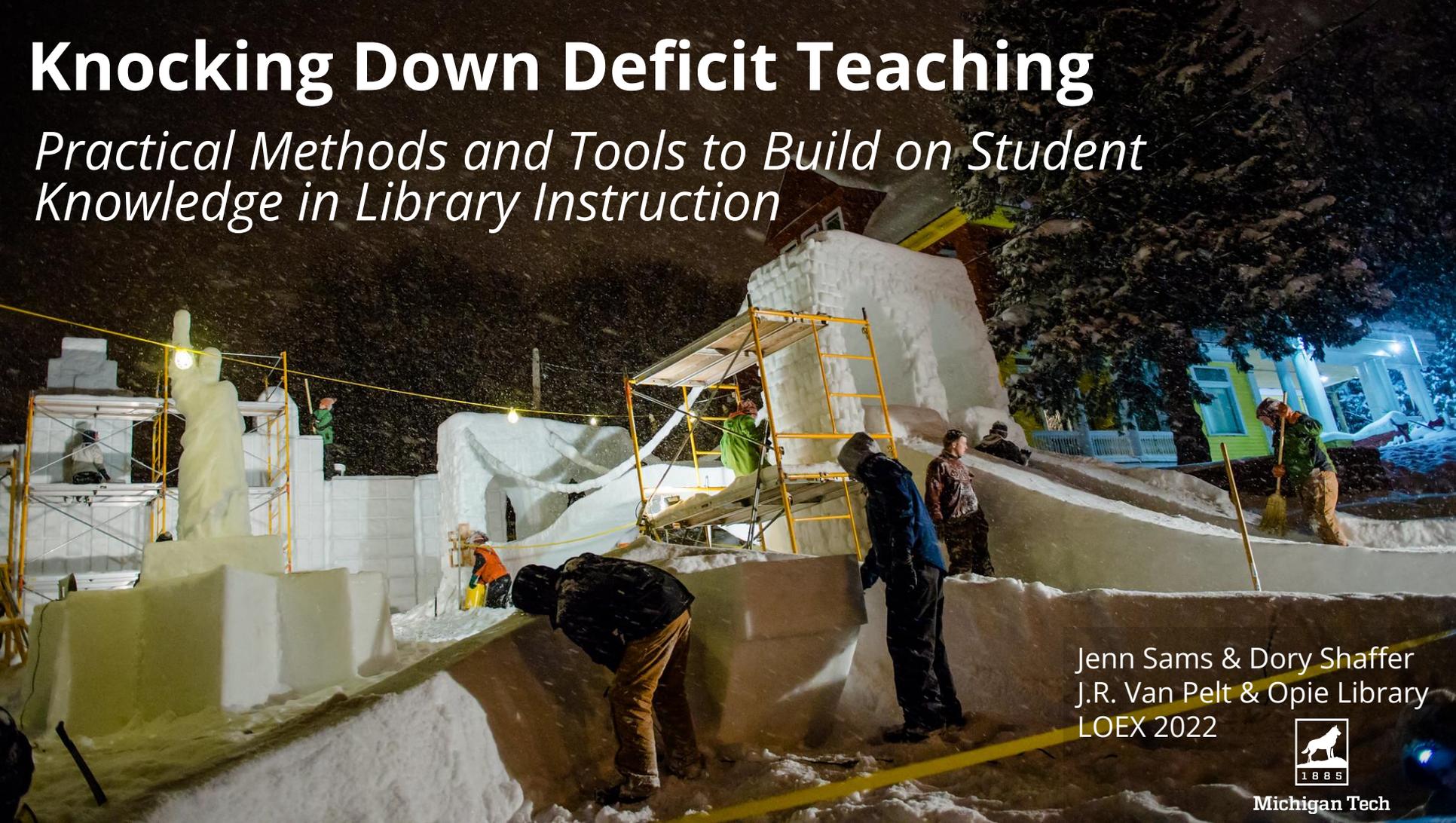


Knocking Down Deficit Teaching

Practical Methods and Tools to Build on Student Knowledge in Library Instruction



Jenn Sams & Dory Shaffer
J.R. Van Pelt & Opie Library
LOEX 2022



Michigan Tech

Michigan Technological University

Located in the beautiful Upper Peninsula in Houghton Michigan

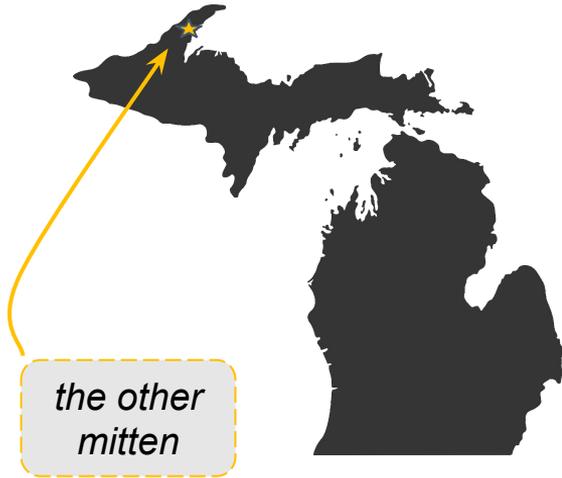


Michigan Technological University

*Reality ... average of 202" snow per year
325.6" to date in the Keweenaw Peninsula*



Michigan Technological University



- Most students are pretty far from home
- 5,642 undergrads and 1,231 grads
- 71% of undergrads are male and 87% are white (*as of 2020*)
- 60% of undergrads are in the College of Engineering
- Institution is very focused on hands-on experiences and design thinking
- The library hosts 60+ course integrated one-shots each semester. Sessions range across all colleges and levels.



Michigan Technological University

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Education & Outreach Librarian



[“Blue tang \(Paracanthurus hepatus\). Monterey Bay Aquarium”](#)
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Michigan Tech

Session Outcomes

By the end of this session, you will be able to:

1. Incorporate ready-to-use, student-focused classroom exercises into existing lessons
2. Use a simple framework to develop new classroom exercises that highlight students' existing knowledge
3. Analyze own instructional practices in order to move away from deficit teaching models



Plan of Attack

- Standards Activity
- About deficit thinking
- Our process for avoiding deficit thinking & examples
- Workshop a lesson of your own & share!



Standards Activity

Who has used or taught technical standards previously?

What is a standard?

- Technical document that standardizes things like: safety, properties, performance, structure, language, etc.



Finding Standards

Scenario: Your professor tells you to find & cite a standard for writing technical reports in your upcoming LIS final.

Step 1: Grab a partner!

- Person A go to TechStreet.com
- Person B go to webstore.ANSI.org

Step 2:

- Search for *technical report formatting* and compare results. Try a few more searches together & compare!



Finding Standards

In a class setting, we would then ask pairs....

- Compare results. What differences and similarities do you notice?
- What does adding “quotes do”? For example, search *“technical reports”*
- What are 2 changes you can make to your search to find results that are more relevant? Why do these work better?
- Based on your exploration and experimentation, how are these platforms different in coverage?
- ID one relevant standard and share it



Finding Standards

What is good about this activity?



Finding Standards

What is good about this activity?

- Interactive and active learning
- Directly tied to “assignment”
- Allowed for peer-to-peer learning
- *(In real life with more time)* encouraged refinement of a search strategy, consideration of the back-end of search tools, and exploration of new platforms



Assumptions about YOU

- Most of you aren't Engineering liaisons or similar and won't be well-versed in standards
- Participants will have strong search skills but will struggle to apply these to TechStreet or ANSI



Assumptions about YOU

- So we...
 - Provide a tool to try
 - Very structured searches
 - Pointed you towards a direct outcome



Finding Standards

There is a great standard for this ... did anybody find *ANSI/NISO Z39.18 Scientific and Technical Reports - Elements, Organization and Design?*

Presentation Takeaway: you learned something about standards and these platforms, but we kind of made you feel dumb as you did.



Deficit Thinking is...

“Deficit thinking refers to various theories and ideas based on a person or group of people lacking a desired quality. These perceived deficits can be rooted in linguistic differences, cultural diversity, or the insufficient development of some type of literacy, such as information literacy. In this line of thinking, **a deficiency needs to be remedied.**”

Tewell, E. (2020). The problem with grit: Dismantling deficit thinking in library instruction. *Portal: Libraries and the Academy*, 20(1), 137–159.
<https://doi.org/10.1353/pla.2020.0007>



Inspired by ...

Heinbach, C., Fiedler, B. P., Mitola, R., & Pattni, E. (2019, February 6). *Dismantling deficit thinking: A strengths-based inquiry into the experiences of transfer students in and out of academic libraries*. In the Library with the Lead Pipe. Retrieved May 6, 2022, from <https://www.inthelibrarywiththeleadpipe.org/2019/dismantling-deficit-thinking/>

Tewell, E. (2020). The problem with grit: Dismantling deficit thinking in library instruction. *Portal: Libraries and the Academy*, 20(1), 137–159. <https://doi.org/10.1353/pla.2020.0007>

And many more - see post-conference materials!



Our Rationale for Changes

- Our students are immersed in information ecosystems outside the library
- Our students are smart!
- We caught ourselves and faculty using language and mindsets that played into deficit thinking
- We know students 'satisfice' when searching for information and - can we embrace and direct this?



Our Strategy

We developed three questions to apply to every lesson:

1. Where did I include open-ended questions that provide an opportunity to be surprised by students' answers?
2. Where did I provide students an opportunity to describe or use some part of their current information-finding process?
3. Where in this activity can students explicitly modify, upgrade, or connect to their current knowledge?



A sledgehammer, not rocket science

Be explicit and intentional in
your planning!



Our Strategy

Applied to the Standards Activity

1. Where did I include open-ended questions that provide an opportunity to be surprised by students' answers?

Find something around you that has a standard.



Our Strategy

Applied to the Standards Activity

2. Where did I provide students an opportunity to describe or use some part of their current information-finding process?

Find the standard. What is the developing organization?
When was it last updated? What site did you land on?



Our Strategy

Applied to Standards Activity

3. Where in this activity can students explicitly modify, upgrade, or connect to their current knowledge?

Look through your (probably google) results. What sites do you see? ANSI? Techstreet? Let's talk about these tools and why they should jump out at you ...



Example: Engineering Fundamentals

Project: designing a hand-bike comfortable over long distances

Previous:

Given a research question, “How can weak spots such as joints and brakes be made more robust?”:

- Brainstorm keywords
- Develop 3-4 search strategies using basic boolean
- Try these in ProQuest and revise your search based on results



Revised:

In groups, discuss:

- What would you google to find stories and examples of bike users?
- If this was you, where might you share/ask advice and what would the title of your post or question be?
- Does your question focus on: problem or solution? Is it based on a narrative, technical, parts? Compare within your group.

Use this to discuss keywords, types of sources, etc.



Example: Composition

Project: essay analyzing the impact of social media on Gen Z's spending and purchasing habits

Previous:

- Match source type definitions with examples of those sources
- Evaluate a source-- Given an article, describe 4 ways it builds its credibility.



Revised:

- Find the sketchiest article you can. Discuss how you got there & choices you made to determine 'sketchiness'
- Describe your process -- what questions do you ask about a source when you are reading it?



Your Turn

Think about your favorite instruction session.

Can you answer the three questions? *(see Padlet link below for questions)*

At your table: workshop it for 2-3 min each. What can you tweak or change?

As you go, share via Padlet:
padlet.com/jsams/loex22



Share Out



Wrap-up

Questions? Thoughts?

We'll keep this up & active so you can refer back for activities!

padlet.com/jsams/loex22



Let's talk!

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