

Swimming Against the Current:

Empowering Students through Collaborative Instruction to Combat Misinformation



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ABOUT THE PRESENTER



Rebecca Nowicki

Online Learning Librarian | San Diego State University

Professional Focus

Specializing in online pedagogy, critical information literacy, and collaborative instruction. Passionate about empowering students to navigate complex information environments.

Background

- 15 years as a librarian
- Developed and taught 1 & 3 credit Information Literacy classes

EMPOWERING CRITICAL PARTICIPANTS

Attendees will leave with practical ideas for:

**Building long-term
librarian-faculty partnerships.**

**Scaffolding critical information
literacy in undergraduate
curricula.**

*Empowering students to not just
swim against the current, but to
build the tools to help others
navigate it as well.*



Course Background & Design

SAN DIEGO STATE UNIVERSITY

Founded 1897

San Diego State University (SDSU) is a public research university in San Diego, California. It is the oldest and largest higher education institution in San Diego County.

The university is home to the Weber Honors College, which provides a unique interdisciplinary environment for high-achieving students.

SDSU is recognized for its commitment to student success, diverse community, and pioneering research initiatives across various disciplines.



Fighting Misinformation

Locating and Using Reliable Sources for College and Everyday Life

Interdisciplinary

3-Credit Units

- 100-level seminar class
- Enrollment capped at 25 students
- Based on a 1 credit course developed for General Studies
- 1 of 2 sections of offered in the spring semester for Honors 113; Seminar in Honors Connection and Commitment, a required course for the Weber Honors College

COMBATING MISINFORMATION

Misinformation shapes public discourse, influences decisions, and exacerbates social inequities.

Strategic Approaches

- Librarians are uniquely qualified but cannot work in isolation.
- Moving beyond "one-shot" instruction to embedded practices.
- Need to have/make opportunities for deeper discussions

Students are drowning in a sea of information and misinformation.

They need to know how to swim and find those life rafts.

Teach them to be information skeptics, not information cynics.

WHAT FORMED MY IDEAS

Feminist Pedagogy

Focuses on decentering authority, validating student experience, and creating a collaborative learning community.

Critical Information Literacy

Examines structural factors of information: who has power, whose voices are amplified, and how bias is baked into ai, algorithms, and information dissemination

Andragogy

Treats students as adult learners, positioning them as co-contributors to knowledge who learn from each other.

Open Pedagogy

Class uses and creates Open Educational Resources (OER) to foster a sense of shared ownership and transparency.

FEMINIST PEDAGOGY

Core Principles & Foundations

- **Decentering Authority:** Shifting the power dynamic from the teacher as sole expert to a co-creator of knowledge.
- **The Personal as Political:** Validating lived experiences as legitimate sources of scholarly inquiry and academic evidence.
- **Social Justice:** Actively working to dismantle systemic inequities within the classroom and the broader information landscape.

Recommended Resources:

Hooks, b. (1994). Teaching to Transgress: Education as the Practice of Freedom. Routledge.

Freire, P. (1970). Pedagogy of the Oppressed. Herder and Herder.

Accardi, M. T., & Vukovic, J. (2014). Feminist pedagogy for library instruction .Library Juice Press.

Nicholas, J., Light, T. P., & Bondy, R. (2017). Feminist pedagogy in higher education : critical theory and practice (1st ed.). Wilfrid Laurier University Press.



CRITICAL INFORMATION LITERACY

Particularly

- **Power Dynamics:** Analyzing the socio-political structures that govern information production, dissemination and access.
- **Authority is Contextual:** Recognizing that authority is constructed and depends on the community and need.
- **Algorithmic Bias:** Investigating how technical systems amplify certain voices while silencing others.

Recommended Resources:

Elmborg, J. (2006). *Critical Information Literacy: Implications for Instructional Practice*. *Journal Of Academic Librarianship*.

Accardi, M. T., Drabinski, E., & Kumbier, A. (2010). *Critical Library Instruction: Theories and Methods*. Library Juice Press.

Pagowsky, N., & McElroy, K. (Eds.). (2017). *Critical library pedagogy handbook*.



ANDRAGOGY

Principles of Adult Learning

- **Self-Directed Learning:** Adults have a deep need to be self-directing and take responsibility for their own learning decisions.
- **Role of Experience:** Experience is the richest resource for adult learning; it forms the basis for new learning activities.
- **Readiness to Learn:** Adults become ready to learn things they need to know to cope effectively with real-life situations.
- **Orientation to Learning:** Adult learning is problem-centered rather than subject-centered, focusing on immediate application.

Recommended Resources:

Knowles, M. S. (1980). *The Modern Practice of Adult Education: From Pedagogy to Andragogy*. Cambridge Adult Education.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2015). *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development*.



CRITICAL & INTERDISCIPLINARY PEDAGOGY

Instructional Approaches

Critical Information Literacy: Moving beyond tools to thinking about information in the abstract—examining power, bias, and algorithms. Not skills but embedded social practice

Feminist Pedagogy: Validating student lived experience and decentering instructor authority.

Andragogy: Treating students as adults by recognizing their experience so they become co-investigators and contributors to knowledge.

Repositioning librarians as co-investigators with students, shifting the power dynamic of the librarian / instructor as a 'gatekeeper' of truth.

INFORMATION INEQUITY & BIAS

Students examine the structural dynamics that shape the creation and accessibility of information:

Critical Pedagogy

Encouraging students to recognize that "objectivity" is often a reflection of power structures in information ecosystems.

Digital Spaces

How algorithms and digital platforms exacerbate existing social biases.

Publishing Bias

Who gets published and whose voices are excluded?

Academic Gatekeeping

Examining inequities within higher education knowledge production.

OPEN PEDAGOGY & PREPARATORY RESEARCH

RESOURCES USED

Course Shell: Supplementary Canvas modules for Introduction to College Research by Walter D. Butler; Aloha Sargent; and Kelsey Smith– Heavily modified

Assignments: ACRL Online Learning: Critical Information Literacy Instruction in an Age of Misinformation– Sarah Morris, October 24–November 18, 2022

ACRL Framework for Information Literacy Sandbox.

Research: (these are only a few resources used)

Pashia, A. (2019). *Critical approaches to credit-bearing information literacy courses*. Association of College and Research Libraries.

Mallon, M. N., Hays, L., Bradley, C., Huisman, R., & Belanger, J. (Eds.). (2020). *The grounded instruction librarian : participating in the scholarship of teaching and learning*. Association of College and Research Libraries.

Accardi, Maria T.. (2010). *Feminist pedagogy for library instruction*. Library Juice Press.

Penny, L. T., Nicholas, J., & Bondy, R. (Eds.). (2015). *Feminist pedagogy in higher education : Critical theory and practice*. Wilfrid Laurier University Press.

Pagowsky, N., & McElroy, K. (Eds.). (2017). *Critical library pedagogy handbook. Volume 2, Lesson plans*. Association of College and Research Libraries.

Hess, A. N. (2018). *Transforming academic library instruction : shifting teaching practices to reflect changed perspectives*. Rowman & Littlefield.

Hinchliffe, L. J., Rand, A., & Collier, J. (2018). Predictable information literacy misconceptions of first-year college students. *Communications in Information Literacy*, 12(1), 4–18. <https://doi.org/10.15760/comminfolit.2018.12.1.2>

TEXTBOOKS USED

Main

Upson, M., Hall, C. M., Cannon, K. (2021). Information now: A Graphic guide to student research. (2nd ed.) University of Chicago Press.

Butler, W. D., Sargent, A. and Smith, K. (2021). Introduction to College Research. Pressbooks.

Secondary

Barclay, D. A. (2022). Disinformation : The nature of facts and lies in the post-truth era. Rowman & Littlefield Publishers.

Bernard, D., Bobish, G., Hecker, J., Holden, I., Hosier, A., Jacobson, T., Loney, T., and Bullis, D. (2014) Information literacy user's guide: An Open, online textbook. Open SUNY Textbooks.

Teaching & Learning, University Libraries. (2018). *Choosing & using sources : a guide to academic research*. Ohio State University: Open Textbook Library.



Cover Art credit: Information Now- Kevin Cannon, Introduction to College Research-Cheryl R. Niesen, Information Literacy User's Guide -Open SUNY Textbooks, Choosing and Using Sources - Alessandro Suraci from the Noun Project, Disinformation -Rowman & Littlefield Publishers

The course shell for this course was originally created by Xiaoyang Behlendorf and Cynthia Mari Orozco, to supplement the OER text: [Introduction to College Research](#).

[Research](#).

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Collaboration

THE COLLABORATIVE MODEL

Librarians as Co-Educators

Collaborative Learning



Specialist Guests

8 guest lectures from subject librarians providing disciplinary expertise.



Mirroring Research

Students see how experts across disciplines locate and verify information.



Empowered Roles

Students shift from passive consumers to recognize their role as active "Information Creators."

LIBRARIANS AS CO-EDUCATORS

Central to this course is the integration of subject specialists who contribute diverse disciplinary perspectives.

- Modeling the Research Process: seeking out expert perspectives and not relying on one voice/perspective
- Students observe how different fields use sources and conduct research
- Modeling Expert Conversations: Engagement with multiple voices across the library
- Interdisciplinary Synthesis: Prompting students to see the interconnectedness of information sources

Collaborative Impact

This model expands instructional reach and reinforces the value of interdisciplinary partnerships beyond the traditional "one-shot" session.

INTERDISCIPLINARY PERSPECTIVES

Week	Topic	Guest Expert
3: Misinformation & Disinformation and You	Health Misinformation & Psychology	Health Sciences Librarian
4: Asking Questions and Understanding Information Sources: The Life Cycle of Information	Primary Sources & Lifecycle of Information	University Archivist
5: Introduction to the Scholarly Conversation	Scientific Representation	Science Librarian
6: Sharing Ideas, & Leveraging the Internet	Propaganda & Government Information	Scholarly Communication and Open Initiatives Librarian (former Govt Documents Librarian)
7: Evaluating Information and Information Sources & Visual and Data Misinformation	Discovering and Evaluating Data Sources	Assessment Librarian & Social Science and Data Librarian
10: How Search Works: Advanced Search Techniques	Algorithms & AI Search Tools	Digital Initiatives Librarian & Electronic Resources Librarian
11: Where & How Information is Organized	Metadata & How Information is Organized & Stored	Cataloging Librarian & Metadata Librarian
15: Information Economy: We Pay for That & Putting it Together: You are the Information Creator	Copyright and Creative Commons	Scholarly Communication and Open Initiatives Librarian

EXPERTISE IN THE CLASSROOM

HEAR IT FROM THE GUEST SPEAKERS



**HEALTH SCIENCES AND
RESEARCH DATA SERVICES
LIBRARIAN**



**SCIENCE AND
SUSTAINABILITY LIBRARIAN**



**SCHOLARLY
COMMUNICATION AND OPEN
INITIATIVES LIBRARIAN**



STUDENT-CENTERED INSTRUCTION



Letters to Future Students: Peer-to-peer advice sets expectations on day one.



Group Readings: Students present core concepts to their peers, fostering accountability.



"In-the-Wild" Discussions: Real-world examples found by students facilitate applied learning.



Community Construction: Class dynamics move from passive lectures to think-pair-share and group discussions

COLLABORATIVE LEARNING

Amplify Student Voices

We move away from passive learning to a community-based approach:

- Shared responsibility for learning
- Peer-to-Peer Teaching: Students discussions on complex misinformation themes & help each other make connections
- Reflective Dialogue: Spaces for students to share their personal interactions and thoughts on the information environment

These activities foster a student-centered community where collective inquiry replaces the 'sage on the stage' model.

CLASSROOM COMMUNITY

HEAR IT FROM THE GUEST SPEAKERS



**HEALTH SCIENCES AND
RESEARCH DATA SERVICES
LIBRARIAN**



**SCIENCE AND
SUSTAINABILITY LIBRARIAN**



**SCHOLARLY
COMMUNICATION AND OPEN
INITIATIVES LIBRARIAN**





Assignment Design & Scaffolding

COURSE SCAFFOLDING

01. Observation

Media Diet
Activity, Journal
Reflections,
Curation of
Misinformation
Examples

02. Application

Identifying
misinformation
types, themes,
and tropes,
applying ideas
to examples and
applying
heuristic
frameworks.

03. Synthesis

Developing
individual
research
questions &
annotated
bibliographies.

Combining
course ideas &
concepts for
group project

04. Creation

Group projects
creating
instructional
tools for the
public.

FORMATIVE ASSESSMENT



Journal reflections – connecting concepts to their life, discipline, major, or society.



Quizzes– Pre and Post Quiz, Short 3–8 point quizzes, 65 point midterm

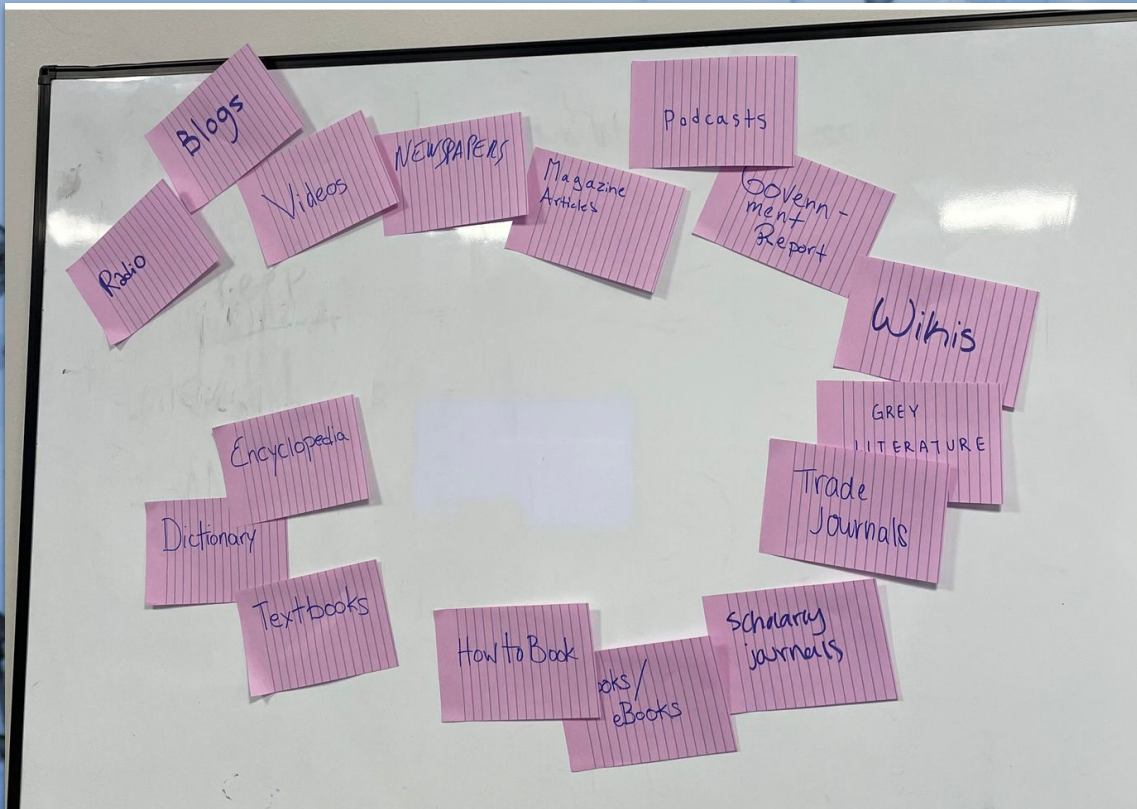


Activity assignments– application what they learned, both in-class and post class

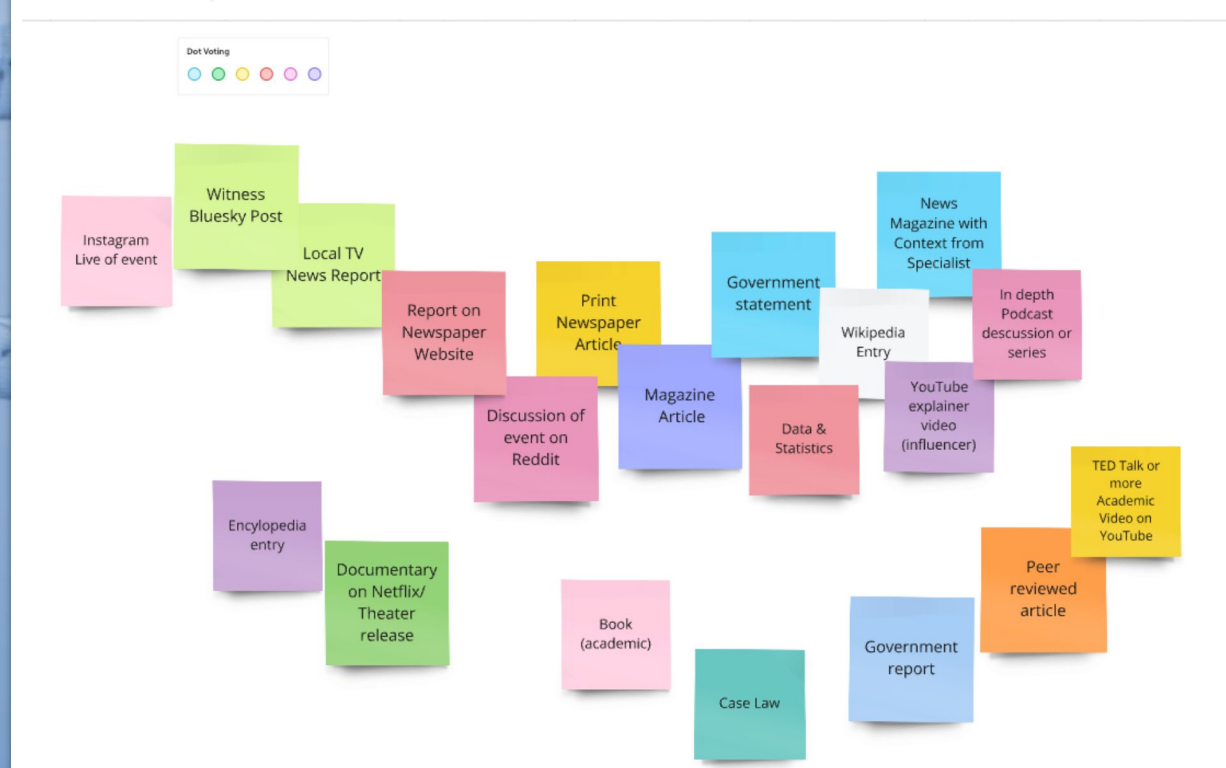


Observation and Analysis Assignments: Media diet, In-the-Wild Discussion Board

IN CLASS COLLABORATIVE ACTIVITIES EXAMPLE MAPPING THE INFORMATION LIFECYCLE



Our information lifecycle:



IN CLASS COLLABORATIVE ACTIVITIES EXAMPLE DEVELOPING A SOURCE EVALUATION ACRONYM

Source Evaluation Methods

Instructions

This week we are going to look at five different methods of source evaluation and collaborate to develop our own method for evaluation.

To prepare for this week's class, take a critical look at all five of the evaluation methods and be prepared to answer these questions:

1. What aspects or features do they share?
2. How are they different?
3. What aspects do you think would be most helpful?
4. Which one would you be most likely to use?
5. Reflecting on what we learned about types of sources in Weeks 1-4, how might it affect which method of evaluation works best for you?

Source Evaluation Links

- [The CRAAP test](#)
- [Act Up Method](#)
- [4Ws](#)
- [Evaluation Wheel](#)
- [SIFT Method](#) This is the method discussed in this week's InfoLit. Make sure you watched the 4 videos in the playlist.

The screenshot shows a Padlet board titled "Evaluating Sources" by Rebecca Nowicki. The board contains five collaborative posts, each with a unique acronym and its components:

- Rebecca Nowicki** (a year ago):
 - Subject should be group member names**
 - Next line should be your acronym & explanation of what it means
- Charismatic Tuna** (a year ago):
 - D.R.C.A.B.E.**
 - Determine
 - Read
 - Critique
 - Analyze
 - Bias
 - Evaluate
- Anonymous** (a year ago):
 - PACT**
 - Privilege, author, currency, truth
- Anonymous** (a year ago):
 - S - stop**
 - W - wonder**
 - A - analyze**
 - P - purpose**
- Anonymous** (a year ago):
 - SCAT**
 - Stop, Currency, Authority, Trace
 - Stop: emotions your feeling from the article
 - Currency: how relevant the information is to right now and when it is from
 - Authority: Who's the author, and are they biased?
 - Trace: using outside sources to check the credibility and check a different source on the same topic

FOUNDATIONAL FRAMEWORKS

PART ONE: UNDERSTANDING THE INFORMATION ENVIRONMENT

Core Theoretical Frames

Focusing on **"Information Has Value"**, **"Scholarship as Conversation"**, and **"Information Creation as a Process"** as primary ACRL Frames covered

Start Right:

- Pretest: Framework and Predictable Misconceptions (ungraded)
- Media Diet Activity

Misinformation Impact

Analyzing how modern dissemination methods shape the proliferation of mis/disinformation

Explore the psychological, social, and technological reasons we believe misinformation

.

Applied Practice: Formative Assignments

Early coursework emphasizes three critical pillars: **Observation** of systems, **Application** of theory to real-world examples, and deep **Self-Reflection** on personal information habits.

FUNCTIONAL RESEARCH SKILLS

PART TWO: BECOMING EFFECTIVE INFORMATION USERS

ACRL Theoretical Frames

Second half emphasizes "**Research as Inquiry**," "**Searching as Strategic Exploration**," and "**Authority Is Constructed and Contextual**."

These frames guide students as they transition into sophisticated researchers.

Activity-Based Learning

Most assignments allow students to experiment with **new research techniques** through direct practice.

Weekly progression mirrors the **actual research process**, from topic selection to synthesis.

Applied Practice: The Research Journey

Students choose specific **mis/disinformation topics** to explore deeply, applying functional literacy skills throughout the second half of the term.

CULMINATING ASSIGNMENTS

BRIDGING THEORY AND ACTION THROUGH PRACTICE

Individual Project

The **Annotated Bibliography** represents a culmination of work from the second half of the semester.

Students hone specialized research skills, exploring new avenues of inquiry to build expertise on their chosen topic.

Group Project

This final collaboration **ties both halves of the semester together**, integrating foundational frameworks with functional skills.

Students become active participants in the fight against mis/disinformation by sharing knowledge practices with others.

Impact: From Students to Information Creators

Through these assignments, students transition from passive observers to active creators, developing instructional tools for the public and reinforcing the principles of shared knowledge.

GAINING RESEARCH SKILLS & EXPERTISE-INDIVIDUAL FINAL ASSIGNMENT

The final individual project requires students to hone their research skills, learn new avenues of research and teach others what they learned about a misinformation topic of interest

1. Identify: Choose a specific area or topic of research related to misinformation based on interest or degree program.
2. Apply: Use techniques and knowledge practices from each week to build an annotated bibliography
3. Share: Submit for grading and share what they learned with the class at the final

ASSIGNMENT SCAFFOLDING: Annotated Bibliography



FIGHTING MISINFORMATION- GROUP PROJECT

Using “Misinformation in the Wild” assignments as a foundation, groups identify rhetorical strategies to develop educational tools for to teach others how to identify and avoid that type of mis/disinformation

Identify & Analyze

Groups analyze collections of examples to identify patterns, themes, and rhetorical strategies in mis/disinformation.

Students select a specific theme or trope to focus on

Educate & Design

Explain the trope, provide real-world examples, and develop a specialized tool to teach others.

Focus on detection and practical advice on how to avoid falling for specific misinformation

Open Sharing

Apply knowledge of information sharing by selecting an appropriate Creative Commons license.

Projects are licensed for public sharing, transforming students into active information creators.

They present and explain their tool at the final

ASSIGNMENT SCAFFOLDING: GROUP PROJECT

01

Prepare:

Introduce
group project
on day one

Discuss
throughout
semester

Show
examples

02

Observe:

Start
observation/
application

"In The Wild"
Discussion
posts

Journal
Reflections

03

Form Groups:

Discuss
interests &
form groups
based on
shared
interests

04

Group Brainstorm & Work Time:

Dedicate class
time for group
work

05

Feedback:

Meet with
instructor for
guidance

Give feedback
of focus and
product
throughout the
process

*Scaffolded Throughout The Semester

EMPOWERING STUDENTS- GROUP PROJECT

Goal: Move knowledge practices from the classroom to the community.

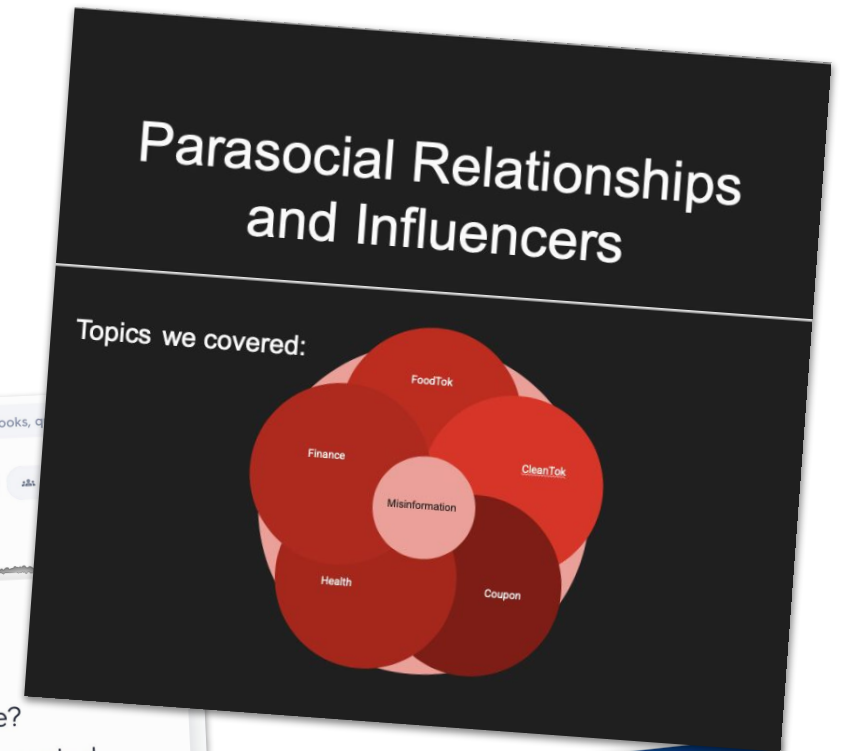
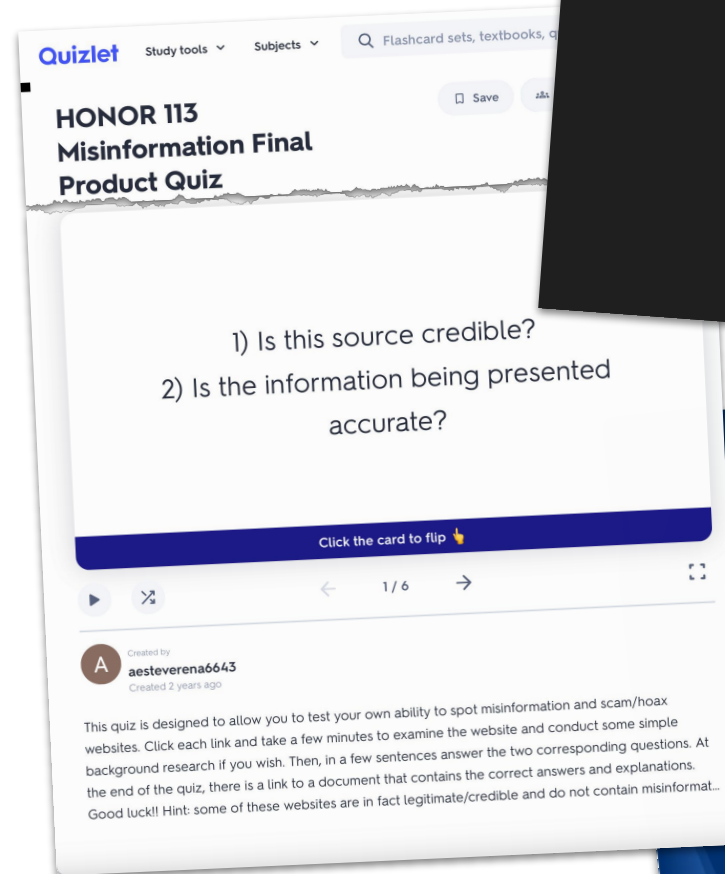
Topic Examples: Fitness misinformation, parasocial relationships & influencers, out-of-context misinformation and sex education, and demagoguery & emotionally charged language, clickbait and flashy titles

Impact: Students create artifacts (Jeopardy-style games, podcasts, vidoes, zines, ephemera) licensed via Creative Commons.

Outcome: Students see themselves as "Information Creators" with social responsibility.

EMPOWERMENT THROUGH CREATION

The final project engages students as active participants in the fight against misinformation by applying what they learned throughout the semester to an area of interest



EMPOWERMENT THROUGH VALUING EXPERTISE

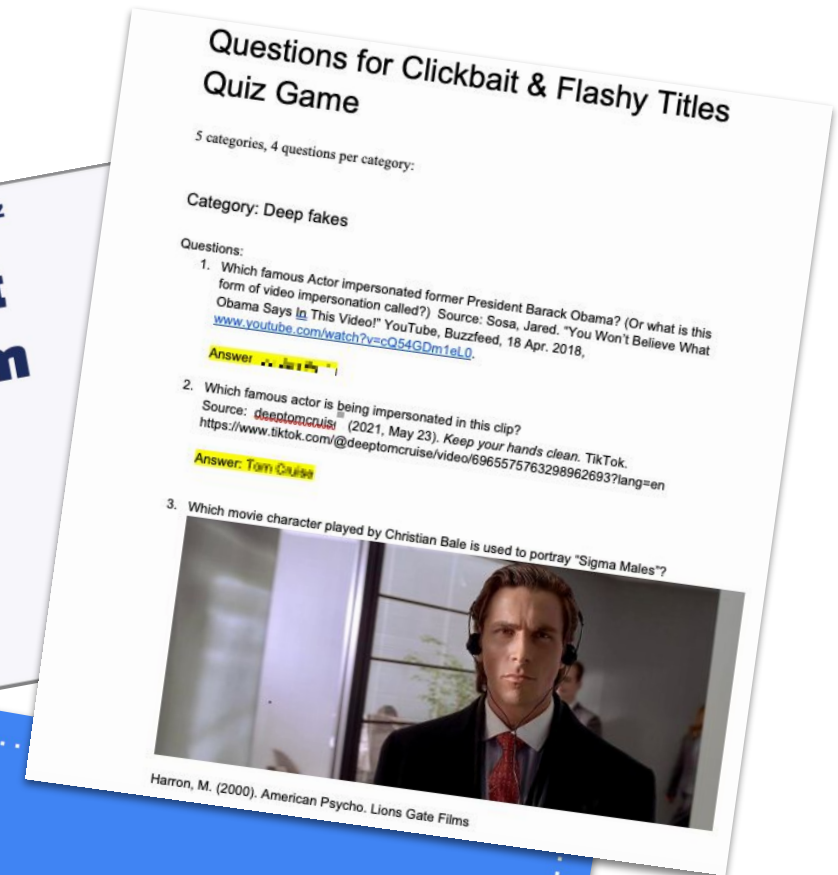
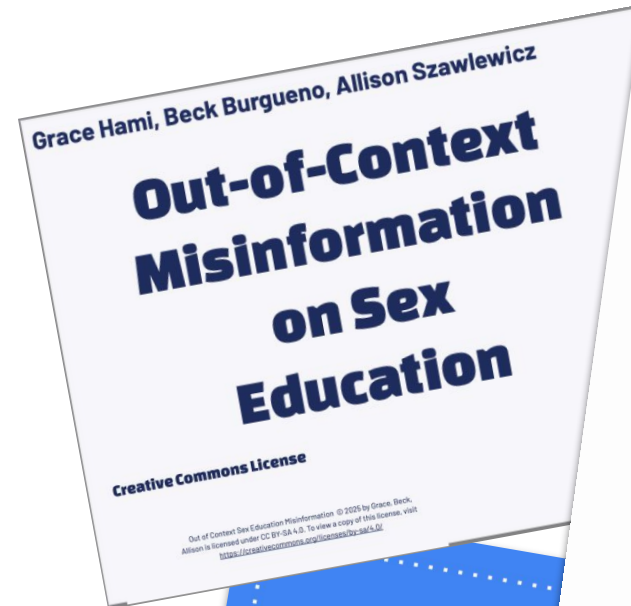
Students get to be creative and use the strengths and skills they come to class with in the collaboration to demonstrate their mastery of the topic



EMPOWERMENT THROUGH SHARING

Licensing: Creative Commons licenses ensure sharing and sustainability.

They also put in extra effort knowing this will be shared outside of the class in a LibGuide (if CC license allows)

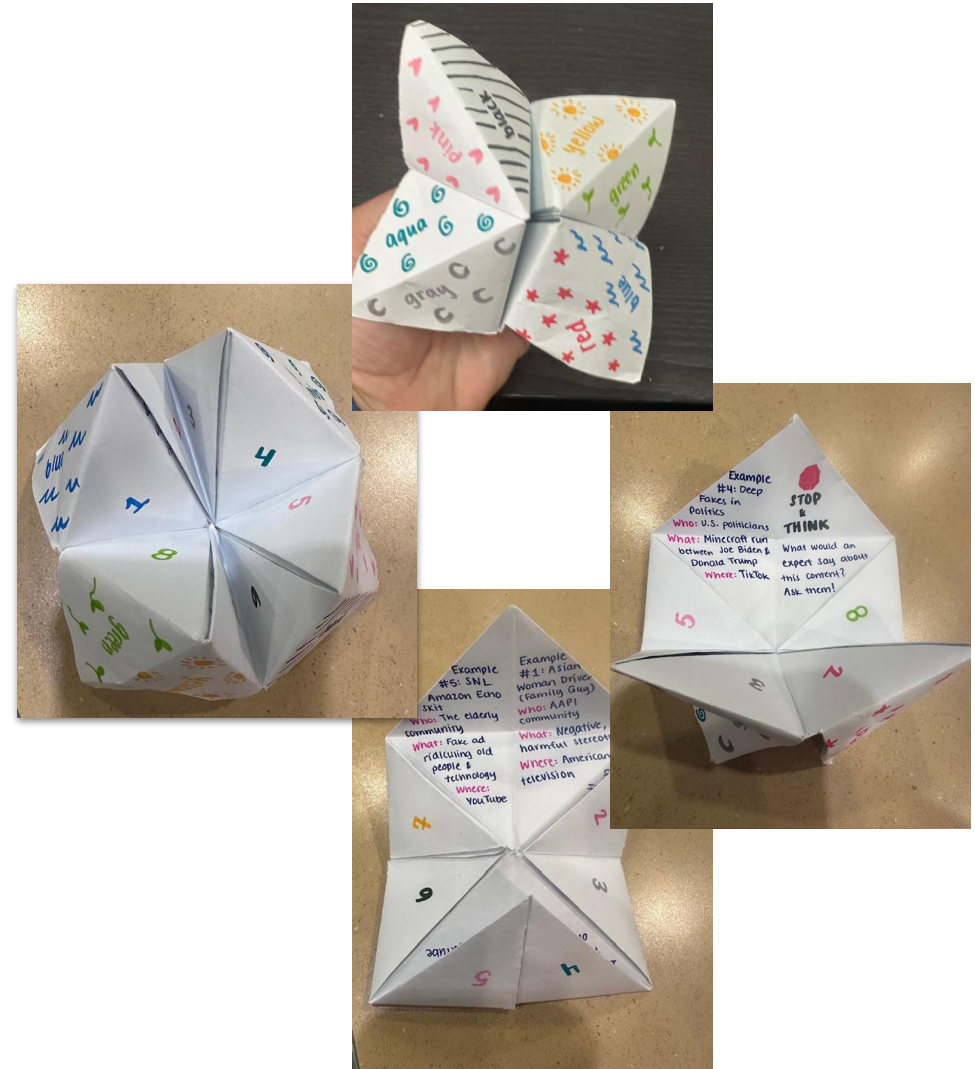


PRESENTING THEIR CREATION

Groups present educational project.

- Present the misinformation technique, theme, or trope.
- Identify the target audience of the mis/disinformation
- Appeal of the theme or trope
- Techniques, psychology, or societal factors are involved
- Show (at least) 5 examples of evidence of the trope or theme
- Consequences of this misinformation spreading
- Educational material they created including
 - format choice reasoning
 - how might this be used to fight the spread of misinformation?

The Creative Commons Licence you chose and why





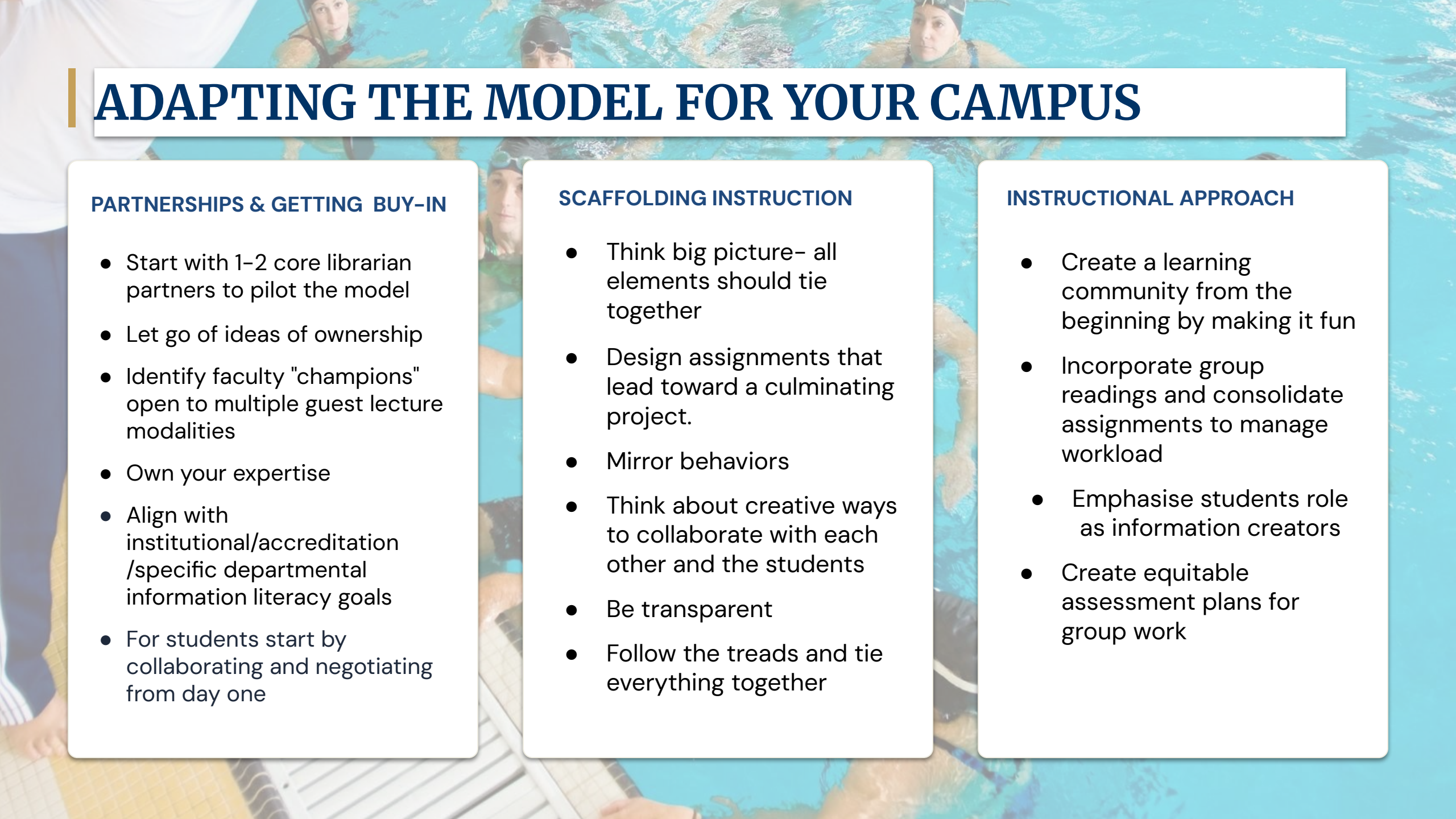
Challenges & Lessons Learned



CHALLENGES & SCALING THE MODEL

Challenges and Adjustments

- Encouraging participation can be tricky– start early
- Create a plan to assess group work so it is equitable
- Guest Lectures need schedule flexibility, which can make scaffolding hard
- Scalability: Currently high touch and personal interactions
 - possible with lower enrollment – looking at adapting it for a larger enrollment Gen Ed class
 - grading assignments would be challenging
- Workload for myself and students – more group readings, consolidating assignments
- Automate grading components where possible for high enrollment.



ADAPTING THE MODEL FOR YOUR CAMPUS

PARTNERSHIPS & GETTING BUY-IN

- Start with 1-2 core librarian partners to pilot the model
- Let go of ideas of ownership
- Identify faculty "champions" open to multiple guest lecture modalities
- Own your expertise
- Align with institutional/accreditation /specific departmental information literacy goals
- For students start by collaborating and negotiating from day one

SCAFFOLDING INSTRUCTION

- Think big picture- all elements should tie together
- Design assignments that lead toward a culminating project.
- Mirror behaviors
- Think about creative ways to collaborate with each other and the students
- Be transparent
- Follow the treads and tie everything together

INSTRUCTIONAL APPROACH

- Create a learning community from the beginning by making it fun
- Incorporate group readings and consolidate assignments to manage workload
- Emphasise students role as information creators
- Create equitable assessment plans for group work

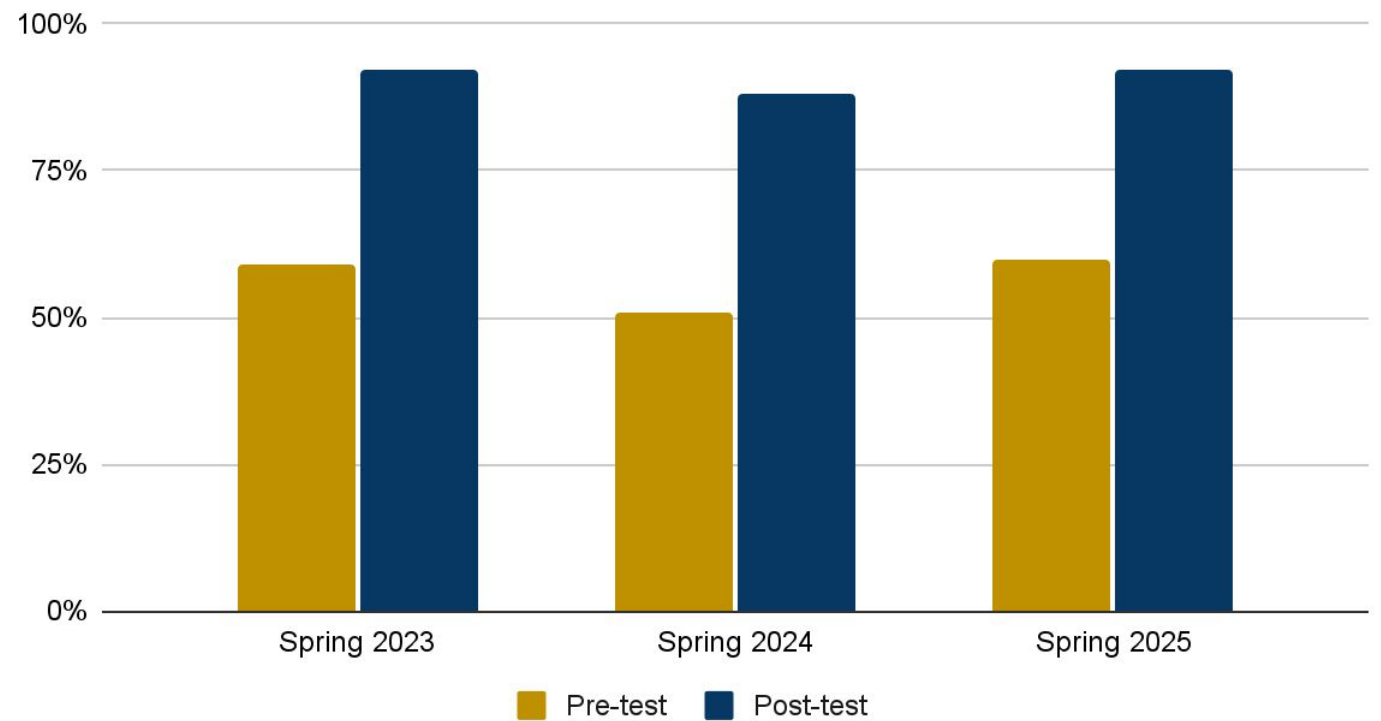
A background image of a swimming pool with a striped cup and a lime slice. The cup is yellow and orange striped, with a lime slice on the rim. It is sitting on a pink ring. The pool is blue with white clouds reflected on the surface.

Conclusion

ASSESSING STUDENT IMPACT



Increase in Course Average for Post-test



ASSESSING LEARNING

Year	<i>Pre-test Low Score</i>	<i>Pre-test High Score</i>	<i>Class Pre-test Average Score</i>	<i>Post-test Low Score</i>	<i>Post-test High Score</i>	<i>Class Post-test Average Score</i>
2025	40%	86%	60%	82%	100%	95%
2024	32%	67%	51%	55%	98%	88%
2023	47%	71%	59%	84%	100%	92%

STUDENT FEEDBACK: QUOTES FROM LETTERS TO FUTURE STUDENTS

"You will discover internalized stereotypes, associations and biases you may not have known existed hiding behind algorithms and coding or even within yourself."

"I am much more confident in accessing information, building research projects from scratch, and utilizing all the resources that SDSU's library offers."

"I can guarantee you that everything you retain from this class is worthwhile and will help you in the future!"

"These [readings] may seem daunting, but if you put in the effort to stay on top of your work, and participate during lectures, you are sure to succeed."

"Overall, this class will leave you with a new outlook on our society, social media, technology, and information!"

"I am much more confident in accessing information, building research projects from scratch, and utilizing all the resources that SDSU's library offers (for free!)."

Questions & Discussion

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Presentation