

# A GATEWAY TO OUTCOMES ASSESSMENT: COLLABORATING ON A MULTI-SESSION LIBRARY INSTRUCTION PROGRAM

JENNIFER HATLEBERG AND NIYATI PANDYA

## INTRODUCTION

During the summer of 2010, instruction librarians at Montgomery College were presented with an exciting opportunity to collaborate with a unique program, called Gateway to College.

Montgomery College, located in Montgomery County, Maryland, is a community college with three campuses spread apart by 30 miles. Librarians teach approximately 135 instruction classes at each campus per academic year. Almost all of our classes are one-shot instruction sessions (where we try to incorporate as many IL standards as we can).

Gateway to College (GtC) is a national dropout prevention and recovery program that originated at Portland Community College in 2000 and has expanded to 35 community colleges nationwide (<http://www.gatewaytocollege.org/home.asp>). It provides an opportunity for at-risk high school students to simultaneously earn high school and college credits. Montgomery College (MC) was an early participant in the program ([www.montgomerycollege.edu/gatewaytocollege/](http://www.montgomerycollege.edu/gatewaytocollege/)), which operates as a partnership between MC (providing staff, classroom space, and learning resources) and the Montgomery County Public Schools (providing partial funding). As at-risk students, the GtC students benefit from a “much-needed structure and nurturing” while actively participating in group projects, career building, and service learning (Dill, 2010, p. 46-47).

Two years ago, the GtC Program Director approached the Libraries’ User Instruction Committee chair with a request to develop a credit-bearing information literacy class for first-year GtC students. After much discussion and planning, a non-credit, semester-long library instruction program was launched for the Fall 2010 GtC cohorts at two MC campuses. Working closely with the Reading/Writing faculty, instruction librarians identified learning objectives for the program and developed six two-hour library sessions, which took place during regularly scheduled service learning classes. The GtC service learning instructor provided support during all of the library sessions at each campus.

## OVERVIEW OF LIBRARY INSTRUCTION SESSIONS

Initially, there was one Reading/Writing faculty member who taught at both of the campuses with a GtC cohort. The curriculum was developed around a theme relating to the 1960s. Students were instructed to use primary sources, conduct historical research, and complete a final project that applied the historical context to a currently relevant issue. A series of library sessions was developed to teach students specific information literacy skills relevant to each Reading/Writing class assignment, scheduled at the point of need. Each library session addressed at least two ACRL Information Literacy Competency Standards (see Appendix).

Over time, the GtC program expanded to all three MC campuses. There are now two Reading/Writing faculty members, who have developed their own themes and assignments. Information literacy concepts are transferable, so even though the faculty members’ plans differ, we are able to teach students the same information literacy skills in the same sequence at each campus. Because of the different approaches of the Reading/Writing faculty, however, we are not always

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*Hatleberg* (Instruction and Distance Education Librarian) and  
*Pandya* (Instruction Librarian)  
Montgomery College [Montgomery County, MD]

able to use the same in-class activities and assessment tools. Instruction librarians and GtC faculty members agreed to reduce the number of Library sessions to five so that the sessions remain relevant to students without seeming repetitive (as students had commented in initial program evaluations).

### Session Topics:

1. Finding Primary & Secondary Sources
2. Evaluating Websites & Doing Exploratory Research
3. Evaluating Scholarly Information
4. Developing Search Strategies & Doing Historical Research
5. Review and Individual Research for Final Papers

Each library session generally follows a similar pattern: Librarians introduce IL skills within the context of the course theme and assignments; concepts are reinforced by in-class activities; and students are given time to find sources relating to their Reading/Writing class assignment.

During the first semester, a Library Course Page was created (using LibGuides software: <http://libguides.montgomerycollege.edu/gateway>) to provide one common platform for students to access resources. The Library Course Page was revised and used for three semesters, but has since been discontinued (based on our observations, GtC faculty input, and curriculum changes).

MC uses Blackboard as the course management system for Distance Education and blended classes, and each GtC Reading/Writing class has a Blackboard course site. A new “Librarian” role was created during the Spring 2012 semester, providing us with the opportunity (with faculty consent) to share resources and create activities for students within a familiar online environment. One GtC faculty member gave us access to the Blackboard course midway through the semester, and we hope to expand this to all GtC Reading/Writing sections in the future. We expect that a Library presence in the Blackboard course site will help to reinforce the connection between the Library sessions and the Reading/Writing assignments.

### ASSESSMENT OF STUDENT LEARNING OUTCOMES

The assessment of student learning outcomes should involve “taking a look at student work in the aggregate, ... to see where group strengths and weaknesses are occurring and using this evidence to guide improvements” (Banta & Blaich, p. 23-24). Often, assessment of information literacy skills *must* be conducted on a large scale, primarily because many instruction librarians teach “one-shot” sessions, which precludes the opportunity to follow up with individual students in a meaningful way. Teaching a series of two-hour, intensive library sessions to the same group of students over the course of a semester presented us with the unique opportunity to conduct a programmatic evaluation of student learning within

a more intimate setting. We had the opportunity to return to our students and re-emphasize a skill or concept that had proven difficult to many, while also looking forward to how we might make programmatic changes in future semesters.

Many of the assessment activities we developed were “restricted-response performance tasks,” which asked students to respond to a prompt, complete an activity within a provided framework, or give an explanation of their answer choice (Linn & Miller, 2005, p. 252). In this light, our assessment activities served two purposes: (1) They acted as a teaching tool, providing students with an opportunity to practice the just-learned concepts before applying the skills to their Reading/Writing class assignment, and (2) They provided us with important feedback regarding how well students understood the concepts we covered. While some of the activities were formatted as quizzes that provided a simple correct/incorrect score, that did not provide us with enough information to determine whether or not students really applied the required information literacy skills to come to an answer. We needed to develop rubrics to evaluate students’ responses more fully. We considered these assessment tools to be formative; they were designed specifically for each segment of the instruction session and they did not figure into a student grade (Linn & Miller, 2005, p. 36). We used our evaluations of student performance to inform our revisions of the assessment tools, as well as our teaching strategies for each lesson.

Two examples of assessment activities are below:

#### Example 1: Evaluating Websites

- Student Learning Outcome: Examine and compare information from various sources in order to evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias
- Explanation of evaluation criteria, using videos and discussion
- Online Activity: Choosing Good Sources (<http://tinyurl.com/gtcweb>)
  - Three website links related to a topic being used for a GtC service learning project
  - For each website, students were asked to evaluate the website based on the criteria discussed in class and explain whether or not they would use it as a source.
  - They were then asked to name one evaluation criteria that helped them make their decision. A list of five criteria remained on the whiteboard during the activity.
- Responses were scored by the quiz software, but a rubric was applied to evaluate students’ answers (see Appendix). For instance, a student may have

correctly identified the criteria used to evaluate a website (e.g., currency), but may have applied it incorrectly. The quiz software would mark that correct, while we as instructors might disagree.

- The results of the activity show that many students were able to evaluate a website using the criteria. A majority of students correctly assessed each website as reliable or not. Students also were able to list the criteria that they used, with more than 90% correctly identifying the criteria for the last two websites (possibly due to confusion with the instructions with the first website).

### Example 2: Developing a Search Strategy

- Student Learning Outcomes:
  - Identify keywords, synonyms and related terms for the information needed
  - Construct a search strategy using appropriate Boolean operators for the information retrieval system selected
- It is worth noting that none of the instruction librarians mentioned the word “Boolean” during this lesson. We demonstrated the use of Boolean operators with a combination of methods: a “Simon Says” game (Sittler & Douglas, 2009, p.32-33), an example of ordering food in a cafeteria, with Venn diagrams, and demonstrated through database searches.
- Online Activity: Searching for Articles (<http://tinyurl.com/gtcsearch>)
  - A sample topic was provided. Quiz questions reinforced the steps in the process of developing a Boolean search strategy:
    - i. Identify the main concepts within the sample research topic (multiple choice; select all correct answers)
    - ii. Develop a list of related words and synonyms (sort provided synonyms into four categories, including “not a good search term”)
    - iii. Determine the use of the appropriate Boolean operator (sort descriptions of AND & OR into the appropriate category)
    - iv. Identify a correctly phrased Boolean search strategy (multiple choice)
  - Students’ scores were lowest in the section that asked them to identify the main concepts within the research topic.

Some students chose a very broad concept (communication), while others chose only one or two of the three correct answers. Students received the highest scores on the section that asked them to place synonyms and related terms into the correct category.

- After the online activity, students completed a worksheet that outlined the steps above, developing a search strategy for their own topics related to an assignment from their Reading/Writing class. A rubric needs to be created to score students’ responses on this activity.

We learned a great deal about our own teaching through the assessment activities, including areas to focus on improving. Although the concepts that we taught each semester remained the same, our teaching methods and assessment activities were continually evaluated and revised.

### CLOSING THE LOOP

Much of the literature on outcomes assessment emphasizes the importance of using assessment data to take some sort of action. As Banta and Blaich (2011) write, “[t]he goal of assessment is not just to gather evidence, after all, but to make evidence-informed changes” (p. 25). Because we have had the opportunity to continue working with the GtC program for several semesters, we have been able to take advantage of what we learned from our assessment tools and try new approaches to teaching the content.

One example of how we have changed our teaching approach based on assessment results is the “Developing a Search Strategy” assessment tool discussed earlier. The first semester we worked with the GtC program, we used more traditional demonstrations to teach students about Boolean operators. While we did break the process down into several steps, and ask students to focus on their own research topics, they had difficulty understanding the various concepts involved and could not successfully list keywords or write search strategies. We have adapted the lesson each semester since then, changing our methods. During Spring 2012, we added the online activity mentioned above, as an extra step to reinforce the concepts we address while moving through the process. While students still had some difficulty identifying keywords, they were able to demonstrate an understanding of how the Boolean operators are used. We likely need to make further changes to the lesson to focus on the areas that seem to be the weakest, but we hope to be able to use the same assessment tool in future semesters to build a larger picture of students’ understanding.

### CHALLENGES AND LESSONS LEARNED

While it was exciting to work with the same group of students throughout a whole semester, we did face some challenges. The GtC students’ ages and academic background required us to employ multiple classroom management strategies. It was important to keep a steady pace during each

session, and to use a variety of teaching methods and activities. Videos, games, and independent activities that were directly related to their Reading/Writing class assignments were key to maintaining a good classroom environment.

Students had to apply the information literacy concepts they had learned in order to complete classroom activities and Reading/Writing class assignments. This integrated approach was meant to help students make connections between ideas, however, program evaluations revealed that students had difficulty putting some library activities in the context of their class projects. While we did try to make this context clear, the correlation between the library sessions and the class assignments could be emphasized more explicitly. Asking students to reflect more deeply on the “why” behind what we are teaching may help to draw the connection. In addition, the Reading/Writing faculty could contribute to students’ understanding by emphasizing how work done in the library session applies to their classes.

As the program has continued and expanded to all three campuses of Montgomery College, we have adjusted the number and content of instruction sessions, based on experience and student feedback. We have learned quite a bit about our own teaching styles, as well as how to improve the in-class activities. During the semester, we spend our time re-working the activities for our current students, and do not focus on norming rubrics that will give us a broader understanding of their work. We focus on the data from the rubrics after the final GtC library session each semester, in order to make significant changes for the following semester.

The GtC program has allowed the Library to develop a program that is less reactive and more deeply embedded than our “one-shot” sessions necessarily are, due to our ongoing collaboration with GtC instructors and program staff. Still, the Library seeks to play a more active role in the development of assignments and lesson plans by improving communication with faculty. Successful collaboration between the instruction librarians and the GtC faculty may clarify the connection between the “Library classes” and the “GtC classes,” and make the development of information literacy skills more relevant to students.

Working so closely with GtC has allowed us to familiarize ourselves with the outcomes assessment process, and to become more effective teachers. We hope to be able to use this experience to expand outcomes assessment across our information literacy program. We also hope to build a toolbox of active learning techniques to share them with our colleagues.

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## REFERENCES

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## APPENDIX

### Gateway to College Information Literacy Student Learning Outcomes (Revised Spring 2012)

#### Session 1: Introduction to the Library & Primary vs. Secondary Sources

At the end of this session, students will be able to:

- Explore major research tools, such as the Library Catalog, to increase familiarity with a topic
- Identify primary and secondary sources, recognizing how their use and importance vary

#### Session 2: Evaluating Websites & Doing Exploratory Research

At the end of this session, students will be able to:

- Identify the purpose and audience of potential information resources
- Examine and compare information from various sources in order to evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias
- Determine whether information satisfies the research or other information need

#### Session 3: Evaluating Scholarly Information

At the end of this session, students will be able to:

- Identify the purpose and audience of potential resources (e.g., popular vs. scholarly, current vs. historical)
- Examine and compare information from various sources in order to evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias
- Integrate new information with previous information or knowledge

#### Session 4: Developing Search Strategies & Doing Historical Research

At the end of this session, students will be able to:

- Identify keywords, synonyms and related terms for the information needed
- Construct a search strategy using appropriate Boolean operators for the information retrieval system selected
- Implement the search strategy in various information retrieval systems using different user interfaces and search engines

#### Session 5: Review & Individual Research for Final Paper

At the end of this session, students will be able to:

- Construct and implement search strategies in various information retrieval systems using different user interfaces and search engines
- Assess the quantity, quality, and relevance of the search results to determine whether alternative information retrieval systems or investigative methods should be utilized

#### Source:

Association for College & Research Libraries *Information Literacy Competency Standards for Higher Education*:  
<http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm>

**Rubric: Choosing Good Source (Evaluating Websites)**

Gateway to College: Library Session 2 - Evaluating Information

Student Learning Outcome: Examine and compare information from various sources in order to evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias

	Very Good (2 pts)	Adequate (1 pt)	Poor (0 pts)
Evaluate reliability based on CAPOW: currency, authority, purpose, objectivity, and writing style	Articulates one reason why this would or would not be a reliable source, giving examples based on criteria discussed in class	Articulates a reason why this would or would not be a reliable source, but example is unrelated to the criteria discussed in class	Does not articulate any reason why this would or would not be a reliable source
Identify CAPOW criteria: currency, authority, purpose, objectivity, writing style	Correctly identifies one of the five CAPOW criteria as a justification for choice	Identifies a reason that relates to the five criteria, but does not use the criteria covered in class	Does not identify a criteria; criteria identified does not relate to what was covered in class

Note: The scoring criteria were applied to each of the three websites that students were asked to evaluate, with a total possible score of 12 points.