As the name implies, librarians sometimes only have one shot to teach our students the skills they will need to effectively use library resources in order to complete a variety of assignments and projects. Assessing student learning in a one-shot session tells us if we are using this limited and valuable time effectively. The Instructional Services Department at the University of Northern Colorado began systematically assessing our Core Library Instruction Program (CLIP) in 2010. CLIP integrates information literacy into the two required composition courses, ENG 122: College Composition and ENG 123: College Research Paper. The sessions that librarians conduct during ENG 122 and ENG 123 are called CLIP 2 and CLIP 3, respectively.

The department teaches approximately 40 CLIP 2 and 40 CLIP 3 one-shots in an academic year, reaching approximately 1,600 students. Before 2010, students attending CLIP sessions were receiving instruction in different formats: some sessions were hands-on, some focused on demonstration, and none offered a standard curriculum. After participating in the 2009 ACRL Immersion Program’s Assessment track, we began an overhaul of the CLIP program, allowing student learning assessment to drive curriculum design for the program.

This paper discusses the evolution of our assessment practice and how we manage to sustain student learning assessment of a large scale instruction program. We first discuss the early decisions we made about our assessment process, then discuss how we continuously improve our CLIP sessions based on assessment data. We conclude with tips for assessing large-scale one-shot instruction.

Starting our Assessment Process

Developing student learning outcomes (SLOs) for these sessions was a slow process. We first developed four SLOs, which we intended to cover the sessions for both CLIP 2 and CLIP 3. They followed the template advocated by Zald and Gilchrist (2008) and taught at ACRL Immersion:

- Identify different types of information in order to select appropriate sources.
- Identify appropriate keywords and limiters in order to effectively search for information.
- Recognize various library collections and access points in order to retrieve information resources.
- Point out physical and virtual library services in order to access services at the point of need.

We also developed performance criteria broken down by beginner, intermediate, and advanced mastery levels. However, we soon realized two things: 1) the format of our SLOs was not in alignment with the format used by other departments at our institution and 2) we were unable to assess mastery level benchmarks in one-shots without extensive pre-and post-tests.

After meeting with our campus’ Director of Assessment, we rewrote our SLOs into a simpler format that follows the template provided to faculty and co-curricular staff on our campus. We determined that the two CLIP sessions each required a different set of SLOs (see Table 1). We also simplified our benchmarks, and began using a basic benchmark for student success, setting a percentage of student achievement on each SLO as our benchmark.

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<tr>
<td>2. Students will be able to develop effective search strings.</td>
<td>2. Students will be able to determine if a source is relevant to a research study.</td>
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<td>3. Students will be able to use Summon to find books and articles.</td>
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<td>4. Students will be able to interpret a call number to find a book in the library collection.</td>
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Once we had our SLOs developed we decided to develop a standard curriculum for instruction librarians to use for CLIP 2 and CLIP 3 so that we could integrate our assessments into the session activities. This also ensured that students in these courses received a similar experience. It took an entire year (from Spring 2010 to Spring 2011) for us to develop the appropriate student learning outcomes, benchmarks, and assessments for the Core Library Instruction Program.

Our First Attempt at Assessing One-Shots

We were ready to introduce our new curriculum and start assessing in Spring 2012. Since there are more ENG 123 sessions during the spring semester, we started our assessments with CLIP 3; we evaluated 25 CLIP 3 sessions, which reached approximately 625 students. During these sessions students worked in groups of two to four to complete an eight-step activity that guided students through a comprehensive research process. Formative assessment of the two CLIP 3 SLOs was integrated into the activity. The benchmark for CLIP 3 SLOs was that 75% or more of sampled course work completed in appropriate student learning outcomes, benchmarks, and assessments for the Core Library Instruction Program.
In Fall 2012 we implemented the new curriculum and assessments for CLIP 2. We taught 40 sessions, reaching approximately 1,000 students. For each SLO, the benchmark for success was again 75%. The sessions consisted of a three-page worksheet that guided students through developing keywords, creating search strings, and searching in our discovery tool. The chart below illustrates that students met the 75% benchmark for three of the four SLOs: SLO 1, SLO 2, and SLO 4. The data revealed that students did not quite meet the benchmark for SLO 3, as only 72% of students successfully achieved SLO 3 (see Figure 2).

Using Data to Make Improvements

We learned a lot more from these assessments than we anticipated. In CLIP 3, after two semesters of assessment, we determined that we were not challenging students, as both SLO achievement levels were over 90%. Thus, we created two more student learning outcomes that focused on more advanced concepts, giving CLIP 3 a total of four SLOs. Students will be able to:

1. Search for information in a library database
2. Determine if a source is relevant to a research study
3. Discuss why it is important to use a bibliography during the research process
4. Use Prospector (our consortial catalog)

In CLIP 2, we found that we were not spending enough time on the link between keywords and search strings (SLO 2), and adjusted the curriculum accordingly. We also discovered that we did not introduce Summon effectively (SLO 3), and we revised the curriculum to stress the importance of limiters in Summon.

After a year of assessing CLIP 2 and CLIP 3 we established an assessment plan, which includes a timeline and responsibilities. CLIP 2 is now assessed regularly in the fall and CLIP 3 is assessed regularly in the spring to match the semesters with the highest number of each course. The assessments for each SLO are integrated into the curriculum, so it is easy to compile all the data at the end of each semester—for CLIP 2 we compile this data using Excel and for CLIP 3 the students complete worksheets on Google Docs, which collects the data for us. We then write an annual report for each CLIP that discusses the curriculum, provides results of the data analysis, reveals significant outcomes, and suggests an improvement plan. This report helps determine what, if any, curricular changes to make and also helps determine which SLO to focus on during the next assessment cycle. The reports are sent to the Dean of Libraries and the Associate Dean, and have been used to successfully advocate to the library dean and provost for a new full-time faculty position and half time lecturer position in the department. The new position has spread out the department’s workload and allowed us to develop new campus partnerships for integrating information literacy into the curriculum.

Continuous Improvement

Now a few years out from the initial development of the curriculum and assessment plan, CLIP looks quite different, with changes being made continuously based on the data collected each year. The most significant change was updating the SLOs in 2015. Earlier CLIP 2 and CLIP 3 sessions had four SLOs each, but in collecting assessment data it was clear that the one-shot format did not lend itself to teaching and assessing that many SLOs effectively. Also, both sessions had SLOs about using databases to find sources and about developing keywords/search strings. We fixed this duplication and have a more focused curriculum (see Table 2).

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The continuous feedback we receive about student learning is particularly helpful when introducing a new activity or teaching method (e.g., a new Summon puzzle activity was developed to provide a more engaging way for students to become familiar with book records and locating call numbers). Using assessment data to determine the success or failure of one-shots, or even to help determine that a few simple changes are all that is needed, has improved our student learning in the one-shot environment.

Tips for Assessing Large-Scale One-Shot Instruction

Based on our experience developing standardized curriculum and systematic assessment of our one-shot program, here
provided insights into how individuals incorporated UDL into their teaching.

Some of the specific strategies for incorporating UDL into online and in-person instruction included:

- “Trim down my content to focus on the important concepts and how to present them effectively” (in-person instruction)
- Providing alternate text for pictures (online/blended instruction)
- Captioning videos (online/blended instruction)
- Providing a “transcript as an option for my modular videos has really helped students have an option of reviewing key content from the video without having to watch it” (online/blended instruction)

As one respondent summarized the impact that UDL has had on his/her teaching, “it has helped me be more sensitive to multiple modes of delivery as options for learners to reinforce their learning which has been a benefit to all.” Another major concern was flexible assessment. Tobin’s 2014 UDL best practices article describes UDL assessment as the “instructor sets the objectives; students define the method and medium” (p. 16), which can mean letting go of traditional formats like papers or tests when those formats are not integral to the knowledge students should take away from the course. Instead, an oral presentation, video, or art installation could be equally effective way for a student to demonstrate her knowledge.

The advice all four respondents offered to other faculty looking to make their teaching more accessible was to use available campus resources, attend training, and read the literature on accessibility in higher education when possible. One ended the survey on a particularly encouraging note, offering this advice: “While it does take additional time and requires more mindfulness when developing materials, it is not an insurmountable increase in workload, especially if you start preparing early.”

The faculty learning community has found a host of useful online resources for creating UDL instruction. Highlights:

- [http://libguides.lib.msu.edu/access](http://libguides.lib.msu.edu/access): creating online instructional materials (curated by the author)
- [http://www.washington.edu/doit/](http://www.washington.edu/doit/): resources for educators about implementing UDL and other accessible frameworks

### Conclusion

Though there is a growing literature base on UDL in higher education, gaps still exist that invite additional study. Further opportunities also exist to discuss the application of UDL in the library classroom, such as exploring how to motivate and provide choices for learners within one-shot instruction sessions, where student contact is limited to two hours or less. UDL appears to have a promising future as a guiding educational framework, and will benefit greatly from further research to expand evidence that these strategies provide the best support possible for all learners.

### References