

Editor's Note: This month we tapped Tools for Learning contributing editor Victor Rivero to provide a “how to” piece on researching and writing in this digital era. In it, he speaks directly to the researcher/writer, so if that’s you, have at it. Alternatively, you’ll find his engaging style and good advice make this an excellent piece to pass on to your own researcher-students through your library or classroom when you’re covering researching and/or writing

Building Digital RESEARCH SKILLS

Practical Steps for Deeper Learning in an Age of Information Overload

Victor Rivero

When confronting a subject of study in this day and age, what are the ways you can sharpen the skills it takes to dig into it more deeply—to really learn?

After reviewing thousands of tools and trends in the current learning space, I’ve found there are some basics to consider before you get going along a specific course, and before you choose tools that will assist you in moving forward. Consider:

Attitude. Do you know all about this subject already, and are you really just humoring the teacher or the course to see if you can’t pick up a

few more tricks? Are you secretly a know-it-all in this area? Or could it be you actually might not know something in this area and there just may be new understanding to be had that you didn’t have before?

Purpose. After you sort out your attitude toward a subject, here is a great starting point: What are you learning this for? Why are you curious about this? It doesn’t really matter what your purpose is as long as you like that purpose and it serves you well. So, “I am learning this type of math so when I’m rich, no one can cheat me out

of my money” is a fine purpose. Really! If a student believes that and stays interested, deeper learning happens.

End Product. What are you driving at? Is there a task at hand, an assignment or a project with a clearly or loosely defined objective? Is there some result, such as a set of understandings, actions you must demonstrate your mastery of, or actual

When confronting a subject of study in this day and age, what are the ways you can sharpen the skills it takes to dig into it more deeply—to really learn?

products you must produce? What is that “end product”? Be sure it’s clear.

Sources. Where do you start? Is there more than one place? Could your starting place actually be a person? What sort of questions do you have? There are no stupid questions when a learning environment is safe. What are good sources, how do you know if they’re good, and where can you find them?

Words. You gotta know the words, man! It’s amazing, but every area of study has its own mini-language. And it’s usual-

ly only about 10 to 12 words; so once you understand them, you can make your way forward with a lot less struggle. Write down what you think are the keywords in your area of study, and get those defined and understood. It’s not always the long or complex looking-words, either.

Levels. It’s fun to jump right into the toughest textbook or peruse the savviest source and pretend you get it all and are smart, smart, smart, or that you understand what even the most esteemed people have to say about something and you agree with them. But are you

learning or joining a status club? Start out with the simple, basic, easy sources. Remember, your attitude is, “I actually might not know something, and I’m willing to learn something new.” Be sure you’ve got the basics, and if you feel tipsy, get off the higher step. Wait until you’re sure you’re comfortable on the lower one before you move forward. This flop-proofs your learning—and yourself.

Real Examples. We live in an audio-visual world and there is an abundance of opportunity to see stuff in action. What is

whaling? How can you learn to code? How do you solve this math problem? How do you build a go-cart? How do you get a job? What does a bibliography look like? What does the inside of a nuclear power plant look like? How do you write a great essay? What is a document camera? What's a holy grail? There's nothing like the real thing—and failing that, a great picture or a video.

A TON OF TOOLS: LIGHTENING YOUR LOAD

All that said, how do you move forward when there are tons of digital tools that provide solutions for everything? You need to be nimble if you want to get anywhere, so which tools are worth carrying in your repertoire? Well, based on each of the above areas, here are some further thoughts that may help move you forward.

While the first three points in the section above—Attitude, Purpose, End Product—can assist you in getting into the right frame of mind before you begin down a learning path, the fourth point above, Sources, is something you will need to look for. Looking for sources is just part of the adventure of learning. However, keep in mind that there are many adjectives used to describe the quality of sources you find: reliable sources, trusted sources, respected sources, good sources, dependable sources, and recognized sources, among others. You will need to assess this for yourself, and be ready to defend your choice of sources. Why did you choose that one? OK, good. Just be confident enough to communicate your logic.

Sources Once you decide on your sources (people, books, articles, videos, etc.), here are some great tools to help you easily cite and list them:

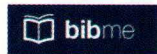


ProQuest: RefWorks



(proquest.com/products-services/refworks.html)

BibMe



(bibme.org)

NoodleTools, Inc.: NoodleTools Premium



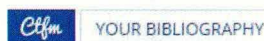
(noodletools.com/index.php)

Citefast



(citefast.com)

Cite This For Me



(citethisforme.com)

Citation Machine



(citationmachine.net)

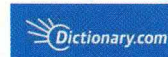
OttoBib



(ottobib.com)

Words Consideration of the terminology, nomenclature, lingo, or keywords of a subject is perhaps one of the most overlooked routes to deeper learning. And the idea isn't "deeper," as in more immersed in a subject, so that when you look around you realize you are in way over your head! No. The idea should be deeper, as in a clearer understanding of the basics, so that you can then move into greater understandings and familiarity, to be sure and comfortable and ultimately fluid and conversant with the ideas and methods of an area. Toward this end, there are a number of excellent word, reading, literacy, and understanding helpers available both on a desktop and through a mobile device:

Dictionary.com apps



(dictionary.reference.com/apps)

Merriam-Webster.com apps



(merriam-webster.com/apps)

Oxford Dictionary apps



(oxforddictionaries.com/words/oxford-dictionary-apps)

Wikipedia mobile apps



WIKIPEDIA
The Free Encyclopedia

(en.wikipedia.org/wiki/List_of_Wikipedia_mobile_applications)

Curriculet Inc.



(curriculet.com)

Light Sail product tour



(lightsailed.com/tour)

StudyBlue



(studyblue.com)

Knowledge Notebook



(knowledgenotebook.com/students.html)

Levels Wherever there is content or curriculum, your eye for how well it is leveled will help you assess what is truly workable or not. Think about it this way: Would you rather ride a mountain bike up the stairs inside the Leaning Tower of Pisa, or would you prefer riding up the steps out in front of the Boston Public Library? The idea is, work your way up gradually, on very wide steps; then, there is little chance of falling on your head. Most content providers are aware of this phenomenon;

some pay closer attention to it than others. However, as a student or teacher, it's something to keep in mind for successful instruction and solid learning.

Reading A—Z: Leveled books



(readinga-z.com/books/leveled-books)

Books That Grow: Leveled Reading for the Digital Age



(booksthatgrow.com)

Scholastic: Book Wizard



(scholastic.com/bookwizard)

Booksource: Collections By Level



(booksource.com/Departments/Booksource/Leveled-Reading/Collections-By-Level.aspx)

MobyMax: Accelerated Personalized Learning



(mobymax.com)

MasteryConnect: Types of Formative Assessments and Tools



(masteryconnect.com/features.html)

REAL EXAMPLES

There used to be a show called *The Magic School Bus*. This is of interest because school buildings don't move, and classrooms aren't built on top of flying carpets. If you can take students to places, then they might really learn. The most primitive classroom still has a teacher, and that teacher can take students places through storytelling, or relating their experiences, or sharing others who can. This kind of learning is quite pleasurable. Without arranging a live classroom guest, even a VHS tape viewed on a TV was a great way to learn. We've come along a bit

further now, and there are plenty of great ways to show and tell students about the actual subjects they are learning about. Here are some really good ones:

Nearpod: Virtual field trips



(nearpod.com/virtualfieldtrips)

Carolina: Twig science videos



(carolina.com/landing/twig)

Discovery Education: Math Techbook



(discoveryeducation.com)

Microsoft Education: Skype in the Classroom

(https://education.microsoft.com/skypeinthe classroom)

Livecoding.tv



(Livecoding.tv)

Khan Academy

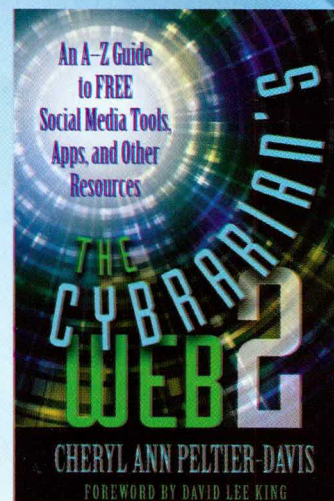


(khanacademy.org)

The listings above are not comprehensive and other favorites may come to mind, but the idea is clear: With the right mindset, one can be truly open to learning, one can have a purpose for learning something, or have something they want to attain or do, and have other people or resources to get them there. Careful students can unlock the language, master the basics, and have a good look at what it is they wish to know. In your research of any subject, whether online or in life, these practical steps should come as no surprise, but should instead serve as a reminder and a validation of what you already know to be workable. Continually used, they'll become a set of valuable skills. Good luck and have fun! ■

Contact Victor at victor@edtechdigest.com.

An Essential Resource for Improving and Adding Value to Library Services in the Digital Age



By Cheryl Ann Peltier-Davis
Foreword by David Lee King
ISBN 978-1-57387-512-7 / \$49.50

"*The Cybrarian's Web 2* is a really useful, at-your-fingertips resource covering some cool online tools, apps, services, and resources. ... [T]his second installment focuses on some lesser-known but still extremely useful tools that can help librarians in the workplace and beyond."

— David Lee King,
from the Foreword

infotoday.com

Available wherever books and ebooks are sold, or call
(800) 300-9868 or
(609) 654-6266.

Copyright of Internet@Schools is the property of Information Today Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.