

**MWIS Intersection Panel: Meeting Today's Needs and Tomorrow's Realities in ELT Materials**  
**An Overview of Research and Resources for Electronic/Physical Book Preferences**

**Sample of Survey Results on the Use of Electronic Devices in Education:** 200 people answered the survey.

Current Predominate Position: 102 students / 77 teachers / 5 administrators / 6 authors / 10 other.

Gender: 88 males / 111 females / 1 preferred not to answer

Age breakdown: 17 or younger: 3 / 18-29: 102 / 30-44: 31 / 45-59: 38 / 60-74: 23 / 75 or older: 2.

Various questions related to the types of electronic devices respondents owned, the percentage of academic texts they currently use are available in an electronic format, the amount of time spent using devices and consuming media and more specifically, their feelings about the use of electronic devices for educational purposes were asked. This chart and a sample of respondent comments provide an overview of the results.

**Q: How would you feel to have all of your textbooks accessible on an electronic device to be used in and out of class?**

(Note: Respondents were asked to check all that apply.)	Total:	Age 18-29	Age 30-44	Age 45-59	Age 60-74	Male	Female	Student	Teacher
Total for this category	200	102	31	38	23	88	111	102	77
1. I would love it	27%	29%	23%	25%	29%	39%	17%	31%	26%
2. It would simplify my life with everything on one device.	43%	51%	35%	31%	38%	48%	38%	52%	34%
3. It would enhance the possibilities in class.	30%	22%	39%	42%	38%	34%	25%	20%	43%
4. It would save time for me.	29%	32%	23%	31%	24%	41%	18%	31%	28%
5. It would help the environment by reducing the use of paper.	56%	67%	55%	39%	38%	57%	55%	66%	46%
6. I'm skeptical, but I would be willing to try it.	22%	22%	23%	31%	10%	21%	24%	19%	22%
7. It would be difficult to get everyone on the same page, especially if students have different devices.	25%	19%	42%	33%	14%	22%	27%	19%	29%
8. Students would be distracted by social media and not pay attention	41%	47%	35%	33%	33%	39%	42%	46%	32%
9. Time would be wasted due to tech problems. (updates, crashes)	35%	30%	42%	33%	38%	25%	42%	31%	33%
10. Doing exercises would take more time. (reading, grammar)	20%	25%	19%	11%	5%	17%	21%	24%	16%
11. It would give me a headache / hurt my eyes.	31%	41%	23%	14%	19%	19%	33%	39%	16%
12. It would increase e-waste, and environmental hazards.	11%	13%	13%	3%	5%	9%	12%	15%	5%
13. I would hate it.	12%	17%	0%	3%	29%	11%	13%	17%	7%

## Student Comments

- *My high school started to use tablets and it surely wasn't a good idea, It made it easier to have everything in a the same device, but having a lot of people on the Internet at once is a huge problem. It leads to bugs and other problems. I don't think I'm ready to let go my pencils and sheets.*
- *It would save a lot of money because paper books are really expensive.*
- *I really try to reduce the time I spend on electronical devices, so I think it would be great if we could find a way to make the device non damageable for the brain or the eyes.*
- *I prefer paper texts because it is easier to search pages or words and I can skip many pages easily. I'm an old school person.*
- *The only thing that is bad is that it will be hard to always be on technology. It will make study harder. When you write your own notes it makes you remember them faster.*
- *When I read on an electronical devices, it gives me headaches.*
- *When I am tire, I like to use a tablet, because I can be on m bed.*
- *I don't like to read when I am on my iphone, because I think that it is too small, but I enjoy reading on my ipad. I think ipad is easier than computer, because you can scroll with your fingers*
- *I don't like reading on an electronic device because usually it hurts my eyes when i focus on it too long. Plus, I like to feel the book in my hands.*

## Teacher Comments

- *I would like to have everything available as etext, but some readings I prefer to have in hard copy for flipping through to review, underlining, etc., as well as books I want to keep on my shelf for future reference.*
- *It would be nice to have for grammar exercises and things. Reading might be difficult—I think it's faster and easier to use a pen to underline and annotate, to be honest.*
- *This is the first quarter I allowed students to just get an e version of a textbook. Next time I will make a rule that they must bring the text to class on something other than a smart phone. It just doesn't work. They text, and they've never actually written answers for their homework.*
- *If I can block wifi signals in the classroom, I would use ebooks. I could make sure they are actually reading the book and not on social media*
- *I worry about the class time I would need to take to show students how to set up their accounts, use the online platform, troubleshoot, etc.*
- *Cost is still a big concern; not all students have equal access to devices.*

- *Electromagnetic fields are unhealthy and must be avoided. They can cause cancer.*
- *I find the changing formats for different publishers and devices frustrating. You have to learn to navigate a new format each time.*
- *I'm honestly not seeing much interest from my students. If I post a reading electronically on our course management system, 80% of them will print it out. Many have astonishingly weak technological skills -- they can use smartphones but that's about all.*

## Program Administrator Comments

- *Eventually, we may not be able to get away from using e-books, but for now we avoid them with our programs.*
- *Students seem to get distracted more easily when electronics are in use in class, and I say that as a student who did the same and as a professional who is distracted more easily when electronics are in use--in a meeting, a workshop, a class, or anywhere really*
- *I think the use of OER could transform ESL education as I hear from teachers that textbooks are too expensive and student don't want to buy them. For me affordability is more important than the format in which the books are provided.*
- *It the technological devices, programs, platforms, etc., were standardized so that there were fewer glitches and everyone with any brand of gadget could gain access easily...but I think we're a decade away from that level of technological improvement. ... The physical discomfort of on-screen reading is driving the trend toward shorter paragraphs and pages ("text-byts"?). What then will be the fate of written works of earlier centuries?*

## My Publisher's Comments

*Preferences between paper and digital is not much of a concern with educational content providers. We now need both to respond to market needs and keep revenues. You simply can't have paper without digital. The bigger question all providers should be asking is, How can we deliver personalized content in a cloud-based world of consumer-learners who are available 24/7?*

*Evaluating a market for around-the-clock learning environments means answering three basic questions:*

- *Who purchases/orders (or clicks on) the content? (Who is the end-user? Teacher, student or both? What information do I have about each, both in terms of personal and work-related interests and expectations?)*
- *What does the end-user want? (Themes, teacher-centred, student-centred, goal-based, scenario-based learning, etc. )*
- *What are the end-users' tech needs? (System requirements for teaching and learning)*

## ***Meeting Today's Needs and Tomorrow's Realities in ELT Materials: An Overview of Research and Resources for Electronic/Physical Book Preferences***

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**Note:** I collected this sample of recent articles, papers and studies to represent a variety of issues and findings that educators, materials writers, school administrators, publishers and the public need to consider regarding electronic media. Most recent articles listed first in each category.

### **E-Book Publishing Trends**

***New Era for E-Books*** by Promod de Silva. The Sunday Guardian [ 5 March 2017]

Despite recent drop in e-book sales, once these books embrace web technology, the story will change. <http://www.sundayobserver.lk/2017/03/05/columns/new-era-e-books>

***Should Tablets Replace Textbooks in K-1 Schools?*** and ***Background of the Issue***. ProCon.org [update 7 Feb 2017] Great resource for a debate topic. Includes data from publishing companies and statistics of educational trends. Lists pros and cons for both sides and provides useful background info. <http://tablets-textbooks.procon.org/> and <http://tablets-textbooks.procon.org/view.resource.php?resourceID=006584>

***The Next Big Step for E-Books in Libraries*** by Andrew Richard Albanese Publishers Weekly [15 Jan 2017] E-Book lending is still on the rise in libraries, but prices too high to be sustainable (Library e-book price is about 8 times price for individuals). <http://tinyurl.com/go6o5qz>

***Rising Price of Textbooks Reaches a Tipping Point*** by Jonathan Moules Financial Times [15 May 2016] The high price of printed textbooks, leads faculty to prefer electronic versions. <https://www.ft.com/content/e7aed422-16c4-11e6-b197-a4af20d5575e#axzz48qqGrGOk>

***Read all about it: Physical book sales rise for the first time in four years.***

bt.com (British Telecommunications) [15May2016] The Publishers Association announces that sales of digital publications declined while conventional books increased in 2015. <https://tinyurl.com/jpjmjon>

***Screen vs. paper: what is the difference for reading and learning?*** By Caroline Myrberg and Ninna Wiberg (*Insights: the UKSG Journal* (2015)). This article discusses a project in Sweden called *Mobile Academics*, which led studying research on screen reading in Norway, the US and elsewhere. Contains an excellent reference list. <http://insights.uksg.org/articles/10.1629/uksg.236/>

### **Digital Game-Based Learning (DGBL)**

***New Research Proves Game-Based Learning Works*** by Vadim Polikov [6 March 2017]

EdSurge News (sponsored by Legends of Learning) Refers to soon-to-be-released study by Vanderbilt University showing students who played endgames outperformed peers on standardized tests. The author's list of 5 most influential education games: **Oregon Trail** (the original edgame), **Enders Game**, (novel with game-based learning mechanics) **Civilization** (users apply social studies lessons) **Minecraft** (teaches coding through play), **Angry Birds** (illustrates simple trigonometry principles) <https://www.edsurge.com/news/2017-03-06-new-research-proves-game-based-learning-works-here-s-why-that-matters>

***Let's Get Digital: The Serious Side of Gaming*** by Martha T.S. Laham [1 March 2017]

Huffington Post. Differentiates Gamification and DGBL. Many good links including the article below. [http://www.huffingtonpost.com/entry/lets-get-digital-the-serious-side-of-gaming\\_us\\_58b6becbe4b02f3f81e44e73](http://www.huffingtonpost.com/entry/lets-get-digital-the-serious-side-of-gaming_us_58b6becbe4b02f3f81e44e73)

***Digital Game-Based Learning in Higher Ed Moves Beyond the Hype*** by George Lorenzo [4 Aug 2016]

EdSurge News. Overview of several developments in DGBL with comments from gaming experts in academia with a look at **Toolwire** and **Muzzy Lane**, two DGBL vendors making strides in higher ed, which is not nearly as prevalent or accepted as it is in K-12, but growing quickly.

<https://www.edsurge.com/news/2016-08-04-digital-game-based-learning-in-higher-ed-moves-beyond-the-hype>

## Health Issues Related to E-Books and Screentime

**As E-Book Sales Decline, Digital Fatigue Sets Grows.** By Jim Milliot, *Publishers Weekly* [17 Jun 2016] Limitations of e-reading devices and “digital fatigue” are cited as causes of decline in the format. <https://tinyurl.com/hmvmppm8>

**Screentime Is Making Kids Moody, Crazy and Lazy.** By Victoria L. Dunckley, M.D. *Psychology Today: Mental Wealth* [August 18, 2015] The author lists ways electronic screen time affects children negatively by disrupting sleep, desensitizing the brain’s reward system, inducing stress reactions, etc. <https://www.psychologytoday.com/blog/mental-wealth/201508/screentime-is-making-kids-moody-crazy-and-lazy>

**Screentime Is NOT Making Kids Moody, Crazy & Lazy** by John M. Grohol, Psy.D., *World of Psychology*. [September 2015] In this blogpost, the author argues that the research cited in Dr. Dunckley’s article is not conclusive and that drastically restricting teens’ use of electronics would likely cause more problems than it solves. <https://psychcentral.com/blog/archives/2015/09/07/screentime-is-not-making-kids-moody-crazy-lazy/>

**The Reading Brain in the Digital Age: The Science of Paper vs. Screens** by Ferris Jabr *Scientific American* [April 11, 2013]  
“E-readers and tablets are becoming more popular as such technologies improve, but research suggests that reading on paper still boasts unique advantages.”  
<http://www.scientificamerican.com/article/reading-paper-screens/>

**Ten Reasons Why Handheld Devices Should Be Banned for Children under the Age of 12**  
by Chris Rowan / *Huffington Post* [March 21 2014]  
The American Academy of Pediatrics and the Canadian Society of Pediatrics state infants aged 0-2 years should not have any exposure to technology, 3-5 years be restricted to one hour per day, and 6-18 years restricted to 2 hours per day. Ten reasons are provided.  
[http://www.huffingtonpost.com/cris-rowan/10-reasons-why-handheld-devices-should-be-banned\\_b\\_4899218.html](http://www.huffingtonpost.com/cris-rowan/10-reasons-why-handheld-devices-should-be-banned_b_4899218.html)

## Environmental Issues

**The Continent that Contributes the Most to E-Waste Is...** by Angus Chen [26 Jan 2017] *NPR*  
The amount of e-waste in Asia has grown 63% in the last five years. Asia is the highest overall producer, but per capita e-waste is highest in the US, Europe and Oceania. E-waste feeds illegal procedures that release carcinogenic toxins causing serious health and environmental hazards.  
<http://www.npr.org/sections/goatsandsoda/2017/01/26/511612133/the-continent-that-contributes-the-most-to-e-waste-is>

**The Global Cost of Electronic Waste** by Syed Farz Ahmed *The Atlantic* [26 Sept 2016] The increase in electronic devices significantly increases mining of materials needed for production and discarded devices produce large quantities of toxic e-waste.  
<https://www.theatlantic.com/technology/archive/2016/09/the-global-cost-of-electronic-waste/502019/>

**Print or Digital: It All Has Environmental Impact** by Omega Institute. 29 April 2014 *Huffington Post*. Summarizes impact of both. [http://www.huffingtonpost.com/omega-institute-for-holistic-studies/print-or-digital\\_b\\_4860403.html](http://www.huffingtonpost.com/omega-institute-for-holistic-studies/print-or-digital_b_4860403.html)

## Resources for Creating E-Books

**Crafting the ePerfect eTextbook** by Shelley S. Terrell and the team of *Moderators* (This 2016 Electronic Village Online Course) has a wealth of valuable resources for eBook creators.  
<http://ebookeyo.pbworks.com/w/page/70262228/Welcome>