

How and Why To Go From Anecdotal to Iterative Quantitative Assessment

A Step-by-Step Process for Instruction Librarians

1. Identify an Area of Improvement

Start with a problem worth solving — anecdotal evidence from faculty, research consultations, or your own teaching.

- Watch for recurring student misunderstandings as instructional opportunities.
- Talk with faculty about what they are seeing in student work.
- Research consultations often reveal gaps that formal instruction is missing.

Notes: _____

2. Explore & Evaluate Current Instruction

Audit what students are already receiving before designing anything new.

- Identify the most common and most surprising student mistakes.
- Check whether current materials use the same language and goals as the instructor.
- Check if instruction covers the skills gaps, misunderstandings, or challenges you collected in step 1 and identify areas for improvement

Notes: _____

3. Determine Desired Student Outcomes (Backward Design)

Start with the end in mind. What should students be able to do after instruction?

- Look at actual student work with the professor: what is missing that they want to see?
- What skill or thinking do we want to see demonstrated?
- Align outcomes to the specific assignment, not just general information literacy goals.

Notes: _____

4. Determine Acceptable Evidence

Decide what counts as proof that students have met your outcomes before you design instruction.

- Final project work, worksheets, pre/post quizzes and spot-checks on formative assignments all have value.
- Retrospective assessment of existing student work is a valid starting point.
- Make sure the evidence demonstrates your outcome.

Notes: _____

5. Write Learning Objectives

Translate outcomes into specific, measurable, observable statements that drive instruction and assessment design.

- Use an actionable, assessable verb — not 'understand,' but 'identify,' 'evaluate,' or 'select.'
- Needs work: Students will understand how to evaluate sources.
- Stronger: Students will select sources that meet multiple criteria, such as publication date, source type, and topic relevance.

Notes: _____

6. Create or Select Assessment Tools

Design rubrics, assignments, quiz questions, or other tools that directly reflect your learning objectives and are practical to apply.

- Collaborate with the professor on assignment design and instructions to better reflect shared outcomes .
- Test your rubric on a sample of student work or run the assignment/quiz by a few students before committing to it.
- Plan to revise — assessment tools improve through use.

Notes: _____

7. Develop Instructional Content

Design instruction that directly addresses the problems you identified in Step 2, aligned to your learning objectives.

- Use the same vocabulary, examples, and assignment language the faculty member uses.
- Add content, step-by-step processes, and learning activities in areas students expressed were challenges or misunderstandings.
- Relevance is the most powerful motivational hook: students engage when instruction connects to something they need to do now.
- Incorporate application: active learning works better than content alone.
- Extrinsic motivators (gamification, points, prizes) can serve as entry points to deeper engagement.

Notes: _____

8. Conduct Instruction and Assessment

Deliver instruction and collect evidence. Everything does not have to happen at once.

- Embed assessment in real student work whenever possible.
- Spot-checks during class or in consultations count as data.
- Decide in advance what improvement threshold is worth the investment of time.

Notes: _____

9. Evaluate Instruction and Assessment Tool

After each cycle, ask whether the instruction and the tool are doing their jobs. What can be improved?

- Does the rubric accurately reflect what you are seeing in student work?
- Did students understand what the quiz questions were asking?
- Are there areas students are still struggling?
- Statistical tools: percentage increase, chi-square test, effect size (phi or Cramer's V).

Notes: _____

10. Reflect, Refine, Communicate, and Celebrate

Use what you learned to improve instruction, assessment tools, and faculty partnerships in the next cycle.

- Document changes so you can track what worked across iterations.
- Share data with faculty and administration to deepen collaboration and advocate for yourself and the library.
- Don't forget to celebrate your process, no matter how it turns out.

Notes: _____

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