

## **Slaying the Dragon of Information Illiteracy: The Story of the Happy Librarians & Their Loyal Subjects**

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Once upon a time there were six happy librarians at the Kingdom of Aquinas who enjoyed their fulfilling librarian lives of buying books, answering reference questions, showing students how to use databases, and teaching instruction sessions.

But outside the happy confines of Libraryland, a storm was brewing. The Powers That Be decided it was time to revise the General Education curriculum of the Kingdom. And so, as is usually the case in academic Kingdoms, committees were created, meetings were held, and reports were written. All the minions of the Powers That Be worked hard to devise a new GenEd program that would produce wise, thoughtful, socially conscious students with beautiful hair and good teeth. Among the changes was a recommendation to create a required course called Library Literacy. As all hailed the minions and approved of their changes to the program, the brewing storm reached gale force. The six happy librarians found themselves responsible for creating an entirely new class -- including generating a schedule, figuring out a curriculum, writing assignments, and creating tests.

### **Developing and Assessing the Course**

And the six librarians, though not entirely sure how to create a course (and perhaps a little less happy than they had been), gamely tackled the challenge. They did what librarians do and researched and researched and researched, and gradually the outline of a one-credit, eight-week course, now dubbed Introduction to Information Literacy (GE103), emerged. This course was taught and evaluated, and alas, the librarians discovered they hadn't done as well as they would've liked. Not a group to be cowed by lack of success, the librarians continued their research. They summoned the Minnesota Community and Technological College's INFS 1000 course web page (<http://www.minneapolis.edu/Library/courses/infs1000/support.htm>) and "Teaching Information Literacy to Generation Y" article by Kate Manuel and deemed them very helpful and henceforth completely revised the curriculum utilizing ideas gleaned from these sources.

The next year, things went a little better. As time went on, they continued to fine-tune the curriculum until they had the makings of a decent course, albeit one the

loyal subjects, being required to take it, didn't always enjoy.

But a problem persisted: how to measure what was learned? The originally created multiple-choice test, though having the advantage of being easy to grade, was deemed insufficient by itself. After doing yet more research and finding the article "Selecting Test Item Types to Evaluate Library Skills" by Jody Condit Fagan, the librarians decided to implement a short answer test, to supplement the multiple-choice test. This test would require loyal subjects to actually know something (at least in the short term) rather than simply choose an answer from a list.

A new test, which included both the multiple choice and short answer sections, was developed and administered to all 306 new loyal subjects - both during their first visit to the kingdom in the summer, when they were introduced to the joys, wonders and placement tests of Aquinas, and at the end of the eight-week course, in the form of the dreaded Final Exam. The summer pretest, an abbreviated version of the Final Exam, provided an opportunity for the loyal subjects to prove they had already completed their quest for information literacy. Alas, only five percent of the loyal subjects pulled the sword from the stone and were deemed information literate; the rest registered to become indoctrinated into the beauties and intricacies of information literacy.

While the new short answer test nicely complimented the original multiple-choice only test, and both together provided a well-rounded assessment of learning, it proved to be difficult to analyze the results of the short answer test. After much contemplation, a coding sheet was created. All the test answers were recorded on the sheet, then compiled and entered into a spreadsheet. The librarians treated themselves to copious amounts of grog following this strenuous exercise.

### **How the Loyal Subjects Did**

The fill-in-the-blank test results revealed, on a question-by-question basis, that the loyal subjects did indeed increase their knowledge of library resources, research

techniques, and critical thinking. The areas in which the loyal subjects most improved were:

### **Distinguishing popular articles from scholarly ones**

The loyal subjects are asked to identify three criteria for determining if an article is scholarly and three for determining if one is popular. And the answers needed to be specific, i.e., not just “article length.” In the pretest, only 9% could identify three criteria for a scholarly article and only 1% could identify three for a popular one. By the final exam, 79% correctly identified three correct criteria for scholarly and 84% selected three for popular. That’s a significant improvement and is mirrored in the two other two-part questions the loyal subjects are asked about this topic.

In those questions, the subjects are given two citations and asked to choose which is popular and which is scholarly (part 1) -- and to provide two reasons they made the choice they did (part 2). The loyal subjects did very well on part 1 on both the pretest and the final (84% and 83% correctly identified the popular and scholarly citations, respectively, in the pretest and 97% and 100%, respectively, in the final). However, when asked part 2 - to say why they made the selection they did - their pretest answers revealed their lack of knowledge about the criteria and indicated many guessed (or, at least, couldn’t articulate why they made their choices).

This changed on the final test – significantly, there was an increase in the number of loyal subjects who could state why they correctly identified each one as popular or scholarly. In the pretest, only 32% could give two reasons why the citation was scholarly, but 74% could in the final. The numbers are similar for the popular citation: 35% vs. 85%. Although seemingly a little thing, this knowledge will definitely make the lives of the loyal subjects easier as they complete assignments requiring scholarly sources.

### **Knowing the Boolean operators and what they do**

One of the topics discussed in the course is creating search statements. The loyal subjects are introduced to the concepts of Boolean operators, truncation and nesting, so they will cease searching single words, like “cancer,” and develop skills that generate more relevant results in any database. We show them how Boolean operators operate in each demonstrated database (OneFile, ProQuest, FirstSearch, Google, our OPAC). By the time they take the final, they’ve had a lot of experience using

the operators, even if they don’t know why they’re called Boolean operators. They are asked to identify two operators and state what they do in a search. On the pretest, only 8% could correctly identify two, while 71% could on the final. Interestingly, quite a few of them selected “NOT” or “AND NOT” as one of their operators; not the obvious choice to the librarians, but one that seemed to resonate with some.

### **Identifying criteria for evaluating web pages**

A whole class session is spent discussing the basic criteria (accuracy, authority, currency, coverage, and objectivity) for evaluating web pages. After a brief discussion, the loyal subjects are separated into groups to review pre-selected sites using those criteria. This seems to be a class they actually enjoy as they discover, as each group presents their findings, that web sites can be misleading and that they must be selective when searching. On the test, they are asked to identify five criteria for evaluating web pages. The results show that either the loyal subjects are good crammers or they really did learn something. 16% could identify four criteria on the pretest and 6% could identify five. On the final, these percentages jumped to 23% and 45%, respectively. At the end of the course, the loyal subjects are asked to reflect on what they’ve learned (or haven’t learned) in the course and one frequent response is the epiphany that not all web sites are good. The librarians were proud that they contributed to this leap of intellectual development.

### **What the Loyal Subjects Thought**

As mentioned, one other assessment tool used is a reflection paper. While more anecdotal than scientific (loyal subjects **are** encouraged to be honest), they are quite revealing. Some loyal subjects clearly resisted the lure of information literacy:

- *When I found out I had to take this course, I was to say the least, mortified. What a waste of time....Everyone around me felt the same way. Then the first day of class came around. It wasn’t a terrible class, still a waste of time, but not terrible.*
- *I do think the class was rather lengthy. The entire eight weeks could have been put into a three hour block of time with a simple shortcut handout.*

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and the student computers do not. So with the chair exercise in mind, I now create illustrated handouts for students that include step-by-step instructions, beginning with the address for the library homepage, and ask one of my students to test it for me before I teach the class. Each time a student follows the instructions and still misses the “chair” I have another opportunity to improve my skills as an instructor.

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Others found some benefit in taking the course:

- *The most important and specific skill I have learned through this course has been searching online specifically in database – never did I know the possibilities at hand....Before I would simply type I my search topic and hope to get decent results. Now I realize how I can improve those results using Boolean operators, truncation and nesting.*
- *To sum up, I learned much more from this class than I thought I would, and I believe it to be an extremely helpful and beneficial tool that should be offered to all college students everywhere. It was also a lot of fun!*
- *I feel that GE103 has been an extremely beneficial class. My research strategy has improved immensely and it is much easier to research difficult subjects....Now instead of wasting a lot of time searching through the endless files of Google, I go first to databases that provide more reliable sources immediately.*
- *I'm not going to lie, I went into this class with the outlook that I'm going to research however I want to, and no one can tell me a correct way to do it. However, now that I have learned about all of these new sources of information, I have used them in many different classes....I can honestly say that I will actually recommend it to next year's freshman [sic] although I know that most of them will enter with the same closed mind that I had.*

The librarians found this data exciting and helpful in identifying what's working and what needs improvement. However, it is just a measure of short term learning. The next step will be to retest seniors and see how much of what they learned in their first year has stayed with them through their college careers.

Thus, the librarians have settled into their responsibilities as instructors and the loyal subjects have resigned themselves to their fate of becoming more information literate, even if they don't want to. So everybody lived more or less happily ever after in the beautiful leafy Kingdom of Aquinas.