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Article

Teaching Literacy: Methods for Studying and Improving Library Instruction

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Abstract

Objective – The aim of this paper is to evaluate teaching effectiveness in one-shot information literacy (IL) instruction sessions. The authors used multiple methods, including plus/delta forms, peer evaluations, and instructor feedback surveys, in an effort to improve student learning, individual teaching skill, and the overall IL program at the American University in Cairo.

Methods – Researchers implemented three main evaluation tools to gather data in this study. Librarians collected both quantitative and qualitative data using student plus/delta surveys, peer evaluation, and faculty feedback in order to draw overall conclusions about the effectiveness of one-shot IL sessions. By designing a multi-method study, and gathering information from students, faculty, and instruction librarians, results represented the perspectives of multiple stakeholders.

Results – The data collected using the three evaluation tools provided insight into the needs and perspectives of three stakeholder groups. Individual instructors benefit from the opportunity to improve teaching through informed reflection, and are eager for feedback. Faculty members want their students to have more hands-on experience, but are pleased overall with instruction. Students need less lecturing and more authentic learning opportunities to engage with new knowledge.

Conclusion – Including evaluation techniques in overall information literacy assessment plans is valuable, as instruction librarians gain opportunities for self-reflection and improvement, and administrators gather information about teaching skill levels. The authors gathered useful data that informed administrative decision making related to the IL program at the American University in Cairo. The findings discussed in this paper, both practical and theoretical, can help other college and university librarians think critically about their own IL programs, and influence how library instruction sessions might be evaluated and improved.

Introduction

Assessment is one of the most popular topics in academic libraries today. Much research has been conducted, and many papers written, on this topic, and they are generally valuable additions to the body of library literature. This article, however, is not about assessment. It is about evaluation. Although these terms are sometimes used interchangeably, they are not the same and do not entail the same processes. Assessment requires that the skills or knowledge that students are expected to develop during a class or library session are stated explicitly prior to instruction. The ability of students to demonstrate these skills or knowledge is then measured following the instruction session to assess the effectiveness of the instructor or other teaching tool (Association of College and Research Libraries, 2011). Evaluation, however, involves "rating the performance of services, programs, or individual instructors," in order to identify strengths, weaknesses, and areas for improvement (Rabine & Cardwell, 2000, p. 320). The focus of this study was to gather information from multiple stakeholders about the effectiveness of teachers: this is evaluation. Assessment and evaluation, while not identical or even interchangeable, can be closely related. For example, the results of an evaluation project

may provide insight into the areas of instruction that need the most improvement, thus informing the design of an assessment study.

At the American University in Cairo (AUC) Main Library, library instruction falls under the responsibility of the Department of Research and Information Services. The information literacy program is made up of a required semester-long IL course (LALT 101) intended to be taken by freshmen, as well as individual "one-shot" instruction sessions tailored to specific classes. The demand for these one-shot sessions increased noticeably for the 2010-2011 academic year – from 43 in 2009-2010 to 101 for Fall 2010 and Spring 2011. The majority of these sessions are taught by a core group of eight librarians who serve as departmental liaisons and provide reference and instruction services, and about half of these sessions are for classes within the freshman writing program. Every session is designed to address predetermined student learning outcomes that are established through collaboration with the professors. Little had been done to evaluate these one-shot sessions in recent years. In fall of 2010, researchers began development of an evaluation plan to examine one-shots from multiple perspectives and to improve information literacy training to AUC students. The project

included multiple methods – plus/delta forms, faculty feedback, and peer observation – in order to collect data from students, faculty, and librarians, and was scheduled to take place in the beginning of the Spring semester.

Literature Review

A review of the literature indicates that evaluating and assessing library instruction have become a priority for many libraries (Matthews, 2007; Oakleaf, 2009; Shonrock, 1996; Zald & Gilchrist, 2008). The process may seem intimidating for librarians who have never undertaken such a project, but the literature included in this review indicates that many would not be dissuaded.

Teaching Skills

The focus of our study differs from much of the literature in that we focused primarily on the evaluation of the teaching skills of librarian instructors. Walter (2006) argues that "teacher training is still a relatively minor part of the professional education for librarians even as it becomes an increasingly important part of their daily work," and so "instructional improvement" (p. 216) should be pursued by all instruction librarians, novice or experienced. It has also been shown that librarians, particularly those with less than five years of experience, are not confident in maintaining student interest, classroom management, and public speaking (Click & Walker, 2010). The evaluation of instruction can provide feedback that allows teaching librarians to develop in these areas. Instruction librarians can use a variety of techniques to improve teaching, such as reflection (Belanger, Bliquez, & Mondal, 2012), peer observation (Samson & McCrae, 2008), or small group analysis (Zanin-Yost & Crow, 2012).

Assessment and Evaluation

Zanin-Yost and Crow (2012) describe assessment as a "multistep process that includes collecting and interpreting information that will

assist the instructor in making decisions about what methods of course delivery to use, when to teach course content, and how to manage the class" (p. 208). Others define assessment simply as the measuring of outcomes, while evaluation denotes "an overall process of reviewing inputs, curriculum and instruction" (Judd, Tims, Farrow, & Periatt, 2004, p. 274). The idea that assessment and evaluation are not synonyms is rarely discussed in the library literature.

Popular Methods

The use of pre- and post-tests in order to assess IL skill development appears regularly in the literature on assessing the effectiveness of library instruction. Hsieh and Holden (2010) employed pre- and post-testing as well as student surveys in an effort to discover what students actually learned from one-shot sessions, and whether or not these sessions were effective. They found that "it is just as incorrect to say that single-session information literacy instruction is useless as it is to believe that it is all that is needed to achieve a high level of IL among college students" (p. 468). Furno and Flanagan (2008) developed a questionnaire that was given to students before and after IL instruction, designed to test students on three topics: formulating research strategies, evaluating resources, and resource recognition. Their research illustrated that there were several areas to improve upon, specifically teaching students to use the Boolean "OR," but most importantly it showed them that creating a culture of assessment in the library would lead to improved IL instruction sessions. Research like this has a clear practical purpose, since it helps discover areas in which IL sessions might be improved. Furno and Flanagan's research was of particular interest to us because it was conducted at an American-style overseas university, the American University of Sharjah, a setting which is similar to AUC. Wong, Chan, and Chu (2006) provided an additional international perspective from the Hong Kong University of Science and Technology, utilizing a delayed survey to collect student impressions

of IL instruction four to eight weeks after the session. Although the survey did not test for knowledge specifically, results encouraged librarians to make changes to session length and handout content (Wong, Chan, & Chu, 2006). Like Furno and Flanagan, Wong, Chan, and Woo analyzed data to make improvements to individual instruction sessions, but they also used this assessment technique to create an assessment program at their university.

Using Multiple Methods

Rabine and Cardwell's (2000) multi-method assessment helped with the development of this project, as they used student and faculty feedback, peer evaluation, and self-assessment. Their study allowed them to gather a great deal of data from all stakeholders, so that they might "attempt to reach common understandings and establish 'best practices'" (p. 328) for one-shot sessions. Bowles-Terry (2012) chose a mixed-methods approach to collect both quantitative and qualitative data, which provided "a more complete picture" (p. 86). The results of her study offered more than just statistical correlations: she was able to form a strong argument in support of developing a tiered IL program. Although the use of multiple or mixed methods in assessment has not been common in the library literature, the technique is gaining popularity in the field.

Plus/Delta, Faculty Feedback, and Peer Evaluation

There is little to be found in the library literature about using the plus/delta chart, which is simply a piece of paper on which students write a plus side for one thing that they have learned in the class session, and on the other side a delta sign for one thing about which they are still confused. McClanahan and McClanahan (2010) described this concept as a simple way to obtain feedback about what is and is not working in the classroom.

Collaboration between librarians and teaching faculty is regularly encouraged in the literature (Arp, Woodard, Lindstrom, & Shonrock, 2006; Belanger, Bliquez, & Mondal, 2012; Black, Crest, & Volland, 2001). Rabine and Cartwell (2000) solicited faculty feedback on specific one-shot sessions in order to make improvements to teaching methods and content. Black, Crest, and Volland (2001) surveyed over 100 faculty members who had utilized library instruction in the past and were able to identify where programmatic changes should be made. Gathering feedback from these crucial stakeholders supports the assessment of IL by "putting these various perspectives in conversation with each other" and fostering "a dialogue between faculty and librarians about shared instructional aims" (Belanger, Bliquez, & Mondal, 2012, p. 70).

Samson and McCrea (2008) provided background for using peer evaluation in IL instruction, a topic that is not often addressed in the library literature. They note that the experience benefits all instructors: "New teaching faculty garnered ideas and pedagogy from their more experienced colleagues, but experienced librarians were also inspired by the fresh perspectives and insights of newer teachers" (p. 66). Middleton's (2002) analysis of the peer evaluation program at Oregon State University provided a framework for setting up a system of evaluation instead of just creating a snapshot of teaching effectiveness. She noted that "the most significant benefit to the reference department and the library administration was the establishment of a peer evaluation of instruction process, incorporating both summative and formative evaluation depending upon the type of review selected and/or needed" (p. 75).

Methods

In spring of 2011, with the assistance and enthusiasm of the Research and Information Services Department at AUC, researchers prepared to evaluate teaching effectiveness of

one-shot IL instruction sessions by conducting an Institutional Review Board–approved study using three assessment methods. We designed a plus/delta form to measure student input, a peer evaluation form to measure input from instruction librarians, and an online survey to collect faculty feedback. The goal of these three evaluation instruments is to examine instruction and delivery from the perspective of three different stakeholders. By including and collecting data from all stakeholders, the authors were able to identify individual and overarching trends in assessment data and thus form stronger conclusions.

Plus/Delta

Instructor librarians distributed plus/delta forms to all students at the end of all IL one-shot instruction sessions during a one-and-a-half-month survey period; 232 students chose to participate. They were asked to identify one concept they learned (the plus) and one concept about which they were still confused at the conclusion of the session (the delta). The plus symbol represents strengths; instructors use this positive feedback to identify areas of instruction and delivery in which they excel. The delta symbol represents change; instructors use this feedback to make adjustments and improvements to their teaching. The authors compiled the plus/delta forms and then transcribed to allow for better organization and analysis. All comments were grouped by theme – such as specific skills, resources, services, and general comments – to analyze which concepts were being taught well. This quick and simple information gathering tool allowed students to provide anonymous commentary, and librarians were able to use this immediate feedback to identify the strengths and weakness in their presentation. Examples of completed plus/delta forms can be found below.
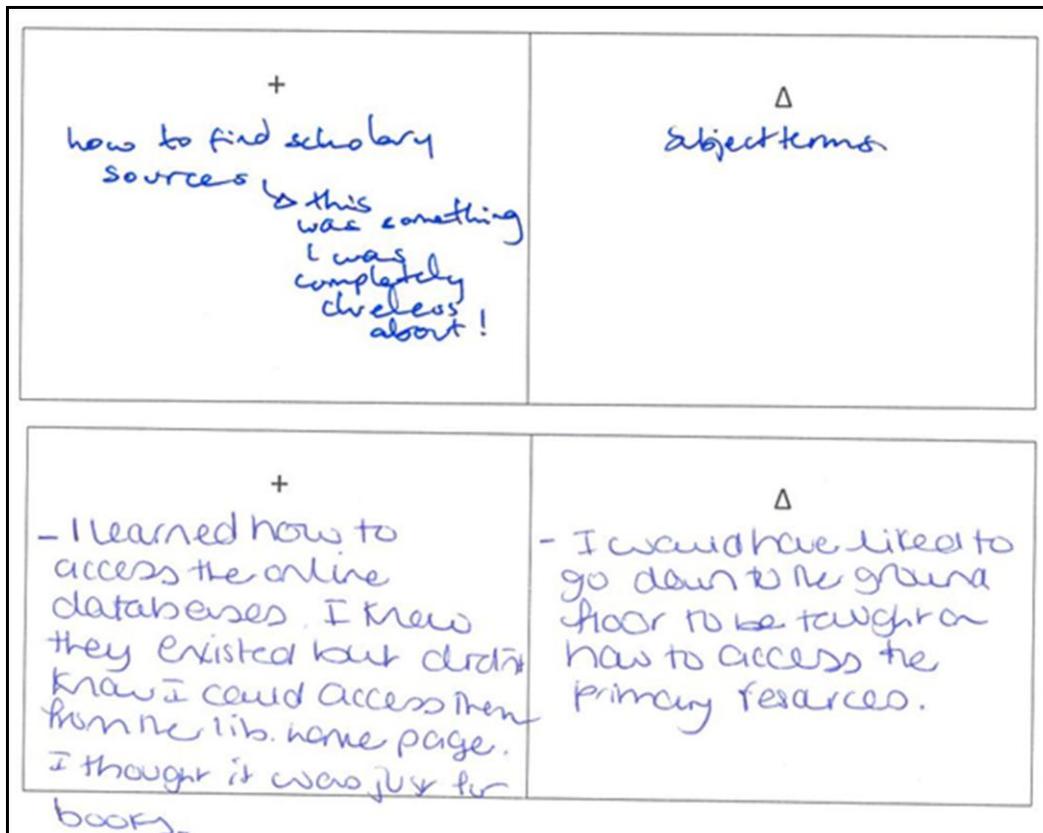

Figure 1
Examples of completed plus/delta forms

Peer Evaluations

All eight instruction librarians were asked to participate in a peer evaluation program as both observer and observed. Participation was optional. In order to prepare, an instruction meeting was held to discuss the background, evaluation process, and criteria for evaluating teaching effectiveness, as defined by Rabine and Cardwell (2000). During this time, all questions were answered related to the study, and participants discussed the benefits of being both the observer and observed. Librarians were asked to observe four sessions and to be observed by two of their peers in two separate sessions. To increase effectiveness and reduce bias in the peer evaluation process, two librarians were assigned to provide feedback on each observed class. A peer evaluation form (Appendix A) was designed and piloted in the fall of 2010, and updated and used to collect data in spring 2011. Peers were asked to comment on preparation, instruction and delivery, class management, and instruction methods. Critical feedback was provided and teaching effectiveness was measured.

Faculty Survey

Twenty-two instructors were emailed an instructor evaluation form (Appendix B) prior to instruction sessions so that they could observe the appropriate aspects of the sessions and report their personal evaluation. This survey was designed to measure teaching efficacy and asked participants to rank effectiveness and provide qualitative feedback regarding what they would have changed or what they particularly appreciated about the session. Fourteen instructors returned the survey with critical feedback. The qualitative comments were grouped by theme to look for programmatic problems, while the individual instructor comments were summarized and given to the participating librarians.

Results

The majority of requested one-shot instruction sessions were taught in February and March 2011, and we collected a great deal of data. Despite the fact that historically fewer sessions are taught in the spring, and that the Egyptian Revolution caused the semester to be shortened by several weeks, in 31 one-shot sessions, 232 plus/delta forms were collected, 15 sessions were observed by colleagues, and 14 feedback surveys were returned by faculty.

Plus/Delta

The plus/delta forms provided useful feedback regarding what students had learned, or at least what they remembered from the sessions. Out of 383 students surveyed, a total of 232 (77%) returned the survey. Students seemed hesitant to complete the "something that I still find confusing" portion of the form, despite the promise of anonymity. Perhaps they were uncomfortable with criticizing a perceived authority figure or perhaps they had been so unfamiliar with library resources prior to the one-shot that they were unable recognize what was still unclear. Regardless, because of the large number of responses, we were able to draw some useful conclusions.

We carefully sifted through all the plus/delta forms, and organized responses by specific theme (e.g., choosing keywords, *Academic Search Complete*) and then by broader themes (e.g., specific skills, specific resources). Choosing keywords would fall under "specific skills" and *Academic Search Complete* under "specific resources." Additional broad themes under both plus and delta categories included "services" and "general comments." General comments such as "developed research techniques" and "learned about library databases" came up frequently, as did general praise, such as "very helpful, thanks!" See Appendix C for a complete list of identified themes.

In September 2010, the AUC Library implemented the Serials Solutions product Summon, a discovery platform for searching library resources. The platform was branded Library One Search (L1S), and is now the main search box on the library website. This new platform has been a focus of library instruction sessions, and many students referenced it under "something that I learned." There were 53 references to L1S, often by name but sometimes by other terminology such as the "library search engine," "library website search," or other variations on these phrases. In all 53 instances, however, it was clear that the student respondent was referring to L1S. In total, we found 89 instances of general commentary under the plus responses. General comments under the delta heading included unspecified confusion, information overload, and having received similar training in other classes.

Peer Evaluations

Although peer evaluations may have been the least methodologically sound assessment used in the study – as a result of issues related to peers judging peers (see Discussion for more details) – they offered valuable insight on teaching strengths and opportunities for improvement. A total of 8 instruction librarians participated in 28 peer evaluations, where they were asked to evaluate the strengths and weaknesses of their colleagues' teaching abilities.

Due to the Egyptian Revolution, scheduling observations and instruction sessions became extremely difficult as class started two weeks after the scheduled date and numerous other class days were cancelled due to unrest. As a result, we were unable to fulfill the 32 anticipated observations, and only 28 were collected via observation of 15 different class sessions. Four librarians observed three sessions and two librarians observed only one session. Four librarians were observed four times, two librarians were observed three times, and one librarian was observed once. The authors

contributed 50% of the collected observations, instead of 25% as originally planned, as a result of scheduling challenges. Seven of the classes observed were instruction sessions for Rhetoric 201, a sophomore-level rhetoric and writing class in which students are required to write research papers. The other eight sessions were all discipline-specific instruction sessions ranging from art to biology.

Researchers asked librarians to provide qualitative data on four different aspects of their colleagues' teaching skills: preparation, instruction and delivery, class management, and instruction methods. When asked to comment on preparation, all observing librarians stated that their peers were clearly prepared for the instruction session – through various methods such as preparing an outline, providing examples, and conducting discussion related to course content. Comments included, "Session was well planned. It followed a clearly defined outline," and "Clearly prepared for this session – all of her examples were related to student topics." Comments related to instruction and delivery and class management proved to be informative and helpful for librarian instructors. Issues with voice tone and library jargon were frequently mentioned when discussing instruction and delivery. Twelve observers mentioned that the teaching librarian talked with a clear and concise voice, while three observers mentioned that the teaching librarian talked too quickly and used too much library jargon. There were seven references to library instructors' clearly identifying and clarifying library terminology. These comments are extremely important since the majority of AUC students are non–native English speakers, and often unfamiliar with library resources and services. There were two references related to better classroom management, due to the inability to keep students' attention and clearly explain concepts, such as, "Her enthusiasm for and thorough knowledge of the resources sometimes led to longer explanations and details, which may have been less effective than a brief answer would have been."

Although library instructors try to engage students, evaluation results show that far too much time is spent on lecturing and demonstrating. There were 28 references to library instructors using lecture and demonstration as the primary means of instructing students. We found nine references to actions meant to keep students engaged, such as providing students with the opportunity to work in class and soliciting questions from the class. Observers were asked to rank their colleagues' overall teaching effectiveness on a scale of one to ten. On average, librarian instructors received a rating of 7.85, with 6 being the lowest score received and 9 the highest score. See Table 1.

Faculty Survey

The faculty feedback survey, created using SurveyMonkey and distributed via email, allowed faculty instructors the opportunity to provide feedback related to the perceived effectiveness of the library instruction session. Researchers asked faculty members to provide qualitative feedback related to what they especially liked about the session and what they would have changed. In total, 22 surveys were distributed, and respondents completed and returned 14 surveys. In some cases, librarians forgot to distribute the survey. The return rate was surprisingly high considering there were four general Guide to Graduate Research

Workshops assessed, which were general library sessions and student participation was optional. These latter sessions were not attended by faculty members.

Faculty members were asked to rank seven statements related to the success and instructional design of the session (see Table 2). Overall, faculty members strongly agreed that the session met their expectations, was focused on skills that were relevant to course assignments, and that the instructor clearly explained concepts. When asked if instructional activities were appropriate, five instructors strongly agreed, five agreed, and one was neutral. This figure indicated that new active learning activities could be implemented to engage students in the learning process. Similarly, when asked if the instruction session better prepared students for research, five instructors strongly agreed, five instructors agreed, and one instructor was neutral.

The most engaging and informative data was collected in the second part of the survey, in which faculty instructors were asked to describe what they particularly liked about the instruction session and what they would have changed. In order to analyze the open-ended responses, we coded and categorized comments to reflect specific skills and concepts, the same process used to analyze the plus/delta data.

Table 1
Observations and Frequency

Observation	Number of Occurrences
Librarian clearly prepared for session	28
Librarian spoke clearly	12
Librarian explained unfamiliar terminology	7
Librarian kept students engaged	9
Librarian used lecture primarily	28
Librarian spoke too quickly and used too much jargon	3

Table 2
Statements Ranked by Faculty Respondents

Answer Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	N/A
The session met my expectations.	8	3	0	0	0	0
The session focused on skills that are relevant to current course assignments.	11	1	0	0	0	0
The session instructor was clear in explaining concepts.	10	1	0	0	0	0
Instructional materials (e.g., handouts, web pages, etc.) were useful.	6	3	0	0	0	2
Instructional activities (e.g., discussions, planned searching exercises etc.) were appropriate.	5	5	1	0	0	0
In general, students are more prepared to conduct research for class assignments as a result of this session.	5	5	1	0	0	0
If there was hands-on computer time, I believe that students found the activities useful.	10	3	0	0	0	1

When asked to list what the faculty instructor particularly liked about the session, 16 respondents provided comments. An overwhelming majority of the positive responses from faculty dealt with teaching students how to find resources, both general and specific. Six comments were related to finding general resources, such as, "showed them various ways to find resources in the library," and "students were introduced to Library Database." Two comments also reflected the importance of effectively using books and Library One Search in the research process. There were two comments generally related to the presentation skills of librarians ("She was just great"). Two comments directly addressed the librarians'

willingness to assist students and answer questions, for example, "stress and repetition of the librarian's availability to answer questions at any time."

In response to what faculty members would have changed about the instruction session, seven instructors stated that they were satisfied with the session and did not have any changes to suggest. Three faculty members listed specific resources and concepts they would have liked their students to learn, for example, "using resource from outside the university and interlibrary resources" and "how to refine a search." Three professors also commented on the structure of the class, suggesting variations

in how instructors deal with lecturing and allowing students to practice the skills they learned. Two professors stated, "I would get students to engage as a group with instructor vs. one on one," and "I would have built more time into the presentation for the students to use the skills they learned to research their own topics." These comments emphasize two major points we discovered in the faculty survey and peer evaluation – more active learning techniques, such as group problem-solving activities, are needed to engage students in the learning process, and adjustments should be made to session structure. Generally most librarians received positive feedback on their teaching.

The use of multiple methods to evaluate teaching effectiveness, including plus/delta, peer evaluation, and instructor feedback surveys, provided the Research and Information Services department with the data needed to improve teaching, student learning, and the overall instruction program. Common themes found within the three evaluation tools showed an overall positive opinion of instruction librarians, but specific themes, such as a lack of active learning techniques, were identified throughout all evaluation tools. Students, instructors, and observing librarians stated there was not enough time to engage with or utilize new knowledge. Instruction librarians were most critical about the use of lecture and demonstration to teach library resources and skills – clearly, librarians need to engage with their students more effectively. All three assessments also showed that some instructors struggle with explaining certain concepts; for example, one instructor was noted for use of excessive library jargon. Overall, the results from all three evaluation tools showed that students are learning new material and librarians deliver instruction sessions that are perceived in a positive way by teaching faculty and colleagues.

Discussion

The results of this study were beneficial to the AUC Main Library IL program in two

fundamental ways. First, we were able to identify larger issues that should be acknowledged and addressed program-wide. Second, participating instruction librarians benefited from opportunities for reflection and growth. We were pleased that the use of multi-method evaluation provided a "big picture" view of the IL program by including the perspectives of multiple shareholders, as has been demonstrated elsewhere in the literature (Bowles-Terry, 2012; Rabine & Cardwell, 2000).

Individual Instructor Growth Opportunities

At the end of the study, researchers provided all instruction librarians with a comprehensive feedback file, compiled by the authors, so that instructors would have the opportunity to review feedback and spend time on self-reflection in order to improve specific skills. In this way, those that needed to work on, for example, eliminating or explaining library jargon became aware of this opportunity for growth and improvement. An added benefit to using the peer evaluation method was the number of librarians who enjoyed observing their colleagues, which led to personal reflection and the incorporation of new teaching strategies. In addition, some of the observed librarians were eager to receive their own feedback for self-improvement purposes. Creating this culture of evaluation can improve relationships between librarians and others on campus, thus leading to more effective collaboration. This university-wide culture of assessment and the library's role within it has become an increasingly popular topic in the library assessment literature (Sobel & Wolf, 2010).

Departmental Developments

By using multiple methods and involving three main stakeholder groups, we were able to collect valuable information. It is certainly beneficial to repeat this type of evaluation annually, as teaching librarians develop and staff changes. The teaching reports we assembled at the end of the study were useful individually, for faculty

reports, personal development, and for the instruction librarians as a group. Since the results of the study were last analyzed, several librarians have taken advantage of professional development opportunities related to improving teaching. The AUC Main Library is planning two series of workshops, the first of which will provide instruction librarians the opportunity to brush up on learning theory and teaching pedagogy. The second series of workshops will be provided to faculty members, either within or outside the library, who wish to learn more about information literacy and how they can make the most of one-shot instruction sessions.

Issues with Student Engagement

All three of the evaluation tools revealed that the structure of one-shot sessions should be reconsidered in order to avoid too much lecture and demonstration. Instructors might consider addressing the problem of time constraints by including less content but more group work so that students can learn from and teach one another. Wong, Chan, and Chu (2006) found similar problems with student engagement, and adjusted the length of instruction sessions. Students might also remain engaged and retain more information if active learning techniques were included when possible. For a variety of activities and ideas for increasing active learning in the library classroom, we suggest consulting *The Library Instruction Cookbook* (Sittler & Cook, 2009).

Limitations

When developing the plus/delta survey, we were confident that this evaluation technique would appeal to students because it was quick, simple, and immediate. However, as mentioned previously, it seems that some students were hesitant to give critical feedback. In the future, perhaps asking the professor to distribute the forms to students at their next class meeting or providing more specific prompts would be a better plan. Students would feel more anonymous, and feedback might be more useful

if it is not so immediate; librarians would discover what stuck with students after a couple of days. Creating an online form to be completed at the end of the instruction session might have given the students the feeling that all submissions were anonymous, rather than completing and handing in an evaluation form to the library instructor. Also, students might respond more clearly to more specific questions: they may have found the plus/delta format to be confusing or intimidating.

In developing the faculty feedback portion of the study, we were faced with the decision of anonymity versus utility of feedback. We had access to all of the returned surveys, and faculty were aware of this fact. Had the survey been anonymous, faculty might have felt more comfortable giving constructive criticism, but we would have been unable to trace the feedback to specific sessions and library instructors. Requesting that faculty provide both anonymous and identifiable feedback could solve this problem, but may be asking too much. Instead of asking faculty if they had prior contact with instruction librarians, we could have framed the question to reflect whether or not librarians helped with instructional design of assignments and if so, was it helpful? This would have allowed us to gauge whether or not librarian participation is effective beyond the one-shot sessions.

The peer evaluation certainly provided some valuable guidance for instruction librarians, although this process was difficult for both the observer and observed. Some librarians were nervous about the presence of colleagues in the classroom, and some librarians were uncomfortable ranking their colleagues. These issues, however, are unavoidable if this technique is utilized. The qualitative results were definitely more useful than the rating scale – we discovered that no one was willing to rank another librarian below a six, regardless of performance. Although librarians hesitated to rank their peers, there were numerous qualitative suggestions and comments related to

teaching effectiveness, classroom management, and delivery.

Recommendations

We support developing and implementing a system of evaluation and recommend the following:

- Create a system of evaluation that is a continuous ongoing project, instead of focusing on a one-semester snapshot of teaching effectiveness. This will encourage instruction librarians to actively and continually improve their teaching.
- Beyond handing out comprehensive feedback files to instruction librarians intended for self-reflection, schedule individual meetings with librarians to discuss evaluations.
- Have instruction librarians set yearly goals related to specific skills they would like to improve. Provide assistance and help develop these skills.
- Focus on creating a discussion of teaching effectiveness in your library and campus. Work with your centre for teaching and learning to promote teaching and information literacy by planning and co-sponsoring workshops and other educational opportunities.

Conclusions

Evaluating effective teaching using multiple methods is useful in developing and maintaining a successful information literacy program. By involving all stakeholders in the evaluation process, a study can benefit from multiple perspectives on teaching effectiveness and ability. A cumulative look at all information collected and analyzed provides instruction librarians with information about areas in which teaching can be improved and also highlights areas of excellence.

This study indicates that in general, instruction librarians, students, and faculty members are satisfied with IL sessions, but there is room for improvement. Individual librarian instructors benefit from opportunities to improve teaching through informed reflection. Faculty members want their students to have more hands-on experience in the classroom. Students need less lecturing and more authentic learning opportunities to engage with new knowledge.

The overall evaluation of IL instruction and programs sessions goes beyond measuring student learning outcomes, and should also focus heavily on effective teaching. We advocate for further research in this area to encourage a system of evaluation and assessment. It should be noted that this was a time-consuming process, and should be scaled to the available library resources. However, the improvement of instruction in academic libraries is a worthwhile endeavour, and serves to emphasize the importance of library resources and services for students and faculty.

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Appendix A
Peer Evaluation

1. Observer:

2. Librarian instructor:

3. Instructor and class (e.g. RHET 201, Bob Ross)

4. Preparation:

5. Instruction and Delivery:

6. Class Management:

7. Instruction Methods:

8. On a scale from 1 to 10, how would you rate the effectiveness of this instruction session?

Comments:

Appendix B
Faculty Feedback Form

1. What was the date of the library instruction session?

2. How did you communicate with the librarian that taught the one shot prior to the session?
__ In person
__ On the phone
__ Via email
__ Didn't communicate with the instructor

3.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
a. The session met my expectations.						
b. The session focused on skills that are relevant to current course assignments.						
c. The session instructor was clear in explaining concepts.						
d. Instructional materials (e.g., handouts, web pages, etc.) were useful.						
e. Instructional activities (e.g., discussions, planned searching exercises, etc.) were appropriate.						
f. In general, students are more prepared to conduct research for class assignments as a result of this session.						
g. If there was hands-on computer time, I believe that students						

found the activities useful.						

4. What did you particularly like about the session?

5. What would you change about the session?

Appendix C
Plus/Delta Themes

Plus	# of Responses	Delta	# of Responses
Specific Skills		*Specific Skills*	
Library One Search	53	Finding a book/call numbers	9
Narrowing results	32	Using online resources/library website	6
Search connectors	30	Evaluating sources	6
Primary sources	14	Accessing articles	5
Finding books/call number	13	Searching by discipline	5
Keywords	12	Narrowing a search	4
Databases by major	12	Citations	3
Citations	10	Search strategies	3
Building a search statement	9	Subject terms	2
Search punctuation () "" *	8	Finding fulltext	2
Developing a research question	6	More online searching	1
Database tools	5	Search connectors	1
Finding scholarly sources	4	Types of resources	1
Subject terms	4	Building a search statement	1
Using synonyms	3		
Finding fulltext	2	*Specific Resources*	
Evaluating sources	1	Refworks	5
Identifying types of resources	1	Other databases	5
		Arabic sources	4
Specific Resources		Catalog	1
Refworks	10	Print resources	1
Academic Search Complete	8		
Subject Guides	8	*Services*	
Google Scholar	8	Document Delivery	7
ProQuest Theses & Dissertations	5	Technical problems	3
Historical newspapers	3	Reserve	1
Psychology databases	3	Recommending books for purchase	1

Digital Archive & Research Repository	2	Printing	1
Political Science Complete	1	Evening services	1
Web of Science	1		
Business Source Complete	1	*General Comments*	
Opposing Viewpoints	1	Lots of information/need to practice	9
		Vague confusion	7
Services		Needed this information previously	5
Document Delivery	24	Delivery too fast	3
Help Desk	1		
General Comments			
Research techniques	34		
Databases	28		
Vague praise	27		