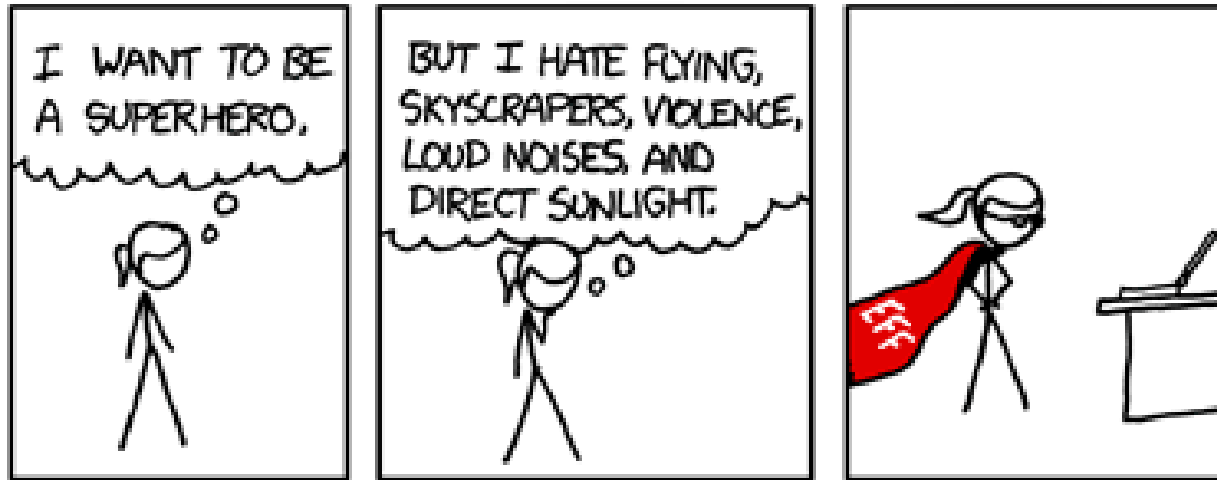


The image features five black silhouettes of superheroes in various dynamic poses, appearing to fly or leap. They are set against a background of vibrant, multi-colored rays (yellow, green, blue, purple, orange) that radiate from the bottom center. At the bottom of the image, there is a dark grey silhouette of a city skyline.

Sidekicks, Secret Weapons and Superpowers

**Librarians and Instructors Working Together in
the North Carolina State Alt-Textbook Project**

An Origin Story

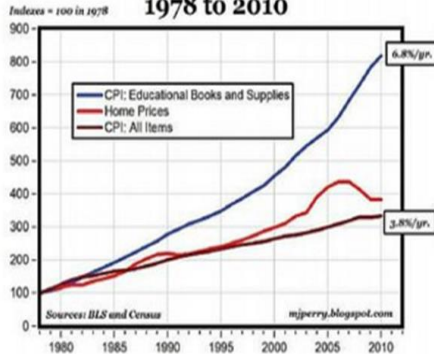




If consumer goods rose at the rate of textbook prices, a gallon of milk would be \$24.

#OpenEducationWk #OpenEd16

CPI: Educational Books and Supplies vs. Home Prices vs. CPI: All Items 1978 to 2010



The price of textbooks has increased

at a much greater rate

than the cost of homes or consumer goods.

Source: Brigham Young University

#OpenEducationWk #HigherEdVa
#OpenEd16
@SCHEVnews



"under the commercial textbook model students are simply valves through which taxpayer dollars flow to publishers"

David Wiley, PhD @opencontent

Slow or Sophisticated? Squandered or Sustainable? opencontent.org/blog/archives/...

Publishers and the AAP just don't understand #oer...



Over half of college students are at risk of being evicted, living in a shelter, or lack a place to sleep. #SAHE740 #somethingneedsfixed

RETWEETS 7 LIKES 2





Sidekick

Textbooks

Textbooks & Course Readings On Campus

COURSE BOOKS ON RESERVE AT THE LIBRARIES

The Libraries provides at least one copy of every required textbook for fall and spring semester classes, assuming that either the NCSU Bookstores or the Libraries has received notification of the assigned text by specified deadlines. The Libraries makes over 4,500 required texts available on Course Reserves each year.

Course books are located in D. H. Hill, Hunt Library, or the three branch libraries -- Design, Natural Resources, and Veterinary Medicine. At the D. H. Hill and Hunt Libraries, they are located at the Ask Us center. They are available for one 2-hour loan at a time.

NC STATE BOOKSTORES

NCSU Bookstores stocks all of the textbooks used at NC State University. Books can also be [ordered online](#).

ALFTEXTBOOK PROJECT

The NCSU Libraries encourages the adoption or creation of free or low-cost alternatives to expensive textbooks through a grants program.

Purchase Used or New Textbooks Online

Before you buy

TEXTBOOK SEARCH

Search by course



Wired Campus

The latest on tech and education.

February 12, 2010 by [Jill Laster](#)

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North Carolina State U. Gives Students Free Access to Physics Textbook Online

Physics students at North Carolina State University can get their introductory-level textbooks for free thanks to a new program by the college.

Each year about 1,300 students at North Carolina State take Physics 211 and Physics 212. Beginning this semester, the university's libraries and physics department have offered the courses' textbook online for free. Students can also print pages of the text or buy a printed copy at the university's bookstore for about \$45.

Michael A. Paesler, head of the physics department at North Carolina State, said his department wanted to find a cost-effective way for students to get course material and felt an online option might work well. The department hopes to offer more material online, including an optics text written by Mr. Paesler to be used for a course next semester.

"This is just the way students nowadays communicate and apply learning," Mr. Paesler said. "So we thought this would not be an obstacle to their learning — indeed, it might be a better way to learn."

North Carolina State University Libraries paid about \$1,500 to purchase the site license for the textbook, published by [Physics Curriculum & Instruction Group](#)

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Wired Campus Bloggers



Steve Kolowich

[@stevekolowich](#)

Steve Kolowich is a staff reporter covering technology.



Jeffrey R. Young

[@jryoung](#)

Jeff Young is the senior editor for technology coverage and writes the College 2.0 column.

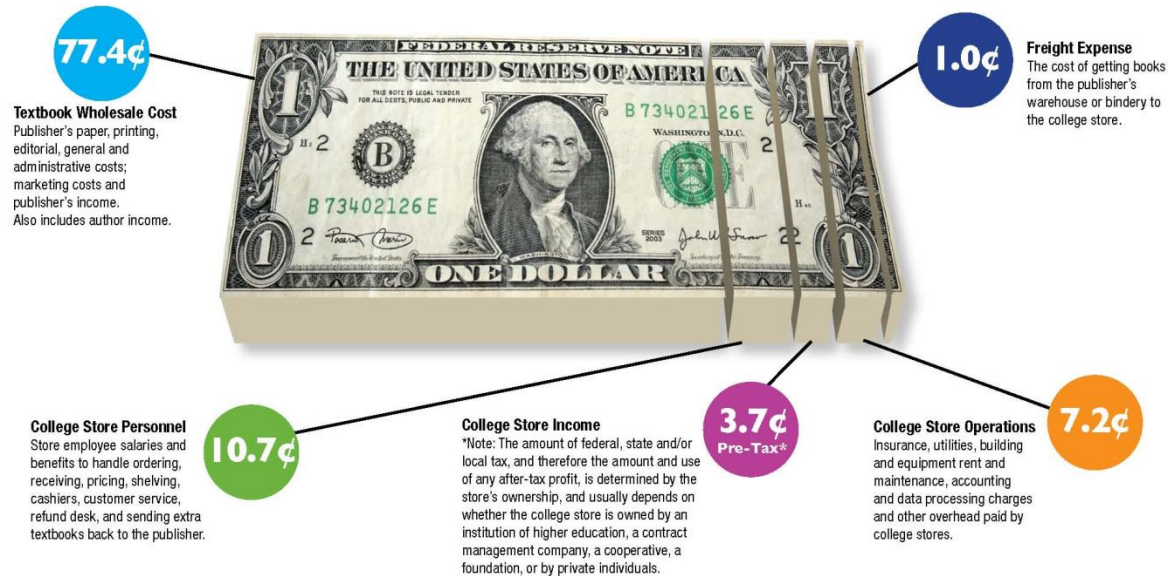
Recent Posts

[Looking Back at the Year in Ed Tech](#)

[Call for Nominations: Who Are the Top Tech Innovators in Higher Education?](#)

Students as Captives, Not Consumers

Where the **New Textbook Dollar** Goes* ...



*College store numbers are averages and reflect the most current data gathered by the National Association of College Stores.

© 2011 by the National Association of College Stores
 SFR.009.04.11



College Textbooks: Do You Get What You Pay For?

Posted: 10/07/2015 10:51 pm EDT | Updated: 10/08/2015 9:59 am EDT



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The age-old expression "you get what you pay for" is often used to explain away the [skyrocketing cost of textbooks](#). Sure, prices may top \$200 per book and the value may drop to pennies by the end of the semester, but it's all to ensure the material is of high quality to help students succeed -- or so the logic would go. But in a world where using free and open information has become a staple of everyday life, is "you get what you pay for" still true when it comes to textbooks?

According to the latest research, not anymore.

A new [multi-institutional study](#) conducted by researchers at Brigham Young University looks at the academic outcomes of students assigned [free, openly-licensed textbooks](#) versus those assigned traditionally-published textbooks. What the study finds is the opposite of what folk wisdom tells us: expensive textbooks are *not* superior to free ones. In fact, the results show a striking trend that students assigned free, open textbooks *do as well or better* than their peers in terms of grades, course completion, and other measures of academic success.

If traditional textbooks are not producing better outcomes, then what exactly are students paying for?

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Alain Bourget

[Print This](#)

Reprimand Upheld for Professor Who Wouldn't Assign \$180 Text

Fullerton faculty panel finds faculty member broke rules by deviating from departmental choice, but also finds department didn't have proper procedures in place.

November 9, 2015

By [Scott Jaschik](#)

The president of California State University at Fullerton is standing by the university's reprimand of a professor who refused to assign a \$180 textbook for his section of a multisection course.

Mildred Garcia, the president, [announced](#) that decision after a faculty review panel couldn't reach a decision on what to do about the case, which has [become a cause célèbre among those advocating a move away from expensive textbooks](#).

The panel found that the professor, Alain Bourget, indeed violated the university's and department's rules when he assigned another textbook (at a price of \$75) along with free [online materials in place of the more expensive choice of his](#)

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Resources**



**Offering
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THE CHRONICLE OF HIGHER EDUCATION

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Wired Campus

The latest on tech and education.

Category Archives: Open Textbooks

October 29, 2015 by [Ellen Wexler](#)

[f](#) [t](#) [in](#) [s](#) [e](#) Comments (6)

Campus Tech Leaders Report More Support for Free Educational Materials

College technology leaders appear more optimistic these days about open-source textbooks and open educational resources — teaching materials that can be created and used at no cost.

According to the latest [Campus Computing Survey](#) released on Thursday, 81 percent believe that open educational resources are an important source for instructional material in the classroom and that their institutions encourage faculty members to use them.



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Home > News > ARL News > Tackling Textbook Costs through Open Educational Resources: A Primer at ALA Midwinter

Tackling Textbook Costs through Open Educational Resources: A Primer at ALA Midwinter

by [Kaylyn Groves](#) | 202-296-2296 | kaylyn@arl.org | updated on December 10, 2014 | published on December 02, 2014



image © [opensource.com](#)

SPARC in collaboration with the ARL/ACRL Institute on Scholarly Communication is offering an [institute on open educational resources](#) at the American Library Association (ALA) Midwinter Meeting 2015 in Chicago, on Thursday, January 29, 1:00–5:00 p.m., and Friday, January 30, 8:30 a.m.–12:30 p.m. Registration for the Midwinter Meeting is **not** required to register for this institute.

The skyrocketing cost of textbooks is a tremendous problem on campus, and academic libraries have a growing opportunity to advance a solution through open educational resources (OERs). OERs include digital textbooks and other academic materials that carry open licenses permitting their free use and repurposing by others.

The w
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in Urban Higher Education
One Weekend A Month



This

Open, but Undiscovered

Faculty members are generally satisfied with quality of open educational resources, according to a new report, even though most instructors still aren't aware of OER.

November 4, 2014

By [Carl Straumsheim](#)

When faculty members choose which textbooks to assign to their students, they look for trusted names and a track record of quality -- not the price tag, a new survey suggests.

While those priorities may stymie the growth and adoption of open educational resources (OER), the Babson Survey Research Group's [report](#) on faculty members' attitudes and opinions about those resources contains both "terrible" and "incredible" news for proponents of OER, depending on your

Alt-Textbook Project

[Call for Proposals](#)[Faculty Guide to OERs](#)

Alt-Textbook Project

In the Fall 2014 term, the NCSU Libraries awarded a first round of grants to faculty to adopt, adapt, or create free or low-cost alternatives to expensive textbooks. The first round is in progress and is expected to save NC State students more than \$200,000 in the first year.

How to Apply

Complete the [Call for Proposals](#) form with information about your course and a brief narrative describing your proposed alternative to a commercial textbook. All current faculty members of NC State University teaching courses in Spring or Fall 2016 are eligible to apply. To learn more contact [Will Cross](#), Director of the NCSU Libraries Copyright & Digital Scholarship Center.

Information Sessions

Information sessions will be held in partnership with the Office of Faculty Development on Monday, October 5th from 10:15-11:30am and in the Libraries at the following times:

Thursday 9/17/15 - Hunt Library
Conference Room 5703

IMPORTANT DATES

Fall 2015:

Call for Spring/Fall 2016 proposals

September 17:

Information session for faculty

October 7:

Information session for faculty

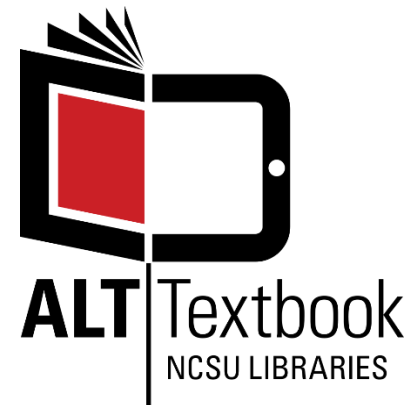
December 15:

Expected due date for proposals

Consultations and Information Workshops Available

Grants to . . .

- Hire a Graduate Student
- Pay for web design and hosting
- License images
- Pay for your time & expertise



Secret Weapons:



Kris Alpi
Vet Med



Anne Burke
Undergraduate
Instruction



Jason Casden
Digital Library
Initiatives



Will Cross
Copyright & Digital
Scholarship Center



Josephine McRobbie
Libraries Fellow

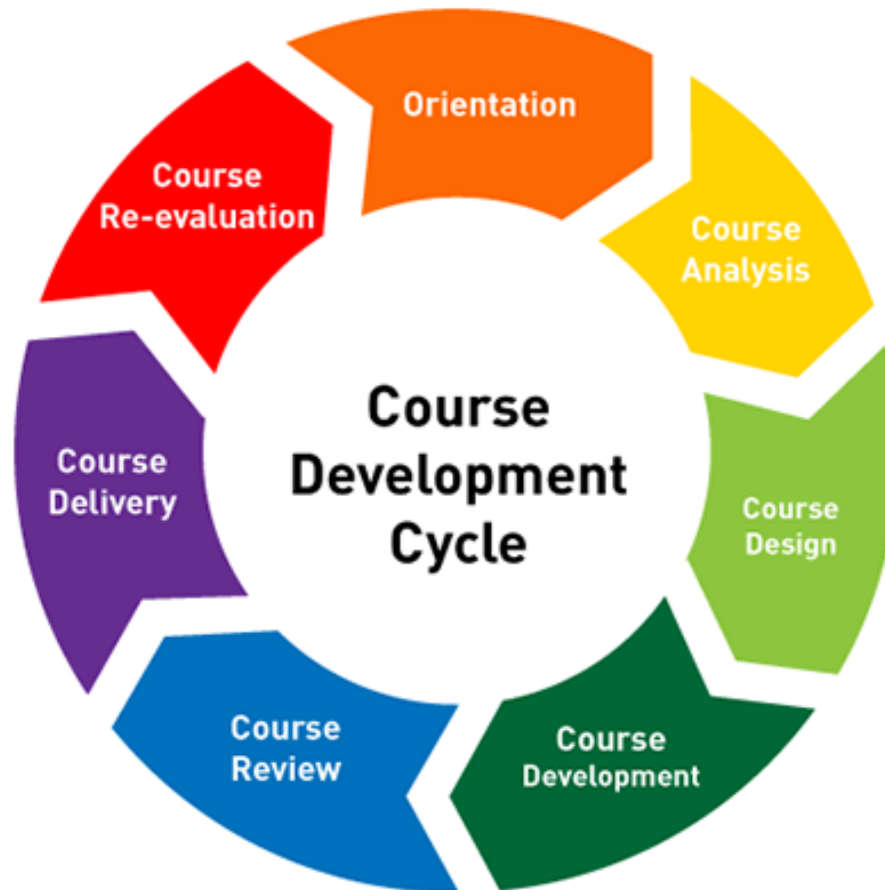


Madison Sullivan
Libraries Fellow



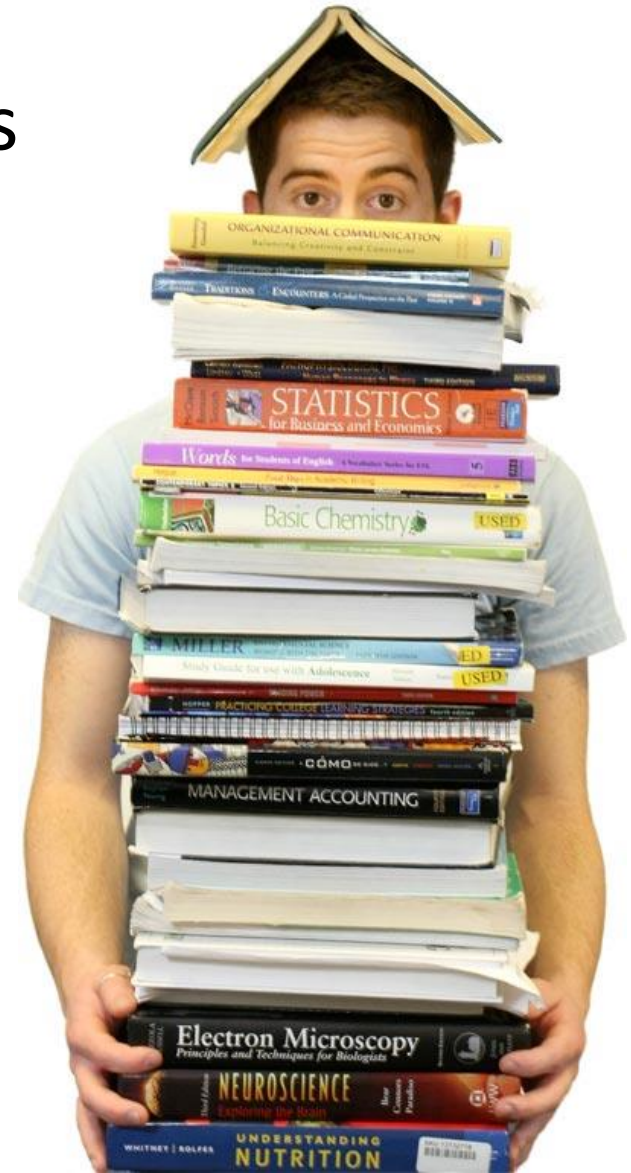
Sydney Thompson
Access & Delivery
Services

Support Throughout Course Design and Development



First Round (2014-15)

- 9 grants to 13 faculty members
- 8 departments
- 3 Cluster Faculty
- Saved students more than
\$200,000 this year



Superpower



The Impact of Open Textbooks on Secondary Science Learning Outcomes

T. Jared Robinson¹, Lane Fischer¹, David Wiley¹, and John Hilton III¹

Given the increasing costs associated with commercial textbooks and decreasing financial support of public schools, it is important to better understand the impacts of open educational resources on student outcomes. The purpose of this quantitative study is to analyze whether the adoption of open science textbooks significantly affects science learning outcomes for secondary students in earth systems, chemistry, and physics.

This study uses a quantitative quasi-experimental design with propensity score matched groups and multiple regression to examine whether student learning was influenced by the adoption of open textbooks instead of traditional publisher-produced textbooks. Students who used open textbooks scored .65 points higher on end-of-year state standardized science tests than students using traditional textbooks when controlling for the effects of 10 student and teacher covariates. Further analysis revealed statistically significant positive gains for students using the open chemistry textbooks, with no significant difference in student scores for earth systems. The effect size of the gains were relatively small, and not consistent across all textbooks. Open textbooks can be as effective or even slightly more effective than their traditional counterparts has important considerations in terms of school district policy in a climate of finite educational funding.

“as or more effective”

Keywords: open educational resources; open textbooks; science education; secondary education; propensity score matching

Introduction

For better or for worse, the textbook is the single most predominant curriculum delivery vehicle in schools in the United States (Jobrack, 2011). The textbook’s role, however, extends beyond

students learn. The William and Flora Hewlett Foundation, an early leader of the OER movement, defines open educational resources as “teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and

I Need a Hero!

“Student test scores will improve when professional development is provided to teachers to help them understand the **new activities** and **pedagogies** made possible by the open textbooks.”

A Preliminary Examination of the Cost Savings and Learning Impacts of Using Open Textbooks in Middle and High School Science Classes



David Wiley and John Levi Hilton III
Brigham Young University, USA

Shelley Ellington and Tiffany Hall

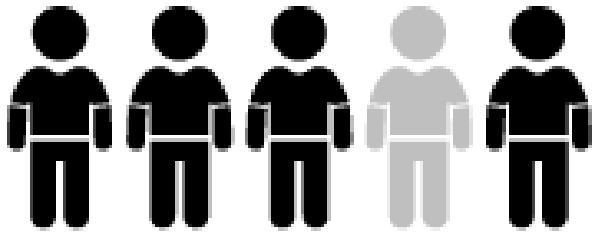
Abstract

Proponents of open educational resources claim that significant cost savings are possible when open textbooks displace traditional textbooks in the classroom. Over a period of two years, we worked with 20 middle and high school science teachers (collectively teaching approximately 3,900 students) who adopted open textbooks to understand the process and determine the overall cost of such an adoption. The teachers deployed open textbooks in multiple ways. Some of these methods cost more than traditional textbooks; however, we did identify and implement a successful model of open textbook adoption that reduces costs by over 50% compared to the cost of adopting traditional textbooks. In addition, we examined the standardized test scores of students using the open textbooks and found no apparent differences in the results of students who used open textbooks compared with previous years when the same teachers' students used traditional textbooks. However, given the limited sample of participating teachers, further investigation is needed.

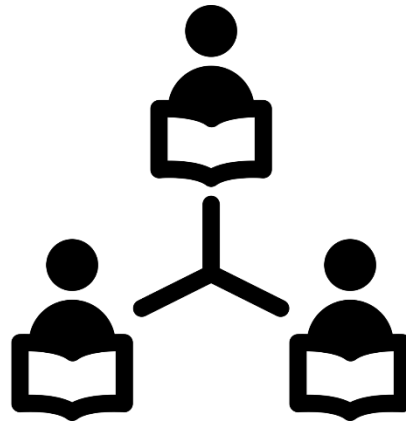
Keywords: Cost; open educational resources; remix; reuse; open textbooks; electronic textbooks; open access

Introduction

Public education budgets continue to shrink while the public's expectations for the performance of its educational institutes continue to increase. This tension places many school districts in a difficult position as they attempt to find ways to do more with less (Odden et al., 2007). Over the last two decades, textbooks and other educational resources have repeatedly undergone scrutiny in an effort to determine whether the amount of learning they facilitate justifies their costs (Card & Krueger, 1996; Chaudhary, 2009; Hanushek, 2002). Open education resources (OER), educational materials that are available at no cost and under open copyright licenses or in the public domain, offer an alternative to traditional textbooks and resources. According to the Organization for Economic Cooperation and Development (OECD), "the definition of OER currently most often used is 'digitized materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning, and research'" (OECD, 2007, p.10). In addition to potentially saving school and district resources, OER can also be adapted to individual circumstances, printed on demand or used in digital formats, and leveraged to enable new pedagogical practices.



**Underserved
Communities and
Disciplines**



**New Ways to Teach
and Learn**



**Leverage Technology
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- [FAQ](#)

Multimedia Design and Apps in Instruction

- Grad-level distance education course
- Students incrementally, iteratively develop a working prototype
- Focus more on *design* principles & practices as opposed to development
- Using GitHub to host and document the discussion this year and beyond



S.M.A.R.T. Chemistry Lab

- Student generated with faculty supervision
- Short videos that present skills
- Uses QR codes to make a “smart lab” that demonstrates use of equipment

NC STATE UNIVERSITY

UNDERGRADUATE ORGANIC CHEMISTRY
TEACHING LABORATORIES

Department of Chemistry | College of Sciences

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NCSU Chemistry Department

S.M.A.R.T. Lab Videos

Student-Made Audiovisuals Reinforcing Techniques (S.M.A.R.T.) are short videos created by undergraduate students to supplement learning in the Organic Chemistry Laboratories. This project has been supported with a grant from DELTA.

Techniques
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Instrumentation
[Explore videos >](#)

Demonstrations
[Explore videos >](#)

Calculations
[Explore videos >](#)

Safety
[Explore videos >](#)

Real World Lab Applications
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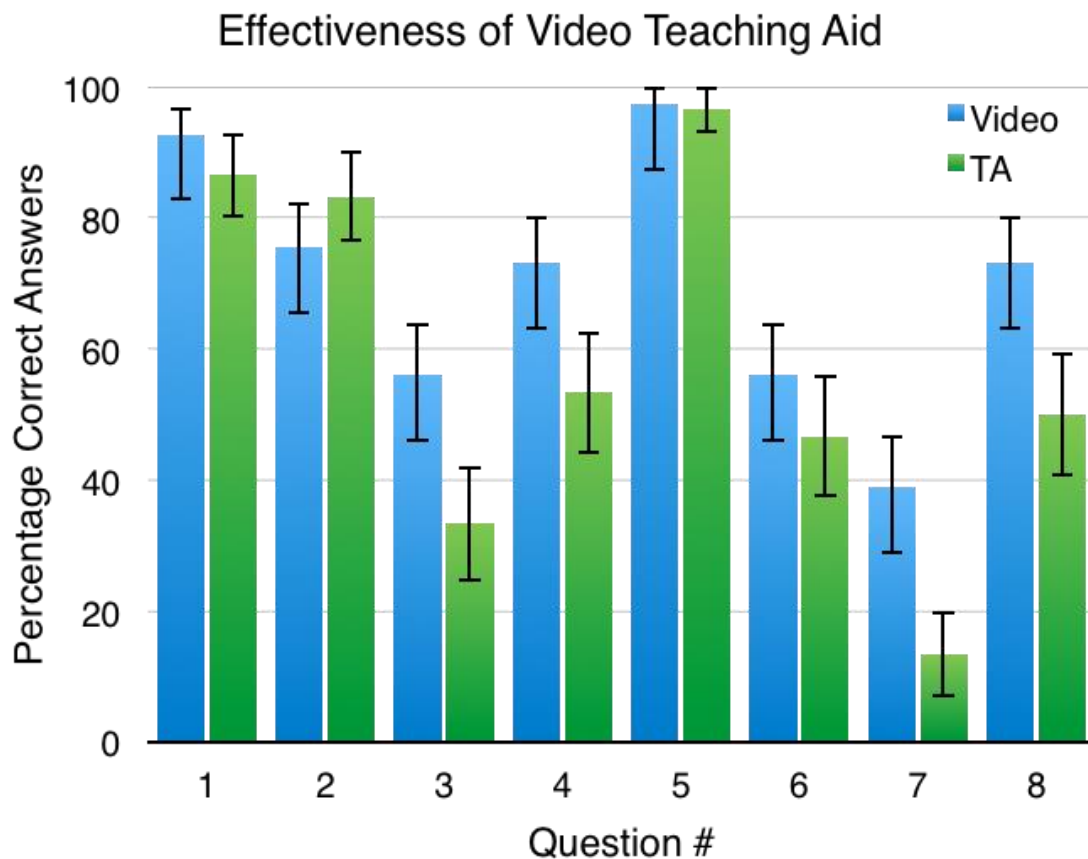
Contact Lab Director: Mania_Gallardo@ncsu.edu



Effectiveness of Student-Generated Video as a Teaching Tool for an Instrumental Technique in the Organic Chemistry Laboratory

Journal of Chemical Education, 2015

Jeremy T. Jordan, Melinda C. Box, Kristen E. Eguren, Thomas A. Parker, Victoria M. Saraldi-Gallardo, Michael I. Wolfe, and Maria T. Gallardo-Williams

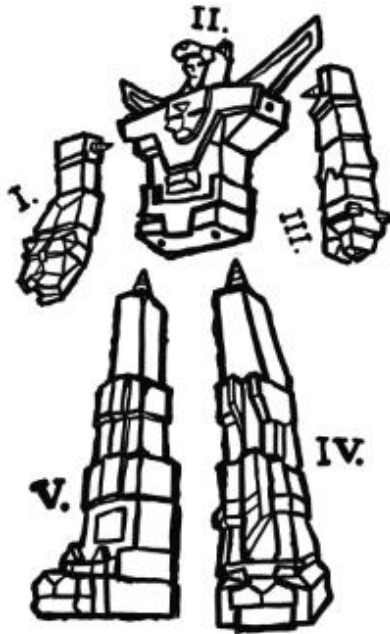


Questions

1. Do you feel prepared to take an infrared spectrum?
2. Do you understand each step of the procedure?
3. Why is it important to run a background IR?
4. What does an IR spectrometer do? Why is it important?
5. Handling salt plates requires the use of what safety equipment?
6. Why is the above safety requirement important?
7. What software is used in this experiment?
8. Select the correct set of commands for operating the IR software.

Produces measurable gains in student outcomes

Work with Your Sidekicks and Find Your Secret Weapons

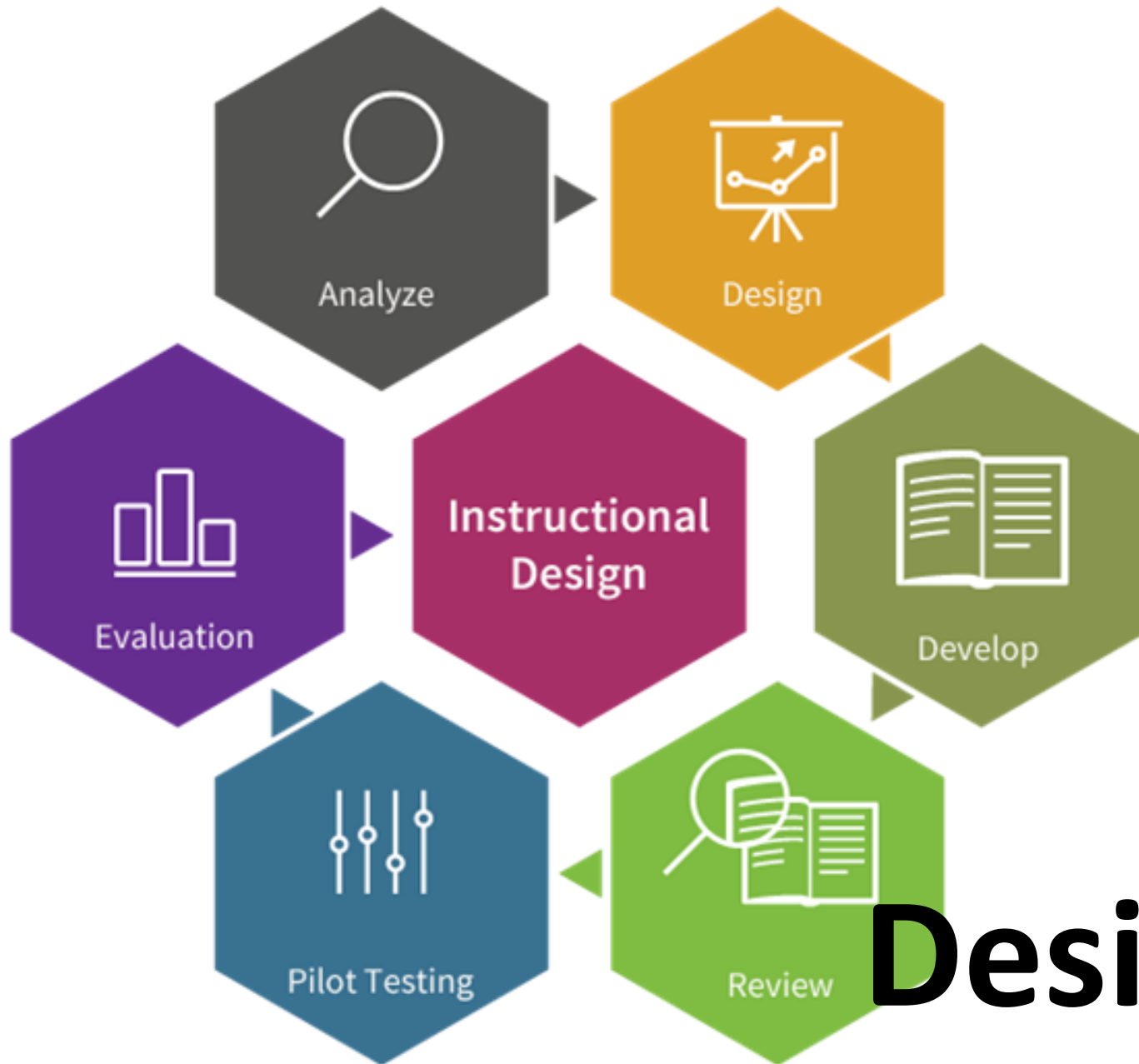


J O I N, or D I E.

- Librarians
- Centers (teaching & learning, faculty excellence, etc.)
- Colleagues
- And who else?

Storage and Discovery





Design

Accessibility

WHEN USER EXPERIENCE
DOESN'T CONSIDER **ALL USERS**
IT SHOULD BE CALLED
SOME USERS EXPERIENCE.
YES, **SUX.**



Information Literacy



The Credible Hulk.

*"You wouldn't like me when I'm angry . . .
Because I always back up my rage with
facts and documented sources"*

**On the
Team . . .**



**not in
the way!**

Textbook Heroes Working Together



