

Chapter 4: Assessment

Assessment, while often viewed as difficult and time-consuming, is an important component to understanding and communicating the library's impact on student learning. Not only can it help you evaluate whether students are learning research techniques and developing information literacy skills effectively, it can also be used as a marketing tool. Libraries are increasingly being asked to participate in the accreditation process, especially with regards to FYE programming. The ability to share meaningful data on student learning outcomes can elevate the library's visibility among the greater campus community and show the impact on student learning. This chapter will explore tools and techniques for informal, formal, summative, formative, qualitative, and quantitative assessments, and explore strategies to help you get the most out of the data you collect.

In this section you will find:

- **Using Assessment to Enhance Teaching and Learning in the FYE**
Tools and techniques for using different assessments and strategies to make the biggest impact with your data by Ray Pun, First Year Student Success Librarian, California State University, Fresno.
- **Improving Library, Faculty and Student Performance through Assessment**
A case study reviewing a college's strategy to measure student progress and improve instruction.
- **Assessment as a Marketing Tool**
An infographic displaying the flow for building an assessment strategy and employing the results as marketing tools.
- **Continue the Conversation**
See what your peers are saying about Assessment! **#LibraryFYE**
- **Additional Resources**
Further materials and supplemental reading for building your assessment strategy.



Using Assessment to Enhance Teaching and Learning in the FYE

By Ray Pun, First Year Student Success Librarian, California State University, Fresno

Summative Versus Formative Assessments

In this section we will define summative and formative assessments, when each is appropriate to use, how they measure students' learning abilities, and how you can best gather this data for meaningful use.

In short, formative assessments occur during the learning process, while summative assessments measure students' overall attainment of knowledge, usually at the end of a course.

Formative Assessment	Summative Assessment
<p>The goal of formative assessment is to check students' learning and understanding in a single session and inform them of their learning progress. This can be achieved in several different ways:</p> <ul style="list-style-type: none"> • Providing instructor feedback on student assignments • Assessing student understanding through a short quiz or writing assignment • Encouraging students to ask questions 	<p>Summative assessment evaluates a student's performance during a course, using a formal grading scale. Some techniques which require students to apply what they've learned in the class include "low learning" assignments such as:</p> <ul style="list-style-type: none"> • A final capstone project • A midterm/final exam • A research paper

Both assessment styles:

- Help define your learning outcomes and goals
- Increase student learning, engagement, and motivation
- Gather feedback and improve your teaching practices and assignments

Below are some example activities you can apply in your instruction independently or collaboratively:

Formative Assessment Activities	Summative Assessment Activities
Have students draw a concept map or mind map of their research topic and think of keywords associated with this topic	Attend students' final research/capstone project presentations and evaluate their work
Have students write a one-minute reflection after a library instruction and share these reflections with another peer	Collaborate with faculty to assess students' bibliographies, work citations, and references in final papers
For research topics, have students conduct research on their own before class and during class show them how they can improve their research using library sources. Make sure to ask questions about their topics to gauge their understanding	For semester-long research papers, evaluate students' proposals mid-semester to gauge progress and create a final exam based on IL skills to assess students knowledge and proficiency



Using Assessment to Enhance Teaching and Learning in the FYE

Qualitative Versus Quantitative Data

Before you begin any assessments, it's important to establish goals to help determine what type of data you should collect. Applying assessments based on your goals and collecting the relevant data may give you more understanding of your own teaching practices, services, and students' learning abilities.

Questions to consider:

- ✓ Do you have research questions you would like to answer?
- ✓ Do you have learning theories you want to prove?
- ✓ Do you want to create new theories?

There are two types of data you can collect during and after your assessment activities, qualitative and quantitative. Using the method that best fits with your goals is important to putting your results to best use.

Qualitative Methods

Qualitative data is used to present *how* students can apply, synthesize, and evaluate what they've learned. This may help you gain deeper insight into your students and enrich their experience and learning. Below are several qualitative activity ideas, generally viewed as formative assessments as they can inform students of their learning while engaging them.

Qualitative data is based on responses and feedback comprised mostly of sentiments, words, or reflections, while quantitative data is based on statistics, numbers, and figures that are quantifiable.

Drawing Activities (best done in the beginning of a workshop)

Draw a library map, a think-pair-share activity.

- Students draw a map of the library from memory and share drawings with peers in the class.
- The drawings will reinforce the students' understanding of the library and they may learn from their peers about the services they didn't include on their own maps.
- Following this *think-pair-share technique*, show them the real map of the library and explain the various areas and services more in-depth.

Draw the library's website

- Students draw the library's website and then share with their peers.
- Observe how they draw and talk about the website. You may hear conversations from students that surprise you! Make sure to take notes for your own research and assessment.
- Review the website with your students, reinforcing their memory about the website's resources.



Using Assessment to Enhance Teaching and Learning in the FYE

Student Perspective Activities

- **Focus groups** are one of the best ways to collect valuable, qualitative insights into your library services and programs. If you don't have one already, consider creating a student advisory group. A student advisory group, particularly composed of first year students, can help reveal what is or isn't working. (See helpful success tips below!)
- **Open-ended questions** may be more feasible if student groups aren't an option. Ask probing questions at the end of class to prompt students to share library experiences with you.
- **Open-ended user-experience surveys** (as opposed to shorter, quantitative surveys described below) are another option for gathering feedback. These can be passed out during focus groups or during instruction sessions.
- **One-on-one interviews** can also be conducted with students who may not be comfortable sharing their thoughts openly in groups.

Tips for Successful Student Focus Groups:

- ✓ **Recruit students from your network - i.e. IL classes, student assistants, word of mouth, teaching faculty, or advisor recommendations.**
- ✓ **Offer incentives for all participants including free refreshments.**
- ✓ **Create groups of 5-8 interviewees to spark good conversation while allowing a chance for everyone to participate.**
- ✓ **Keep sessions to an hour and ensure every participant has an opportunity to answer your questions.**
- ✓ **Hold a few sessions over the course of the semester to track students' thoughts and challenges.**
- ✓ **Use sessions as an opportunity to test new IL activities with students. See how they respond and collect feedback they provide to help shape your own instructional strategy.**

Quantitative Methods

Quantitative or measurable methods of evaluation surface *what* students' have learned. This evaluation method focuses on knowledge and may produce clearer, more objective results. Some examples of quantitative data collection activities are:

Surveys

The most common method for collecting quantitative data, surveys can range in length from very short (one or two questions) to exhaustive. For first year students, consider keeping surveys short and using easy-to-use

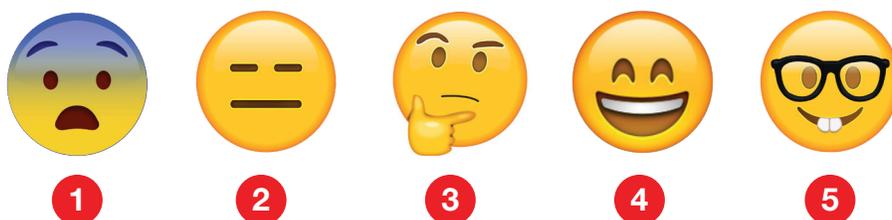
Using Assessment to Enhance Teaching and Learning in the FYE

survey builders such as Google Forms or Survey Monkey. These can be distributed either at the beginning or end of a library workshop, depending on what you are attempting to measure.

If you plan to conduct a summative assessment, you may want to create and distribute comprehensive surveys to assess students' learning progress in skills such as search techniques and ability to use library resources.

Micro-assessments

These mini-surveys can be used to quickly measure your users' sentiments on a particular micro-topic. For example, if you plan to offer research services in a particular part of the library, have students fill out a two-question survey to see if they would be interested in receiving research services in this location. Consider using "emojis" as a likert scale from 1 to 5. Today's students tend to respond better to this type of scale, creating better engagement and a better data sample.

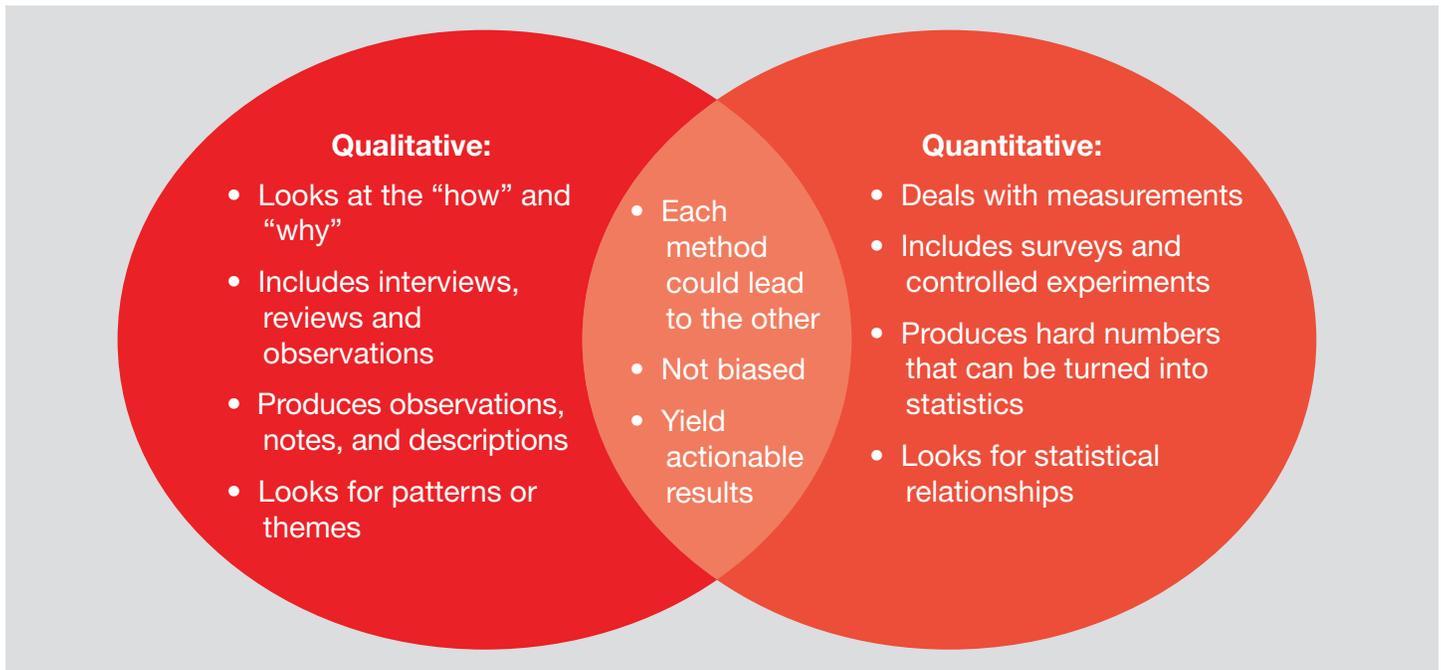


Mixed Methods Approach

You can use both qualitative and quantitative evaluations in a single study, applying one method after another, or concurrently. For example, in information literacy assessments, you can apply the quantitative method, offering a pre- and post-workshop survey to assess students' IL learning. Using the qualitative method, meet with students in focus groups or conduct in-depth interviews. Ask open-ended questions about their impressions of the library and their own skill-development to gather further data and gain a deeper understanding of your students' learning. Using both methods can provide you with a complete assessment from students' knowledge to application of their level of understanding.

[see diagram on next page]

Using Assessment to Enhance Teaching and Learning in the FYE



Caution

Data Privacy and Third-party Tools

Be mindful of students’ data, particularly relating to private and sensitive information such as their background or student ID numbers. As educators, we have a professional responsibility to ensure the safety of our users, including their information and data. Learning analytics tools should always be approached cautiously. While helpful, monitoring students’ learning behavior with external tools can be very controversial, costly, or challenging to apply.

Human Research

If you are conducting research for scholarly activities, check your school’s institutional review board (IRB) policies for approval as your students are considered human subjects. Any information you plan to disseminate in a publication or conference presentation should be stated in your consent form or survey for your student subjects/interviewees. Your IRB Office may have waivers or consent forms for you to use.

Using Assessment Data to Market Library Services

While collecting and analyzing data is important for improving and enhancing your instruction strategies, to get the most mileage out of your assessments, showcase your results and draw attention to library successes.



Using Assessment to Enhance Teaching and Learning in the FYE

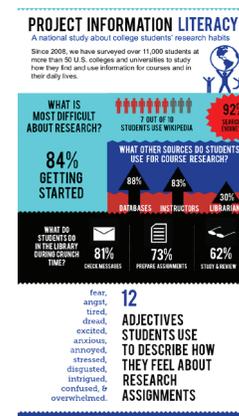
How can you communicate and share assessments most effectively with the campus community and administrators?

Present in formal and informal meetings

Give debrief sessions to fellow librarians and faculty, highlighting assessment results and outlining next steps. This may open doors for future collaboration and build relationships with colleagues from other departments. Share findings with your student advisory group as well. These sessions can encourage a community of practice around learning assessments at your institution, and the library's role in supporting them.

Get creative! Share using infographics, posters, social media, and more

Using posters, fliers, and infographics is a great marketing strategy to visually communicate your assessment results and promote your existing services and resources. Fliers or posters can inform students, faculty, and campus administrators courses librarians are involved in. Share students' positive feedback on social media and in visual aids - be sure to get their approval beforehand.



Check out a few infographic sites to get started for free at the basic level:

- ✓ [Infogram](#) allows you to customize and create infographics, maps, and other visuals
- ✓ [Piktochart](#) creates brochures, presentations and infographics with an easy-to-use interface
- ✓ [Canva](#) is an intuitive tool for graphic design

Publish Findings and Present at Conferences

Beyond using assessment results to communicate the library's value and improve your IL program, you may want to share your findings with other library and education professionals, either through publications or in conference presentations.

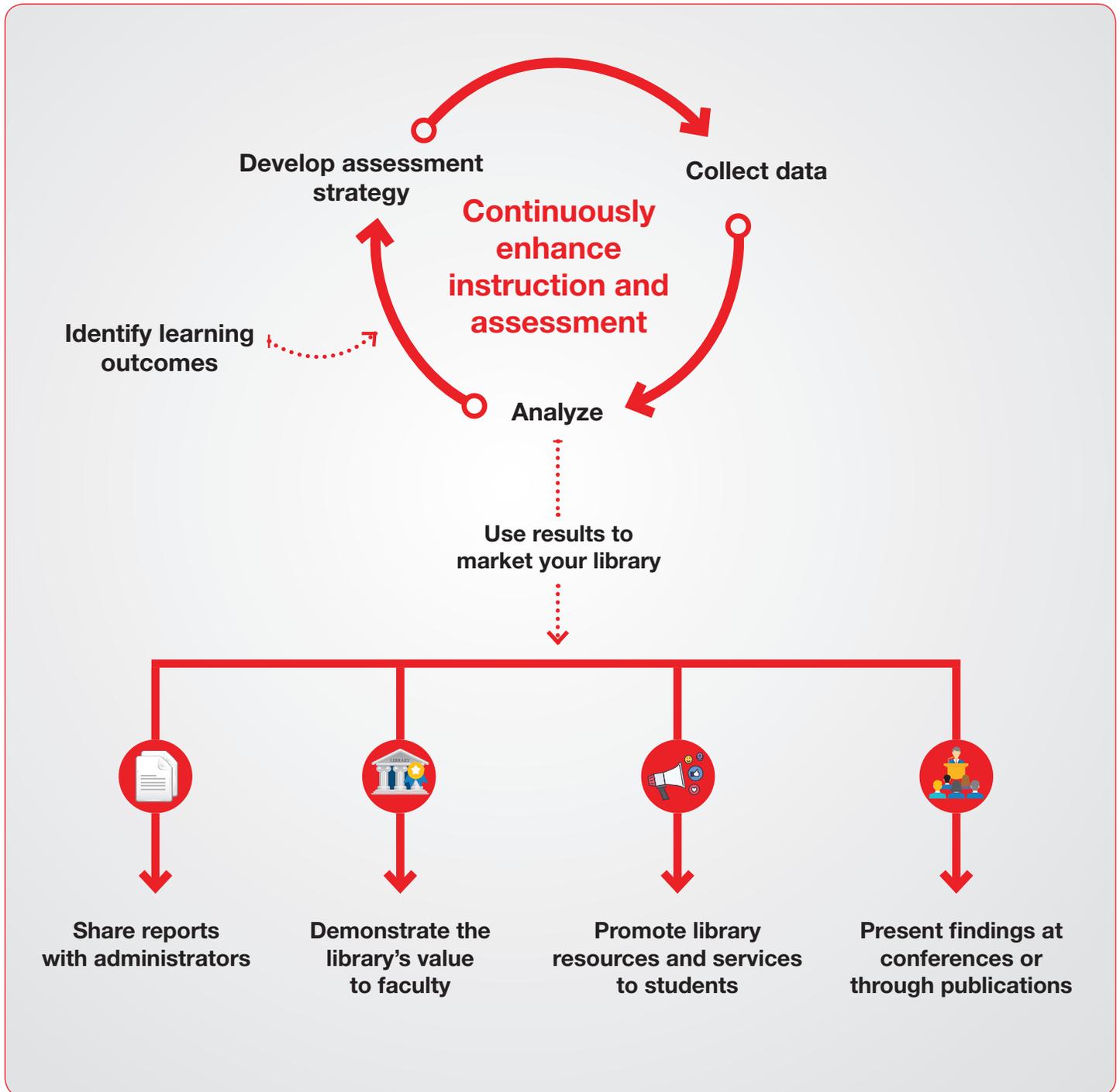
Tip: Check out these professional development resources for ideas!

Think beyond assessment for the sake of assessment.

The general practices and evaluation techniques in this chapter can be used in most library settings to help improve the effectiveness, impact, and value of your library's instruction program and you as an instructor. As assessment continues to grow in interest from campus and community groups, more opportunities and resources will arise for libraries and librarians to support deeper student learning.

Assessment as a Marketing Tool

Assessment strategies not only can be used to improve effectiveness and value of your library's instruction program, they can present opportunities for you to market your library's services and resources. Check out our assessment flow chart to learn how to build an assessment strategy and use the results to market your library.



Improving Library, Faculty and Student Performance through Assessment

Assessment strategies are becoming more and more important for success in today's competitive environment. Gathering meaningful data to measure how well students are attaining important learning outcomes can be used to help faculty and institutions improve curricular design and effective teaching methods for student learning and performance.

In this case study*, we review how librarians at a large community college in the Midwest used assessment data gathered through their first year experience initiative to measure student progress and improve the quality of instruction provided by librarians and faculty. After the FYE steering community identified which learning outcomes they wanted to track, the librarian created rubrics to consistently gauge student performance using their school's LMS.

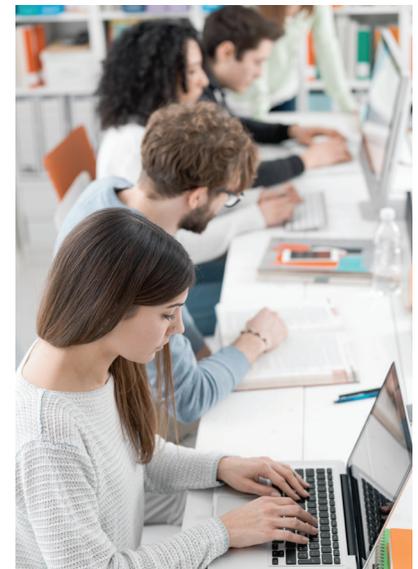
5 rules to make the most of your assessment data:

- 1 Clearly define learning outcomes
- 2 Consistently measure and collect data
- 3 Include the broadest possible sample size for the most accurate results
- 4 Use results to inform future changes to the program, or to individual instructors
- 5 Broadcast results far and wide to demonstrate the value of the library

Where to Begin

Assessment does not occur at random. It's imperative someone (e.g. the FYE steering committee, library leadership, etc.) first create goals and objectives to decide which student learning outcomes should be prioritized, and then design an assessment strategy to measure them accordingly. Of the steering committee's desired learning outcomes, "Uses Information Effectively," was explicitly connected to library instruction. They agreed on four skill indicators:

- ✓ Developing a search strategy
- ✓ Using technology
- ✓ Evaluating information
- ✓ Using information responsibly



Improving Library, Faculty and Student Performance through Assessment

Collection and Measurement

The librarian designed a rubric to assess whether a student “uses information effectively.” This included the four performance indicators, each of which could be measured against a benchmark (starting point), two milestones, and eventually a capstone to show the skill had been mastered. They decided the best way to accomplish data collection was through the school’s LMS, combined with other course artifacts.

The assessments proved students were benefiting greatly from their information literacy instruction sessions. Additionally, faculty use of library services and requests for instruction have been on the rise since the start of this initiative!

Prior to the librarian-led instruction session, only 4 out of 10 students rated their ability to do college-level research as Good or Excellent; afterwards, this rose to 83%.

Putting Data to Use!

Confirming instruction had a positive impact on student performance achieved the Steering Committee’s goals, but the institution decided to take the assessment results a few steps further:

- ✓ **Professional development:** The librarian applied for and received a professional development grant to participate in the ACRL’s “Assessment in Action Project”.
- ✓ **Faculty buy-in and support:** Librarians and faculty studied the data to spot areas they could improve for future sessions.
- ✓ **Future improvement opportunities:** Data was also analyzed by the FYE steering committee to inform future changes to the program.

Creating a culture of assessment and improvement isn’t easy, but the benefits to faculty, librarians, and students are undeniable. This community college library’s success was predicated on making their voice heard on the FYE steering committee and assessment committee, clearly defining their goals, collecting data consistently, and showcasing the impact once the numbers were analyzed.

**This case study features the story of one institution discussed in a submission to the 2018 FYE Innovation Awards, sponsored by Credo and Case Western Reserve University.*



Continue the Conversation

Interested in learning more about your peers' assessment strategies and outcomes?

 Keep the conversation going using the Twitter hashtag [#LibraryFYE](https://twitter.com/LibraryFYE)

Additional Resources

- [Assessing First Year Students: A Conversation on Assessment Techniques](#) with Raymond Pun and Katelyn Angell: Discussion of different techniques to assess first year students in the areas of instruction, user experience, programming, and more.
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- [The Impact of Academic Library Resources on First-Year Students' Learning Outcomes](#) by Krista M. Soria, Kate Peterson, Jan Fransen, and Shane Nackerud, first published in *Research Library Issues*, no. 290 (2017): 5–20.
 - [Creative Assessments for the First Year Experience](#) by Katelyn Angell and Raymond Pun: Examples of creative assessment strategies from two FYE librarians.
 - [More Creative Assessments for the First Year Experience](#) by Katelyn Angell and Raymond Pun: A follow-up to above piece with a focus on collaboration.
 - [Accreditation and the FYE: Selected Resources for Longitudinal Studies](#) by Raymond Pun: An introduction to participation in the accreditation process for FYE librarians.
 - [Librarian Parlor](#): Ideas for librarians conducting and looking to publish their own original research.
 - [The Library Assessment Cookbook](#) by Aaron W. Dobbs: 80 practical, easy-to-implement recipes for library assessment.
 - [Creating Sustainable Assessment through Collaboration: A National Program Reveals Effective Practices](#) by Kara J. Malenfant and Karen Brown: synthesis of the results of ACRL's *Assessment in Action: Academic Libraries and Student Success* program
 - [Academic Library Impact on Student Learning and Success: Findings from Assessment in Action Team Projects](#): A comprehensive look at collaborative assessment projects and their results.