Paper and Productive Learning

The Third Annual Back-to-School Report

Compiled by
The Paper and Packaging Board
2017 Edition

Despite technology's prominence in the 21st century, when it comes to education and productivity, students and parents still prefer paper. In fact, about 8 in 10 people (79 percent) think paper and packaging are relevant in their daily lives.[1] The clear majority of students and parents feel that paper is essential to learning. 93 percent of college students and 87 percent of 7-12th grade students agree that paper is an essential part of being able to achieve their educational goals.

Read on to discover the many ways paper remains essential for productive learning in today's technology-fueled culture.

96%

of parents think that paper is an essential part of children being able to achieve their educational goals.

Millennial Parents Agree: Paper Matters for Productivity

According to Nielsen,[2] "Millennials have more of a positive view of how technology is affecting their lives than any other generation. More than 74 percent feel that new technology makes their lives easier, and 54 percent feel new technology helps them be closer to their friends and family."

Given millennial's acceptance of technology, it may come as a surprise that fully 95 percent of millennial parents believe paper is an essential part of how children achieve educational goals. In fact, millennial parents frequently not only use, but prefer paper for their children's education.

Even though millennials have very positive views of technology, when it comes to education, they have a strong preference for print materials. Over half of these parents (55.8 percent) feel most comfortable helping their child when they are working with textbooks, paper and worksheets. These technologically savvy, pro-digital millennial parents see something uniquely beneficial in using paper and print materials when it comes to their children's education, and they prefer it in astonishingly high numbers.

They read to their kids daily:

81%

are using a paper book.

Their kids write things down:

88.5%

agree their child remembers assignments better when he/she writes them down on paper.

They use paper to aid focus:

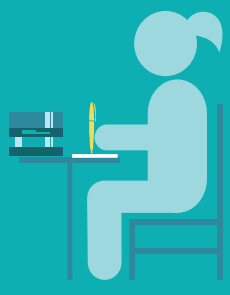
72.4%

have seen their child have trouble staying focused on homework on a computer or tablet.

Their kids do well on paper:

94.8%

Nearly all (94.8 percent) of them agree they often see their child do well on homework they complete on paper.



15 PAGES A DAY

Join us for 15 Pages A Day! Research shows reading regularly on paper can help improve memory and increase mental development.

Read 15 Pages A Day

Reading 15 Pages A Day on paper has a wealth of benefits, including increased language and mental development and improved memory.

What's great about the 15 Pages A Day reading program is that it's for everyone: all people of all ages and literacy levels. It's for parents who read aloud to their kids from a book; it's for the business professional who prints out emails for ease of reference and better note taking. Reading on paper has benefits for everyone — and that's news worth sharing.

Make Reading on Paper Your New Best Habit

Take the pledge to read at least 15 pages a day! Explore the benefits of reading on paper for yourself.

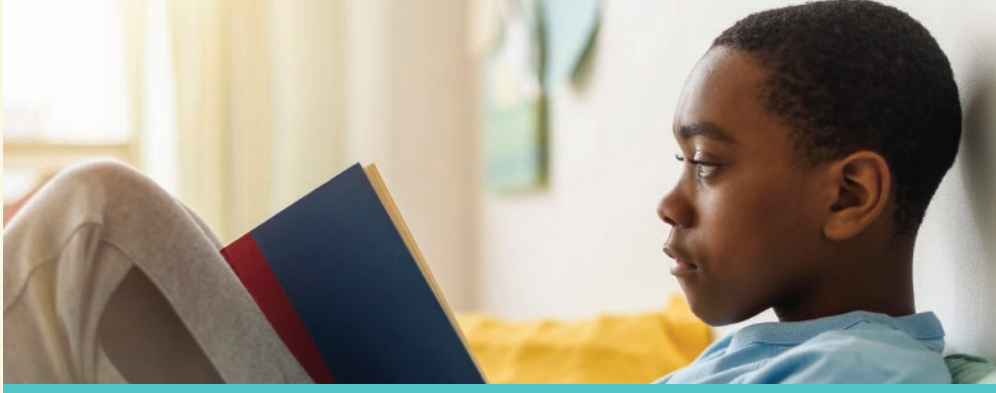
Parents: Pledge to read 15 pages a day from a printed book each day to your kids.

Adults: Business professional? Print out your emails to refer to or take notes on.

Students: Remember to take a break and read! More than half of college students who consider themselves focused (52.8 percent) and successful (50.3 percent) report they almost always use paper. Give it a try!

Excited about what you're reading on paper? Use #15Pages to invite your friends to take the pledge!

howlifeunfolds.com/15pages



Benefits of Reading On Paper

Improved memory/recall

Reading on paper allows you to better concentrate on the material, which improves how well you remember and recollect it.

In her essay, "Why Print Still Matters for Learning: Education Should Develop Our Concentration and Contemplation",[3] Dr. Naomi Baron reports "the biggest challenge everyone faces when reading on-screen is distraction. Especially with an internet connection, the temptation looms to do something else—check a [social media] status update, post a new photo. Participants in my study were abundantly aware of the problem. **A whopping 94 percent said the medium on which it was easiest to concentrate when reading was hard copy."**

This lines up with current research indicating that taking notes by hand on paper really aids memory and recollection.[4]

According to a recent study, "the findings show that people who regularly read and write have a markedly slower decline in memory than people who don't."[5]

Increased language/mental development

Several sources cite the benefits of reading each day.

- The American Library Association has found that "students who read independently become better readers, score higher on achievement tests in all subject areas, and have greater content knowledge than those who do not."[6]
- Reading 10-30 minutes a day with your child is an important factor in enabling a child to become a reader.[7]
- Reading aloud for 15 minutes a day aids language development, instills a love of reading and increases understanding of how knowledge is gained and shared.[8]
- Few parents actually read aloud to their children for 15 minutes a day.[9] Take the pledge to read 15 Pages A Day and help make a difference!

Students Love Paper

Junior high and high school students live rich digital lives; however, they prefer paper to learn.

70%
prepare for tests by taking handwritten class notes.

58%
fill out paper worksheets to study for tests and quizzes.

60%
make and use flashcards.

Fifty percent of 7-8th grade students (the youngest group surveyed) agree they learn information best if they write it down by hand.

"Students tell us they remember more when reading in print. Not surprisingly, some report spending more time when reading print and reading more carefully than with digital texts."[10]

-Dr. Naomi S. Baron

College students, often characterized as fluent in current technology and social media platforms, show a strong preference for using paper and printed materials.

50.3%
state they learn information best by writing it down by hand.

93%
of college students agree that paper is an essential part of being able to achieve their educational goals.

81%
always or often use paper tools to prepare for exams.

In many ways, paper is still the most important technology for productive learning.

Make Books a Daily Habit
Why Regular Reading Matters, Especially in Print

Dr. Naomi S. Baron

Professor of Linguistics at American University in Washington, DC
Author of *Words Onscreen: The Fate of Reading in a Digital World* (Oxford University Press)

"Even fifteen minutes a day." A cellist I know counsels her students that regularity matters more than binge practice sessions. However busy we are, we can find fifteen minutes.

Reading, like playing a musical instrument or speaking a second language or exercising, involves habit. There are times we spend the whole day reading a book. But we also go for stretches when at best we glance at news headlines or check incoming text messages. When we do pick up that book again, it can take some settling in before feeling we are home.

> **"Reading, like playing a musical instrument or speaking a second language or exercising, involves habit."**

Constancy matters because over time, we may forget what the book we were reading is about. What is the story line? Who are the characters? What is the formal argument being presented? One magical quality of a good book is that you can get emotionally "lost" in it. You get mentally transported somewhere else. Putting a book down one day and picking it up the next, it's easy to re-enter the world between those covers. The longer your absence, the harder the re-entry.

These days, we have multiple reading platforms from which to choose. Besides print, there are eBooks and audiobooks. Digital has many virtues, including the convenience of loading numerous works onto a single device, along with generally lower cost than print. Audiobooks are handy for commuting or working out at the gym. What's more, we can feel the book is being read aloud just for us.

What about print? A few years back, tech gurus were predicting eBooks would replace print. Recent trends are proving them wrong. Reading is now firmly a "both/and" world – both print and digital. Yet current research shows people are still more likely to have read a print book than a digital one. There are good reasons why.

The first is concentration. In a study I did with over 400 university students in five countries, 92 percent of participants said the reading platform on which they concentrate best is print. Students complained about distractions when reading onscreen. And as we know, if you're distracted, your stress level can go up and attention span go down.

The second reason is that we probably remember more of what we read in print. I say "probably" because researchers are still figuring out how to move from laboratory-style comprehension tests to measuring memory that matters. Memory for abstract concepts or how the pieces of a story line fit together. Memory that connects our reading with other things we learn and with our everyday lives. Students tell us they remember more when reading in print. Not surprisingly, some report spending more time when reading print and reading more carefully than with digital texts.

Thirdly, research suggests it is easier to get "lost" in a print book than in an electronic one. This ease likely stems from our physical connection with what we are reading: holding it in our hands, turning the pages, tangibly measuring what portion we have read and how much of the book still awaits us.

And so: Try to read every day. In print, if you can.

References

[1]These are the findings from an Ipsos poll conducted April 17 – 24, 2017, on behalf of the Paper and Packaging Board. For the survey, a sample of 1,407 respondents between the ages of 13-60 from the continental U.S., Alaska and Hawaii was interviewed online in English. In order to qualify for the survey, respondents had to be in school (college or in grades 7-12) or be the parent of a child in grades K-12.
[2]http://www.nielsen.com/us/en/insights/news/2014/millennials-technology-social-connection.html
[3]http://www.howlifeunfolds.com/print-matters-for-learning/
[4]Mueller, P. A., & Oppenheimer, D. M. (2014). The Pen Is Mightier Than the Keyboard: Advantages of Longhand Over Laptop Note Taking. Psychological Science, 25(6), 1159-1168.
[5]https://www.mhpbooks.com/new-study-finds-that-reading-can-keep-your-brain-sharp-as-you-age/
[6]http://www.ala.org/aasl/sites/ala.org.aasl/files/content/aaslpubsandjournals/slr/vol3/SLMR_IndependentReading_V3.pdf
[7]http://www.ncte.org/positions/statements/readtogether
[8]http://www.readaloud.org/surveyreport.html
[9]http://www.readaloud.org/surveyreport.html
[10]From "Make Books a Daily Habit: Why Regular Reading Matters, Especially in Print." by Naomi S. Baron, 2017, Paper and Productive Learning: The 3rd Annual Back-to-School Report.

Research References for "Make Books a Daily Habit"

BARON, N. S. (2015). WORDS ONSCREEN: THE FATE OF READING IN A DIGITAL WORLD. NEW YORK, NY: OXFORD.

BARON, N. S., CALIXTE, R. M., & HAVEWALA, M. (2017). THE PERSISTENCE OF PRINT AMONG UNIVERSITY STUDENTS: AN EXPLORATORY STUDY. TELEMATICS & INFORMATICS, 34, 590-604.

FARINOSI, M., LIM, C., & ROLL, J. (2016). BOOK OR SCREEN, PEN OR KEYBOARD? A CROSS-CULTURAL SOCIOLOGICAL ANALYSIS OF WRITING AND READING HABITS BASING ON GERMANY, ITALY AND THE UK. TELEMATICS AND INFORMATICS, 33(2), 410-421.

FLOOD, A. (2014, AUGUST 19). READERS ABSORB LESS ON KINDLES THAN ON PAPER, STUDY FINDS. THE GUARDIAN. RETRIEVED FROM HTTP://WWW.THEGUARDIAN.COM/BOOKS/2014/AUG/19/READERS-ABSORB-LESS-KINDLES-PAPER-STUDY-PLOT-EREADER-DIGITISATION/

FORTUNATI, L., & VINCENT, J. (2014). SOCIOLOGICAL INSIGHTS ON THE COMPARISON OF WRITING/READING ON PAPER WITH WRITING/READING DIGITALLY. TELEMATICS AND INFORMATICS, 31(1), 39-51.

KAUFMAN, G., & FLANAGAN, M. (2016). HIGH-LOW SPLIT: DIVERGENT COGNITIVE CONSTRUAL LEVELS TRIGGERED BY DIGITAL AND NON-DIGITAL PLATFORMS. CHI '16 PROCEEDINGS OF THE 2016 CHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS. NEW YORK, NY: ACM, PP. 2773-2777.

MANGEN, A., & KUIKEN, D. (2014). LOST IN AN IPAD: NARRATIVE ENGAGEMENT ON PAPER AND TABLET. SCIENTIFIC STUDY OF LITERATURE, 4(2), 150-177.

MANGEN, A., ROBINET, P., OLIVIER, G., & VELAY, J.-L. (2014). MYSTERY STORY READING IN POCKET PRINT BOOK AND ON KINDLE: POSSIBLE IMPACT ON CHRONOLOGICAL EVENTS MEMORY. CONFERENCE PRESENTATION, INTERNATIONAL SOCIETY FOR THE EMPIRICAL STUDY OF LITERATURE AND MEDIA. TURIN, ITALY, JULY 21-25.

MANGEN, A., & VELAY, J.-L. (2010). DIGITIZING LITERACY: REFLECTIONS ON THE HAPTICS OF WRITING. IN M. H. ZADEH (ED.), ADVANCES IN HAPTICS, 385–401. RIJEKA, CROATIA: INTECH.

PERRIN, A. (2016, SEPTEMBER 1). BOOK READING 2016. PEW RESEARCH CENTER. RETRIEVED FROM HTTP://WWW.PEWINTERNET.ORG/2016/09/01/BOOK-READING-2016/

TAIPALE, S. (2014). THE AFFORDANCES OF READING/WRITING ON PAPER AND DIGITALLY IN FINLAND. TELEMATICS AND INFORMATICS, 31(4), 532-542.

TAIPALE, S. (2015). BODILY DIMENSIONS OF READING AND WRITING PRACTICES ON PAPER AND DIGITALLY. TELEMATICS AND INFORMATICS, 32(4), 766-775.

VINCENT, J. (2016). STUDENTS' USE OF PAPER AND PEN VERSUS DIGITAL MEDIA IN UNIVERSITY ENVIRONMENTS FOR WRITING AND READING – A CROSS-CULTURAL EXPLANATION. JOURNAL OF PRINT AND MEDIA TECHNOLOGY RESEARCH, 2, 97-106.

This document cites third party individuals/organizations for the purpose of research reference only. Except where otherwise indicated, the Paper and Packaging Board has no association with said parties and citations do not constitute or imply an endorsement.

© 2017 Paper and Packaging Board. All Rights Reserved.
www.paperandpackaging.org