

Assessing the One-Shot Instruction Session: Leveraging Technology for Optimum Results

by Jennifer Nardine and Carolyn Meier

As budgets and belts have tightened in recent years, academic libraries have placed more emphasis on the assessment of various library services.¹ While it is straightforward, statistically, to collect information about webpage use, circulation, and gate counts, assessing the value of bibliographic instruction has historically proven more challenging.

Instruction sessions must not only be evaluated on a “body count” basis—the percentage of the student population that library instructors reach in a given semester—but, more important, must encompass learning trends. In the case of semester-long librarian/class interactions, it is relatively easy to set up rubrics and grading scales on which the students are evaluated. However, most librarians do not currently teach semester-long sessions, either independently or in cooperation with another faculty member. Instead, librarians most frequently teach “the one-shot.”

Most instruction librarians are familiar with the one-shot concept; a professor or TA gives one class period to the library, and in that time the instruction librarians impart everything the students need to know about research for this particular class and, hopefully, for classes to come. The one-shot is a balancing act between delivering the information literacy skills students will need throughout their

lives and addressing the specific demands of a course or professor.

Beyond the actual delivery, there is also the issue of assessing one-shot instruction sessions. Assessment serves multiple purposes. It evaluates the effectiveness of the

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instruction—how much of the usually condensed information the students absorbed and whether the library session is an effective use of time both for the specific class in question and in the broader context of library function and student learning. Also, education literature indicates that assessment should provide a chance for the students to review what they have learned. The end of class evaluation should cause the students to review and rephrase what they have learned, thereby embedding the information in their long-term memories.² In other words, the evaluation must 1) provide feedback to the instructor regarding the effectiveness of their lesson and 2) give the students the chance to “review, rephrase, and retain” the material.

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Evaluation of library instruction at Virginia Tech Libraries has evolved over the last decade both in terms of the assessment instrument used and the delivery medium chosen. One-shot session evaluations have transitioned from a paper-based, Likert scale format to an electronically delivered, mixed qualitative and quantitative version with considerable success.

University Libraries Session Evaluation Form

Course: _____ Instructor: _____

Today's Date: _____ Librarian: _____

Please circle the appropriate rating:

1. Usefulness of session content	Excellent	Good	Fair	Bad	Poor
2. Timing of session within the semester	Excellent	Good	Fair	Bad	Poor
3. Level of interactivity	Excellent	Good	Fair	Bad	Poor
4. Overall quality of session	Excellent	Good	Fair	Bad	Poor
5. I would be comfortable asking the library instructor for help in the future:	YES	NO			

6. Comments:

Prior to 2006, the Virginia Tech Newman Libraries (VTL) evaluations used five-by-seven-inch carbon sheets with five Likert scale questions and room for comments. The sheets were distributed at the end of a library session for students to complete and return before leaving the library. Because of the Likert scale, the assessment results were easy to tabulate. Classroom aides would give the librarians the carbon copies of the evaluations, providing instant feedback to the instructors. The librarians could then make changes to their instruction if warranted. The classroom aides would then tabulate the session's statistics from the originals and file them for use in the library's annual report.

While using the Likert scale saved time and provided quantitative results, it had some shortcomings. First, this was more of a presentation evaluation tool; the questions on the card turned the evaluation into an issue of personality or delivery style over content. Second, the Likert scale as arranged

on the form made it very easy for a student to simply circle one column of descriptors and hand in the evaluation without reading the questions. Additionally, the Likert scale did not provide students with the opportunity to review the class material, rephrase it, and reinforce it in their minds. While the Likert scale is appropriate for assessing a semester-long class, which has tests, quizzes, and homework to solidify concepts for students and to provide retention feedback to instructors, it did not serve the needs of students or instructors of one-shot sessions.

University Libraries

Class Date: _____

Class Time: _____

List 3 things that you learned in this class.

1. _____

2. _____

3. _____

List 2 things that you still don't understand about the library.

1. _____

2. _____

List one thing that you would change about this class.

1. _____

Optional: Please send me more information about: _____

Name: _____ Email: _____

In 2006, VTL switched from a Likert scale assessment to the 3-2-1 card model. This had some advantages over the Likert scale. Students listed three things they learned, two things they still did not understand, and one thing about the class they would change. There was also a section for comments. This provided an end-of-class review to reinforce student learning. The 3-2-1 cards changed the evaluation from an issue of personality and presentation style to a focus on content.

The main drawback of the 3-2-1 card was the significant amount of

time needed to collate and analyze the results. Classroom aides did not have the training to organize the free-text responses, much less analyze it, so review, compilation, and analysis fell to the librarians, taking them away from other tasks. The librarians were able to sort the answers into seven main categories and to sort answers into subcategories that provided useful feedback about the strengths and weaknesses of the instruction sessions. While this assessment provided valuable information on what students were taking away from the session, the lack of quantitative results made it difficult to compare the effectiveness of this year's instruction with previous years.

Librarians did not get instant feedback because of the significant time it took for the cards to be analyzed, and were not prompted to adjust their instruction midsemester if needed. Also, those doing the analysis found the process tedious both because the paper-based system didn't allow for easy tabulation and because of the sheer number of cards per semester.

In fall 2008, VTL started investigating the possibilities of an electronic survey instrument, following the general trend of converting tabulation and record-keeping activities to an interactive electronic format whenever possible. Survey.vt.edu was a homegrown survey instrument that was available free of charge to any Virginia Tech student, faculty, or staff member. It allowed for both quantitative and qualitative data capture and the ability to export records to a variety of packages, thus facilitating statistical analysis.

At the same time that the sur-

Library Instruction Survey - Spring 2010

1. Course Name/Number

2. Course Instructor/Professor

3. Librarian

4. I have taken a tour of Newman Library
 true
 false

5. This was my first library instruction session - not including a tour
 true
 false

6. If you have had a previous library session, please list the course name

7. The content of this library instruction session was:
 too simple
 too advanced
 just right

8. THREE things that I learned in this class are:

9. TWO things that I still don't understand about research or using the library are:

10. As a result of what I have learned, ONE thing that I will do differently when conducting library research is:

vey transitioned from paper-based to electronic, the survey format itself was updated again. The new version of the survey included a combination of free-text answers loosely based on the 3-2-1 concept, a Likert scale entry, and radio-button selections. New questions included information on previous library sessions, physical tours, and what students would do differently in their research process post-instruction.

Moving to an electronic format made it much easier to distribute and collect surveys to all classes that were held in the VTL buildings. The classroom manager added a quick link to the survey on the desktop of all classroom computers, allowing students to easily

access the survey at the end of a session. One challenge this presented, however, was that accessing the survey required more effort whenever library instruction took place outside of the library building. Some classes took place in buildings or rooms without computers in them at all, and none of the remote labs had the shortcut to the library instruction survey link on the computer desktops. Librarians handled this issue by creating a short URL using www.tinyurl.com that could be given directly to students in remote labs or to professors to post in the class content management system as a link. Despite the portability challenges of the computer-based survey, the overall response rate to post-class

surveys increased dramatically, especially as librarians reserved a few minutes at the end of each instruction session specifically for survey completion.

Along with the higher response rate, the electronic survey allowed VT librarians access to survey results from any location with an Internet connection. The centralized data sets made collation, analysis, and dissemination of survey results faster and easier than any of the paper-based formats. The instruction coordinator standardized the data and distributed evaluations to individual librarians throughout the semester. The faster turnaround led to more fluidity of lesson structure throughout the semester. It was easy to spot problem instruction areas and change them midsemester, rather than having to wait until semester's end to gather, collate, and analyze survey results. The instruction coordinator also created an internal survey for librarians to track what was taught in each instruction session. Librarians complete this survey while students are completing the session evaluations. This survey has allowed VTL to track instruction alignment with ACRL information literacy standards and has also led to the development of screencasts that professors can use for review in their courses.

The shift in survey design allowed VTL librarians to get a more rounded view of student learning than did previous instruction formats, while still keeping compilation and analysis efforts at a reasonable level. For example, all freshmen English sessions could be extracted and analyzed separately.

Electronic survey data was automatically gathered in a database, thus eliminating the need for transcription or initial collation. The instruction coordinator could easily export database contents to Excel for further compilation, sorting, and analysis without the need

for significant programming on the librarians' parts. For instance, results of the student survey are compared with the librarians' survey to see if the students absorbed what the librarians taught. Excel's sorting and filtering functions enabled them to see cause-and-effect relationships that were previously impractical to distinguish using paper methods. For example, many of the students who said they still needed help finding books and materials had not taken the physical tour.

7. The content of this library instruction session was:

too simple	85 (3%)	
too advanced	36 (1%)	
just right	2583 (93%)	■
no answer	63 (2%)	

Analysis of both quantitative and qualitative data was easier when all the survey results were electronically available. The VT Survey instrument itself allowed for quantitative analysis on the fly, retabulating percentages as more data entered the system. Language analysis of the qualitative answers

was simplified by the sorting and counting functions in Excel. In the future, more sophisticated analysis, especially of the qualitative survey results, will be simplified as electronic language analysis tools become more refined and available.

VTL also took advantage of the online survey instrument to get feedback from the instructors. A few weeks after each bibliographic instruction session, librarians would send a brief survey to the professor or TA to learn what parts of the information literacy sessions had had an effect on long-term student performance. This strengthened ties between the instruction librarians and the other faculty, who were able to assess the value of library sessions, determine which points students retained and which needed more reinforcement, and to decide whether more information literacy instruction was needed before the end of the semester.

The current VTL instruction survey is a living document, easily

modified to reflect the changing needs of the professors, students, and librarians involved in the VTL library instruction programs. With continued development and communication between all involved parties, VTL will be able to continuously improve not only the statistical relevance of one-shot library instruction but also the actual instruction process.

Notes

1. Richard M. Dougherty, "Guest Editorial: Assessment + Analysis = Accountability," *College and Research Libraries* 70, no. 5 (2009): 417; Xi Shi and Sarah Levy, "A Theory-Guided Approach to Library Services Assessment," *College and Research Libraries* 66, no. 3 (2005): 267.

2. Franklin M. Zaromb, Jeffrey D. Karpicke, and Henry L. Roediger III, "Comprehension as a Basis for Metacognitive Judgments: Effects of Effort after Meaning on Recall and Metacognition," *Journal of Experimental Psychology: Learning, Memory, and Cognition* 36, no. 2 (2010): 557. **vi**