

Anticipatory Sets: Setting the Stage for Learning

Brandon K. West, State University of New York at Geneseo
Anne C. Deutsch, State University of New York at New Paltz

Have you ever started a class only to be met with blank stares and seeming indifference? Or wished that you had diagnostic information to help guide your instruction? Whether you are leading a 50-minute one-shot or conducting the third class of your semester-long course, you want to get each instruction session started on the right foot. Anticipatory sets are activities aligned with student learning objectives (SLOs) that set the stage for immediate learning opportunities. Also called hooks, bridges and attention grabbers, these activities engage students' prior knowledge and interest at the very beginning of a class period.

As an example, consider an information literacy instruction session for a first year course in the fall semester. To launch the class, you ask students to reflect on a meaningful, recent task that every student would be familiar with: the research process they undertook to choose a college. After several minutes of reflection, you have students discuss that process with their neighbor and then have the whole class share out. You then facilitate a discussion comparing and contrasting the information resources mentioned to information resources collected in an academic library. With this anticipatory set you immediately engaged students, uncovered and recognized their existing knowledge, and began connecting that knowledge to new knowledge.

In her 1982 classic *Mastery Teaching*, Madeline Hunter refers to the first few minutes of class time as "prime time" (p. 27). She encourages teachers to take advantage of this time by starting with an anticipatory set *followed* by meaningful learning objectives (pp. 27-29). Hunter outlines three possible goals of anticipatory sets (not all sets will address every goal): focus students on learning; give students practice to help them accomplish learning objectives; and give you diagnostic information about their prior knowledge (p. 28). Many of us have been taught to begin class sessions by reviewing SLOs and many of us have observed students disengage as we perform this task. Anticipatory sets that precede and are aligned with SLOs provide context and meaning for learning from the very beginning of a class session. Successful sets have a prompt or trigger with clear instructions/expectations and an activity (e.g., writing, drawing, discussing, completing a task, solving a problem).

Notably relevant for librarians, anticipatory sets are particularly useful for single session information literacy instruction. We often enter the classroom knowing little to nothing of what our students know and, as a result, what they need to know. One of the most useful outcomes of utilizing anticipatory sets within this context is that the activity both engages prior knowledge, a proven pathway to learning, while also revealing that knowledge. This allows us to set the stage for learning and also collect valuable information about students. Additionally, anticipatory sets can give us a much needed opportunity to establish both rapport and relevance; not an easy task when enter-

ing someone else's classroom. They are also a great way to integrate the Framework for Information Literacy for Higher Education into your sessions (refer to the examples section to see how this can be accomplished).

As mentioned, anticipatory sets rely on one of the most studied aspects of learning—the importance of engaging prior knowledge to facilitate the creation of new knowledge. For an excellent overview of research in this area see Ambrose, Bridges, DiPietro, Lovett and Norman (2010). While prior knowledge is a powerful bridge to new knowledge, a word of caution is in order. If existing knowledge is inactive, insufficient, inappropriate or inaccurate it can actually impede learning (Ambrose et al., 2010, pp. 13-14). This is important to consider as you're designing the prompts. Do your best to be clear and try to keep within territory that you are fairly confident students can navigate. Further, it's essential that you provide immediate feedback when necessary to keep students on track.

Examples

Below we offer examples of anticipatory sets ranging from basic to advanced that we have used successfully for information literacy instruction. Rather than suggesting that these are the best or only sets, we offer them as a starting point for both understanding and practice.

Basic Approach To Anticipatory Sets

Strategy #1: Use of an analogy to activate prior knowledge

Related SLO: Students will identify main concepts in a research question and brainstorm synonyms and related concepts in order to search strategically for information resources.

Related Frame: Searching as Strategic Exploration

Description of Anticipatory Set:

Analogies can be a great tool for activating prior knowledge, since they are used to show similarities between related concepts. In information literacy instruction, there are many ways in which the research process can be related to everyday situations. Logistically, this is as simple as an anticipatory set gets—an analogy can be projected on a screen, drawn on a board, or stated aloud. You can increase the depth by asking students a question about the image or statement and ask them to think-pair-share. This will get students thinking and chatting right away.

Example: Comparing the Research Process to Putting a Puzzle Together

1. Project an image of a puzzle.
2. When class begins, ask students, "How do you start a puzzle?"

3. Ask students to think about strategies they have used and share with their neighbor.
4. After a couple of minutes, have students share out with the whole class.
5. Ask the students, “How are these strategies helpful for putting the puzzle together?”
6. After students share out, explain that putting a puzzle together is like the research process. If you spend time connecting corner pieces together and grouping like colors, you save time and have an easier time putting the puzzle together. Research is similar: If you spend time figuring out keywords, and choosing the right database, then your time spent finding information sources will be easier and less time consuming.
7. State your learning objectives and begin the lesson.

Intermediate Approach To Anticipatory Sets

Strategy #2: Use of a Cartoon, Pop Culture Reference, or Video Clip

Related SLO: Students will apply various theoretical lenses to a current event in order to transfer this skill when evaluating and reading research articles.

Related Frame: Research as Inquiry

Description of Anticipatory Set:

Information literacy extends far beyond the walls of the library, so beginning an instruction session with topical events via cartoons, pop culture facts, or a brief video clip can bring relevance to the students’ lives or help you connect to the subject matter of the course. You can use this as a prompt to interact with the students through call and response, think-pair-share, or an interactive poll. This will activate their prior knowledge, while helping to break the students’ blank stares and get them talking. After a couple of minutes, you can then move on toward your SLOs and introduction, and you will be able to build off the momentum from the generated discussion.

Example: Political Cartoon in a Theory-based Political Science Course

1. Have the cartoon projected on the screen as students walk in.
2. Ask them “What’s this cartoon referencing?” Ask them to share out.
3. Ask them how the meaning of the cartoon changes if they view it through the lens of a political theory, such as constructivism, radicalism, or liberalism.
4. Have the students think about it and share out again. Make sure to only apply one theory at a time.
5. Explain that as they look for research, they will not typically find articles that apply the political theories; rather, they will need to apply the theoretical lenses to the research, just as they did the cartoon.

Advanced Approach To Anticipatory Sets

Strategy #3: Replicate a Familiar Information Task

Related SLO: Students will utilize filters and advanced search strategies in order to narrow or broaden their searches in a database.

Related Frame: Searching as Strategic Exploration

Description of Anticipatory Set:

Most students are well-versed in consumer-research: they shop online, seek ratings on films and restaurants, and find information that interests them. Their experience with this type of search means that they are not “blank slates” when they enter the classroom, and it offers you an opportunity to capitalize on their prior knowledge of conducting research. When you seek diagnostic information about what students already know about an information literacy concept or skill, it can be helpful to engage students in an in-depth anticipatory set that requires them to replicate a task related to your lesson. While this generally takes more time, the resulting discussion can be weaved throughout the entire lesson.

Example: Online Scavenger Hunt for the Perfect Pair of Brown Boots

1. Tell the students you need their search prowess to find a specific item.
 - a) When deciding ahead of time what item to use in your lesson, consider that items with a unique design are excellent choices, since they will force students to think about how they describe an item; an example is a specific pair of patterned brown boots.
2. Tell the students to locate the pair of boots projected on screen, while documenting a few pieces of information along the way, such as what websites they visited, words they used for their search, and so on. We suggest telling them Google reverse image search is off limits, as that requires no strategy or activation of concepts of knowledge about the image and its context.
3. After students struggle for a few minutes, ask them about the strategies they used, including keywords, limiters, and websites. Write out these strategies on the board.
4. Discuss why they chose a specific website and briefly mention the concept of evaluating information.
5. From here, the anticipatory set is “over,” but refer back to the list of strategies that the students have utilized as you continue the lesson.

Conclusion

Not only are anticipatory sets engaging for students, they are also a great creative outlet for teachers, which can help infuse your instruction with new energy. As a teaching strategy, they provide endless possibilities for launching a class session. You can go high tech or low tech depending on the instructional need. You can also incorporate topics that interest you to help interject your personality into the lesson and build rapport

(Multi-Framework...Continued from page 9)

practices. For one thing, instead of relying on attendee input, librarians could observe first-hand how participants satisfied their data and research needs and what struggles were encountered. Attendee input gathered in previous iterations of this workshop were more abstract, unclear, and less reliable as first-hand observation. The revised activities shed light on the nuances of the information creation and organization process and pointed to “threshold” areas more concretely. For example, when groups attempted to follow instructions for rebuilding objects, they quickly realized the importance of language taxonomies and the need for clarity and terminology consensus when working collaboratively. While similar points were concluded from discussions in previous workshops, the method used in the revised workshop provided tangible instances of the key talking points. In this case study, the ACRL Framework provided a good basis for lesson design, but the disciplinary context-focused framework helped with clarifying the lesson goals. That said, there were still challenges, such as addressing other ACRL frames directly due to time limitations and the narrow scope of the workshop.

As we move forward and produce more examples of multi-framework use for teaching information literacy, librarians should think about potential as well as limitations of various approaches. They might examine, for instance, the compatibility between framework models and ask which work well together and in what context: do multi-frameworks work well when teaching about information creation as when we teach searching as a strategic exploration? There’s certainly much work to be done when it comes to assessing learning with the ACRL Framework, so perhaps we can also consider whether or not multi-framework philosophies aid or complicate assessment.

(TechMatters...Continued from page 7)

Where to find Browser Extensions

Chrome Web Store

<https://chrome.google.com/webstore?hl=en>

Firefox Add-ons

<https://addons.mozilla.org/en-US/firefox/extensions/>

(Anticipatory Sets...Continued from page 5)

with students. If you are not feeling creative or are stuck, colleagues can be good spring boards for testing ideas or brainstorming possible scenarios. Consider starting with a basic anticipatory set if you want to experiment with them in your instruction. Once you are comfortable, scale up to an intermediate or advanced set. However you decide to start, this is an opportunity to have fun and explore new ways of making sure your instruction sessions are effective right from the start.

References

- ACRL. (2000, January 18). Information Literacy Competency Standards for Higher Education. Retrieved from <http://www.ala.org/Template.cfm?Section=Home&template=/ContentManagement/ContentDisplay.cfm&ContentID=33553>
- ACRL. (2016, January 11). Framework for Information Literacy for Higher Education. Retrieved from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/issues/infolit/Framework_ILHE.pdf
- ACRLLog. (2015, January 30). What’s the Matter with Threshold Concepts? Retrieved from <http://acrlog.org/2015/01/30/whats-the-matter-with-threshold-concepts/>
- Bravender, P., McClure, H., & Schaub, G. (Eds.). (2015). *Teaching information literacy threshold concepts: Lesson plans for librarians*. Chicago: Association of College and Research Libraries.
- CARLI. (n.d.). ToolKit. Retrieved from <https://www.carli.illinois.edu/products-services/pub-serv/instruction/ToolkitHomepage>
- CUNY Academic Commons. (n.d.). Implementing ACRL’s New IL Framework: Practical Directions for Threshold Concepts | Information Literacy @ CUNY. Retrieved from <https://infolit.commons.gc.cuny.edu/lilac-events/spring15/framework/>
- Kuglitsch, R. Z. (2015). Teaching for transfer: Reconciling the Framework with disciplinary information literacy. *Portal: Libraries and the Academy*, 15(3), 457–470.
- Maybee, C., & Zilinski, L. (2015). Data informed learning: A next phase data literacy framework for higher education. *ASIS&T Annual Meeting*, 52(1).
- Shinners-Kennedy, D., & Fincher, S. A. (2013). Identifying threshold concepts: From dead end to a new direction. In *Proceedings of the ninth annual international ACM conference on International computing education research - ICER '13* (p. 9). New York, New York, USA: ACM Press. doi:10.1145/2493394.2493396

Microsoft Store

<https://www.microsoft.com/en-us/store/collections/edgeextensions/pc>

Opera Add-ons

<https://addons.opera.com/en/>

Safari Extensions

<https://safari-extensions.apple.com/?category=productivity>

References

- Ambrose, S. A., Lovett, M., Bridges, M. W., DiPietro, M., & Norman, M. K. (2010). How does students’ knowledge affect their learning? In *How learning works: Seven research-based principles for smart teaching* (pp. 10-39). San Francisco, CA: Jossey-Bass.
- Hunter, M. (1982). *Mastery teaching*. El Segundo, CA: TIP Publications.