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As kids return to school... For Best Results, Use Those Printed Textbooks

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Back to school time is here, so our education commentator Professor John Richard Schrock sounds off on a favorite topic: textbooks.

Recent debates have arisen in the education media over whether printed textbooks are any longer of value.

It's Debatable

A June 9 Edutopia article asks, "Should Textbooks Still Play a Role in Schools?" Many teachers are cruising the internet for curriculum to download, with online exercises developed by a growing industry (Teachers Pay Teachers, Teacher Lingo, Educents).

Ephemeral Savings...

Some digital worksheets, group projects, and class assessments may be downloaded for free.

This saves the school district the cost of buying textbooks but does not recognize the time consumed by their teachers developing their own textbook "replacement."

A high school in Kansas opened bragging that it was completely paperless and they saved \$200,000 in paper!

When one of their graduates was later in my class, I asked him if they read classic literature online? He admitted that was not possible.

"No, we go home and print it off." Simply, the \$200,000 "saved" was actually spent by the community where the time printing it off likewise added to lost learning time. — John Richard Schrock

....And Exorbitant Costs

Nor does it factor in the exorbitant cost of providing Chromebooks to each student, a technology that requires replacement each three years and which well exceeds the costs of printed textbooks. While textbooks are taken home, school laptops are often restricted to school.

Supposed Problems

The Edutopia article lists supposed problems with textbooks:

"They're expensive, quickly outdated and, according to recent research, may offer biased or limited viewpoints.

There's also pedagogical baggage: some argue that textbooks can become a crutch, rigidly limiting teachers' ability to branch out and create a rich learning experience with primary documents and other resources."

Now Let's Check The Facts

Fortunately, they also note the extensive problems with quality and reliability of online-derived material, noting "...that PowerPoint slides and lessons gathered from the internet are easy to obtain but are often lowquality."

Follow The Science

A weakness in that discussion is the now longstanding research showing the inferiority of reading materials onscreen versus in print, with on-screen found to be up to 30 percent slower (Bigelow, et al.), 30 percent lower retention (Forrester Research), and presenting major problems with eye fatigue and distraction.

In addition, three major metaanalyses indicate that reading from print results in more comprehension and learning.

Deep Reading vs Skimming

Today, we call this "deep reading" where a student is absorbed in the content and not easily distracted.

Textbooks from major publishers are rigorously edited to exclude erroneous material while online materials are a major source of misinformation.

Check The Sources

For a deeper understanding of the science of reading, see Gordon Legge's 2007 *Psychophysics of Reading in Normal and Low Vision*. Further debates are described in *Who Wants Yesterday's Papers: Essays on the Research Value of Printed Materials in the Digital Age* edited by Carignan et al. in 2005.

Technological Problems Remain

A variety of earlier essays in Overcoming Textbook Fatigue; 21st Century Tools to Revitalize Teaching and Learning by ReLeah Cossett Lent provide a variety of perspectives but fail to overcome the problems that have arisen from technology.

Lessons Learned

The pandemic provided a hard lesson in the inferiority of online education and screen-reading. Nevertheless, alongside the solid data showing dramatic losses in learning published in *Education Week* and *Chronicle of Higher Education* are extensive advertisements promoting even more teaching using online technology.

A Stern Warning

Abandoning textbooks, along with adopting "digital labs" and online "field trips" will further accelerate our education race to the bottom.

For More Information

Thanks to Prof. Schrock for researching and presenting these facts and figures.

Visit the "Why Print" link on Copresco's webpage for links to more studies that detail how the human brain assimilates knowledge in print vs onscreen.



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Address Correction Requested

A real estate agent saw a "For Sale" sign on a house, and barged right in. "You must let me sell this for you," she insisted. "If we get rid of this atrocious wallpaper, paint over these depressing colors and pull up this filthy carpet, I can get you twice as much for this place!" "I appreciate all of your suggestions," the owner replied, "but I think you read the sign wrong. It says, 'Horse for Sale."

A koala entered a restaurant and ordered a sandwich. When finished, he pulled out a pistol, shot the waiter and walked out the door. "Hey!" the shocked owner called after him. "Who do you

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think you are, eating my food, shooting my employee, and walking out without paying?" "Hey, I'm a koala," the bear yelled back over his shoulder. "Look it up." The bartender frantically grabbed a dictionary, flipped through the pages and found this entry: "Koala: n. a marsupial that eats shoots and leaves." You know you're over the hill when you try to straighten out the wrinkles in your socks and discover you aren't wearing any.

After playing outside all day, a little boy all covered in dirt, came inside and marched up to his mother. "Guess who I am?" "I give up," the mother replied.



"Who are you?" "Wow! Mrs. Johnson was right!" the boy squealed. "She said I was so dirty, my own mother wouldn't recognize me!"

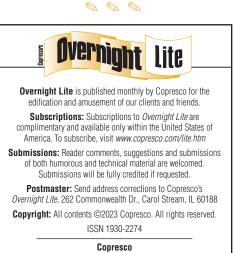
"What happened to you?" a mother asked her 10-year-old daughter who came home from school all dirty with grass stains. "Billy Edwards kissed me on the playground," she answered through clamped teeth. "My!" the mother gasped. "I see you put up quite a fight." "I sure did," the little girl replied resolutely. "It took three of us to hold him down." A hiker came to a river and saw a little boy on the other bank. "Yoo-hoo," he shouted, "how can I get to the other side?" The boy looked up and shouted back, "You already are on the other side."

666

An English teacher spent a lot of time correcting grammatical errors on her students' papers and was beginning to doubt whether she was getting through to them. One day as the stress got to her, she leaned over her desk and rubbed her temples. "What's the matter, Mrs. B?" one passing student asked. "Tense," she mumbled. The student hesitated a moment, then said, "What could be the matter? What has been the matter? What was the matter?



You can gauge ambition by whether someone considers his alarm clock a friend.



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