</sup> Horrigan, John. (2002) "The Broadband Difference: How online Americans' behavior changes with high-speed Internet connections at home," Pew Internet & American Life Project, Washington, DC.

#### Part 2. The Lives of Teens and Their Technology

Two-thirds of teens (66%) live in households with high-speed internet access, although as with internet access in general home broadband access is highest among whites and teens from higher-income families:

| Home Broadband Access    |                                |  |
|--------------------------|--------------------------------|--|
|                          | % with<br>broadband at<br>home |  |
| All teens                | 66%                            |  |
| Parent Education         |                                |  |
| High school grad or less | 56                             |  |
| Some college             | 67                             |  |
| College grad             | 82                             |  |
| Race/Ethnicity           |                                |  |
| White                    | 70                             |  |
| Black                    | 56                             |  |
| Hispanic                 | 60                             |  |
| Annual Household Income  |                                |  |
| Less than \$30,000       | 48                             |  |
| \$30,000-\$49,999        | 54                             |  |
| \$50,000-\$74,999        | 69                             |  |
| \$75,000+                | 81                             |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%. Bold indicates statistically significant different difference between percentages in the column.

#### Many teens go online daily.

As highly interactive online activities such as blogging and social networking have grown in popularity, accessing the internet has become more and more a daily activity for teens—nearly two thirds of teenage internet users (63%) now go online daily, and more than a third (35%) of online teens use the internet multiple times per day.

Whites and teens from higher-income households go online more frequently than minority and lower-income teens. This may occur in part because these teens are less reliant on locations outside the home for internet access and because they are more likely to have broadband access at home. Two-thirds (67%) of white teens who go online do so daily (versus 53% for black teens), while three-quarters (75%) of online teens from high-income families go online daily (versus 39% of online teens living in households earning under \$30,000 per year). Older teens also go online more frequently: 71% of online 15-17 year olds use the internet daily, compared with 54% of online teens ages 12-14.

#### Part 2. The Lives of Teens and Their Technology

Home broadband access and usage of social networking sites are also closely linked to frequency of internet usage. Nearly three-quarters of teens with broadband at home (71%) and social networking teens (72%) go online once a day or more.

Teen 1: I check [MySpace] like every day.

Teen 2: I check it like three times a day.

Teen 3: I check my Hotmail all the time. – Exchange in 7/8<sup>th</sup> Grade Girls Group, Northeastern City.

### Seven in ten teens now have a cell phone, and six in ten have a desktop or laptop computer.

Six in ten teens (59%) now have a desktop or laptop computer, but computers are not the only communicative technology at teens' disposal. Cell phone use has grown rapidly among teens in recent years: 71% of teens currently have a cell phone, up from 45% in 2004 and 63% in 2006. Overall, more than four in ten teens (45%) personally have both a computer and a cell phone with cell phone (81%) and computer (65%) ownership being particularly high among older teens.

| Teen Technology Ownership<br>% of teens who own |            |                               |  |
|---|------------|-------------------------------|--|
|   | Cell phone | Desktop or laptop<br>computer |  |
| All Teens                                       | 71%        | 59%                           |  |
| Gender  | -          |                               |  |
| Girls   | 75^        | 64                            |  |
| Boys  | 66^        | 55                            |  |
| Age   |            |                               |  |
| 12-14   | 61^        | 54^                           |  |
| 15-17   | 81^        | 65^                           |  |
| Race/Ethnicity                                  |            |                               |  |
| White   | 72         | 63^                           |  |
| Black   | 65         | 49^                           |  |
| Hispanic  | 71         | 53                            |  |
| Annual Household Income                         |            |                               |  |
| Less than \$50,000                              | 65^        | 62                            |  |
| \$50,000+                                       | 75^        | 60                            |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, Sept.-Nov. 2007. Margin of error is  $\pm 5\%$ . ^ indicates statistically significant differences between the % in the column.

Teens put their cell phones and computers to a wide range of uses, from keeping track of friends and family to playing games or researching for school. While cell phone use is

lowest among younger teens, many of our younger focus group participants had a cell phone that they used for safety purposes or for family communication only.

I also have to use my phone so one of [my parents] knows where I am at. - 11/12<sup>th</sup> Grade Boy, Northeastern City.

I don't have a cell phone. I have one but it's not like a texting phone. It's just like an emergency phone like to call 911 and stuff. I don't really use my cell phone much. I use the internet, the phone like our home phone. I use ... notes, like paper notes. I use the internet a lot.  $-9/10^{th}$  Grade Girl, Midwestern City.



### **Teens and Their Writing Habits**

A deeper understanding of teens' writing habits—both inside and outside of the school environment—is crucial for developing successful programs to improve writing skills and achievement. Today's teens engage in significant amounts of writing, particularly in scholastic settings. All teens say they write for school (half doing so just about every day), and most do at least some writing outside of school. A majority of teens get some enjoyment from the writing that they do for school, although they get more enjoyment from the writing that they do for themselves outside of school. Yet in spite of recommendations from educators and researchers that students should write at length, do projects requiring research and analysis, and write across the curriculum in a variety of content areas, many teens report that they write mostly short pieces that are not researchbased, and receive longer assignments primarily in English and language arts classes.

While teens' lives are awash in electronic communications technologies, they frequently turn to old-fashioned technologies like pen and paper when they write, particularly when doing so outside of school. And even with the promise that many believe technology holds for revolutionizing instruction and youth engagement with learning, teens still recognize the value of teachers and classroom instruction. Many teens feel that while technology can help them compose, edit and present their ideas, it cannot improve the quality of the ideas themselves.

### Virtually all teens write, although scholastic writing is more common than writing done outside of school.

In order to evaluate the prevalence and types of writing in which teens engage, we asked our survey participants whether they had done any of ten school writing activities (and eight non-school writing activities) over the past year. Their answers indicate that writing, whether done for school or for personal enjoyment outside of school, is deeply integrated into their lives. All but two of the teens in our sample engaged in some form of school writing in the past year. Nearly as many (93%) say they write for personal reasons or just for fun outside of school.

Of the ten types of writing we evaluated (see table below), the average teen has engaged in seven over the course of the past year for any reason. Teens tend to engage in a greater range of writing activities for school than for personal reasons—our respondents engaged in six types of school writing (out of a possible ten) on average in the past year, versus an average of two types of non-school writing (out of a possible eight).

| <b>Teen Writing In the Past Year</b><br>% of teens who have done the following in the past year (note: school and non-school<br>totals may add to more than 100% due to multiple responses) |            |                           |                             |
|---|------------|---------------------------|-----------------------------|
|   | For school | For personal<br>enjoyment | Have done for<br>any reason |
| Do short writing, from a paragraph to one page  | 92%        | 31%                       | 97%                         |
| Take notes in class   | 98         | n/a                       | 98                          |
| Write essays  | 93         | 8                         | 95                          |
| Do creative writing, such<br>as plays, poetry, fiction or<br>short stories  | 74         | 25                        | 81                          |
| Write notes or letters to other people  | 38         | 64                        | 78                          |
| Create audio, video,<br>PowerPoint or multimedia<br>presentations   | 69         | 16                        | 73                          |
| Write up a science lab  | 71         | n/a                       | 71                          |
| Write in a journal  | 44         | 34                        | 65                          |
| Write music or lyrics   | 9          | 25                        | 30                          |
| Write computer programs   | 10         | 6                         | 14                          |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ .

The writing activities we evaluated fall roughly into three groups based on their popularity. The first group includes the most popular or common writing activities, and includes short writing, taking notes in class and writing essays. This writing is typically performed in school or as part of a school assignment, although nearly one-third of teens (31%) write short pieces of one page or less in length for their own personal enjoyment outside of school.

The second group of writing activities includes those that are slightly less common. Creative writing, notes or letters to other people, presentations, science lab write-ups and writing in a journal are all part of this "common but not universal" category.

Writing music or lyrics and writing computer programs are the least common writing activities among teens. Nearly one in three teens wrote music or lyrics in the past year (most of them for personal enjoyment) and 14% wrote a computer program. These activities' relative lack of popularity may be due to the fact that each requires specialized knowledge of a "language" other than written English and therefore has a higher barrier to entry than the other activities in our study.

#### Teens engage in a range of writing activities at school.

As noted in the introduction to this chapter, writing for school is a near-universal activity among teens. The most common types of school writing (and indeed the most common types of writing teens do for any reason) are taking notes in class, writing essays and writing short pieces of a page or less in length. More than nine in ten teens have done each of these activities for school in the past year. Writing computer programs and writing music or lyrics are the least common types of school writing—just one in ten teens did either of these activities for school in the past year.

| Most Common School Writing<br>% of teens who have done each activity as part of their<br>school work in the past year |                   |  |
|---|-------------------|--|
| _   | All teens (n=700) |  |
| Take notes in class   | 98%               |  |
| Write essays  | 93                |  |
| Do short writing, from a paragraph to one page  | 92                |  |
| Do creative writing, such as plays, poetry, fiction or short stories  | 74                |  |
| Write up a science lab  | 71                |  |
| Create audio, video, PowerPoint or multimedia presentations   | 69                |  |
| Write in a journal  | 44                |  |
| Write notes or letters to other people  | 38                |  |
| Write computer programs   | 10                |  |
| Write music or lyrics   | 9                 |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

### Socio-economic status, age and race/ethnicity are only slightly correlated with the types of writing teens do for school.

Ensuring gender, racial and socio-economic equity in writing instruction and achievement is a primary concern of educators and policy makers. While most teens do similar types of writing in school, we found some differences in school-based writing centering on race, gender, age and socio-economic factors.

As teens progress in their academic careers, they tend to write more essays and create more presentations for school (whether audio, video, PowerPoint or multimedia). Although essay writing is extremely common among teens of all ages, older teens ages 15 to 17 are somewhat more likely to do this type of writing than younger teens ages 12 to 14 (96% of older teens do this, compared with 90% of younger teens). Older teens are also much more likely to create presentations for school (76% of older teens have created presentations for their course work, versus 61% of younger teens). Beyond these two activities, younger and older teens do similar types of school writing.

With some exceptions, racial/ethnic differences in teen writing for school are minimal. Black teens are significantly more likely than white teens to maintain or write in a journal as part of their class work and to write music or lyrics for school. Nearly six in ten black teens (57%) write in a journal for school, and 17% write music or lyrics. In contrast, just four in ten whites (41%) write in a journal and fewer than one in ten (6%) write music or lyrics for school. White teens are significantly more likely than English-speaking Hispanic teens (but not blacks) to create presentations for school (72% of whites and 58% of Hispanics do this).

Teens from higher- and lower-income families largely do the same types of writing at school, though some small differences do exist. Teens from families earning \$50,000 or more per year are more likely than lower-income teens to write up science labs (75% of higher-income teens do this, compared with 67% of lower-income teens) and to create audio, video or PowerPoint presentations (72% vs. 61% for lower-income teens).

Finally, some gender differences exist with respect to the types of writing teens do at school, although these differences are generally quite minimal. Specifically, girls are slightly more likely than boys to write essays at school (96% of girls do this, compared with 91% of boys), while boys are slightly more likely to write computer programs (13% of boys and 7% of girls have done so in the past year).

# Most teens write nearly every day for school, and the average writing assignment is a paragraph to one page in length.

Half of all teens (50%) say that their school work involves writing something just about every day, and more than one third (35%) do school writing several times a week. The remaining 15% write for school several times a month (7%) or less frequently (8%).

The frequency with which teens write for school exhibits little variation across demographic or socio-economic boundaries. Interestingly, 61% of black teens say their school work requires them to write something just about every day, significantly higher than the rate for whites (47%). However, the percentage of teens who write for school several times a week or more is practically identical for whites (83%), blacks (87%) and Hispanics (87%).

One high school-aged girl in a Southwestern city who reported writing a great deal had this to say about the frequency with which she is assigned writing projects in school:

We do a lot of essays at my school particularly in English and history classes and we are writing an essay for a major grade probably once a week in one of the classes. So there is a lot of practice.

While students write with great frequency at school, most scholastic writing consists of short pieces. Eight in ten teens (82%) say that the writing assignments they do for school typically range from a paragraph to around one page in length. Just over one in ten (12%) say that most of their writing involves longer pieces of 2-5 pages. A very small minority (3%) of teens say that most of their school writing involves major writing assignments of 5 pages or more in length. This trend is even more sharply delineated outside of English courses. In classes other than English, 78% of students say they usually write shorter pieces of a page or less, and 7% say they do no writing at all in these courses. This general reliance on short writing assignments is consistent across all major demographic and socio-economic groups. Notably, older teens are no more likely to write longer pieces at school than younger teens. As one high school girl said of her writing for school, "Well, we don't really do a lot of long research stuff. We have done one research paper this whole year."

# The internet is a primary source of research for school writing assignments.

The internet is not just a near-ubiquitous technology in the lives of American teens; it is also their primary method for conducting research for school. Fully 94% of teens use the internet at least occasionally to do research for their school writing assignments. Nearly half (48%) do so once a week or more, while one quarter (26%) do so several times a month. For one in five teens, using the internet to research for their writing assignments is an occasional activity that occurs fewer than several times a month. Teens in our focus groups discussed the ease with which they answered their questions using internet resources.

Well I'm on like Google or Google images like at least everyday. I use it for everything.....[S]chool or like if somebody is talking about something and you have no idea what's going on so you'll go home and you'll Google it. And you'll be like oh, that's what they're talking about.  $-9/11^{th}$  Grade Girl, Southwestern City.

You will find something and be like oh yea I want to learn more about that. Rather than drive down the library and find a book, you can research right away on different programs. It is easier to share information with people. I think it makes it better.  $- 11/12^{th}$  Grade Girl, Pacific Northwest City.

Using the internet to research school writing assignments is most common among older teens and those from higher-income households.

#### Using the Internet for School Research

% who use the internet at least occasionally to research for school assignments...

| 94%                     |  |  |
|-------------------------|--|--|
|                         |  |  |
| 96                      |  |  |
| 92                      |  |  |
|                         |  |  |
| 91^                     |  |  |
| 96^                     |  |  |
|                         |  |  |
| 95                      |  |  |
| 94                      |  |  |
| 87                      |  |  |
| Annual Household Income |  |  |
| 85†                     |  |  |
| 96*                     |  |  |
| 94 🖌                    |  |  |
| 96*                     |  |  |
|                         |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . ^ mean that the numbers are significant to each other in each section. The percentage with  $\dagger$  next to it is significant to all the other numbers with  $a \\in$  in the column, but the other numbers with  $a \\in$  in the column are not significant to each other.

### Teens use longhand most often for school writing, although computers are common as well.

One of the major questions animating this study was whether and how teens use technology in their writing. While most teens have at least limited access to technology, teens generally report that they still primarily do both school and non-school writing longhand.

Despite widespread technology ownership and usage among teens, almost two-thirds of teens (65%) say they usually do their school writing by hand, compared with 16% who usually use a computer. The remaining teens say that their choice of writing instrument depends on the assignment (4% of teens say this), or that they rely equally on longhand and computer writing (14%). However, the vast majority of teens do at least some of their writing with the aid of a computer. Among teens who primarily write by hand, 86% write using a computer at least occasionally. Taken together, this means that just 9% of all teens write only by hand and never use a computer.

As befits their higher rate of computer ownership, white teens are more likely to rely on computers for their school writing than their black and Hispanic counterparts. One in five white teens (19%) typically do their school writing on a computer, compared with one in ten blacks (11%) and English-speaking Hispanics (9%). Older teens also tend to rely more heavily on computers when writing for school. One in five (21%) 15-17 year olds usually use computers for their school writing, compared with 12% of younger teens.

Students whose parents have high levels of education (college degrees and above) are more likely to say they usually use computers for school writing more than parents with lower levels of education. Almost a quarter (24%) of teens whose parents have a college degree say they usually use a computer for school writing, compared with 10% teens with parents who have some college education, 15% of teens whose parents are high school graduates, and 10% of teens whose parents have less than a high school education.

Teens in our focus groups pointed to a diverse array of reasons for using one writing method over another, and reflected extensively on the place of handwriting and computer use in their composition and writing processes. Many teens told us that they appreciated the speed and neatness with which they could compose and edit on the computer, while others felt it was easier to organize their thoughts and unleash their creativity when composing by hand. These statements highlight the thoughtfulness with which many teens engage in the writing process, although some participants pointed out that the decision of whether to write by hand or by computer is decided by their teacher and not the students themselves.

I like handwriting. I don't know, I feel more organized writing by hand especially with outlines and drafts and stuff.  $-9/11^{th}$  Grade Girl, Southwestern City.

I find it hard to think creatively when I am typing so I like to handwrite everything then I put it on the computer. I don't know that is just how I am. - 9/10<sup>th</sup> Grade Boy, Pacific Northwest City.

We're required to type almost all of our papers. –  $9/10^{\text{th}}$  Grade Girl, Midwestern City.

I type so much faster than I write. But, if I want to make a paper much better I have to type it out first, then hand write in the changes, then type the good copy. And it makes it easier to think things through if I can handwrite it. And I think my worst work is when I just type it and don't handwrite it. - 11/12<sup>th</sup> Grade Girl, Pacific Northwest City.

I usually type because I do have messy handwriting. So I like typing and I find it easier to collect my thoughts. I don't have to worry about the spelling and I can worry about the creativity of the story rather [than] if I spelled it right.  $-7/8^{th}$  Grade Boy, Midwestern City.

### Compared with the writing they do for school, teens engage in a narrower range of writing activities in their personal time.

In addition to asking about writing for school, our survey also asked teens about the writing they do for personal reasons or just for fun.<sup>10</sup> While this type of writing is not as widespread as the writing teens do for school, teens do engage in a wide range of writing outside of a school setting. More than nine in ten teens (93%) say they have written something for themselves or just for fun in the past year.

| Most Common Non-School Writing<br>% of teens who have done each activity just for<br>themselves or just for fun in the past year |                   |  |
|--|-------------------|--|
|  | All teens (n=700) |  |
| Write notes or letters to other people   | 64%               |  |
| Write in a journal   | 34                |  |
| Do short writing, from a paragraph to one page   | 31                |  |
| Do creative writing, such as plays, poetry, fiction or short stories   | 25                |  |
| Write music or lyrics  | 25                |  |
| Create audio, video, PowerPoint or multimedia presentations  | 16                |  |
| Write essays   | 8                 |  |
| Write computer programs  | 6                 |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ .Note: respondents were not asked about writing up a science lab or taking notes in class outside of school.

Notes and letters to other people are by far the most common type of non-school writing. Nearly two thirds of teens (64%) have written a note or letter to someone in the past year, making this activity roughly twice as popular as writing in a journal or doing non-school short writing. One-quarter have done some sort of creative writing or written music or lyrics, and a slightly smaller number (16%) have created a presentation for personal reasons. Fewer than one in ten write essays or computer programs during their personal time, making these among the least popular non-school writing activities.

<sup>&</sup>lt;sup>10</sup> The personal/non-school writing category includes eight total writing types, since survey respondents were not asked whether they take notes in class or write up science labs outside of school.

#### Gender and race/ethnicity are somewhat correlated with teens' nonschool writing.

As with the writing they do for school, most teens have similar writing habits outside of school regardless of their demographic or socio-economic characteristics. However, some teens are more likely to engage in specific writing activities outside of school than others. For instance, black teens are more likely than whites to write in a journal and to write music or lyrics in their personal time. Nearly half of black teens (47%) have written in a personal journal in the past year, and nearly four in ten (37%) have written music or lyrics. This compares with 31% and 23%, respectively, for white teens.

Boys and girls have similar habits with respect to the writing they do for personal enjoyment with two major exceptions: girls are significantly more likely than boys to write letters or notes to other people (77% of girls have done so in the past year, compared with 52% for boys) and to write in a journal (49% of girls keep a journal, compared with 20% of boys). Older girls are particularly avid letter writers and journal-keepers. Fully 81% of older girls write notes or letters and nearly six in ten (57%) keep a journal. One early high school girl noted the importance of journal writing in her life:

It's just like a pastime. People...write stuff in their journals. [It's a form of] expression. Like if you have too much stuff on your mind you can just write it out on paper.

Among all demographic groups, boys are the least likely to write outside of school. One quarter of teenage boys (26%) say they have done no writing for their own personal use or enjoyment in the past year, a rate that is consistent for both younger and older boys.

Yes. I like to express myself through my writing. But I don't do it too often. If something happens in my life, I write it down – if something big happens.  $-11/12^{th}$  Grade Boy, Northeastern City.

I just write when I have to for like school. I do texting but I don't do like full papers. -9/10th<sup>th</sup> Grade Boy, Pacific Northwest City.

### Compared with school writing, teens write less frequently outside of school.

Outside of a relatively small group of intense writers, non-school writing is something teens do infrequently. Among teens who ever write for personal reasons or just for fun, 13% do so just about every day, and an additional one quarter (23%) do so several times a week. Taken together, this means that 36% of teens write consistently and regularly outside of school—less than half of the 85% of teens who write several times a week or more for school. An additional 24% of teens write for personal enjoyment several times a month, and roughly two in five (39%) do so even less often.

Minority teens and girls are among the most prolific writers outside of school. Fully 56% of black teens and 48% of English-speaking Hispanics do non-school writing on a regular basis (defined as several times a week or more). In contrast, just 30% of white teens write regularly for their own personal enjoyment. As with school-based writing, black teens are significantly more likely than whites to write outside of school just about every day. Girls are also highly prolific writers outside of the school environment, with nearly half (47%) writing regularly for personal reasons—nearly double the rate for boys.

| Frequency of Non-School Writing % of teens who write for personal reasons |      |      |
|---|------|------|
| Just about Several times<br>every day a week                              |      |      |
| Gender  |      |      |
| Girls   | 18%^ | 28%^ |
| Boys  | 9^   | 18^  |
| Race  |      |      |
| White   | 9^   | 21   |
| Black   | 25^  | 31   |
| Hispanic  | 17   | 31   |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . ^ indicates statistically significant differences between the percentages in the column.

# Teens use computers less and longhand more when writing outside of school.

Nearly three-quarters of teens (72%) who write for personal reasons say they usually write longhand, similar to the 65% of teens who usually write by hand for school. However, teens are much more likely to write *only* by hand when doing non-school writing. Nearly one third of teens (32%) never use a computer at all when writing for their own personal enjoyment; by contrast, just 9% do their school writing by hand only.

Whites and older teens are again the most prolific computer users when it comes to nonschool writing. Almost one quarter of white teens (24%) say they usually do their nonschool writing on a computer, compared with 5% of black teens and 11% of Hispanics. Similarly, 21% of teens ages 15-17 usually use computers for their non-school writing, compared with 15% of teens ages 12-14.

While girls and boys are equally likely to use computers for their school writing, boys show a greater tendency to rely on computers when writing for personal enjoyment outside of school. Nearly one-quarter of boys (23%) primarily use a computer for the writing they do for personal enjoyment, compared with 14% for girls. This difference may be due in part to the types of writing boys and girls engage in. As noted above, girls

are more likely than boys to engage in traditionally longhand activities such as writing letters or notes and maintaining a personal journal.

Teens whose parents have high levels of education are also more likely to use a computer in their non-school writing than their peers from households with lower levels of parental education. Fully 31% teens from households where their parents have a college or advanced degree usually use a computer for their non-school writing, compared with 14% of teens with parents who have some college education and 13% of teens whose parents have no college experience.



### **Electronic Communication**

Previous work by the Pew Internet Project suggests that the communicative functions of the internet and cell phones are the main reason why teens use these technologies.<sup>11,12</sup> Since many of these technologies are text-based, they constitute another potential space for writing under a broadly constructed definition of the term. Yet despite the ubiquitous use of these tools, our research suggests that teens see an important distinction between the "writing" that they do for school and for personal reasons, and the "communication" they engage in electronically using instant messaging, text messaging, email and social networking sites.

However these tools are defined, many educators and observers have expressed concern that the abbreviated language styles of text messaging, email and wall posts are filtering inappropriately into formal school writing. Young adults generally do not believe that technology negatively influences the quality of their writing, but they do acknowledge that the informal styles of writing that mark the use of these text-based technologies for many teens do occasionally bleed into their school work.

#### Communication with friends and family is frequently conducted through the prism of technology, particularly among girls and older teens.

Despite the range of online communication tools available to them, teens continue to rely primarily on telephone or face-to-face interactions to communicate daily with their friends. More than one-third of teens say they talk with their friends in person outside of school (39%), talk on a cell phone or landline phone (35%), or send text messages (36%) on a daily basis.

While verbal modes of communication such as talking on the phone or meeting face-toface dominate the daily lives of teens, a great deal of social interaction occurs in a textbased setting. The most popular of these interactions is text messaging—36% of teens text message their friends daily. As one of our focus group participants noted, text messaging can be both time-consuming and integrated in daily tasks.

<sup>11</sup> Analysis of daily communications choices is based on all teens, regardless of technology ownership.
12 Lenhart, Amanda, Madden, Mary & Hitlin, Paul. (2005) "Teens and Technology: Youth are Leading the Transition to a Fully Wired and Mobile Nation," Pew Internet & American Life Project, Washington, DC, July 27, 2005

| Daily Social Communication Choices               |                   |  |
|--|-------------------|--|
| % of teens who engage in each activity every day |                   |  |
|  | All teens (n=700) |  |
| Spend time in person outside of school           | 39%               |  |
| Send text messages                               | 36                |  |
| Talk on a cell phone                             | 35                |  |
| Talk on a landline or home phone                 | 35                |  |
| Send instant messages                            | 29                |  |
| Send messages through a social networking site   | 23                |  |
| Send email                                       | 16                |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

I put in 20 hours [per week] plus [texting]. I can't even count because I mean it's not like you're spending a continuous hour writing/texting. It's just like text, text, text while you're doing other stuff.  $-10/12^{th}$  Grade Girl, Southwestern City.

Of course, computer-based communication is popular as well. Nearly three in ten teens (29%) send instant messages to their friends daily, and close to one quarter (23%) send messages through social network sites. As in previous Pew Internet Project research,<sup>13</sup> email remains the least popular choice for daily communication: just 16% of teens send email to their friends on a daily basis.

Teens choose different methods for communicating with friends based on personal preference, the availability of friends or potential romantic partners in a particular media space, and the costs and logistics involved:

I actually wrote a long message to my friend yesterday.... like 5 paragraphs...[sent]... just to him because sometimes I don't like saying stuff to people in person. I just feel more comfortable when I say it on the computer. I can get more feelings out so I just went on and on and on. I was explaining a situation to my friend and that was probably the longest thing I've ever written on My Space.  $-9/11^{th}$  Grade Girl, Southwestern City.

I instant message...I don't text because texting costs, so I IM. –  $10/12^{th}$  Grade Girl, Southwestern City.

<sup>&</sup>lt;sup>13</sup> Lenhart et al. (2007) Teens and Social Media, Pew Internet & American Life Project, Washington, DC, December 19, 2007

Well I don't really do text messaging on my own phone. But sometimes I'll borrow a friend's phone and like a lot of it is just kind of screwing around with your phone. You'll leave like hi, what are you doing?  $-9/11^{\text{th}}$  Grade Girl, Southwestern City.

Some people they text – somebody could be sitting right here and I could be texting somebody and they'd be standing right there. I mean what is the point? –  $11/12^{th}$  Grade Boy, Northeastern City.

I used my cell phone, maybe an hour a day. Secondary would be instant messaging on the computer.... It is just easier to communicate using instant messenger instead of using the phone.  $-9/10^{\text{th}}$  Grade Boy, Pacific Northwest City.

If it wasn't for girls, we wouldn't be talking on the phone or using IM or anything else like that. Or I guess not using it as much.  $-11/12^{th}$  Grade Boy, Northeastern City.

Girls and older teens are more likely than boys and younger teens to engage in a variety of daily communications activities. Girls are significantly more likely than boys to socialize or engage with friends daily via a home or landline telephone, cell phone, text messaging, instant messaging, email, and through private messages within a social networking site. Girls and boys are equally likely to meet with friends in person outside of school on a daily basis.

| Gender and Daily Communication Choices            |               |              |
|---|---------------|--------------|
| % of teens who participate daily in each activity |               |              |
|   | Girls (n=352) | Boys (n=348) |
| Spend time in person outside of school            | 40%           | 38%          |
| Send text messages                                | 44*           | 28           |
| Talk on a cell phone                              | 45*           | 26           |
| Talk on a landline or home phone                  | 47*           | 24           |
| Send instant messages                             | 34*           | 25           |
| Send messages through a social networking site    | 31*           | 16           |
| Send email  | 20*           | 12           |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . \* indicates a statistically significant difference between the percentages in the row.

While older and younger teens are equally likely to socialize daily with friends in person or on a landline phone, older teens are more likely to communicate daily with friends via text messaging (50% for older teens vs. 22% for younger teens), instant messaging (34% vs. 24%), cell phone (47% vs. 24%) and messages on social network sites (34% vs.

13%). This is at least partly because older teens are more likely to own the technologies (such as cell phones or computers) that make these communications possible.

Socio-economic status is correlated with the daily communication choices made by teens, although not strongly so. Teens living in households with an annual income under \$50,000 per year and those with annual incomes of \$50,000 or more are equally likely to participate daily in text messaging, talking on a cell phone, sending instant messages and email, and sending messages within social networking sites. However, teens in higher-income households are more likely to meet face-to-face with friends (43% do this daily, vs. 32% for lower-income teens) while teens in lower-income households are more likely to talk to their friends on a landline or home phone (42% do this daily, vs. 33% for those with higher incomes). This more frequent in-person contact among higher-income teens may be due in part to their increased exposure to friends during extracurricular or out-of-school activities—fully 34% of higher-income teens participate daily in a school club, sports program or other school/community activity, compared with just 22% of lower-income teens.

# Despite its ubiquity in their lives, teens have divergent views on whether these personal electronic communications constitute "writing."

Fully 87% of all teens engage at least occasionally in some form of electronic personal communication, which includes text messaging, sending email or instant messages, or posting comments on social networking sites. Although participation in these activities is widespread, a majority (60%) of teens who send these communications do not consider them to be "writing." Just over one third (38%) of teens think of these communications as writing, and an additional 2% don't know whether they consider them to be writing or not.

Although an overall majority of teens do not consider themselves to be writing when they send personal electronic communications to their friends, this view is not universally held among all subgroups. Black and lower-income teens in particular stand out in this regard. More than half (55%) of black teens who engage in personal electronic communications with friends view these communications as writing, compared with just 33% of white teens. Similarly, 47% of teens living in households with an annual income under \$50,000 per year view their personal electronic communications as writing, while just 34% of higher-income teens share this view. There are no significant differences on this issue relating to age, gender, cell phone ownership, computer ownership or usage of social networking sites.

Our focus group discussions similarly indicate that most teens do not regard their technologically facilitated text-based communication as "writing," since writing is considered to occur in more formal settings, usually for school.

I don't think [Instant Messaging] is [writing]. You're not writing enough for it to be called writing. Unless you're, I don't know, unless you're like

describing something, if you want to tell your whole life story, or your saying what happened ... but it's got to be long for it to be considered writing.  $-9/10^{th}$  Grade Girl, Midwestern City.

I said [text messaging is not writing] because it differs from writing using a pen or a pencil. Plus, you have to just press a lot of buttons and I guess I would consider it typing not exactly writing – the action of doing it. But what it becomes – the result of it – is writing. –  $11/12^{th}$  Grade Boy, Northeastern City.

MySpace: That's different. It's just like a conversation. – 9/11<sup>th</sup> Grade Girl, Southwestern City.

### Blogging and social networking are dominated by girls.

More than half (58%) of all teens maintain a profile on a social networking site such as Facebook or MySpace, 27% have an online journal or blog and 11% maintain a personal website. Girls dominate the teen blogosphere and social networks—66% of girls have an SNS profile compared with 50% of boys, and 34% of girls (versus 20% of boys) keep an online journal or blog.

Older girls are especially enthusiastic adopters of these technologies. Four in ten (41%) girls ages 15-17 have a blog, and fully 86% of 15-17 year old girls have a social networking profile. Boys (particularly younger boys) continue to trail girls in their use of social networking sites and blogs, although social networking in particular is growing in popularity among older boys: nearly seven in ten (69%) boys ages 15-17 have a social networking profile. While teens with broadband at home are more likely to maintain a personal website, there is no "broadband effect" for blogging or social networking. There are no statistically significant differences by race, ethnicity, income or parent education between those with a social networking profile and those without one.

### Teens increasingly communicate using social networking sites.

Fully 60% of internet-using teens (58% of all teens) have profiles on social networking sites such as Facebook and MySpace. For those who use them, social networking sites are a hub of teenage communication. Fully 95% of social networking teens use their profile to communicate with their friends in one way or another, with adding comments to a friend's picture and posting messages on a friend's wall or profile page being the most popular methods.

As with the general communication tools discussed earlier, girls and older teens are more proficient than boys and younger teens at using social networking sites to interact with their friends.

| <b>Social Networks and Daily Communication Choices</b><br>% of social networking teens who use the following features of<br>SNS sites |     |  |  |  |
|---|-----|--|--|--|
| Social networking<br>teens (n=434)  |     |  |  |  |
| Add comments to a friend's picture  | 83% |  |  |  |
| Post messages to a friend's page or wall  | 77  |  |  |  |
| Send private messages within the SNS system   | 71  |  |  |  |
| Post comments to a friend's blog 66   |     |  |  |  |
| Send a group message to all your friends  | 54  |  |  |  |
| Send IM or text messages to friends through the SNS system  | 54  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

Among social networking teens, girls are more likely than boys to add comments to a friend's picture (89% vs. 76% for boys), post messages to a friend's page or wall (82% vs. 70%) and send a group message or bulletin (61% vs. 46%). Teens ages 15-17 are more likely than younger teens to post public messages on a friend's page or wall (82% vs. 66%) and to send private messages within the social networking system (79% vs. 56%), although younger teens are more likely to send bulletin or group messages to all of their friends at once—63% of younger teens have done this, compared with 50% of older teens.

Among social networking teens, whites are more likely than blacks to use their social networking profile as a communication tool, whether to post messages to a friend's wall (78% of whites do this, versus 63% of blacks) or to send private messages within the social networking system (75% v. 55%). Indeed, fifteen percent of black social networking teens do not do *any* of the six activities listed above, compared with just 4% of white teens. The sample size of social networking Hispanic teens (n=62) is too small to make meaningful inferences about the communication choices of this group.

Teens on opposite ends of the income scale are overall quite similar in how they use social networking sites to communicate with friends, if they use such sites in the first place. The one exception to this rule is the usage of social networking sites to send instant messages or text messages to friends. Fully 63% of teens from households earning under \$50,000 per year do this, compared with half (49%) of teens from higher-income households (somewhat lower rates of cell phone ownership among lower-income teens may help explain this phenomenon).

In our focus groups, teens explained some of the allure of social networking websites and how use of them has changed and replaced other online practices.

It sounds stupid and everything but like once you like get into it it's really like addicting -- just like everything. Like you have your song and like you write like all this stuff about yourself and like all my friends basically have it. So like we always like read each other's pages and like call each other and like kind of, and like you put like 300 pictures up so ... people's pictures and stuff and comments.  $-9/10^{th}$  Grade Girl, Midwestern City.

[You go on MySpace] when all of your friends have gone to MySpace and they aren't emailing anymore. – 9/10<sup>th</sup> Grade Boy, Pacific Northwest City.

### Social networking teens are avid communicators across the board.

While social networking sites are used intensively for communications between friends, these sites supplement rather than replace existing modes of communication. Social networking teens are more likely than non-social networking teens to participate in a wide range of daily communications activities, from in-person interactions with friends to talking on the telephone or sending IMs or text messages.

| Social Network Users are Heavy Communicators                              |     |     |  |  |  |
|---|-----|-----|--|--|--|
| % of teens who participate daily in each activity                         |     |     |  |  |  |
| Social network<br>users (n=434)<br>Non social<br>network users<br>(n=266) |     |     |  |  |  |
| Spend time in person with<br>friends outside of school                    | 44% | 31% |  |  |  |
| Send text messages  | 48  | 19  |  |  |  |
| Talk on a cell phone  | 60  | 32  |  |  |  |
| Talk on a landline or home4423  |     |     |  |  |  |
| Send instant messages   | 39  | 20  |  |  |  |
| Send email  | 21  | 10  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . All differences between columns are statistically significant.

## The shortcuts and casual conventions teens use in their daily communications frequently bleed into their school writing.

Despite their best intentions, teens in our survey do admit to using conventions from their electronic communications in their school writing. Half (50%) of teens say they sometimes use informal writing styles in the writing they perform in school, 38% have used shortcuts from instant messaging or email, and 25% have used emoticons in their school writing. Overall, nearly two-thirds of teens (64%) incorporate some informal styles from their text-based communications into their writing at school.

Since much of the writing teens do at school (such as writing in a journal, taking notes in class, or crafting creative fiction) is relatively informal in nature, it is not necessarily surprising to find teens adopting the conventions from texting, email or other online speech into their writing for school. With that said, certain groups of teens are more likely to utilize these conventions in their school writing than others.

While teen bloggers and social network users are prolific writers, they also have a tendency to use text shortcuts, emoticons and informal writing styles in their school writing. Similarly, teen cell phone owners are significantly more likely to use text shortcuts in school (42% do this) compared with non-cell phone owners (30%).

| Blogging, Social Networking and Usage of Non-Standard<br>Elements in School Writing<br>% of teens who use the following in their school writing |     |    |     |    |  |
|---|-----|----|-----|----|--|
| SNSNon-<br>profileBlogNon-blog<br>ownersownersownersownersowners(n=434)(n=266)(n=190)(n=501)  |     |    |     |    |  |
| Text shortcuts from IM or<br>email46%*29%52%*33%  |     |    |     |    |  |
| Emoticons   | 28  | 22 | 34* | 22 |  |
| Informal writing styles   | 56* | 41 | 60* | 46 |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . \* indicates significant difference between pairs in the row.

Teens who communicate regularly with their friends through a wide range of communications channels are more likely than less "communicative" teens to incorporate informal or technology-related elements into their school writing. The more types of personal daily communications teens engage in with friends, the more likely they are to incorporate these conventions into the writing they do at school.

### Informal Writing in School and Daily Communications Choices

Usage of informal writing in school by the number of ways in which teens communicate daily with friends

|   | Do not<br>communicate<br>daily with<br>friends | 1-3 daily<br>communication<br>activities | 4-7 daily<br>communication<br>activities |  |
|---|--|--|--|--|
| Use informal writing<br>styles instead of<br>proper capitalization<br>and punctuation | 46%  | 42%                                      | 70%*                                     |  |
| Use text shortcuts<br>from IM or email  | 27   | 35                                       | 57*                                      |  |
| Use emoticons   | 22   | 20                                       | 39*                                      |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . \* indicates statistical significance between the percentages in the row.

Usage of different communications methods outside of school is not the only factor correlated with usage of technology-based writing conventions in school—attitudinal factors play a role as well. In particular, teens who view their electronic communications with friends as "writing" are significantly more likely than teens who do not view these communications as writing to use informal writing styles (59% vs. 47%), text shortcuts (56% vs. 34%) and emoticons (39% vs. 19%) in a school environment.

Among demographic groups, girls are more likely than boys to use text shortcuts from IM or email (45% vs. 33%) and emoticons (35% vs. 17%). Black teens (48%) are more likely than whites (35%) to use text shortcuts in school, although there are no racial or ethnic differences with respect to usage of informal writing styles or emoticons. Finally, among children of college graduates, just over half (54%) use at least one of these elements in their writing for school; this is a significantly lower rate than for children of parents with some college education (67% of whom use at least one of these techniques), or for children of parents with no college experience (71%).

Teens in our focus groups acknowledged the movement of text-based slang into their school work, but also suggested that learning not to use the slang is a part of the maturation process. They also took this issue one step further by pointing out that not only had text message slang and informal language crept into their formal school work, but it had also infiltrated spoken language for some teens.

...[S]ince I was a sophomore in high school I have seen some changes. I saw some under classman in the hallway saying OMG where is my

classroom or LOL and you know I was like, "OK, they are going to have to work through that."  $- 11/12^{th}$  Grade Girl, Pacific Northwest City.

As you get older you develop and you learn that publicly it isn't a good idea to use text message slang. It may influence people to think things about you. It will give the wrong impression of you.  $- 11/12^{th}$  Grade Girl, Pacific Northwest City.

I can speak very well, but there are also times that I have been laughing and actually said LOL. So it all depends on how much you text and who you are around at the time.  $-11/12^{th}$  Grade Girl, Pacific Northwest City.

...[I]f people are going to think that the way we type on the internet is going to corrupt the way we write like for school, it's just because those people don't want to write normally and they're not going to if they don't want to.  $-9/11^{\text{th}}$  Grade Girl, Southwestern City.

### The Relationship between Writing, Communication and Technology Ownership

Teens write for a variety of reasons—as part of a school assignment, to stay in touch with friends, to share their artistic creations with others or simply to put their thoughts to paper (whether virtual or otherwise). In this section, we evaluate the ways in which computers and internet technologies interact with the types of writing teens do, the frequency with which they engage in writing, and their own perceptions of the quality of their writing. While assigning causality is beyond the purview of this study, we hope to place the issue of writing within the broader context of the technological immersion of today's teens.

### Teens appreciate the ability to edit and revise their writing on a computer.

For many teens, the ability easily to change, edit and revise their texts on the fly is one of the clearest advantages of writing on a computer. Nearly six in ten teens (57%) say they edit and revise more when they write using a computer compared with when they write by hand. Just over one-quarter (28%) feel that computers don't make a difference for how much they edit and revise, and a minority (15%) actually edit and revise *less* when using a computer.

Whites, older teens and those whose parents have higher levels of education are among the most likely to say that computers help them edit and revise more. Fully 59% of white teens feel that they edit or revise more when writing with a computer, compared with just 40% of black teens. Black teenagers generally play down the impact of computers on the editing and revision process, with 39% saying that computers make no difference in this regard (compared with 26% of whites). Similarly, 64% of teens whose parents have some college experience say they edit and revise more when using a computer, compared with 49% of teens whose parents have a high school degree or less. Older teens are also more likely to say that they edit and revise more when writing on a computer—62% of 15-17 year olds edit and revise more when using a computer, compared with 52% of younger teens (ages 12-14).

### Teens feel that computers contribute more to the quantity of their nonschool writing than to its quality.

Teens who use a computer in their non-school writing feel that computers have a greater impact on the amount of writing they produce than on the overall quality of their writing. However, there is a great deal of ambiguity with respect to the impact of computers in each of these areas. Among teens who use a computer in their non-school writing, four in ten feel that computers help them do *more* writing, and a similar number feel that they

### Part 5. The Relationship between Writing, Communication and Technology Ownership

would write the same amount whether they used a computer or not. In comparison, three in teens who write on a computer for non-school purposes at least occasionally feel that computers help them do *better* writing—and twice as many (63%) feel that computers make no difference in their writing quality. A small minority of teens feel that writing on a computer makes them write less than they would otherwise (12% feel this way) or that they write more poorly as a result (6%).

| Impact of Computers on Aspects of Non-School<br>Writing   |                     |  |  |  |  |  |
|---|---------------------|--|--|--|--|--|
| Do you think that because you can use a computer to do the writing that is NOT for school, your writing is(among teens who use a computer for non-school writing) |                     |  |  |  |  |  |
| Amount of Quality of<br>writing writing   |                     |  |  |  |  |  |
| More/better   | More/better 41% 29% |  |  |  |  |  |
| Less/worse  | Less/worse 12 6     |  |  |  |  |  |
| Doesn't make any<br>difference4363  |                     |  |  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ .

There are few major differences with respect to the impact of computers on the writing teens do outside of school. Girls tend to assign less responsibility to computers in terms of writing quality than boys—70% of girls say writing on a computer makes no difference in the quality of their writing, compared with 57% of boys.

In terms of the impact of computers on the amount of writing teens do, demographic differences center on age and parental education. Younger teens are more likely to feel that computers make them write less (18% of 12-14 year olds feel this way, compared with just 7% of older teens), while older teens are generally more likely to feel that computers have no impact on how much they write (47% believe this, versus 39% of younger teens). Parental education is also correlated with attitudes toward computers and writing. Among children of college-educated parents, 47% believe that they write more outside of school thanks to computers, compared with 34% of teens whose parents have no college experience.

Teens who personally own computers and those who do not are nearly identical in their attitudes toward the impact of computers on the quality and quantity of their writing.

### Multi-channel teens are super communicators, but not super writers.

The Pew Internet Project's recent report on Teens and Social Media<sup>14</sup> identified a group known as multi-channel teens. These "super communicators" are defined by their usage of numerous tools—the internet, instant messaging, text messaging, cell phones and social networking sites—to communicate with friends, and they are much more likely than other teens to communicate daily across a range of media.

Although multi-channel teens communicate with friends across a range of platforms and technologies, their personal (non-school) writing habits are nearly identical to those of teens with more traditional communications habits. The only type of writing for which multi-channel teens differ significantly from other teens is in journal writing—45% of multi-channel teens keep a journal, compared with 29% for all other teens.

Multi-channel teens are also strikingly similar to other teens with respect to how much they enjoy their non-school writing, as well as the frequency with which they write for personal or non-school reasons.

### Technology ownership has little relationship to the types of writing teens engage in, how frequently they write outside of school or the enjoyment they derive from their writing.

Despite concerns that computers and cell phones are encroaching on more traditional writing activities, our research indicates that simply owning these technologies has little impact on writing engagement. Teen computer and cell phone owners are nearly identical to the overall teen population in terms of the types of writing they engage in, as well as the frequency with which they write for non-school reasons.

While cell phone owning teens are more likely than non-cell phone owners to do certain types of writing in the school environment (such as essays, science labs and presentations), this is most likely due to higher rates of cell phone ownership among older teens, and not a result of technology use per se.

<sup>&</sup>lt;sup>14</sup> Lenhart, Amanda, Mary Madden, Alexandra Rankin Macgill, and Aaron Smith (2007). *Teens and Social Media*. Pew Internet & American Life Project. http://www.pewinternet.org/pdfs/PIP Teens Social Media Final.pdf

## Part 5. The Relationship between Writing, Communication and Technology Ownership

| Frequency of Non-School Writing                       |   |                                   |                               |  |
|---|---|-----------------------------------|-------------------------------|--|
| Please tell us if, in the pa                          | st year, you have<br>All teens<br>(n=700) | ?<br>Cell phone<br>owners (n=504) | Computer<br>owners<br>(n=434) |  |
| Types of non-school writi                             | ng  |                                   |                               |  |
| Write letters or notes to other people                | 64%                                       | 67%                               | 64%                           |  |
| Write in a journal                                    | 34  | 36                                | 36                            |  |
| Short writing   | 32  | 32                                | 32                            |  |
| Do creative writing                                   | 25  | 25                                | 25                            |  |
| Write music or lyrics                                 | 24  | 21                                | 22                            |  |
| Create audio, video or<br>PowerPoint<br>presentations | 16  | 15                                | 18                            |  |
| Write essays  | 8   | 7                                 | 7                             |  |
| Write computer programs                               | 6   | 6                                 | 5                             |  |
| Frequency of non-school writing                       |   |                                   |                               |  |
| Several times a week or more                          | 36%                                       | 35%                               | 39%                           |  |
| Several times a month or less often                   | 54  | 56                                | 50                            |  |
| Never   | 9   | 8                                 | 10                            |  |

Technology Ownership Has Little Pelationship to the Types and

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

## Bloggers do more kinds of writing, and write more frequently, than other teens.

While teens' communication choices and use of physical technologies such as computers or cell phones are not strongly correlated with writing activities, there is a relatively strong association between writing and technology platforms that help teens share their thoughts with the world such as blogs and social networking sites.

Teen bloggers in particular engage in a wide range of writing outside of school. Bloggers are significantly more likely than non-bloggers to do short writing, journal writing, creative writing, write music or lyrics and write letters or notes to their friends. In this sense, bloggers are even more prolific than social networking teens when it comes to the types of writing they do. Social networking teens are unusual in their relative proclivity to write short writing, journal writing and music or lyrics.

Teen bloggers also write more frequently than social networking teens. Among all teens who do writing outside of school, 36% do so several times a week or more frequently.

## Part 5. The Relationship between Writing, Communication and Technology Ownership

While social networking teens write for personal reasons at a similar frequency, fully 47% of teen bloggers write for personal reasons several times a week or more. Nearly one-quarter of teen bloggers (23%) write outside of school just about every day.

| <b>Blogging, Social Networking and Writing</b><br>% of teens who have done the following |                                     |                                      |                           |                               |  |
|--|-------------------------------------|--------------------------------------|---------------------------|-------------------------------|--|
|  | SNS<br>profile<br>owners<br>(n=434) | Non-<br>profile<br>owners<br>(n=266) | Blog<br>owners<br>(n=190) | Non-blog<br>owners<br>(n=501) |  |
| Types of non-school writing  |                                     |                                      |                           |                               |  |
| Letters or notes   | 67%                                 | 60%                                  | 72%*                      | 61%                           |  |
| Journal writing  | 37*                                 | 29                                   | 47*                       | 29                            |  |
| Short writing  | 35*                                 | 27                                   | 42*                       | 28                            |  |
| Music or lyrics  | 28*                                 | 20                                   | 32*                       | 22                            |  |
| Creative writing   | 26                                  | 25                                   | 38*                       | 20                            |  |
| Audio, video or<br>PowerPoint presentations  | 15                                  | 17                                   | 21                        | 14                            |  |
| Essays   | 7                                   | 8                                    | 8                         | 8                             |  |
| Computer programs  | 5                                   | 7                                    | 9                         | 5                             |  |
| Frequency of non-school wr   | Frequency of non-school writing     |                                      |                           |                               |  |
| Several times a week or more   | 38                                  | 35                                   | 47*                       | 33                            |  |
| Several times a month or less often  | 55                                  | 52                                   | 45                        | 57*                           |  |
| Never  | 8                                   | 12                                   | 8                         | 10                            |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . \* indicates significant difference between pairs in the row.

In addition to doing more types of writing and writing more frequently, teen bloggers are also among the strongest teen proponents of the importance of writing. Fully 65% of teen bloggers feel that writing is "essential" to later success in life, compared with 53% for non-bloggers and 56% for teens as a whole.



# Parental Attitudes toward Writing and Technology

As with many educational issues, parental investment and attitudes are important influences on their children. Parent support of writing programs and parental beliefs about both the quality of writing and the importance of writing for future success can influence parent-child interactions around school work and personal writing. Today's parents believe that writing is an essential skill for their child's later success, and that technology is a generally positive force in the writing experiences of their teen.

### A majority of parents use the internet.

The percentage of parents who are online is consistent with our findings from our Parents and Teens survey in October-November 2006. As in 2006, 87% of parents of teens say they use the internet. Education, race and income are the largest factors influencing parental internet use.

| Parent Internet Usage    |                                 |  |
|--------------------------|---------------------------------|--|
| ·                        | % who use the internet or email |  |
| All parents              | 87%                             |  |
| Race/Ethnicity           |                                 |  |
| White                    | 92†                             |  |
| Black                    | 81♦                             |  |
| Hispanic                 | 69♦                             |  |
| Education                |                                 |  |
| High school grad or less | 76♦                             |  |
| Some college             | 91♦                             |  |
| College grad             | 99♦                             |  |
| Annual Household Income  |                                 |  |
| Less than \$30,000       | 66†                             |  |
| \$30,000-\$49,999        | 80†                             |  |
| \$50,000-\$74,999        | 91♦                             |  |
| \$75,000+                | 97♦                             |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . The percentage with  $\dagger$  next to it is significant to all the other numbers with a  $\blacklozenge$  in the column, but the other numbers with a  $\blacklozenge$  in the column are not significant to each other.

### Parents believe that good writing skills will bring future success.

Parents today are highly attuned to the need for good writing skills as a prerequisite for success later in life. More than four-fifths of parents (83%) feel that there is a greater need to write well today than there was 20 years ago, compared with 9% percent who feel that good writing skills are no more or less important than ever. Just 5% feel that the ability to write well is less important now than in the past.

Recognition of the importance of good writing is particularly high in black households— 94% of black parents say that good writing skills are more important now than in the past, compared with 82% of white parents and 79% of English-speaking Hispanic parents.

Parents with lower levels of education are also more likely to believe that good writing skills are particularly important to success in today's economy. Fully 88% of parents with a high school degree or less say that writing is more important in today's world, compared with 80% of parents with at least some college experience.

### When I was your age...

In addition to measuring the perceived importance of writing in today's world, our survey asked parents to indicate whether they feel their teen does more, less or about the same amount of writing as they themselves did at a similar age, and parental attitudes vary widely on this issue. While almost half of parents (48%) feel that their children write more than they themselves did at the same age, nearly one third (31%) believe that children today write less. An additional 20% feel that their children write about as much teens in the past.

Parents with lower levels of education are likely to feel that their child writes *more* than they did at a similar age. Among parents with a high school degree or less, nearly six in ten (57%) feel that their child writes more than they did—just 41% of college-educated parents feel the same.

While parents with lower levels of education tend to take a positive view of the amount of writing their child engages in, some parents feel that their child writes *less* than children in the past. This is especially true for parents of boys—older boys in particular. As noted earlier in this report, boys are less likely than girls to write outside of school for personal reasons, and older boys in particular are unlikely to enjoy the writing they do for school; as such, parental perceptions on this subject likely have at least some basis in fact.

| Parental Views on Writing Quantity by Child<br>Age/Sex  |      |      |     |  |  |
|---|------|------|-----|--|--|
| Thinking about all the writing that your teen does, do you think he/she is writing more, less or about the same as you did at the same age? |      |      |     |  |  |
| Writing Writing About the<br>more less same   |      |      |     |  |  |
| Boy 12-14   | 49%≁ | 32%≁ | 17% |  |  |
| Boy 15-17   | 36†  | 43†  | 17  |  |  |
| Girl 12-14  | 54≁  | 22 🖌 | 24  |  |  |
| Girl 15-17 54 25 20   |      |      |     |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . The percentage with  $\dagger$ next to it is significant to all the other numbers with a  $\blacklozenge$  in the column, but the other numbers with a  $\blacklozenge$  in the column are not significant to each other.

Minority parents and mothers also tend to feel that their child is writing less than they did at the same age. Four in ten black (44%) and Hispanic (40%) parents feel that their child writes less than they did at the same age, compared with just 26% of white parents who share this sentiment. Similarly, 35% of mothers say that their child writes less than they did at their child's age, compared with 24% of fathers.

## Parents have mixed views of how the writing their child does online relates to his or her overall writing skills.

When asked to evaluate how the writing their child does on the internet (such as email, instant messaging or posting on social networking sites) impacts his or her overall writing abilities, the largest group—two-fifths of parents (40%)—feel that these communications have no discernable impact. Among parents who feel that these communications do have some impact, half (27% of all parents) feel that these communications make their child a better writer and half (also 27% of all parents) feel that their child is a poorer writer as a result of the writing he or she does online. An additional 5% of parents are not sure how their child's electronic communications impact their overall writing skills.

Lower-income parents tend to have a more positive view of their child's internet writing than higher-income parents. Among parents from households earning less than \$50,000 per year, 34% feel that the writing their child does online has helped make him or her a better writer (compared with 25% for higher-income parents) and just 17% feel it has made their child's writing worse (compared with 32% for higher-income parents).

What might explain the even split between parents who think that their child's online communications are helpful to their writing and parents who find these communications harmful? Not technology ownership, as teens in each group are equally likely to own a computer, cell phone, blog, social networking profile and website.

### Part 6. Parental Attitudes toward Writing and Technology

Teens with a parent who views their internet writing positively tend to enjoy their school writing more than other teens (although, as with grades and writing enjoyment, there is no way to determine the direction of causality). Among these teens, 23% say they enjoy the writing they do for school "a great deal" compared with 7% of teens whose parent has a negative view of their online communications.

### Parents generally view computers as a positive force in their teens' writing development, albeit one that has its downsides.

Parents harbor mixed feelings about how computer use aids or detracts from specific elements of their child's overall writing abilities. To evaluate parental attitudes toward this issue, we presented parents with a series of eight questions about the way computers might have an impact on their child's writing. For each question, respondents told us whether they felt that writing on a computer made that impact more likely, less likely, or if using a computer made no difference in that aspect of their teen's writing.

Their responses indicate that parents do not view computers as a monolithic "good" or "bad" influence on their child's writing. Rather, most parents say they appreciate the value of technology in helping their child's writing, while at the same time recognizing certain downsides and tradeoffs.

| likely to  |             |             |                        |  |
|--|-------------|-------------|------------------------|--|
|  | More Likely | Less Likely | Makes no<br>Difference |  |
| Strongly resonant  |             |             |                        |  |
| Write better because<br>they can revise and<br>edit easily | 69%         | 11%         | 17%                    |  |
| Present ideas clearly                                      | 54          | 7           | 34                     |  |
| Be creative  | 50          | 10          | 36                     |  |
| Moderately resonant  |             |             |                        |  |
| Take short cuts and<br>not put effort into<br>writing      | 45%         | 14%         | 35%                    |  |
| Communicate well   | 43          | 18          | 36                     |  |
| Use poor spelling and grammar                              | 40          | 28          | 30                     |  |
| Write too fast and be careless                             | 40          | 13          | 41                     |  |
| Weakly resonant  |             |             |                        |  |
| Have a short attention span                                | 22%         | 18%         | 53%                    |  |

Do you think using a computer for writing makes students more or less

**Parental Views: How Computers Impact Teen Writing** 

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

### Part 6. Parental Attitudes toward Writing and Technology

Of the eight writing and technology impacts we evaluated, three positive impacts resonate relatively strongly with parents. These include that using a computer for writing allows teens to "write better because they can revise and edit easily," "present ideas clearly" and "be creative." Yet, while these positive impacts appeal to parents, 40% of parents or more also believe that computers have a negative impact on their child's writing, by causing them to take short cuts, use poor spelling and grammar and write too fast or be careless in their writing.

By a substantial margin, "having a short attention span" is the least resonant impact we evaluated for this study. Just 22% of parents feel that using a computer for writing makes their child more likely to have a short attention span, while more than half (53%) say that computers make no difference in this aspect of their child's writing.

Overall there are few significant differences in parental attitudes on this issue, with most relating to race or ethnicity. Four in ten white parents (42%) feel that computers have no impact on creativity, compared with 26% of black parents and 29% of Hispanic parents. Over half of English-speaking Hispanic parents (54%) believe that computers make their teen more likely to write too fast and be careless, compared with 39% of white parents and 34% of black parents. Moreover, just 56% of Hispanics believe that writing on a computer helps their child write better because he or she can edit and revise easily, significantly lower than the figure for white (70%) and black (77%) parents. Finally, one third of black parents (33%) feel that writing on a computer makes their child more likely to have a short attention span—significantly higher than the comparable figure for whites (19%).

Fathers are more ambivalent than mothers on the issue of effort and taking short cuts. Four in ten fathers (42%) feel that computers make no difference in the short cuts or overall effort their child puts into his or her writing, compared with 30% of mothers.

Finally, there are some statements over which parents are split, with large numbers of parents feeling positively, and equally large numbers responding negatively. For instance, 40% of parents feel that writing on a computer makes their child more likely to use poor spelling and grammar, but nearly one in three (28%) feel that using a computer for writing makes this outcome less likely. Similarly, parents are evenly divided as to whether using a computer for writing makes their child more likely (22%) or less likely (18%) to have a short attention span.

### Parents and teens generally agree on the importance of writing, though parents view computers as having a more favorable impact on teens' writing than do teens themselves.

As we shall see in more detail in the next section of the report, teens share their parents' belief that writing is important to their future success. A majority of teens believe that writing is "essential" for a successful future, and their parents agree that there is a greater need for good writing skills today than in the past.

### Part 6. Parental Attitudes toward Writing and Technology

Teens and parents are somewhat different in their opinions on the impact of text-based electronic communications (like text messaging, instant messaging and email) on teens' overall writing abilities. Substantial numbers of parents are likely to see these communications as having positive or negative effects on their child's writing, while teens overwhelmingly believe that these communications make no difference to their overall writing abilities.

In a similar vein, parents are generally more positive about the effects of computers on their child's writing than teens themselves, who are likely to feel that writing on a computer does not have an effect on their writing in a meaningful way, either positive or negative.

| The Impact of Technology on Writing<br>Do you think using computers makes students more likely to? |       |       |  |  |
|--|-------|-------|--|--|
| Parents Teens<br>(responding (respondin<br>about their about stude<br>children) in general         |       |       |  |  |
| Positive Attributes  | Agree | Agree |  |  |
| Write better because they can revise and edit easily   | 69%   | 59%   |  |  |
| Present ideas clearly  | 54    | 44    |  |  |
| Be creative  | 50    | 44    |  |  |
| Communicate well   | 43    | 36    |  |  |
| Negative Attributes  |       |       |  |  |
| Take short cuts and not put effort into writing  | 45    | 49    |  |  |
| Use poor spelling and grammar  | 40    | 42    |  |  |
| Write too fast and be careless   | 40    | 41    |  |  |
| Have a short attention span  | 22    | 28    |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.



Much of the research on the topic of youth and writing addresses questions of instructional quality and effectiveness from the perspective of administrators, teachers and parents. As noted earlier, this study deliberately focuses on this issue from the perspective of teens themselves in an effort to inform this body of research. To further this objective, we asked teens to share their thoughts on the importance of writing to their future success, as well as their perceptions of the efficacy of current educational strategies. We also asked them to tell us about the distinctions they make between school and non-school writing and the relationship of these two writing styles to their use of technology. We found that teens strongly see the value of writing for their future and credit school, primarily, as the place that will provide the most instructional guidance for development.

### Teens feel writing is key for their future success.

Teens understand that their ability to write effectively will have an impact on their future prospects, as fully 98% agree that writing is at least somewhat important for their future success. Of these, more than half (56%) think that writing is "essential," 30% think that it is "important, but not essential" and 12% see it as "somewhat important." Just 2% feel that writing is "not at all important" to their future success in life.

Most of the variation in how teens view the importance of writing centers on parent education and household income. Six in ten teens (60%) whose parents have some college education view writing as essential to success in life, compared with five in ten teens (51%) whose parents have no college experience. Similarly, 60% of teens from households earning \$50,000 or more per year say that writing is essential, compared with 49% of teens from lower-income households.

Our focus group comments indicate that many teens view good writing skills as vital when seeking employment, while others view writing as just one part (albeit an important one) of a series of skills that, when done well, improve one's overall chances of success. Finally, a smaller subset of teens believe that while good writing skills are useful, that the quality of one's writing should not detract from the quality of one's ideas.

'Cause like if you want to go and get a job and people see like you can't write or you can't like read stuff then they won't hire you. You have to have good writing skills to get a good job.  $-9/11^{\text{th}}$  Grade Girl, Southwestern City.

Yeah, you need to write. You need to be able to write, but it's not a guarantee you will do well. Writing well is a part of doing well.  $- 11/12^{th}$  Grade Boy, Northeastern City.

I don't think [writing] reflects a person and how they think because my mom is from Israel and she writes English and her handwriting isn't the best and she isn't always grammatically correct, but she is very smart. So I don't think it reflects.  $- 11/12^{th}$  Grade Girl, Pacific Northwest City.

### Most teens feel that their writing has improved over the past year.

When asked to evaluate the progression of their own writing abilities over the past year, three-quarters of teens (77%) think that their writing skills have improved. One in five (22%) see little or no change, and just 2% feel that their writing skills have actually declined. This belief shows little demographic or socio-economic variation. The only notable difference pertains to gender—26% of boys say there has been little or no change in their writing over the past year, compared with 17% of girls.

Of these teens whose writing skills have changed for better or worse over the past year, more than half (53%) feel that the writing instruction they receive in school is a major factor driving that change. A somewhat smaller number (39%) cite the technology tools they have used for writing as a major factor, and just one in four teens cite their personal (non-school) writing as a major factor behind their writing improvement. These rates are consistent across all major demographic and socio-economic groups.

| Factors in Teen Writing Improvement  |     |     |    |  |
|--|-----|-----|----|--|
| Impact of different factors on changes in writing(among teens whose writing skills have improved or gotten worse in the past year) |     |     |    |  |
| Major factor Minor factor Has had no<br>impact   |     |     |    |  |
| The writing<br>instruction you have<br>gotten at school  | 53% | 38% | 7% |  |
| The technology you<br>have used for<br>writing   | 39  | 42  | 17 |  |
| The writing you have<br>done for yourself or<br>others outside of<br>school  | 25  | 51  | 22 |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

Many of the teens in our focus groups pointed specifically to the influence of demanding teachers as a major factor in helping them to improve their writing skills.

My history teacher this year really helped me with my writing because it was a college history class so it was the first time I had to sit down and write a 25 page paper. It was worth a third of my grade. She really helped me because it was really difficult.  $-11/12^{th}$  Grade Girl, Pacific Northwest City

My English teacher in my sophomore year...went through how to construct essays and looked for more insight into literature and also she was a hard grader so that also pushed me to work harder.  $- 11/12^{th}$  Grade Girl, Pacific Northwest City

[My English teacher] didn't exactly teach us how to write essays but if I gave him a paper like a draft he would cross it out and tell me how to make it better. He was a real hard grader—so in that sense it made me hate him —but looking back it was really helpful. He taught me to look into why and how. -- 11/12<sup>th</sup> Grade Girl, Pacific Northwest City

## Most teens feel their personal electronic communications have little impact on their overall writing skills.

Teens generally feel that the personal electronic communications they have with their friends have a negligible impact on their overall writing abilities. Among teens who send text messages, email, instant messages or post on social networking sites, 73% say this communication has had no impact (either positive or negative) on the writing they do for school and 77% say that it makes no difference to the quality of the writing they do for personal reasons. Fifteen percent of teens say that communicating electronically has helped improve their school writing and 17% say it has improved their non-school writing, while 11% say it has harmed their school writing and an even smaller number (6%) say it has had a negative impact on the writing they do outside of school.

| The Impact of Electronic Communications on Teens'<br>Writing Abilities  |     |     |     |  |  |  |  |
|---|-----|-----|-----|--|--|--|--|
| Impact of personal electronic communications on(among teens who send text messages, email, IM or post on social networking sites) |     |     |     |  |  |  |  |
| Helped Harmed Has had no<br>writing writing impact  |     |     |     |  |  |  |  |
| The writing you do<br>for school  | 15% | 11% | 73% |  |  |  |  |
| The writing you do that is not for school   | 17  | 6   | 77  |  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

Boys in particular have relatively positive attitudes about the impact of their personal electronic communications on their overall writing skills. One in five boys (20%) feel that these interactions have helped the writing they do for school, compared with just one in ten girls (10%). Lower-income teens also feel that their electronic communications have a salutary effect: one quarter of teens in households earning less than \$30,000 per year say that these interactions have helped the writing they do for school, while just 12% of teens living in households earning \$75,000 or more per year say the same.

In our focus groups, teens distinguished between "formal" and "informal" writing using criteria such as audience, writing genre, media/technology and intent.

Formal writing you have to be a little more proper, use certain themes like literary devices or you know, and informal you just write whatever, you don't really think about 'oh, I have to write like this. ...I'm just going to tell this person this so write that.' But formal you have to put it all together.  $-9/11^{th}$  Grade Boy, Southwestern City.

You have to write to the audience. Like your friends you can talk to like abbreviations and stuff, but if you are writing to a teacher, you want to make sure you'd be formal so that way they will grade your work better.  $-11/12^{th}$  Grade Boy, Northeastern City.

I mean when you're writing in front of your friends you write the way you would talk to your friends. When you're writing to your teacher it's more professional and you try harder.  $-9/10^{\text{th}}$  Grade Girl, Midwestern City.

Teens also felt the limitations and constraints of formal writing, but understood that formal writing may not be always be the most enjoyable thing to execute. Still, they said they thought that learning how to write formally would pay dividends later in college and in the workplace.

I think you are expressing yourself less with formal [writing]...because you are trying to put the words that people want to see. If you are writing a paper you might feel one way but you are like 'I know my teacher would want me to write this,' so it's not really your thoughts. It is in your words but it is what your teacher would want to hear as opposed to what you really think.  $-10/12^{th}$  Grade Girl, Southwestern City.

Teen 1: [Formal writing is] not bad, it's just not fun.

Teen 2: It's good for you, but you don't want to do it.

Teen 3: It's like eating vegetables. – Exchange in 9/11<sup>th</sup> Grade Group, Southwestern City.

Well I think going through high school you need to do everything formally in the way teachers want so that when you get to college and you're actually learning to do or to be what you need to be when you grow up. You can pretty much do informal because it's what your thoughts are for your future.

But you need to learn like the basics – just structure – at some point. –  $9/11^{th}$  Grade Girl, Southwestern City.

Teen 1: I don't think [formal and informal writing] are that different because you could write something informally and then make it formal.

Teen 2: Informal is like the warm up and then formal is like the race.

Teen 3: Like the rough draft. – Exchange in 9-11<sup>th</sup> Grade Group, Southwestern City.

Some teens also indicated that the compressed nature of instant messages and texts contribute almost unconsciously to a less formal and more conversational feel in the writing. They also identified areas where the influence of text messaging was, from their perspective, a negative influence on the complexity of their writing.

If it is with texting, IMing, or MySpace it is usually always casual writing. In emails, even to my friends, I find myself doing a little more formal. And just because I think it has to do with the length, since it is longer and also I'm doing it with Microsoft Word and doing a document.  $- 11/12^{th}$  Grade Girl, Pacific Northwest City.

I would say it definitely cripples your vocabulary if all you are using is the same couple of hundred words that are abbreviated. If you are only seeing the same things in different combinations from people, then you aren't going to expand. I guess your mind can only get so small. If the extent of your reading is only the text messages and emails from your friends, then, yea, definitely, it isn't going to help you that much as opposed to a book.  $-9/10^{\text{th}}$  Grade Boy, Pacific Northwest City.

I text sometimes but not a lot. It's not like it affects me. But I realize that, like my friend Ally, she texts a lot – a lot. Like when she wants to say something to her friends she cannot like, she'll just sit there and text and like when she writes a report you'll see it in her report. And then like when she goes to print off, she'll be like 'dang, I used that instead of that.' She'll have to go and rewrite her report and sometimes she'll ask me to type her report for her. And I'll be like 'no, I can't type your report.' –  $9/10^{th}$  Grade Girl, Midwestern City.

Some teens noted the benefits of learning a quick shorthand for taking notes in school...

I think [instant and text messaging abbreviating] helps sometimes because like when we're taking notes we have to hurry up and take them and knowing the text language it helps to abbreviate. ... faster.  $-9/10^{\text{th}}$  Grade Girl, Midwestern City.

...while others rejected abbreviations or shortened word forms of any kind.

Well I'm a complete grammar freak and I have to spell everything right and it annoys the crap out of me when people use like abbreviations and

everything. I just like twitch because it annoys me. And I always correct people on their spelling.  $-9/10^{th}$  Grade Girl, Midwestern City.

Mostly, if I text message, I usually use proper grammar and pronunciation and punctuation. I know a lot of my friends don't do that, but I am kind of funny about that. I don't like using abbreviations or things like that because it is just not the way I am.  $- 11/12^{th}$  Grade Boy, Northeastern City.

## Teens feel that additional in-class writing time and computer-based writing instruction would each improve their overall writing skills.

Most teens feel that additional instruction and focus on writing in school would help improve their writing even further. Our survey asked teens whether their writing skills would be improved by two potential changes to their school curricula: teachers having them spend more time writing in class, and teachers using more computer-based tools (such as games, writing help programs or websites, or multimedia) to teach writing.

While the options presented in our survey were quite different in nature, teens find the approaches equally appealing. Overall, 82% of teens feel that additional in-class writing time would improve their writing abilities, similar to the 78% who feel the same way about computer-based writing tools. For each option, roughly three in ten teens say that option would improve their writing "a great deal," and four in ten say it would help improve it "somewhat."

| <b>Different Approaches, Same Impact on Writing</b><br>% of teens who think the following would help improve their writing skills |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| Improve a Improve Improve<br>only a great deal somewhat little improve  |  |  |  |  |  |  |  |  |
| Teachers having you spend<br>more time writing in class31%42%9%17%  |  |  |  |  |  |  |  |  |
| Teachers using more<br>computer based tools to<br>teach writing2841921  |  |  |  |  |  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ .

A deeper analysis of this issue provides an interesting commentary on the needs and desires of different groups of teens with respect to writing improvement. For instance, black and Hispanic teens feel more strongly than whites about the need for additional inclass writing time: nearly half of black teens (48%) and four in ten Hispanic teens (38%) feel that increased in-class writing time would improve their writing "a great deal," significantly higher than the comparable figure for whites (25%). However, there are no significant racial or ethnic differences on the impact of computer-based writing tools.

Girls and boys are equally positive about the potential impact of increased writing time in class, with eight in ten girls (84%) and boys (80%) indicating that this would help improve their writing at least at little bit. However, boys are less enthusiastic about the potential benefits of computer-based writing instruction. Fully 25% of boys feel that computer-based writing tools would *not* help improve their writing abilities, compared with just 16% of girls who feel the same.

Teens from lower-income households and children of lower-education parents respond particularly favorably to both writing improvement concepts.

### Additional Writing Instruction and Computer-based Writing Tools Show Great Appeal to Lower SES Teens

% within each group who feel that the following would improve their writing **a** great deal...

|                              | More time writing in Computer-k<br>class writing to |      |
|------------------------------|---|------|
| Household income             |   |      |
| Less than \$50,000 per year  | 39%^  | 36%^ |
| \$50,000 per year or more    | 23^   | 23^  |
| Parent education             |   |      |
| High school grad or less     | 38  | 35   |
| Some college or college grad | 25  | 22   |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . ^ indicates statistically significant differences between the percentages in the column.

Focus group participants talked about the impact of teachers on their learning, and the importance of technology for their future.

I think the only thing that really changes if I am bored at school is a teacher. If the teacher is really good then I will be interested. The technology isn't affecting it.  $-9/10^{\text{th}}$  Grade Boy, Pacific Northwest City.

I don't think it is the downfall to civilization but I think a lot more of this technology will be used for future jobs. I think they will start using a lot of the technology that we use today for future jobs. I can see that happening. Our generation has more knowledge of technology, more than adults can say. We caught onto it more effectively. –  $9/10^{th}$  Grade Boy, Pacific Northwest City.

## Teens have a nuanced view of the relationship between writing on a computer and writing outcomes.

As was seen with parents, teens do not view computers as a consistently positive or negative force in their writing development: they see some clear benefits to using a

computer for writing but also recognize that computers can encourage some negative writing habits as well.

| Teen Views: How Computers Impact Writing  |             |             |                        |  |  |  |  |
|---|-------------|-------------|------------------------|--|--|--|--|
| Do you think using a computer for writing makes students more or less likely to |             |             |                        |  |  |  |  |
|   | More Likely | Less Likely | Makes no<br>Difference |  |  |  |  |
| Strongly resonant   |             |             |                        |  |  |  |  |
| Write better because<br>they can revise and<br>edit easily                      | 59%         | 10%         | 30%                    |  |  |  |  |
| Take short cuts and<br>not put effort into<br>writing                           | 49          | 13          | 37                     |  |  |  |  |
| Moderately resonant   |             |             |                        |  |  |  |  |
| Present ideas clearly   | 44%         | 9%          | 45%                    |  |  |  |  |
| Be creative   | 44          | 12          | 43                     |  |  |  |  |
| Use poor spelling and grammar   | 42          | 19          | 38                     |  |  |  |  |
| Write too fast and be careless  | 41          | 16          | 43                     |  |  |  |  |
| Weakly resonant   |             |             |                        |  |  |  |  |
| Communicate well  | 36%         | 12%         | 51%                    |  |  |  |  |
| Have a short attention span   | 28          | 12          | 57                     |  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

This nuanced attitude is clear in the two impacts that resonate most strongly with teens. While six in ten teens (59%) feel that computers help students write better because they can revise and edit easily, half (49%) believe that computers cause students to take short cuts and not put sufficient effort into their writing.

In the same vein, two positive and two negative impacts resonate moderately with teens. Roughly four in ten teens feel that using a computer for writing makes students more likely to present ideas clearly (44%) and be creative (44%), yet a similar number feel that computers make students more likely to use poor spelling and grammar (42%) as well as write too fast and be careless (41%).

Much like their parents, teens view "having a short attention span" as the least likely impact of computer-based writing. Just 28% of teens (and 22% of parents) feel that writing on a computer makes them more likely to have a short attention span.

Teens in our focus groups elaborated on why they use technology to write and what they or others in their lives think the impact of that choice is:

I usually type because I do have messy handwriting. So I like typing and I find it easier to collect my thoughts, I don't have to worry about the spelling and I can worry about the creativity of the story rather than if I spelled it right.  $-7/8^{th}$  Grade Boy, Midwestern City.

My tech teacher encourages us [to type our papers], but our English teacher discourages us because we get lazy.  $-9/10^{th}$  Grade Boy, Pacific Northwest City.

[If I didn't type, my papers would be] ... less clean, but [the] thoughts expressed would be just as successful.  $-11/12^{th}$  Grade Girl, Pacific Northwest City.

## Teens place less emphasis on the role of computers in their writing than parents do.

Relative to their parents, teens tend to downplay the overall impact of computers on their writing. Teens are significantly more likely than their parents to say that computers make no difference to three of the impacts evaluated in this study: "communicate well," "presenting ideas clearly" and "write better because you can revise and edit easily."

| For Many Aspects of Writing, Teens Do Not See<br>Computers Having an Impact<br>Do you think using a computer for writing makes no<br>difference in terms of whether students will? |     |     |  |  |  |  |  |  |
|--|-----|-----|--|--|--|--|--|--|
| Teens Parents  |     |     |  |  |  |  |  |  |
| [n=700] [n=700]  |     |     |  |  |  |  |  |  |
| Have a short attention span  | 57% | 53% |  |  |  |  |  |  |
| Communicate well   | 51* | 36  |  |  |  |  |  |  |
| Present ideas clearly  | 45* | 34  |  |  |  |  |  |  |
| Be creative  | 43  | 36  |  |  |  |  |  |  |
| Write too fast and be careless   | 43  | 41  |  |  |  |  |  |  |
| Use poor spelling and grammar  | 38  | 30  |  |  |  |  |  |  |
| Take short cuts and not put effort into writing  | 37  | 35  |  |  |  |  |  |  |
| Write better because they can revise and edit easily   | 30* | 17  |  |  |  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . \* indicates statistically significant difference between the percentages in the row.

Prevailing wisdom holds that the US is facing an educational crisis marked by low levels of writing skill. One primary concern is that teens are not learning the writing content and process skills needed to succeed in continuing education and the workplace.

Research suggests a number of areas for improvement. Recent studies have found that many students are given inadequate writing instruction, little time to practice writing in the classroom environment, and few opportunities to write longer research-type papers.<sup>15,16</sup> Likewise, high school students are seldom offered writing instruction that spans their curriculum, is authentic and tied to their lives, and is delivered by quality teachers with specific training in content-based writing instruction.<sup>17</sup>

Similarly, there is a strong body of research on best practices in the teaching and learning of writing that can guide individual and institutional reform efforts. Broadly, this research suggests that writing is best taught as an integrated subject, and that strong writing practice combined with consistent feedback is key to developing student skills and achievement. The practical implication is that writing is best taught using a holistic approach that spans subjects and content areas, utilizes methods that draw upon students' prior knowledge using content that is applicable to their daily lives, and combines traditional grammatical instruction with a comprehensive focus on clear written expression.<sup>18,19,20</sup>

This survey was fielded to add new voices – those of teens – to this debate. Their responses show that teens do write – overwhelmingly. All of them write for school and 93% of them write for themselves. Teens also enjoy writing. While most report that writing for school assignments can be arduous, they feel real satisfaction and accomplishment when such pieces are recognized for communicating ideas effectively and skillfully. Most teens say that they very much enjoy the writing that they do to communicate with their peers via MySpace, Facebook, and text and instant messaging.

<sup>15</sup> Applebee, A., & Langer, J. (2006). The state of writing instruction in America's schools: What existing data tell us. Albany, NY: Center on English Learning and Achievement.

<sup>16</sup> The National Writing Project. (2007). *The 2007 Survey on Teaching Writing*. Washington, D.C.: Belden, Russonello and Stewart.

<sup>17</sup> Graham, S., & Perin, D. (2007). Writing next: Effective strategies to improve writing of adolescents in middle and high schools. A report to Carnegie Corporation of New York. Washington, DC: Alliance for Excellent Education.

<sup>18</sup> The National Commission on Writing for America's Families, Schools and Colleges. (2006). Writing and school reform. New York, NY.

<sup>19</sup> Graham, S., & Perin, D. (2007). Writing next: Effective strategies to improve writing of adolescents in middle and high schools. A report to Carnegie Corporation of New York. Washington, DC: Alliance for Excellent Education.

<sup>20</sup> Graham, S., MacArthur, C. A., & Fitzgerald, J. (Eds.). (2007). Best practices in writing instruction. New York: Guilford Press.

Many also report finding satisfaction in their creative writing of poems, plays, journals, songs, raps and multimedia pieces. How much teens write is more nuanced. It is highly dependent upon the individual teen as well as the writing expectations placed upon him/her by school, family, friends and other social sources.

### What prompts teens to write?

The short answer is that their writing is instrumental. They write to make something happen. Whether for school, themselves or for a social audience of friends and family, they write to achieve a desired goal. They are very calculating in how they determine what needs to be done to get the goal they want.

School writing, for example, helps them get a grade, complete an assignment, or gain access to a specific college, scholarship or much desired extracurricular activity. The creative writing they do for themselves helps them express their emotions, realize a vision, share a talent they are cultivating publicly or win a free iPod. Writing with friends and others in close interest groups via cell phone, social networking site, IM or email offers a chance to keep in touch; learn about the latest trends, crushes, and events; and share insights and written or multimedia content.

[I write]...whatever they tell me to write about. – 10-12<sup>th</sup> Grade Boy, Southwestern City.

I'm usually, like, I don't like to write. I don't write like journals or like diaries or anything. If I have to do something for school I usually just get on the computer cause that's like easier for me and it looks nicer. But like at school like no one really passes notes...more people have phones now. They take them to school so that in study hall or whatever we like text in study hall.  $-9-10^{th}$  Grade Girl, Midwestern City.

I am almost always grammatically correct [when I text.] And I do writing books and role playing so that is really important to me.  $-11-12^{th}$  Grade Girl, Pacific Northwest City.

Teen 1: Well, if I knew that other people were going to read what I wrote and react to what I was writing then I would make it better and I would want to do the best that I could at it.

Teen 2: I write differently when, if I have to say a speech or something in front of my class I write differently than I would than if I was writing it for my teacher...[because of] pressure from your peers...you wouldn't write the same thing. – Exchange in 9-10<sup>th</sup> Grade Girls Group, Midwestern City.

Just because teens report writing and enjoying it does not mean that their perceptions of their own writing are fully accurate. A teen may feel s/he is a good writer with a strong grasp of writing conventions, but is not. Thus, even though teens report that they write

and are motivated to write, the quality and effectiveness of their writing varies from individual to individual.

## Teen ideas for making school writing successful – what works and what doesn't.

In contrast to stereotypes of teens as grumbling, disaffected youth with little or no interest in school or its subjects, the teens in our study provided testimony that – depending upon the circumstances – they can find writing pleasurable and can be motivated and inspired to write.

For example, when we asked the teens in our focus groups to identify a piece of writing that made them very proud, they generated a diverse list of examples: poems, book projects, research papers, college essays, journals, songs/raps, text messages, computer programs, 4H-projects, plays, etc. Each teen was able to identify and share a success that they had created in writing.

Research paper on chromium ions and what they are used for. Because it's the longest paper I have ever written (13 pages) and I still got an  $A+. - 9/11^{th}$  Grade Boy, Southwestern City.

I am proud of my current events I did this school year. They were all typed neat with good grammar and I got A's on all of them.  $-9/10^{th}$  Grade Girl, Northwestern City.

My descriptive writing about a rock in the ground. I am proud of it because the teacher said it was the best out of all the essays.  $-7/8^{th}$  Grade Boy, Midwestern City.

College essays because they were thoughtful, took a long time, and got me into a lot of colleges.  $-11/12^{th}$  Grade Girl, Pacific Northwest City.

National Russian Essay I took last year and was given a medal for it. - 11/12<sup>th</sup> Grade Boy, Northeastern City.

Text message that got me together with my boyfriend. We are both relatively shy but were able to express ourselves over text messages.  $-9/11^{th}$  Grade Girl, Southwestern City.

Poetry journal - full-blown creativity and pure emotional understanding. - 9/10  $^{\rm th}$  Grade Boy, Pacific Northwest City.

## School work isn't necessarily a turnoff if it deals with something personally relevant – and gets a good grade.

Interestingly, most teens told us they were proud of pieces that were required for school, graded and primarily intended for their teachers or classes. At the same time, some teens also said they were proud of pieces they wrote for peers, themselves or another close

person, or for outside competitions. In all cases, teens report being pleased, inspired and motivated by composing a piece of writing that was effective at communicating their thoughts and – in particular – was recognized positively.

A key theme in what teens said motivated them to write was one of "relevance." Teens said, in varying ways, that they wanted to be doing things that mattered socially, in their own lives, and had an impact.

### Teens get greater enjoyment from the writing they do outside of school than the writing they do in school, and enjoyment of personal writing does not always translate into enjoyment of school writing.

Teens tend to enjoy the writing they do for personal reasons more than the writing they do for school. Half (49%) of teens enjoy the writing they do for themselves "a great deal," compared with just 17% who enjoy the writing they do for school with a similar intensity. In total, nearly one third of teens say they enjoy their school writing "not much" (22%) or "not at all" (10%).

| Enjoyment of Different Types of Writing              |     |     |  |  |  |  |  |
|--|-----|-----|--|--|--|--|--|
| % of teens who enjoy their                           |     |     |  |  |  |  |  |
| School writing Non-school<br>(n=697) Writing (n=657) |     |     |  |  |  |  |  |
| A great deal   | 17% | 49% |  |  |  |  |  |
| Some   | 50  | 41  |  |  |  |  |  |
| Not much   | 22  | 8   |  |  |  |  |  |
| Not at all   | 10  | 2   |  |  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

The enjoyment teens find in their non-school writing does not always translate into the same level of enthusiasm for the writing they do for school. Among teens who enjoy their non-school writing "a great deal," most (54%) get "some" enjoyment from their school writing. Just 26% of these teens who greatly enjoy their non-school writing enjoy their scholastic writing with a similar intensity, and nearly as many (20%) do *not* enjoy the writing that they do for school.

### Enjoyment of school writing is lowest among older boys.

The enjoyment teens derive from their school writing appears to fade as teens get older and enter high school. Among teens ages 12-14, 73% enjoy their school writing and 27% do not, while among teens ages 15-17, just 62% enjoy the writing they do for school and 37% do not enjoy it.

This decrease in school writing enjoyment over time is driven almost entirely by boys. More than four in ten older boys (44%) do *not* enjoy writing for school (a significantly greater rate than any other age group) and just one in ten (9%) enjoy writing for school "a great deal."

| School Writing Enjoyment is Lowest<br>Among Older Boys |                    |      |  |  |  |  |  |
|--|--------------------|------|--|--|--|--|--|
| How much do you enjoy the writing you do for school    |                    |      |  |  |  |  |  |
| Enjoy Do not<br>enjoy                                  |                    |      |  |  |  |  |  |
| Boys 12-14   | 74%≁               | 26%≁ |  |  |  |  |  |
| Boys 15-17   | Boys 15-17 54† 44† |      |  |  |  |  |  |
| Girls 12-14 72 28 •                                    |                    |      |  |  |  |  |  |
| Girls 15-17  | 69 🖌               | 31.  |  |  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . The percentage with  $\dagger$  next to it is significant to all the other numbers with a  $\blacklozenge$  in the column, but the other numbers with a  $\blacklozenge$  in the column are not significant to each other.

These gender and age differences are not nearly as pronounced when it comes to the writing teens do for their own personal reasons. Overall, 90% of teens enjoy the writing they do outside of school, a figure that is consistent between boys and girls as well as older and younger teens. The main difference pertains to teens at the upper end of the enjoyment scale—55% of girls say they enjoy writing for themselves "a great deal," compared with 43% of boys who feel similarly strongly.

### School writing enjoyment is not correlated with the length or frequency of school writing, and is only loosely related to the types of writing assignments teens do at school.

Regardless of how much they actually enjoy the writing they do at school, most teens have a superficially similar scholastic writing experience. In other words, the assignment of more writing at school does not necessarily affect teens' level of enthusiasm for writing. Teens generally write for school with the same frequency, write papers of similar lengths, and do the same types of school writing regardless of whether or not they enjoy their school writing. There is only one major difference between teens who enjoy their school writing and teens who do not—teens who enjoy their school writing "a great deal" are more likely to do creative writing at school compared with teens who get "not much" enjoyment or no enjoyment from their school writing (81% vs. 69%).

With respect to writing enjoyment and writing done outside of school, however, an entirely different story emerges. Teens who greatly enjoy their non-school writing engage in a much wider range of writing activities than teens who get less enjoyment out of the

writing they do for themselves. Compared with teens who get some, not much or no enjoyment out of their non-school writing, teens who enjoy their non-school writing "a great deal" are more likely to do a wide range of writing activities in their personal time. It is not possible with this survey to determine what causes teens to write more and be enthusiastic about the writing they do for their own personal reasons. Causality probably flows in both directions to some degree: teens who write most often outside of school are happy about doing it, and because they are happy about doing it, they write more.

| <b>Non-school Writing Enjoyment and Activities</b><br>% of teens who have done the following writing activities outside<br>of school in the past year |     |     |  |  |  |  |  |  |
|---|-----|-----|--|--|--|--|--|--|
| Enjoy non-school<br>writing a great<br>deal (n=331)<br>Enjoy non-school<br>writing some or<br>not much<br>(n=313)                                     |     |     |  |  |  |  |  |  |
| Write notes or letters to other people  | 72% | 66% |  |  |  |  |  |  |
| Write in a journal  | 57* | 16  |  |  |  |  |  |  |
| Do short writing  | 52* | 16  |  |  |  |  |  |  |
| Do creative writing   | 45* | 9   |  |  |  |  |  |  |
| Write music or lyrics   | 38* | 14  |  |  |  |  |  |  |
| Create presentations  | 21* | 13  |  |  |  |  |  |  |
| Write essays  | 12* | 4   |  |  |  |  |  |  |
| Write computer programs   | 7   | 6   |  |  |  |  |  |  |

Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is  $\pm 5\%$ . \* indicates statistically significant difference between the percentages in the row.

## Teens who enjoy writing are likely to view writing skills as essential to their future success and receive higher marks in their writing classes.

Overall, a majority of teens believe that writing is essential for their future success. More than half (56%) said they think writing is essential, and another three in ten say it is important but not essential for later success. Just 12% of teens said writing was only somewhat important, and 2% said it wasn't important at all.

The more teens enjoy the writing they do (whether in or out of school), the more likely they are to consider writing an essential skill for their future success in life. Among teens who enjoy their non-school writing "a great deal," 67% consider writing to be essential for success in life. Among teens who get less enjoyment from their non-school writing, just over half (51%) consider writing to be an essential skill.

Similarly, among those who enjoy their school writing "a great deal," 74% consider writing to be essential; among those who enjoy it "some," 60% consider writing to be

essential. Even more strikingly, among teens who enjoy school writing "not much" or "not at all," just 40% view writing as an essential skill for future success.

When asked to recall their grades in the classes where they do the most writing, most teens told us that they were firmly above average. The largest group of teens -44% – said they received mostly A's and B's in their writing-heavy classes, and the next largest group, 22%, reported receiving all A's. Just 13% of teens characterized themselves as B-students in writing, and another 15% owned up to mostly B's and C's. Less than 5% of teens said they received mostly C's or below in the classes where they did the most writing.

Not surprisingly, teens who enjoy the writing they do for school report they receive higher grades in the classes where they do the most writing. Among teens who enjoy their school writing "a great deal," 35% receive mostly A's in their writing classes and just one in five (19%) receive mostly B's or worse. By contrast, just 12% of teens who enjoy their school writing "not much" or "not at all" receive mostly A's in their writing class, and nearly half (47%) get mostly B's or lower. Unfortunately, it is impossible to determine from this data whether teens get good grades because they enjoy writing, or whether they enjoy writing because they get good grades. Regardless of the mechanism, however, grades are clearly one of the factors that is most heavily correlated with writing enjoyment.

| <b>Grades and Writing Enjoyment</b><br>Thinking about the classes in school where you get the most<br>writing, would you say you get mostly |     |     |     |  |  |  |  |
|---|-----|-----|-----|--|--|--|--|
| Mostly A's Mostly A's Mostly B's<br>and B's or less   |     |     |     |  |  |  |  |
| Enjoy school<br>writing a great<br>deal   | 35% | 46% | 19% |  |  |  |  |
| Enjoy school<br>writing some  | 26  | 46  | 28  |  |  |  |  |
| Enjoy school<br>writing not much<br>or not at all   | 12  | 41  | 47  |  |  |  |  |

Source: Source: Pew Internet & American Life Project Teen/Parent Survey on Writing, September-November 2007. Margin of error is ±5%.

Other factors and experiences influence a teen's enjoyment of writing. Teens in our focus groups spoke of enjoying the sense of satisfaction from completing a challenging project:

I wrote this program for a robot in Legodacta. And I was pretty proud of it because it was something we had bought to life – I also had built the robot so it brought to life my creation and it felt kind of good. –  $11/12^{th}$  Grade Boy, Northeastern City.

## Teens like having the opportunity to select their topics for school writing assignments.

Teens in our focus groups said strongly that being able to self-select topics and assignments made their mandatory writing more enjoyable and compelling.

[I find writing somewhat enjoyable] only if I get to pick out the topic or the subject I am writing about, or, if I have to write specifically about a book, then whatever book I want. --  $11/12^{th}$  Grade Boy, Northwestern City.

If you could be assigned a topic but if you are not interested in it then it's not going to inspire you to do anything. You will research it and be like ok...but I don't know...I just had a paper and it was really hard to write because I really didn't care about it so I researched it a lot but I never got interested in it.  $-10/12^{th}$  Grade Girl, Southwestern City.

They said, in effect, that if they were going to spend time and energy doing schoolwork, they wanted it to be something that related specifically to them and their interests. Teens also found it motivating when their writing could have broader impact through being publicly shared in class, in person, in print, or on the Internet. In fact, many teens commented on the positive push publishing or presenting to a formal audience provided for their writing.

[Publishing] was pressure because other people are going to be reading your work so you don't want to turn in just any piece of writing. It is actually printed and there is 1200 copies of it. -- 11/12<sup>th</sup> Grade Girl, Pacific Northwest City.

I wrote my story or whatever about whatever and someone read it and I got to go speak...about it to a bunch of people. It was a cool experience. I read it aloud....[L]ots of people were interested in what I had to say.  $-10/12^{th}$  Grade Boy, Southwestern City.

## Teens' motivation to write well comes from getting good feedback – especially from a great teacher.

It is people, however – teachers, parents, friends, and reading – that teens credit with being their single most important motivator.

I had an English teacher and he was really exciting and he got everyone else like excited and interested in what we were writing about. Like he gave us a lot of free writing time and he would really comment and try and help us be better writers and more creative when we were writing and he made it more fun. And that's probably why I free write and [am] creative now....[W]e talked about different types of writing like romances and then like different essays and then he gave us a topic and we could write anything about that topic. It wasn't like a strict ... topic it was a wide topic and he would give us a lot of feedback and he would actually read everything that we wrote and make everyone feel good about what they wrote. – 7/8<sup>th</sup> Grade Boy, Midwestern City.

My history teacher this year really helped me with my writing because it was a college history class so it was the first time I had to sit down and write a 25 page paper. It was worth a third of my grade. She really helped me because it was really difficult.  $-11/12^{th}$  Grade Girl, Pacific Northwest City.

I read a lot so I read stuff and it kind of gives me ideas. It inspires me and gives me more motivation to write. So it starts out as a model and like I can steal some of the little ideas.  $-9/10^{th}$  Grade Boy, Pacific Northwest City.

Back in the 8th grade I wrote a story for my English teacher and he was the best teacher I ever had and I don't remember what I had to write about [but] I remember him telling me that he was proud and that I was a very talented writer. I was proud of myself. –9/11<sup>th</sup> Grade Girl, Southwestern City.

I guess I used to be really bad at reading and in 2nd grade I had a teacher that really took time with me and I love reading. I guess over the years from reading I developed into loving writing.  $-11/12^{th}$  Grade Girl, Pacific Northwest City.

### Students don't write for school unless they are assigned to do it.

When we asked teens about what dampens their desire to write, they most often spoke about the writing instruction and assignments they receive in school. Many said that they are either not given writing assignments or are not challenged or inspired by them.

Teen 1: I don't get much homework.

Teen 2: Me either.

Teen 3: I used to write a whole bunch in U.S. History but we got a new teacher. He just lets us slack.

Teen 4: In my old English class we wrote journals but then I switched schools and we don't even do English in English. [We] listen to music. We really don't do anything. I'm not even kidding. – Exchange in 9/11<sup>th</sup> Grade Girls Group, Southwestern City.

I research a lot of things on the Internet and that is good for me at least. At the same time I am bored at school during like biology because I don't care about biology because it doesn't relate to me. Even though it really, really does, but I really don't care to know how a cell works. I am terribly bored in that class. But like in history I can listen to that teacher talk for the whole hour and feel pretty satisfied.  $-9/10^{th}$  Grade Boy, Pacific Northwest City.

## Cookie-cutter, boring curricula don't help and the teacher should at least be modestly interested in writing ... and in students.

Not surprisingly, teens also said that their interest in writing is often dependent upon the teacher and the curriculum. Teens say that writing is not compelling when the curriculum seems canned, teacher attention is limited, and work is reviewed and graded by computer.

A lot of my teachers are like they don't like to write. Like most of my notes that we take in class like we use an overhead and like it's already on there and like all my tests are usually ... and just gets put on the computer and ... grades it that way and most of tests are done that way. And my homework assignments, like a lot of the teachers, ... only to put a paragraph answer, do it on computer and they grade it like through the computer, they like scan it on the computer and like spell check. –  $9/10^{th}$  Grade Girl, Midwestern City.

We don't write that much for school because we work on computers mostly. We have a thing called APlus. Instead of having text books we have a license on the computer and if we have a pretest, if we know the work, then we should pass the pretest. But if we don't know it yet we have to go to our study and learn it. Then we have to go to a practice. If we pass the practice then we go to the test. Usually [we only write] 1 or 2 pages because we have something called Cornell notes.  $-7/8^{th}$  Grade Boy, Midwestern City.

I think the only thing that really changes if I am bored at school is a teacher. If the teacher is really good then I will be interested.  $-9/10^{\text{th}}$  Grade Boy, Pacific Northwest City.

### High expectations really help.

Not all schools have canned or prescriptive curricula, as described here. Our teens' comments made it clear that their schools and school experiences are quite distinct. Some teens reported very strong writing expectations in their classes: consistent practice, long research reports, standardized tests, etc. Other teens said they get very little English/Language Arts guidance or homework. The writing experiences teens shared were reflections of their school and personal environments.

We found that technology does not necessarily motivate teens to write for school. Teens said that they primarily use computers for school writing and typically draft their writing pieces by hand. They use technology (i.e., computers) to make their pieces look neat, feature proper spelling and provide good research. When asked whether their writing pieces would be any less successful if they had not used technology, the following statement sums up most responses:

[If I didn't type, my papers would be]...less clean, but [the] thoughts expressed would be just as successful.  $-11/12^{th}$  Grade Girl, Pacific Northwest City.

There were some teens, however, whose experiences with technology outside of school did affect their in-school writing practices and general expectations of time.

[T]echnology is not fully the reason [teens have short attention spans] but it's probably part of the reason. I think it's because like you were saying with the text messaging and all it goes so quickly you send it and then you get a response like two minutes later. Then when you go to school and they sit there and go 'oh my gosh, why is this taking so long?' And it's just like, 'yeah.' And with the instant messaging, it's really fast. Like you send it; they send it back. Then, when you have to hand in a paper at school and it's a few days to return it, it's like 'I gave it to you like yesterday and it's taking you four days to grade it.' So with the technology, you expect something back like quickly then you get back to real life and school and it just takes forever. –  $7/8^{th}$  Grade Girl, Northeastern City.

In sum, the teens with whom we spoke related a spectrum of people and things that have encouraged them to learn to write and to write well – most often teachers, reading, favorite authors, opportunities to create and publish authentic work, and their own interests and desires. Of particular importance, however, is the true attention, respect, and praise of a guiding adult or members of a public forum.

### What inspires teens' personal and social writing?

Teen responses to what motivates their non-school personal and social writing are also instructive. Teens report that the writing they do for themselves on their own time is internally motivated. It helps them work through their emotions and can even help them prepare for, or enhance, their school obligations.

Well, I basically [journal about] things I go through on a day-to-day basis. I just, you know, I have to write them down cause sometimes you don't feel like telling everybody your business so I just write it down....Well, it helped me because if I get a certain topic you know, that relates to me, I can, you know, elaborate on it more.  $-9/10^{\text{th}}$  Grade Girl, Midwestern City.

There is also "literary" or persuasive writing that teens do for themselves or others with an eye toward a broader audience. Teens who write plays, fiction, music, poetry and news/non-fiction articles all talk about the importance of being responsible to their audiences by creating strong and interesting works. As noted earlier, some teens receive formal recognition or awards for their writing.

Well I write plays for a theater and so it is performed and there is critics there so you want it to be something that you like – writing and expressing how you feel – but also it has to be something that's pleasing to watch. –  $10/12^{\text{th}}$  Grade Girl, Southwestern City.

Like, if you write in a poem you'd be talking to the reader in that poem. –  $7/8^{th}$  Grade Boy, Midwestern City.

I like persuasive writing. That is my strongest point. I can persuade you to do anything and that is what I do to get clients.  $-11/12^{th}$  Grade Boy, Northeastern City.

....I know that people are going to be reading [my articles]....I have to make sure that I get my thoughts down completely so there is not any misinterpretation....Particularly in columns when I am writing my opinion, I have to be careful not to say something to where it is taken the wrong way.  $-10/12^{th}$  Grade Girl, Southwestern City.

Effective communication, self-exploration and self-presentation, and social connection are among the primary motivations behind the writing teens do in blogs, social network posts, emails and instant and text messages. Teens report sharing, supporting, gossiping, joking, and collaborating using these types of electronic communications. Writing in these environments is enjoyable because teens have more control and less pressure. They choose their own topics, do not need to use any particular writing conventions, can write and get feedback quickly, and are typically not being judged. Many teens say they also enjoy being able to multitask and write to more than one person at a time.

[Emailing, texting, and IMing] are kind of like a break from school. –  $7/8^{th}$  Grade Girl, Northeastern City.

MySpace: That's different. It's just like a conversation. – 9/11<sup>th</sup> Grade Girl, Southwestern City.

Text messaging is usually leisure like time and stuff like that.  $- 11/12^{th}$  Grade Boy, Northeastern City.

I don't really think of it like 'oh my stuff is getting published on the computer and it ends up on the Internet.' I am just writing to my friends or commenting on a picture or whatever.  $-10/12^{th}$  Grade Boy, Southwestern City.

During finals week I got done early and the teachers let me out. So I text messaged all my friends while they were still in class trying to get them in trouble.  $-9/10^{\text{th}}$  Grade Boy, Pacific Northwest City.

Teens who do a lot of texting and IMing talk about how they like the immediacy of the conversation. They also take great pride in being able to type fast and to apply their dexterity to typing for school.

Well, I'm on the computer so much [that I] type. And to me typing faster helps me get my work done quicker so I can have more time for me to do what I want.  $-9/10^{\text{th}}$  Grade Girl, Midwestern City.

Those who use social networking sites not only report taking pleasure in communicating with peers, but also in animating and narrating who they are with songs, pictures, wallpaper and graphics, and links to sites of interest, etc.

It sounds stupid and everything but like once you like get into it it's really like addicting just like everything like you have your song and like you write like all this stuff about yourself and like all my friends basically have it. So like we always like read each other's pages and like call each other and like kind of, and like you put like 300 pictures up so ... people's pictures and stuff and comments.  $-9/10^{\text{th}}$  Grade Girl, Midwestern City.

Girls, in particular, are motivated to engage in these more "conversational" writing activities. Many describe themselves as "addicted" to text messaging and MySpace and can spend hours without clear recollection about what they are doing. But it is the ability to both socialize and explore new technical landscapes that compels girls and their male peers in these electronic communication spaces. Teens report enjoying discovering new technical features (e.g., picture commenting on MySpace, using T9Word for texting, using emoticons for email, etc). They also like developing new skills (e.g., typing or text messaging quickly) and distinguishing themselves with them.

There are all sorts of things in texting that you can put [in]. Like you can put an exclamation mark in the beginning and the end, or a question mark, or a smiley face, or all caps to show you are yelling.  $-11/12^{th}$  Grade Girl, Pacific Northwest City.

I can spend like hours on My Space like her. I'm like I don't know how because you know, there's not that much but you get so many friends and then you have to like change your layout and ...  $-9/10^{th}$  Grade Girl, Midwestern City.

Having access to a particular technology and the skills to utilize it does not necessarily motivate all teens to engage in that medium. Most teens are driven to particular platforms, communities or technologies by the underlying personal relationships that exist in that space and the content these relationships generate. In fact, teens who experience a lack of social connection or acceptance when doing social writing often choose to limit their activity.

At first when I got on MySpace I was all excited for like a month then I just stopped because it wasn't that exciting. Because when you don't get messages and stuff, you get kind of frustrated so I just get off, get on, and get off and check my ...  $-9/10^{\text{th}}$  Grade Girl, Midwestern City.

By itself, technology is not necessarily a long term motivator for teens' personal or social writing: more often, it serves as a "hook" that compels them to explore a particular tool, application, or writing practice. Most of the written communication that teens engage in is driven by social and emotional factors, such as developing their identities, finding and exploring their relationships, and learning how to express themselves and respond to others. The technology can facilitate that.

### Learning Writing is a Growth Process.

Teens know that writing is important. Most know that the informal writing they do now will not sustain them as they grow to be adults. However, they take great pleasure in developing personal informal writing styles as a way to express and distinguish who they are now – teens who do not yet need to be adults.

A number of the teens we spoke with fully understood that learning to write formally for school and work is a growth process. Some are eager to make this transition and can learn and apply the skills they are taught easily. Others have more trouble or are less willing to toe this developmental line. In more than one session, teens likened learning formal writing to mundane chores or tasteless but healthful eating. Learning to write is "good for you," they told us, but is not necessarily fun or glamorous.

Teen 1: ..., it's not bad it's just not fun.

Teen 2: It's good for you but you don't want to do it.

Teen 1: It's like eating vegetables. – Exchange in 9/11<sup>th</sup> Grade Mixed Group, Southwestern City.

You are going to be forced in life to do things like meaningless tasks and they have to be done. In that sense, washing the dish is about the same as writing the research paper about that table. It needs to be done.  $-9/10^{\text{th}}$  Grade Boy, Pacific Northwest City.

Nearly all teens are aware that writing is something that will impact their future – even if they can't necessarily see what that future will be. They are motivated by this notion, even if it is rather indeterminate in their minds.

Well I guess it's kind of like a practice makes perfect sort of thing with writing where you just get better the more you do it. And so then that will I guess reflect on your later life like with jobs and ... stuff.  $-9/11^{\text{th}}$  Grade Girl, Southwestern City.

Teens have very individual writing and technology experiences. If we were to systematically profile the practices and preferences of each of the teens we spoke with, no two profiles would be alike. Teens report communicating with adults and peers using all types of media—but there is no clear pattern in how they communicate or which methods they prefer under which circumstances. It all depends upon the situation.

That is what poses the central challenge to those who hope to encourage and teach writing to teens. Young adults are immersed in an environment of electronic communication that is vitally important to them, but that may not necessarily lend itself to lengthy, logically structured writing. In teens' own views, those who can figure out how to tap into their distinctive, situational communications behaviors and connect them to the process of learning how to write will have taught them an invaluable lesson that will improve their lives.

The Parent & Teen Survey on Writing, sponsored by the Pew Internet and American Life Project, obtained telephone interviews with a nationally representative sample of 700 12 to 17 year olds and their parents in continental U.S. telephone households. The survey was conducted by Princeton Survey Research Associates International. The interviews were done in English by Princeton Data Source, LLC from September 19 to November 16, 2007. Statistical results are weighted to correct known demographic discrepancies. The margin of sampling error for the complete set of weighted data is  $\pm 4.7\%$ . Details on the design, execution and analysis of the survey are discussed below, followed by a discussion of the methods used for conducting the focus groups that also inform this study.

### **Design & Data Collection Procedures**

### Sample Design

The sample was designed to represent all teens ages 12 to 17 living in continental U.S. telephone households and to allow separate analysis of black and Hispanic respondents. This design uses random-digit dialing (RDD) methods, where telephone numbers are drawn disproportionately from area code-exchange combinations with higher than average densities of black and Hispanic households. While this method increases the proportion of respondents in this target groups, special weighting adjustments restore the overall representativeness of the sample.

The telephone sample was provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications. The sample was drawn using standard *list-assisted random digit dialing* (RDD) methodology. *Active blocks* of telephone numbers (area code + exchange + two-digit block number) that contained three or more residential directory listings were included in the sampling frame; after selection two more digits were added randomly to complete the phone numbers. This method guarantees coverage of every assigned phone number regardless of whether that number is directory listed, purposely unlisted, or too new to be listed. After selection, the numbers were compared against business directories and matching numbers purged.

### **Contact Procedures**

Interviews were conducted from September 19 to November 16, 2007. As many as 10 attempts were made to contact every sampled telephone number. Sample was released for interviewing in replicates, which are representative subsamples of the larger sample. Using replicates to control the release of sample ensures that complete call procedures are followed for the entire sample. Calls were staggered over times of day and days of the

week to maximize the chance of making contact with potential respondents. Each household received at least one daytime call in an attempt to find someone at home.

In each contacted household, interviewers first determined if a child age 12 to 17 lived in the household. Households with no children in the target age range were screened out as ineligible. For eligible households, interviewers first conducted a short interview with a parent or guardian and then interviews were conducted with the target child.<sup>21</sup>

### Weighting and analysis

Weighting is generally used in survey analysis to adjust for effects of the sample design and to compensate for patterns of nonresponse that might bias results. The weighting was accomplished in two stages: a first-stage sampling weight to adjust for the designed oversampling in minority areas, and a second-stage adjustment to account for demographic distortions due to non-response.

#### First Stage -- Sample Design Weight

All completed interviews were given a first stage sample weight based on the level of disproportionality imposed by the sample design. Telephone exchanges were divided into *strata* defined by black and Hispanic household densities associated with each exchange. The first stage weight for each stratum is the approximate proportion of active blocks in each stratum divided by the proportion in our sample. The weighted distribution of cases contacted across strata will no longer show effects of the designed oversampling.

#### Second Stage -- Demographic Adjustment

In the second weighting stage, the demographic composition of final sample was weighted to match national parameters for both parent and child demographics. The parent demographics used for weighting were: sex; age; education; race; Hispanic origin; marital status and region (U.S. Census definitions). The child demographics used for weighting were gender and age. These parameters came from a special analysis of the Census Bureau's 2006 Annual Social and Economic Supplement (ASEC) that included all households in the continental United States that had a telephone.

This stage of weighting, which incorporated each respondent's first stage weight, was accomplished using Sample Balancing, a special iterative sample weighting program that simultaneously balances the distributions of all variables using a statistical technique called the *Deming Algorithm*. The second stage weight adjusts for non-response that is related to particular demographic characteristics of the sample. This weight ensures that the demographic characteristics of the sample closely approximate the demographic charac

<sup>&</sup>lt;sup>21</sup> In households with more than one 12 to 17 year-old, interviewers asked parents about, and conducted interviews with, a child selected at random.

prevent individual interviews from having too much influence on the final results. Table 1 compares weighted and unweighted sample distributions to population parameters.

| Table 1: Sample Den | Table 1: Sample Demographics |            |          |  |  |  |  |
|---------------------|------------------------------|------------|----------|--|--|--|--|
|                     | Parameter                    | Unweighted | Weighted |  |  |  |  |
| Census Region       |                              |            |          |  |  |  |  |
| Northeast           | 18.2                         | 14.9       | 18.1     |  |  |  |  |
| Midwest             | 22.3                         | 18.9       | 22.6     |  |  |  |  |
| South               | 35.6                         | 40.6       | 36.1     |  |  |  |  |
| West                | 23.9                         | 25.7       | 23.2     |  |  |  |  |
| Parent's Sex        |                              |            |          |  |  |  |  |
| Male                | 44.1                         | 34.1       | 42.6     |  |  |  |  |
| Female              | 55.9                         | 65.9       | 57.4     |  |  |  |  |
| Parent's Age        |                              |            |          |  |  |  |  |
| LT 35               | 10.0                         | 10.0       | 9.9      |  |  |  |  |
| 35-39               | 19.0                         | 17.4       | 18.9     |  |  |  |  |
| 40-44               | 28.4                         | 23.8       | 27.9     |  |  |  |  |
| 45-49               | 24.4                         | 22.8       | 24.3     |  |  |  |  |
| 50-54               | 12.4                         | 15.8       | 12.9     |  |  |  |  |
| 55+                 | 5.8                          | 10.2       | 6.1      |  |  |  |  |
| Parent's Education  |                              |            |          |  |  |  |  |
| Less than HS grad.  | 12.6                         | 9.7        | 11.8     |  |  |  |  |
| HS grad.            | 35.5                         | 24.8       | 34.0     |  |  |  |  |
| Some college        | 22.9                         | 29.1       | 23.9     |  |  |  |  |
| College grad.       | 29.0                         | 36.4       | 30.3     |  |  |  |  |
| Parent's Race/Ethn. |                              |            |          |  |  |  |  |
| White, not Hispanic | 66.3                         | 57.3       | 66.4     |  |  |  |  |
| Black, not Hispanic | 11.4                         | 21.5       | 12.0     |  |  |  |  |
| Hispanic            | 16.3                         | 15.8       | 16.2     |  |  |  |  |
| Other, not Hispanic | 6.0                          | 5.4        | 5.4      |  |  |  |  |
| <u>Child's Sex</u>  |                              |            |          |  |  |  |  |
| Male                | 51.2                         | 49.7       | 51.3     |  |  |  |  |
| Female              | 48.8                         | 50.3       | 48.7     |  |  |  |  |
| <u>Child's Age</u>  |                              |            |          |  |  |  |  |
| 12                  | 16.7                         | 14.1       | 16.2     |  |  |  |  |
| 13                  | 16.7                         | 15.6       | 16.8     |  |  |  |  |
| 14                  | 16.7                         | 16.7       | 16.6     |  |  |  |  |
| 15                  | 16.7                         | 17.3       | 17.0     |  |  |  |  |
| 16                  | 16.7                         | 18.0       | 16.4     |  |  |  |  |
| 17                  | 16.7                         | 18.3       | 16.9     |  |  |  |  |

### **Table 1: Sample Demographics**

### Methodology

### Effects of Sample Design on Statistical Inference

Post-data collection statistical adjustments require analysis procedures that reflect departures from simple random sampling. PSRAI calculates the effects of these design features so that an appropriate adjustment can be incorporated into tests of statistical significance when using these data. The so-called "design effect" or *deff* represents the loss in statistical efficiency that results from systematic non-response. The total sample design effect for this survey is 1.62.

PSRAI calculates the composite design effect for a sample of size n, with each case having a weight,  $w_i$  as:

$$deff = \frac{n \sum_{i=1}^{n} w_i^2}{\left(\sum_{i=1}^{n} w_i\right)^2} \qquad formula 1$$

In a wide range of situations, the adjusted *standard error* of a statistic should be calculated by multiplying the usual formula by the square root of the design effect ( $\sqrt{deff}$ ). Thus, the formula for computing the 95% confidence interval around a percentage is:

$$\hat{p} \pm \left(\sqrt{deff} \times 1.96 \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}\right)$$
 formula 2

where Error! Objects cannot be created from editing field codes. is the sample estimate and *n* is the unweighted number of sample cases in the group being considered.

The survey's *margin of error* is the largest 95% confidence interval for any estimated proportion based on the total sample— the one around 50%. For example, the margin of error for the entire sample is  $\pm 4.7\%$ . This means that in 95 out every 100 samples drawn using the same methodology, estimated proportions based on the entire sample will be no more than 4.7 percentage points away from their true values in the population. It is important to remember that sampling fluctuations are only one possible source of error in a survey estimate. Other sources, such as respondent selection bias, questionnaire wording and reporting inaccuracy, may contribute additional error of greater or lesser magnitude.

### **Response Rate**

Table 2 reports the disposition of all sampled telephone numbers ever dialed. The response rate estimates the fraction of all eligible respondents in the sample that were

ultimately interviewed. At PSRAI it is calculated by taking the product of three component rates: $^{22}$ 

- Contact rate the proportion of working numbers where a request for interview was made – of 84 percent<sup>23</sup>
- Cooperation rate the proportion of contacted numbers where a consent for interview was at least initially obtained, versus those refused – of 41 percent
- Completion rate the proportion of initially cooperating and eligible interviews that agreed to the child interview and were completed – of 57 percent

Thus the response rate for this survey was 19 percent. See page 72 for detailed response rate table.

### Focus Group Methodology<sup>24</sup>

This report also draws upon data collected from eight focus groups held throughout the United States between April and June 2007. Research Images developed the protocols and facilitated the groups, with recruiting conducted by PRSA. Two focus groups were conducted in a medium to large city in each of the following geographical areas: the Southwest, Northeast, Midwest and Northwest. In total, 73 youths participated in the groups, with participants ranging in age from 12 to 17 years old and spanning grades 7 through 12.

These focus groups were not intended to be representative of the general U.S. population, but were intended to include a relatively diverse cross-section of teens with respect to age, gender, household income, geographic location and race/ethnicity. Participants were approximately half male (47%) and half female (53%). With respect to racial/ethnic background, the majority of participants were Caucasian (80%) or Black (16%), with the remainder including those who identified as Hispanic or Other (no designation). Just over 20% of participants came from families with an annual household income of \$40,000 dollars or less. The following table shows the percentage of study participants by household income level:

<sup>&</sup>lt;sup>22</sup> PSRAI's disposition codes and reporting are consistent with the American Association for Public Opinion Research standards.

<sup>&</sup>lt;sup>23</sup> PSRAI assumes that 75 percent of cases that result in a constant disposition of "No answer" or "Busy" over 10 or more attempts are actually not working numbers.

<sup>&</sup>lt;sup>24</sup> Please note that all numeric findings are tabulated from the responses of focus group participants and intended to give information about these groups exclusively. They do not always total to 100% due to non-response and rounding.

| Income in<br>Thousands | 0-20 | 20-30 | 30-40 | 40-50 | 50-75 | 75-100 | 100+ |
|------------------------|------|-------|-------|-------|-------|--------|------|
| % of participants      | 10%  | 5%    | 7%    | 7%    | 23%   | 26%    | 21%  |

Two focus groups contained participants of mixed gender and age. Of these, one was comprised of low-income teens (those from families with an annual household income of \$30,000 or less). The remaining six focus groups included single sex participants within the same age group – one male and one female group each for grades 7-8, 9-10, and 11-12. The following table shows the percentage of study participants by grade level:

| Grade             | 7 <sup>th</sup> | 8 <sup>th</sup> | 9 <sup>th</sup> | $10^{\text{th}}$ | $11^{\text{th}}$ | 12 <sup>th</sup> |
|-------------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
| % of participants | 15%             | 10%             | 22%             | 12%              | 33%              | 8%               |

Participants answered two questions before commencing their particular focus group and their responses were used as points of departure for the focus group discussions. A standard facilitator-led questioning protocol was followed for each 1.5-hour group and participants were also asked to each complete a brief questionnaire.

### Table 2: Sample Disposition

| Table 2: Sample Disposition |   |
|-----------------------------|---|
| 99,986                      | Total Numbers Dialed                    |
| 6,829                       | Business/Government                     |
| 5,526                       | Fax/Modem                               |
| 55                          | Cell phone                              |
| 45,570                      | Other not working                       |
| 5,393                       | Additional projected not working        |
| 36,613                      | Working numbers                         |
| 36.6%                       | Working Rate                            |
|                             | ~                                       |
| 1,560                       | No Answer                               |
| 238                         | Busy                                    |
| 3,863                       | Answering Machine                       |
| 365                         | Other non-contacts                      |
| 30,587                      | Contacted numbers                       |
| 83.5%                       | Contact Rate                            |
|                             |   |
| 1,714                       | Callbacks                               |
| 16,411                      | Refusal before eligibility status known |
| 12,462                      | Cooperating numbers                     |
| 40.7%                       | Cooperation Rate                        |
|                             |   |
| 2,832                       | Language Barrier                        |
| 8,398                       | Screenouts                              |
| 1,232                       | Eligible numbers                        |
| 9.9%                        | Eligibility Rate                        |
| 530                         |   |
| 532                         | Refusal after case determined eligible  |
| 700                         | Completes                               |
| 56.8%                       | Completion Rate                         |
|                             |   |

19.3% Response Rate