

READING BENEATH THE SURFACE

**Reimagining information literacy
beyond search and evaluating**

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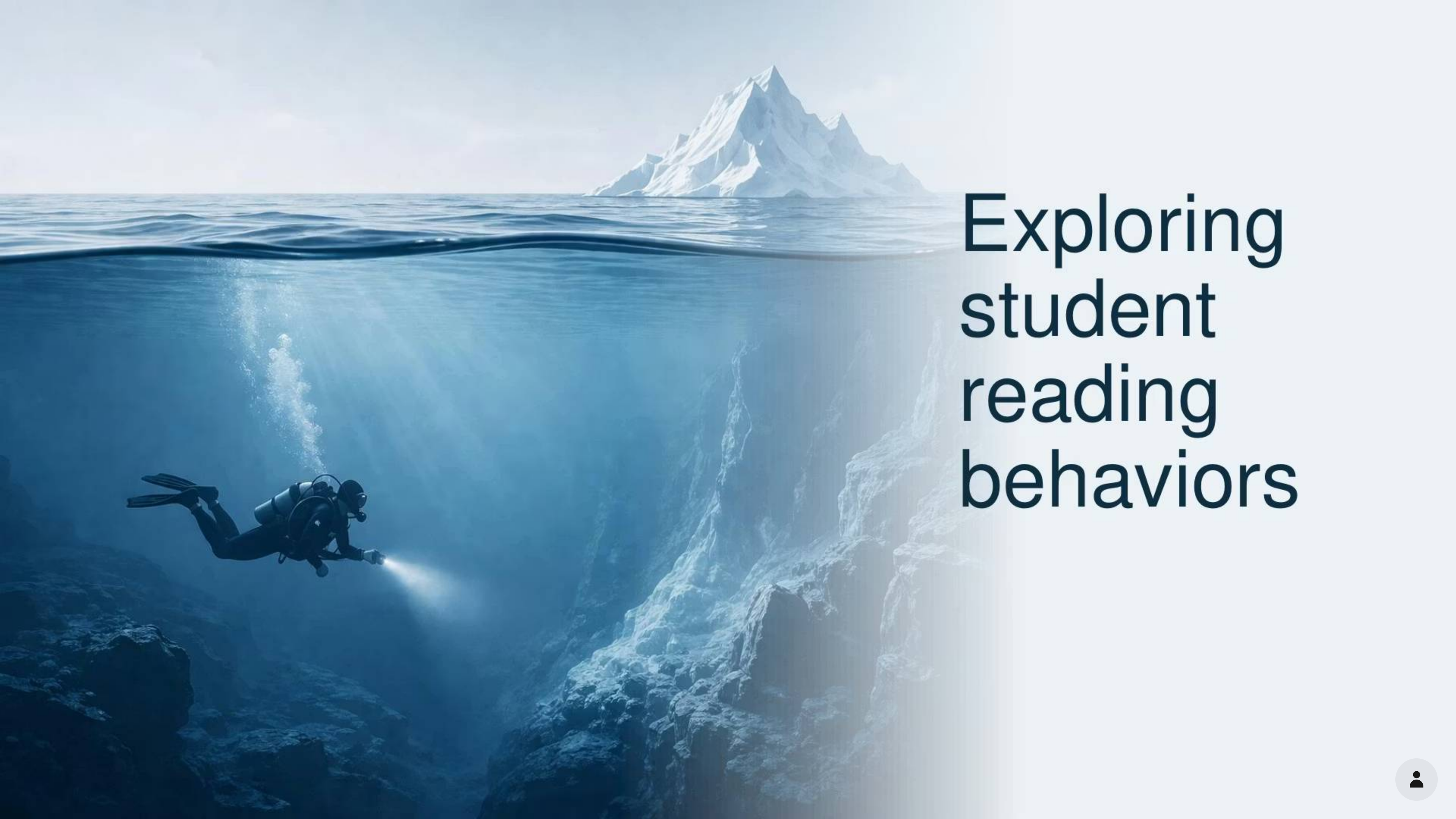
Learning Objectives

- Describe the impact of reading on students throughout their research process
- Identify problematic student behaviors that impact reading efficiency
- Develop strategies for instruction and consultation in order to guide students in becoming better readers in a scholarly environment



Challenge: How do we support student research if they are struggling to read?



A conceptual image illustrating the metaphor of the iceberg. The top part of the image shows the visible tip of an iceberg floating on the ocean's surface. The bottom part, separated by a horizontal line representing the water's surface, shows a diver in a dark, deep underwater environment. The diver is holding a flashlight, illuminating a large, jagged, and dark rock formation that represents the hidden part of the iceberg. The overall scene is in shades of blue and white, with a soft, hazy sky in the background.

Exploring student reading behaviors



Failures in reading strategy

- Scanning strategies: accept or reject vs. eye-catching
- Reading speed: modulating vs. skimming
- Time spent: reading more titles vs. scrolling through articles



Transactional approach

- Reading for relevancy: source-level vs. sentence-level

A vertical image on the left side of the slide shows a diver in dark blue water. The diver is wearing a scuba tank and fins, and is holding a flashlight that illuminates the water. Bubbles are rising from the diver. The water surface is visible at the top of the image.

Epistemic thinking and source evaluation

- lacking understanding of scholarship leads to superficial evaluation
- looking for background information in empirical articles
- an assumption that scholarship is individual opinion
- reliance on visual appeal/presence of data
- satisficing and cherry-picking

What student reading behaviors or challenges have you noticed?

Summarizing articles in ChatGPT rather than reading them

They don't:)

Skimming without comprehension

Not understanding what counts as original research

Open web page, scroll very fast to bottom, scroll very fast back to top, click back button

Struggle to understand academic articles/vernacular

Misunderstanding or lack of understanding of genres and genre conventions

"This paper is too advanced," in which advanced = long.

What student reading behaviors or challenges have you noticed?

Lack of vocabulary means they guess at meaning

Nor reading to learn but rather reading to confirm

Scrolling articles or ctrl f for keywords in articles to decide if relevant

Relying on AI summaries

Not reading the metadata (journal discipline)

They are skimming to find the exact words from their topic

Find a title that seems sort of on topic and they're done.

Looking for quotes that support thesis

What student reading behaviors or challenges have you noticed?

Reading AI output as opposed to going to the source

Not being able to even understand the abstract of a scholarly article let alone the article itself

Ceding reading to an AI tool

Infinite scroll

Looking for one source that has it all

They read the abstract but have no idea what it actually says

Time pressure

Frustration with academic language in scholarly articles vs general language in popular

What student reading behaviors or challenges have you noticed?

students read intro only

They only choose familiar things

Choosing sources after writing their paper

Struggles with reading comprehension (understanding an abstract or article)

Using AI to simplify all complex concepts

Try to read full-text all the time

Not bothering to read! Relying on titles, headings

Using the first result they find when searching

What student reading behaviors or challenges have you noticed?

Lack of utilizing library databases.

Students asking us what does this article mean?

Students usually choose the first result that comes up in their search

They aren't reading at all 😞

Students read articles beginning to end; they don't know they're allowed to read scholarly articles strategically (to skip around)

Overreliance on AI to read the papers for them

They skim without understanding

Cherry picking

What student reading behaviors or challenges have you noticed?

Unwillingness (or unaware of the option?) to look up unfamiliar terms in an abstract or title - just going “idk what that is” and skipping it altogether

Not being able to pull out keywords to iterate search strategy

Cherry picking of the “perfect quote” . Not going past much the introduction

Only engaging with terms as presented rather than thinking about the links between terms over time

Differentiating kinds of scholarly sources (ex. primary research vs. lit. review)

Assigned to locate, access and use scholarly articles before they're ready

Struggle to synthesize

The article has to answer their exact research question

What student reading behaviors or challenges have you noticed?

Short attention spans and want to just read abstracts

struggle to identify the thesis

Overwhelmed large amounts of text and unable to understand the structure of them.

Students trying to find the perfect article that says their exact hypothesis in the same words they would use

Lack of comprehension. Not asking questions to clarify.

Using AI to do the reading work

Students having a difficult time understanding the context of sources - why they need them and how they support their research

Perceiving the abstract of the article as enough

What student reading behaviors or challenges have you noticed?

Struggling with jargon

Reading the abstract and thinking the article isn't useful... but deciding to read the whole thing anyway

Expectation of immediate research answers and assumption that there is a "perfect article" out there. Lack of understanding that research is not linear

Reading only the introduction of articles

Lack of basic literacy

No concept of how to read effectively: overwhelmed by apparent need to read every word of every source they find

Struggle to understand the goals of the assignment, so they searching from a bad/unclear starting point

Thinking that anything on a .edu is an academic source

What student reading behaviors or challenges have you noticed?

Struggle to invest time into finding accurate sources and going with their first search options (not re-trying searches, changing things)

Students don't know to read academic articles not straight through - read intro and discussion first!

Students sometimes can't identify different types of sources from a results list in a discovery system (even if they're labeled journal, news, etc.).

Only looking for specific keywords and not considering synonyms

Having a hard time synthesizing. Looking for perfect source

Relying on AI to summarize and pull out relevant information

Ctrl + F !!!

Not reading the articles at all!

What student reading behaviors or challenges have you noticed?

Student said if it's 10 pages or more they're not reading it

Students don't have a habit of reading to find words that are relevant to their topic or field.

Over reliance on one source to avoid having to find other sources

Scanning not reading

Finding an article with a relevant title but then not know what to do next.

Not giving themselves enough time to read the source

Not taking the time to actually comprehend what the title of an article may mean before they even start

Difficulty understanding main idea of a source when presented with a full article

What student reading behaviors or challenges have you noticed?

Trying to find studies that exactly match the lab experiment they did in class, even if the purpose was different

Looking at an irrelevant disciplinary work that is way too jargony to understand when need background info

Putting articles into ChatGPT to summarize

Only picking from the first few articles

Lack of patience to continue sifting through sources of information (lowering standards for the sake of time)

Looking to check off boxes. Not changing their perspective if it doesn't align with reality.

Quote-seeking
/information overload

Not reading full article. Pulling quote from abstract

What student reading behaviors or challenges have you noticed?

Relying on title alone

Already having written their paper and then needing to add quotes that agree with them.

Students are overwhelmed by reading content and give up, just using the first thing they find

Being introduced to scholarly literature too early (before foundational knowledge acquisition).

Only look at first 10 sources

Reading article titles and bypassing anything that doesn't say exactly what they're looking for

Looking for a source that's basically the exact paper they plan to write

Reliance on abstract or AI summary

What student reading behaviors or challenges have you noticed?

just collecting citations
but not reading the
sources

Looking for buzzwords
that match topic as a
substitute for reading
abstracts

Avoiding books as
scholarly sources due
to length

Struggle to synthesize
concepts between
multiple articles

Students reject articles that
they think are “too specific”
without understanding that
that’s how scholarly articles
work—one source doesn’t
cover ever everything

Fear of scientific
literature

Students don't know how
to read multiple sources
with the goal of
synthesizing findings.

They give up if there’s too
much jargon - hard for
them to understand why
they need sources tat only
experts understand

What student reading behaviors or challenges have you noticed?

Struggling to understand what a keyword is, what good ones are, that they are often the discipline jargon not the layman term

Picking first article that comes up

They don't like to read and refuse to do so.

Stressed by jargon

Not knowing what kind of information source they are reading or considering reading

Choosing niche topics with preconceived conclusions and then not being able to find sources

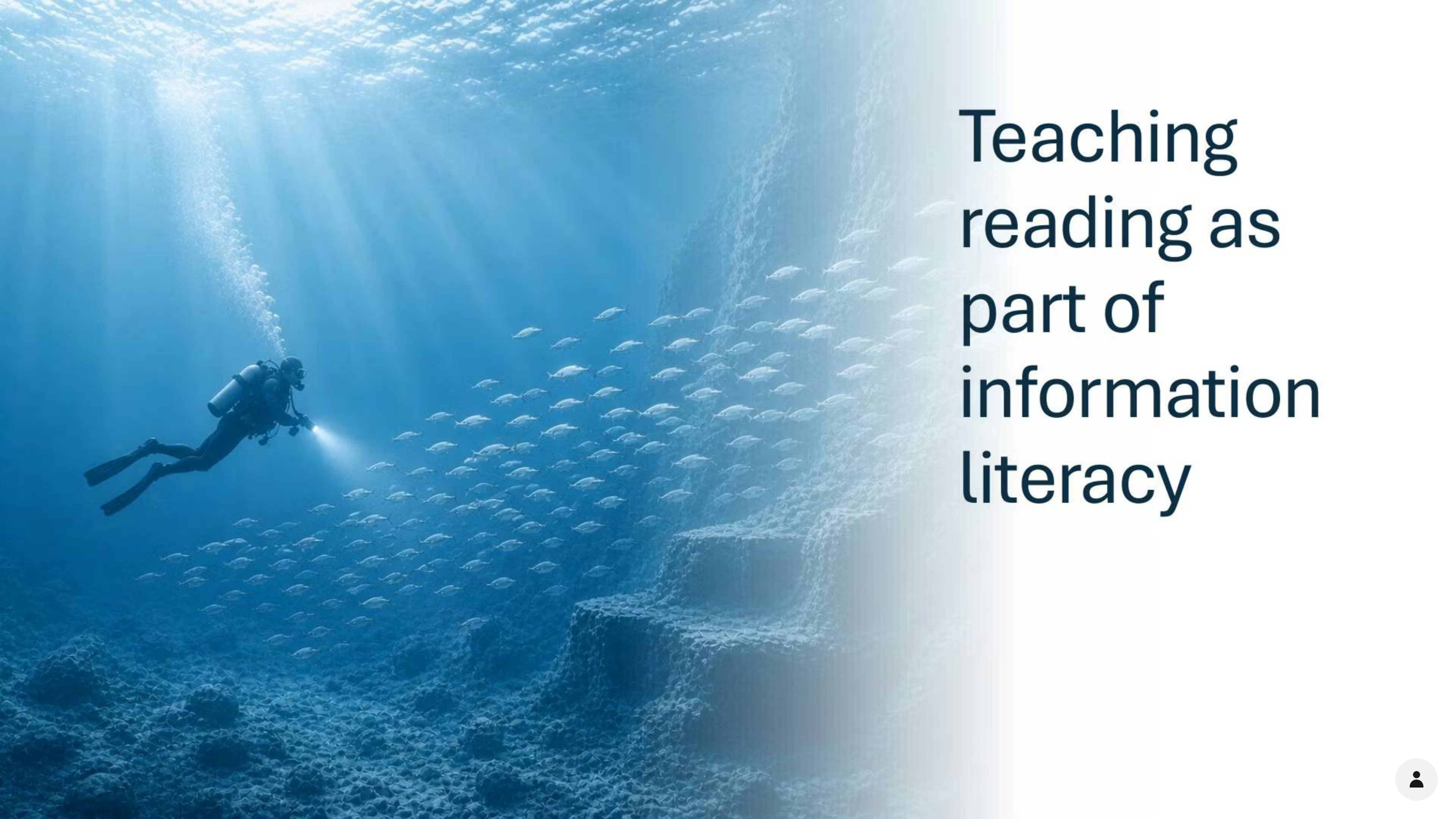
Struggle to translate academic language into plain language

Not enough time to read, since they spend most of their time in lab (technical institute)

What student reading behaviors or challenges have you noticed?

Lack of exposure or orientation to academic articles (not their fault!)

Not knowing how to read empirical articles to find what they need (abstract, lit review, methodology)

A full-page background image showing a diver on the left, illuminated by a bright light source from above, creating a large, shimmering school of fish in the center. The scene is set in deep blue water with visible light rays and bubbles. The diver is wearing a tank and fins, and is holding a flashlight. The school of fish is composed of many small, silvery fish swimming in a coordinated pattern. The overall atmosphere is serene and mysterious.

Teaching reading as part of information literacy



One-shot Instruction and Consultation

- Focus on reading to select relevant sources
- Acknowledge reading difficulties
- Model strategies
- Allow for practice with direct feedback

✓ Peer reviewed | Academic Journal

From Cyberspace to Independence Square: Understanding the Impact of Social Media on Physical Protest Mobilization During Ukraine's Euromaidan Revolution.

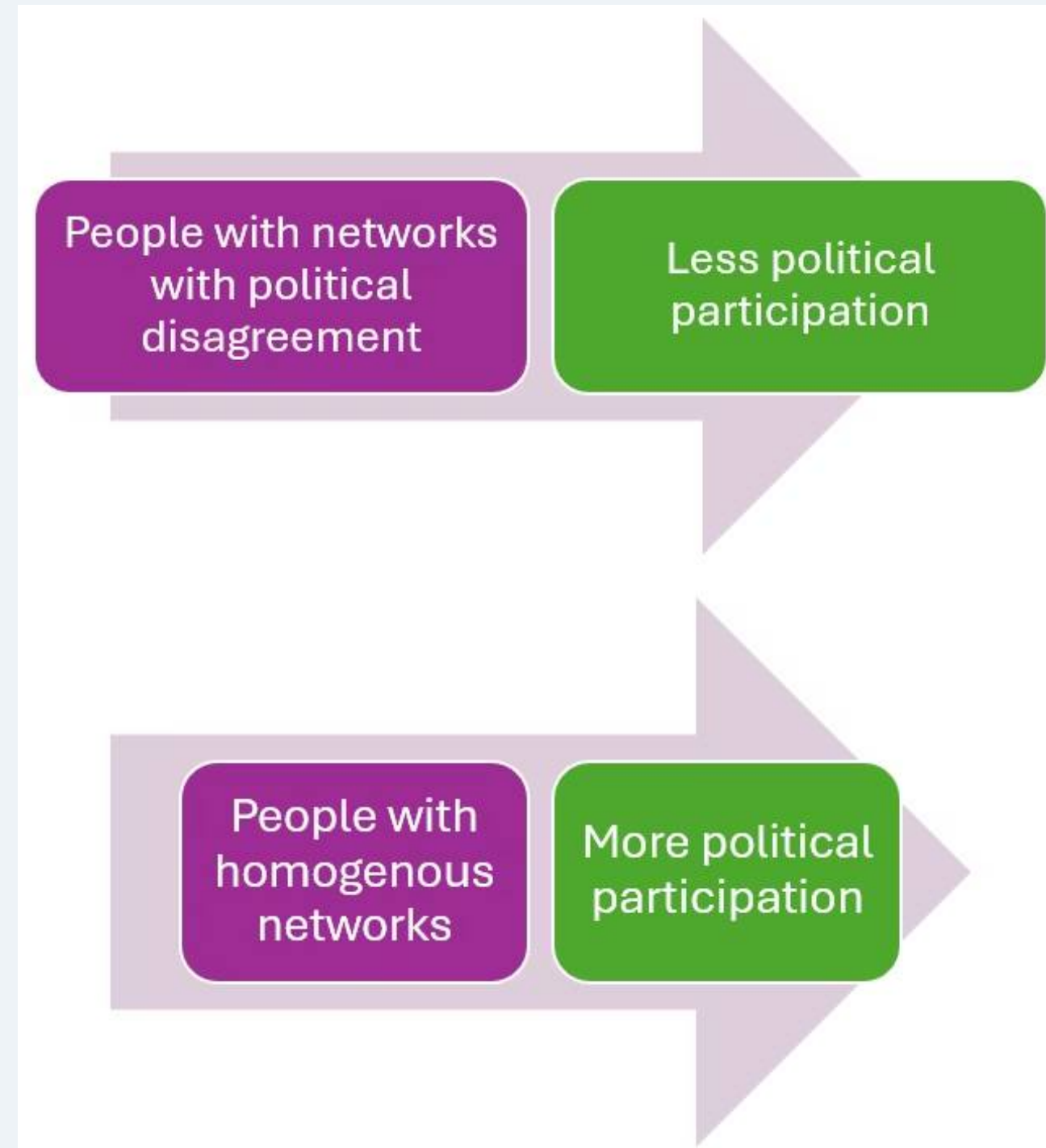
Published in: Journal of Information Technology & Politics, Oct-Dec2019

Database: Political Science Complete

By: Brantly, Aaron Franklin

Peer-reviewed	Empirical	Theoretical	Review
• Scholarly journal • Look in the record for the peer review check mark	• Method (data, survey, participants, etc.) • Results, findings	• No results or findings • Argue, critique • New measures, theory, definition	• Systematic, meta-analysis, scoping, etc. • “Review” in title

Identifying different types of scholarship



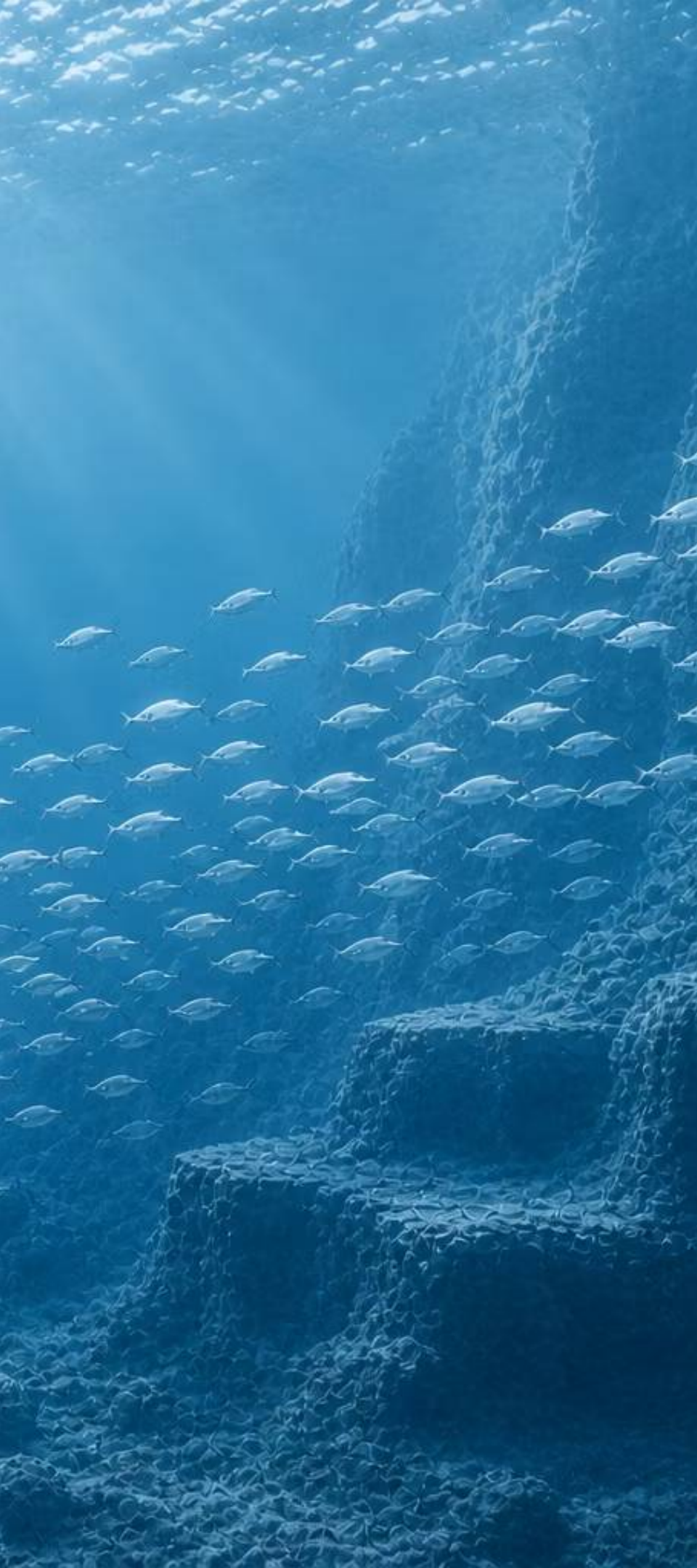
Diagramming causal relationships

Evaluation Practice with your Group

You are conducting a literature review on the topic of the impact of government actions on protest.

With the following three articles:

1. Identify the type of article: empirical study, theoretical article, or review article.
2. For empirical studies, identify the method and findings. Diagram relationships apparent in the findings.
3. For empirical studies, determine which would be relevant to the hypothetical literature review.
4. Choose a group spokesperson. Groups will be randomly selected to share answers.

A vertical blue-tinted image on the left side of the slide. It depicts an underwater scene where a large school of small, silvery fish swims in a circular pattern above ancient, partially submerged stone ruins. The water is clear, and the lighting creates a serene, deep-sea atmosphere.

Learning Objects

Video series:

- Reading search results
- Types of scholarly articles
- Reading empirical studies
- Reading scholarly arguments
- Reading scholarly books

Synthesis matrix templates for note taking

Keyword					My analysis, connections to other sources and my argument	Source evaluation
	Source citation	Link	Source summary idea, point of view	Source type		
Filter by keyword to see connections across sources. See arrow in top box.	Use the database to generate a citation. For help with citations, www.guides.smu.edu/citations	For library resources, use the permalink.	Source summary, needs to be cited in your paper. Find in the abstract, conclusion, or introduction.	Primary or secondary? Journal, news or magazine article? Book chapter?	Your explanation of the source idea's relevance to your research question or thesis. Why is this important? What are the implications? Do I need to explain this? Does not need to be cited.	How is the source authoritative on the topic? How do others view the author's or publication's authority or stance? Is it well researched or provide ample evidence? Is the date of publication appropriate?

Synthesis matrix with guiding questions





Course Instruction

- Annotating class readings/sources to see where attention is focused
- Guided reading activities that encourage deep, focused reading
- Detailed feedback for source selection
- Reading groups and focusing student effort

Annotations- What Not to Do

- Platitude annotation:
 - This author says technology isn't neutral and that people are involved in making it biased. We need to work together to fix technology.
- Vague reaction:
 - This is interesting because I never thought about technology this way before.
- Rewording without analysis:
 - The author argues that technology reflects social values and that people help keep biased systems going.
- Too general to be useful:
 - This shows how society affects technology.

Annotations- What to Do Instead

- Identify the main idea:
 - The author challenges the idea that bias in technology comes from bad actors or flawed code. By arguing that both designers and users are shaped by social values, the author shows...
- Connect to other texts:
 - This passage connects to Noble's *Algorithms of Oppression*, where she shows that biased search results are not accidental but emerge from social and institutional priorities. Reading these together highlights...
- Identify the evidence and link to the main argument:
 - The claim that “technological systems are not neutral” supports the author’s broader argument that harm cannot be fixed...



How might we help students learn to read?

How might we champion students learning how to read in the university?

What ideas do you have? What do you want to try?

I'd like to spend more time during the one-shot demonstrating source selection strategies based on deeper reading versus skimming

16

Popular

Add academic reading to the competencies we're currently developing

9

I want to try modeling how to read search results and thinking

9

Allocating time in class specifically to reading

8

Being more intentional about verbalizing my thought process as I'm demonstrating search results - what I'm looking for, what I'm pulling from the abstract

8

Faculty-librarian collaboration, addressing pressing reading challenges identified in classes by faculty

8

I find sometimes the reason why reading is daunting because they have been taught there is only one way to do it. And opening their mind to different approaches.

8

Bring back DEAR (drop everything and read) time

8



What ideas do you have? What do you want to try?

Find and use online learning objects (e.g. videos) that other institutions have created, rather than trying to make all of these learning objects at our institution.

8

Adding section to one-shot about selecting an article from search results - how and why

7

I'd like to try the synthesis matrix and annotation "what not to do".

7

Partner with writing center / academic skills center to integrate library skills with what they're doing

6

I've designed some multiple choice questions with abstracts that students choose the most relevant resource for the prompted question. It provides practice and immediate feedback.

6

Bring in a panel of upper-level students who have been successful at this and let them give advice to their younger peers.

6

Comparison of AI summaries with close readings.

6

Having them practice reading an abstract in small groups and then providing feedback

5

What ideas do you have? What do you want to try?

Integrate close reading and discussions into classes.

5

Interactive annotation (thesis, argument, evidence, citation)

5

Get rid of the traditional research paper and instead "academify" the book club

5

Kahoot for comprehension, what to pay attention to in an article

5

Collaborative annotation

4

Wishing I could run an "academic reading" class

4

Create our own suite of learning objects to embed into LMS that could meet students where they are or be used by campus partners too

4

Work with k12 librarians more to see what they've tried to develop reading skills

4

What ideas do you have? What do you want to try?

Co-Working through search results with instructor during one shot

4

Partner with learning support to identify trends in courses/disciplines. Approach those faculty together to strategize a multi-pronged intervention

4

Source annotation! I think that looks so helpful. I'd also love to have students look at how an assigned reading uses its sources

4

Ask students anonymously how comfortable they are with reading academic sources before class

4

Redo my finding scholarly sources lesson to include how to read search results!! I def take that for granted

3

Have silent reading gatherings.

3

using search strategies to build vocabulary on topic and connect searching to reading

3

Slowing down and focusing less on search mechanics (maybe via pre-work, flipped classroom)

3

What ideas do you have? What do you want to try?

Survey faculty about gaps in students' source evaluation & reading abilities to analyze how library could intervene

3

A faculty panel discussing struggles and strategies - I think others could talk about annotating, I'd feel confident talking about strategies for reading search results for initial selection

3

Share that successful students read twice as many titles in search results before engaging in the papers themselves.

3

Academic reading book club could work - invite students to bring class readings and read them with librarian guidance

3

I want to try group annotations on a shared source.

2

New workshop geared towards Academic Reading

2

Emphasize reader agency and discovery in the age of AI synthesis

2

More conscious of explaining how to go through result list; stating my thought process as I do it

2



What ideas do you have? What do you want to try?

Share with
faculty/instructors

2

I want to try quizzes for
reading sources for
meaning and relevance.

2

I often talk about the
purpose of articles vs. the
purpose of books. Articles
are shorter and so they
focus narrowly on a topic.
But they always connect to
bigger ideas in the
literature review.

2

Employ R.E.A.D. dogs!

2

Demonstrating with real
time feedback on
working through a
complex article.

2

Talk to faculty about how
assignment design
enables students to not
read deeply - ie checking
boxes for source types

2

I'd love for professors to
schedule a whole "how
to read" session to dive
into this with students

2

Always advocate for
annotated
bibliography
assignments!

2

What ideas do you have? What do you want to try?

We want to roll out a workshop for undergrads about strategies to read scientific articles. Perhaps we can incorporate the synthesis matrix and annotation practices in as well

2

Convince non-librarian faculty that this is 1) a real problem and 2) that it can be addressed

2

I interviewed grad students and faculty and asked them to share their own strategies, and used these recordings in a tutorial to show that strategies can change based on discipline and purpose.

2

Contextualizing how a source is used in a research article

2

Quiz on identifying main ideas in an abstract

1

First, need to persuade that this is an actual issue. Some faculty may overestimate students' reading comprehension abilities.

1

Build a learning experience/tutorial that walks students through the process

1

More assessment of annotations in early stages of course

1



What ideas do you have? What do you want to try?

Discussion of source and annotations made in pairs or groups to expand on ideas in another format

1

Try Perusal

1

Focusing more time on providing examples through the process, and giving direct feedback

1

We have a summer series for students conducting research. I'm doing a 45-minute session early in the summer on reading for research and plan to incorporate many of these strategies!

1

Guide them through the process through gamified storytelling that they can later apply in more scholarly contexts

1

Advocating to professors and instructors how taking time to do an activity like this as a part of class time is important!

1

I'd like to have students read an article as a group in real time and then share what they choose to annotate and why together

1

I have 'fake' scholarly articles written in lorem ipsum, and ask students to identify 3 parts of the article they'd focus on if deciding relevance, quality, and finally understand the article

1



What ideas do you have? What do you want to try?

Try giving prizes for reading goals

1

I am interested in figuring out how to adapt these strategies to the humanities where annotations are not already guaranteed and writers use sources differently than in a lit review.

1

Using a short science fiction story as practice to identify WHAT science concepts are central and the HOW the story shows this (source's evidence)

1

Ask them what topics or subjects are the interested? Recommend books about those topics to get them more interested in reading.

1

Would love to do workshops. Talk with faculty about whether this is stepping on their toes - who is responsible for decoding scholarship if librarians aren't subject experts?

1

Use middle grad level reading materials

1

We tried a book club with structured conversations but students didn't come

Maybe bring examples to class around a topic to hand out in class that are good / bad and have them compare and annotate them in an activity.

What ideas do you have? What do you want to try?

I want to infuse it into the one-shot, as suggested

I want to think about whether i could ask graduate faculty to incorporate tutorials on some of these skills into their courses

This is great! Also, signal boost for Mark Lenker's article on teaching synthesizing

We tried a book club - very high interest, very low attendance :(



Thank you!

Questions or
comments?