

**Student Learning in Library Research Instruction
for Critical Writing, Reading and Research I & II**

Assessment Report for Academic Year 2009-2010

Reported by Debbie Campbell, Instructional Services Coordinator
15 June 2010

Introduction

Serving as a model of the integration of library skills into the first-year core curriculum, Staley Library's research instruction program seeks to empower students to become information literate. The program is designed not only to teach information retrieval skills, but also the importance of the critical analysis and evaluation of information used in academic research and everyday life. The research instruction program assesses student learning through the use of a pre-test completed in IN150 and post-test in IN151. Results from academic year 2009-2010 show an increase in average scores from the pre- to the post-test, with significant improvement on individual questions. Modifications were made to the assessment content to improve clarity and bring the assessment up to date with current information literacy session activities. The assessment was also modified so that it could be administered in the class sessions via clickers, and as such, post-test completion rates were at an all time high. Overall, the student learning in the research instruction program continues to be strong.

Goals

The research instruction program corresponds directly with CWRR learning outcome goal #3: "Conduct research to participate in academic inquiry." The purpose of research instruction for CWRR is stated in Staley Library's four CWRR learning goals:

1. The student will identify the use and purpose of the Library's resources available via its web pages, including the differentiation between Library-provided resources and Internet resources.
2. The student will recognize what constitutes plagiarism through a discussion on how to avoid it, and how to cite sources.
3. The student will demonstrate an understanding of basic concepts of information retrieval and database function by successfully outlining a search strategy that demonstrates the ability to retrieve appropriate and relevant periodical articles, books, and Internet resources.
4. The student will demonstrate the application of evaluative criteria in the selection of information, regardless of source or format, through exercises that demonstrate their ability to differentiate resources.

These goals correspond with the University-wide learning goals:

1. Millikin students will prepare for professional success.
2. Millikin students will actively engage in the responsibilities of citizenship in their communities.
3. Millikin students will discover and develop a personal life of meaning and value.

The table below shows how Staley Library's learning goals relate to University-wide learning goals:

Learning Goal	Corresponding MU Learning Goal Number(s)
The student will identify the use and purpose of the Library's resources available via its web pages, including the differentiation between Library-provided resources and Internet resources.	1, 3
The student will recognize what constitutes plagiarism through a discussion on a how to avoid it, and how to cite sources.	1, 2

The student will demonstrate an understanding of basic concepts of information retrieval and database function by successfully outlining a search strategy that demonstrates the ability to retrieve appropriate and relevant periodical articles, books, and Internet resources.	1, 3
The student will demonstrate the application of evaluative criteria in the selection of information, regardless of source or format, through exercises that demonstrate their ability to differentiate resources.	1, 3

Snapshot

The research and instruction librarians devote a majority of their instructional activities to the CWRR program. During the 2009-2010 academic year, the librarians conducted 98 sessions for in-sequence CWRR classes, and 10 sessions for the off-sequence sessions. For IN150, this includes one session per section. For IN151, research instruction is the equivalent of one week; this includes three sessions for MWF sections and 2 sessions for T/Th sections. Debbie Campbell coordinates the research instruction program, and shares in the instruction with librarians Cindy Fuller, Denise Green, Joe Hardenbrook, and Amanda Pippitt. The Instructional Services Coordinator, as with the other librarians, reports to the Library Director.

The Learning Story

The Millikin student's introduction to college-level research begins in his/her first year through CWRR. The librarians play an integral part in preparing students to become information-savvy. Although most first-year students are what has popularly been termed "digital natives," their technology skills do not necessarily translate into well-developed information seeking skills. Anecdotal evidence shows that, like most college freshmen, those students entering Millikin display an over-reliance on using the free web for information, and do not critically evaluate the information that they do use. This is where the Research and Instruction Librarians come into play. The librarians introduce students to the library catalog, article databases, and web sites of academic quality through hands-on sessions, as well as classroom dialogue on plagiarism and how to evaluate different sources and types of information.

Assessment Methods

The 2009-2010 academic year was the fourth complete year of data collected via a pre- and post-test. The assessment questions were modified for the 2009-2010 academic year, thus making direct question-to-question comparison to results from previous years partially unavailable (See Appendices C & D for more information). For the 09-10 academic year, the pre-test was administered via a quiz in Moodle before the students in IN150 met with a librarian, and the post-test data was collected during the library instruction sessions via clickers. Data from off-sequence and PACE CWRR sections was disregarded due to the small survey sample.

Assessment Data

Information Literacy Skills Assessment (IN150 pre-test)

- Skills Assessment consisted of 16 questions. Results (n=351) from the Fall 2009 sections of IN150 show that the average score was **62%**. See Appendix A for a full list of results.

Information Literacy Assessment Quiz (IN151 post-test)

- Quiz consisted of 16 questions. Results (n=varies by question) from the Spring 2010 sections of IN151 show that the average quiz score was **75%**. Students improved their score on average by **13%** on the post-test, when compared with the pre-test overall. See Appendix A for a full list of results.

Analysis of Assessment Results

From Spring 2006 through Spring 2009, the pre- and post-test questions had remained consistent (henceforth called the “Original Set”), but as of Spring 2009, some of the skills emphasized during library sessions were not being measured by an assessment question, and several questions assessed were no longer emphasized.

As a result, the pre and post-test questions were reviewed and modified during the summer of 2009 to better reflect the content covered/emphasized and the activities of the library’s instruction program. The wording of questions was adapted to provide more clarity on questions which had historically confused students (Original Set # 5 and #2 were reworded, and Original Set questions #1 & #8 were removed).

Due to falling completion rates on the Moodle based post-test assessment (traditionally completed by students outside of class time after their final library instruction session), for Spring 2010, the librarians chose to administer the post-test questions in-class during the last few minutes at the end of each library session, thus increasing completion rates and have a more accurate sample. In order to better fit the functionality of the Clickers as an assessment tool, some of the assessment questions were also modified for formatting- i.e. Original Set question #4 was divided into Revision #s1-3 since the Clickers cannot facilitate matching style questions.

This updated set of questions (henceforth called the “2009 revision”) were first used for the Fall 2009-Spring 2010 year. A full list of both sets of these questions and answers is available in Appendix F; for the data gathered from the 2009-2010 assessment data gathered from to the 2009 Revision questions, see Appendix A.

Summary of how the 2009 revision and the original set compare:

2009 Revision- Comparison to Original Set
Question 1- Original Set question 4 divided into three individual questions about necessary vocabulary.
Question 2- Original Set question 4 divided into three individual questions about necessary vocabulary.
Question 3- Original Set question 4 divided into three individual questions about necessary vocabulary.
Question 4- Original Set question #2, updated and changed to have only 1 correct answer.
Question 5- Based on same content as Original Set question #3 about the Online Catalog.
Question 6- Original Set question #6 with no modification.
Question 7- Original Set question #10 with no modification.
Question 8- Related to Original Set question #7- changes sought to garner a better understanding of students’ abilities to choose appropriate keywords.
Question 9- Original Set question #9 with no modification.
Question 10- Original Set question #10 with no modification.
Question 11- Original Set question #11 with no modification.
Question 12- New question added to provide information on student’s abilities to evaluate reliability of sources of information.
Question 13- Related to Original Set question #5- rewording to aide in question clarity.
Question 14- Original Set question #14 with no modification.
Question 15- New question added to foster thought about the proper time to record citation information.
Question 16- Original Set question #9, with updates for currency.

For the 2009-2010 Academic year, overall from pre-test to post-test, students improved their scores on 13 questions (numbers 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 15, &16). Question number 13 demonstrated no change, while three questions (numbers 9, 11, &14) showed a decrease in correct responses from the pre- to the post-test. See Appendix A for a complete explanation of answers and percentages, and Appendix B for a graphical representation.

Between pre-test and post-test, students showed an average score increase of 13%, with several individual questions showing a significant increase of greater than 10%. These questions are listed in the following table.

Question Number	Pre-Test Percentage	Post-Test Percentage	% Increase
3	61%	80%	19%
5	27%	75%	48%
6	46%	75%	29%
7	50%	65%	15%
8	62%	74%	12%
16	54%	73%	19%

Although question #4 showed improvement from pre-test to post-test, during the in-class Clicker assessment, many students vocalized confusion with the wording of this question, despite displaying an understanding of the process through the in-class activities. As such, if the traditional pre- and post-test are used for the 2010-2011 academic year, this question will need to be rewritten for clarity. With question #14, during the in-class Clicker assessment, many students commented that they purposely chose the “funny answer,” which was also the incorrect answer. The “funny factor” will need to be taken into consideration for future in-class assessments. See the “Improvements” section of this report for more information on future modifications to the CWRR Library Instruction program and assessment.

Grouping each of the quiz questions with the corresponding Staley Library learning goal(s) allows the librarians to measure the effectiveness of instruction. The ratings coincide with the CWRR Artifact Performance Indicators Scale (Based on Percents), with Nominal (Red-Stop) 0-52%, Adequate (Yellow—Caution) 53-74%, Excellent (Green-Go) 75-100%.

Learning Goal	Rationale	Rating
1. Library Resources (Question Numbers: 1,2,3,4,5,7)	Pre-Test: 56% (62% removing question #4) Post-Test: 73% (81% removing question #4) When all questions for this section are averaged together they score 73%, if question #4 is removed because of student confusion with the wording as explained above, the average percentage for this goal increases to 81%. In the table above, three of the questions associated with this goal showed greater than 10% improvement between pre-test and post-test. So despite the lower average percent for this goal, the student improvement for these questions is substantial.	Yellow (Green)
2. Plagiarism/Citing Sources (Question Numbers: 14, 15,16)	Pre-Test: 67% Post-Test: 78% Question 15 was added to the assessment to provide students with the opportunity to think about timing in regards to the recording of citation information, to make the citation process easier. Due to issues with the way the data gathered from the clickers and Moodle can be compared, data from question #14 is not included in the percentage for this goal.	Green
3. Retrieval of Information (Question Numbers: 4,5,6,7,8)	Pre-Test: 42% (46% removing question #4) Post-Test: 64% (72% removing question #4) When all questions for this section are averaged together they score 64%, if question #4 is removed because of student confusion with the wording as explained above, the average percentage for this goal	Yellow

	increases to 72%. While still a percentage in the yellow range, as shown in the table above, four of the questions associated with this goal showed greater than 10% improvement between pre-test and post-test. So despite the lower average percent for this goal, the student improvement for these questions is substantial.	
4. Evaluation of Information (Question Numbers: 6,9,10,11,12,13, 16)	Pre-Test: 65% Post-Test: 76% As the second highest score among the four learning goals, the students display a bettered understanding for evaluating the information they find. As evidenced by the number of questions on the assessment which support this goal, an understanding of the evaluation of information is an important focus of library instruction. Due to issues with the way the data gathered from the clickers and Moodle can be compared, data from questions 11 & 12 are not included in the percentage for this goal.	Green

The research instruction program now has five years worth of post-test data to analyze. Although each sample (i.e., freshmen class) is different, the average post-test scores do not differ greatly in our five years of data.

	Post-Test Spring 2006	Post-Test Spring 2007	Post-Test Spring 2008	Post-Test Spring 2009	Post-Test Spring 2010
Average Score	12/15 points (80%)	11.4/15 points (76%)	11.43/15 points (76%)	11.15/15 points (74%)	points not available (75%)

For a question-by-question comparison of the Spring 2006-Spring 2010 Post-Tests, see Appendix C and E. For a question-by-question comparison of the Fall 2006 - Fall 2011 Pre-Tests, see Appendix D and E.

Improvement Plans

The 2009 revisions to the pre and post-test questions helped to clear some confusion and update the content of the assessment to better fit the structure and activities of the library instruction sessions. The usage of clickers for the post-test increased the participation for the post-test as hoped, making the collected data a better representative sample of all IN 151 sections.

For the 2010-2011 academic year, the Library Instructional Services Coordinator will continue to collaborate primarily with the CWRR Director and the CWRR Assessment Team, and also with the CWRR faculty through discussions and meetings. During the Spring of 2010, the librarians began discussing the possibility of modifying the CWRR instruction sequence into a 2:2 session structure; the topic was brought up with the CWRR professors at the final CWRR meeting of Spring 2010. Throughout the next year, discussions about the modification of the sequence will be held, with any possible changes to content and structure occurring during the 2011-2012 academic year.

The questions used for the 2009 Revision of the pre- and post- test will be reviewed during the summer of 2010, both for clarity and to make sure they are properly assessing instruction. The possibility of a qualitative instead of quantitative (pre & post test) type of assessment will also be discussed with all constituents, and may be piloted in a few sections next year.

The librarians continue to emphasize that giving credit for the library assignments and session attendance helps to reinforce the importance of the skills and concepts learned during library instruction activities.

The librarians are pleased with the strong foundation of collaboration that already exists with the CWRR program, and look forward to working with their CWRR colleagues again during the 2010-2011 academic year.

Appendix A

Academic Year 2008-2009 Staley Library CWRR Information Literacy Skills Assessment

Number of Questions	Possible Points	Number of Participants PRE-TEST (IN150, Fall 2007)	Number of Participants POST-TEST (IN151, Spring 2008)	Average Score PRE-TEST	Average Score POST-TEST
16	16	351	varied by question	62% ¹	75% ¹

Question 1: What is a CITATION?					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
Brief summary of an article.	9	3			1
Use this to find a book on the shelf.	17	7			
When the entire article you need is available online.	6	0			
Requesting an item not owned by Staley Library.	4	4			
The basic information about a source...	312	282	89%	95%	
Totals	351	296			

Question 2: What does FULL TEXT mean?					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
Brief summary of an article.	23	16			1
Use this to find a book on the shelf.	18	8			
When the entire article you need is available online.	294	348	84%	89%	
Requesting an item not owned by Staley Library.	3	14			
The basic information about a source...	9	7			
Totals	351	393			

¹ This total does not include the percentages for questions 11, 13, and 14, as direct comparison rates for these three questions are not available.

Question 3: What is an ABSTRACT?					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
Brief summary of an article.	214	287	61%	80%	1
Use this to find a book on the shelf.	19	9			
When the entire article you need is available online.	23	9			
Requesting an item not owned by Staley Library.	70	26			
The basic information about a source...	22	30			
Totals	351	361			

Question 4: Millikin Staley Library's Online Catalog DOES NOT contain information about finding:					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
CDs and videos	198	135			1, 3
Articles	92	107	26%	33%	
Books	0	9			
Magazines, Journals, & Newspapers	58	78			
Totals	351	329			

Question 5: In the Library's Online Catalog, what type of search lets you combine search terms with the words "and, or, not"?					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
Author search	7	10			1, 3
Any Word Anywhere search	141	49			
Boolean search	96	243	27%	75%	
Title search	100	23			
Totals	351	325			

Question 6: Choose one statement that is NOT TRUE about Scholarly Articles.					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
Scholarly journals contain references or a wo...	29	12			3, 4
Scholarly journals are written for an informed audience.	41	22			
Scholarly journals are published only a few times a year.	115	45			
Scholarly journals contain short articles written by reporters/journalists.	160	327	46%	75%	
Totals	351	316			

Question 7: Your professor gave you an assignment to find journal articles about global warming. What should you do? (choose one).					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
Search a database for journal articles about global warming.	174	221	50%	65%	1, 3
Search Staley Library's Online Catalog.	121	80			
Browse the journals in the current periodicals...	24	25			
Use an internet search engine (such as Google or Yahoo)	29	13			
Totals	351	339			

Question 8: You are asked to write a three-page research paper on the following question: "Should colleges be allowed to restrict student speech?" You have decided to enter two keywords into a Web search engine (Google). Which two keywords will get the best results?					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
college and censorship	218	200	62%	74%	3
college and student	5	8			
college and speech	76	34			
college and restriction	49	29			
Totals	351	271			

Question 9: The website www.feedthechildren.org likely belongs to a: (choose one).					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
Commercial or for-profit business.	24	18			4
U.S. government agency	14	16			
Non-profit organization.	303	203	86%	82%	
Educational Institution	6	11			
Totals	351	248			

Question 10: Say you are writing a paper about gun violence, and you use information from the National Rifle Association (NRA) website, www.nra.org . In this example, which website evaluation criterion do you need to pay attention to the most? (choose one).					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
Currency/timeliness	39	14			4
Bias/objectivity/accuracy	288	221	82%	88%	
Functionality of the website	13	11			
Number of visitors to the website	7	6			
Totals	351	252			

Question 11: Let's say you are looking for CURRENT information on U.S. gasoline prices, which TWO sources would be the best? (choose two).					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percentage of INCORRECT ANSWERS chosen (PRE-TEST)	Percentage of INCORRECT ANSWERS chosen (POST-TEST)	Corresponding Staley Library Learning Goals
Encyclopedia	10	5			4
Journal Article	39	37			
Book	9	7			
Newspaper Article	317	183			
Internet	307	160			
Totals	351	391	9%²	13%²	

² For questions 11, 13, and 14- due to a discrepancy in how Moodle and the Clickers record data for questions with multiple correct answers, the percentage represented in this table is the percentage of total incorrect answers / total number of answers given per question.

Question 12: You are writing a report on automobile tires and safety. You have found several sources. Which would be the most trustworthy because of the likelihood of having unbiased, factual information?					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
Report from an automobile manufacturer association	114	48			4
Survey from a tire company	24	32			
Article in a consumer reporting magazine	201	163	57%	64%	
Article in a sports magazine	9	12			
Totals	351	255			

Question 13: Encyclopedias and other reference works (including wikipedia.org) are useful because they often provide: (choose all that apply)					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percentage of INCORRECT ANSWERS chosen (PRE-TEST)	Percentage of INCORRECT ANSWERS chosen (POST-TEST)	Corresponding Staley Library Learning Goals
A bibliography or a list of additional resources...	238	146			4
An overview of the topic, including background information...	284	157			
Entries written by the foremost expert on the topic in the world.	73	35			
All of the possible information about a topic.	79	53			
Totals	674	391	23%²	23%²	

Question 14: Suppose you are writing a paper and you read an article on your topic that you want to include in your paper. In which of the following scenarios would you cite the article? (choose all that apply).					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Number of INCORRECT ANSWERS chosen (PRE-TEST)	Number of INCORRECT ANSWERS chosen (POST-TEST)	Corresponding Staley Library Learning Goals
When you copy a whole paragraph from the article.	275	238			2
When you write it over in your own words.	203	193			
When you quote one sentence from the article.	322	245			
None of these.	13	41	2%²	6%²	
Totals.	813	717	13	41	

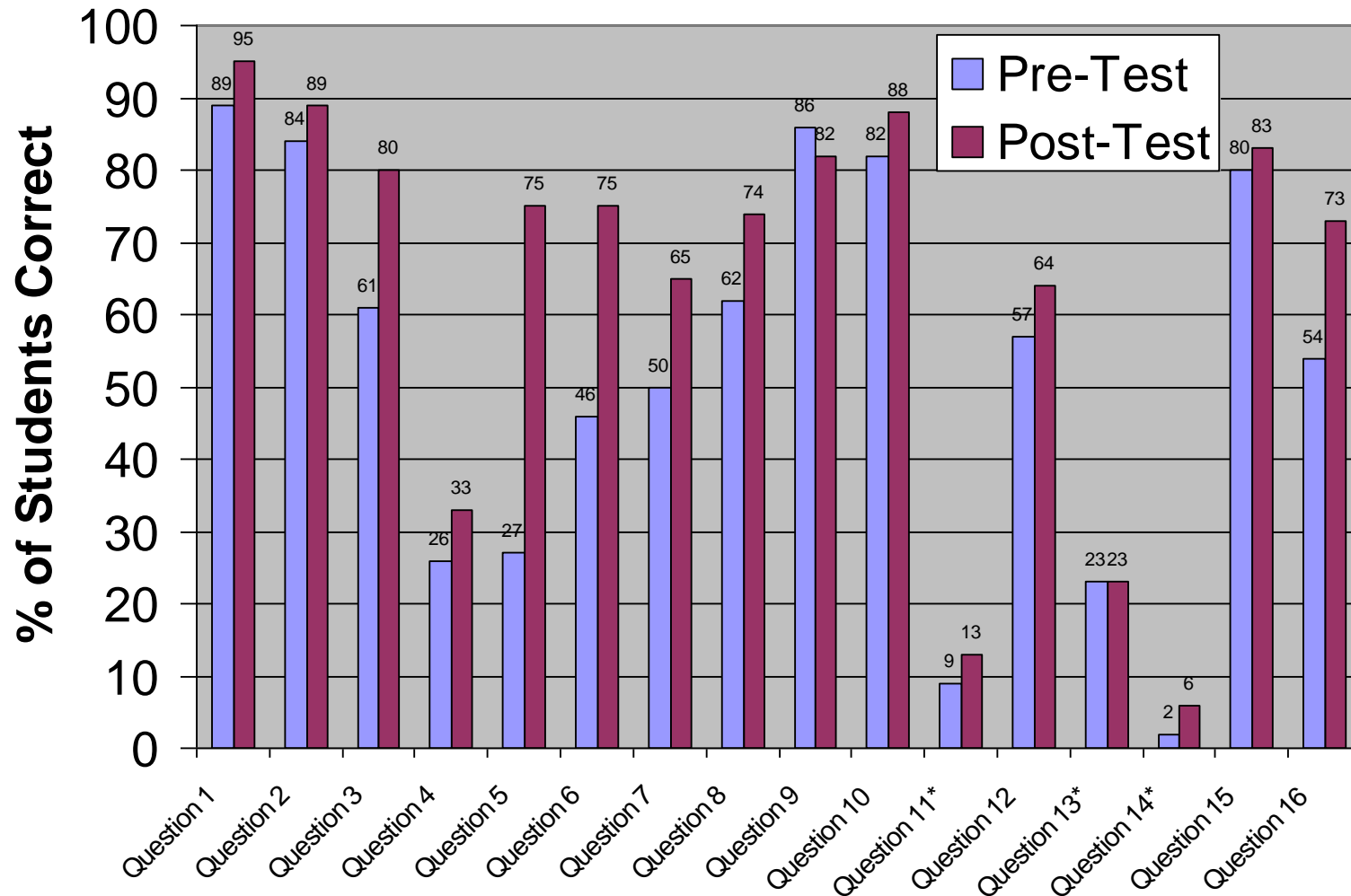
Question 15: When is the BEST time in the research process to record the citation information for a source?					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
The first time you access a source you might want to use.	278	207	79%	83%	2
After you have finished writing the section of the paper that uses information from a source.	58	18			
When the teacher asks for proof that you did not plagiarize the information in the paper.	6	19			
When you are getting ready to print your final draft.	5	5			
Totals	351	249			

Question 16: What type of material is the following citation (choose one type) Purnell-Webb, Patricia and Craig P. Speelman. "Effects of Music on Memory for Text." Perceptual & Motor Skills 106.3 (2008):927-957.					
Choices (correct answers highlighted)	Number of Students Choosing Each Answer Choice (PRE-TEST)	Number of Students Choosing Each Answer Choice (POST-TEST)	Percent of Students Answering Entire Question Correctly (PRE-TEST)	Percent of Students Answering Entire Question Correctly (POST-TEST)	Corresponding Staley Library Learning Goals
It is a book.	108	65			2, 4
It is a journal article.	190	236	54%	73%	
It is a newspaper article.	42	11			
It is a video.	7	13			
Totals	351	325			

Appendix B

This chart shows the comparison between the Pre-Test and Post-Test for the 2009-2010 academic year. The pre-test was administered via Moodle (Fall 2009) before the students attended any library sessions, and the Post-Test was administered (Spring 2010) via Clickers at the end of the corresponding library session.

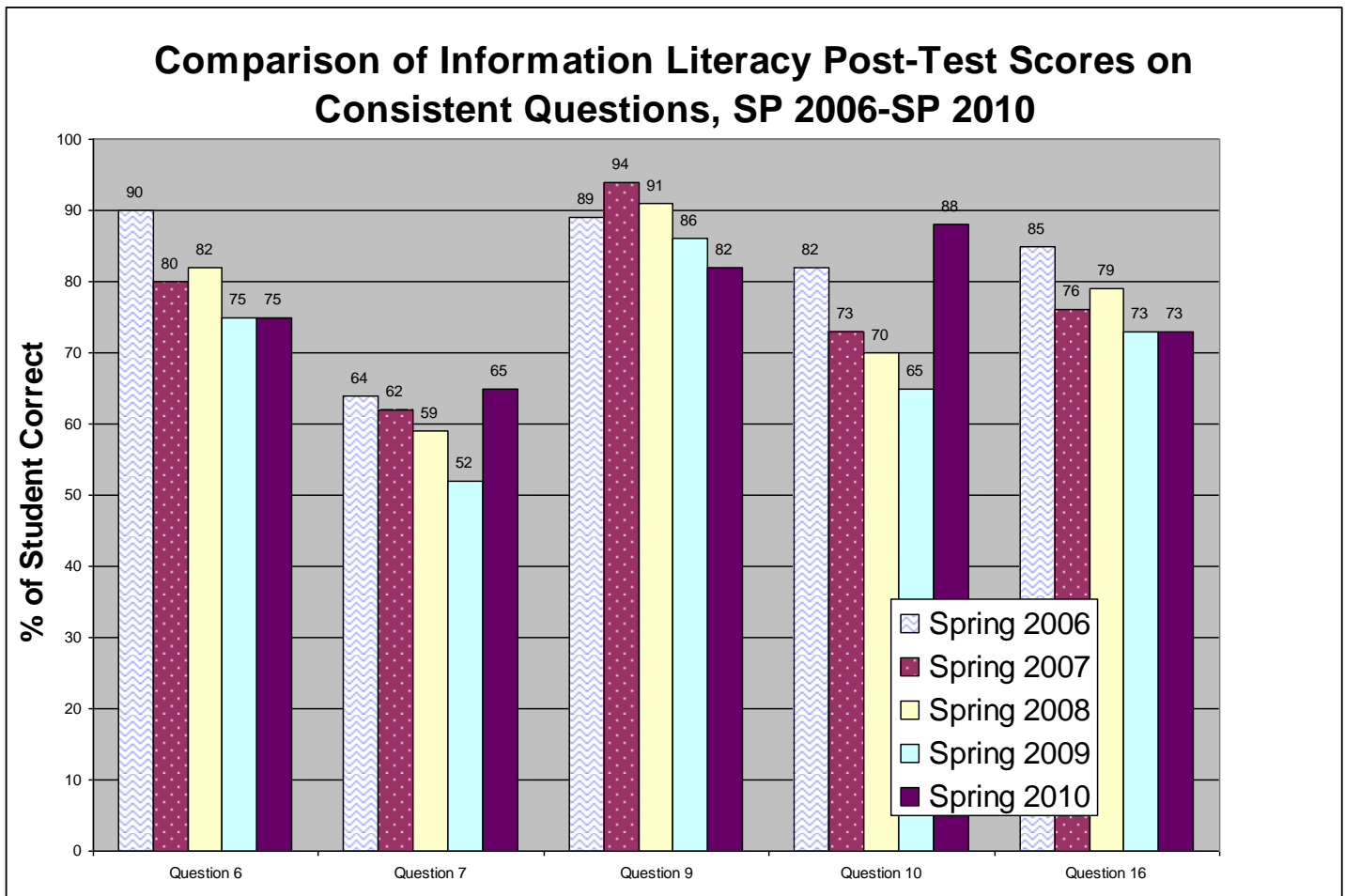
AY 2009-2010 Information Literacy Pre- and Post-Test Scores



*For questions 11, 13, and 14- due to a discrepancy in how Moodle and the Clickers record data for questions with multiple correct answers, the data represented in the chart for these questions is the percentage of total incorrect answers / total number of answers given per question.

Appendix C

The questions asked in the Pre and Post-Test for 2009-2010 were modified; some questions were unchanged from the previous version of the assessment (Original Set, 2006-09), so for those questions, comparative data is provided in the following chart.

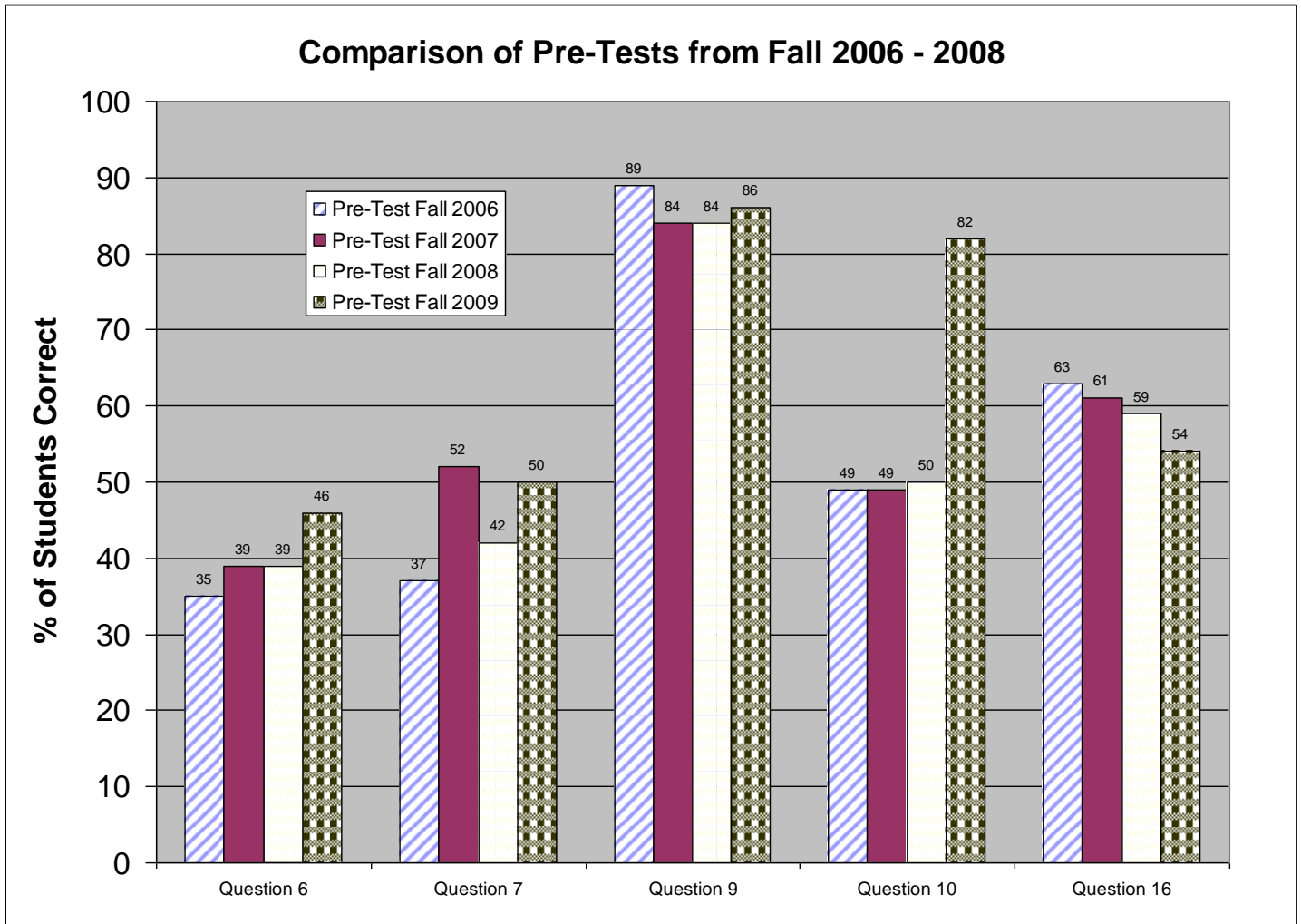


While the wording of the questions remained the same, the question number changed. The Question numbers in the chart above correspond to the 2010 numbering. The explanation below shows how these question numbers correspond with the original 2006-2009 assessment.

- Question 6 (2009-10) = Question 6 (2006-09): Choose one statement that is NOT TRUE about Scholarly...
- Question 16 (2009-10) = Question 9 (2006-09): What type of material is the following citation?...
- Question 7 (2009-10) = Question 10 (2006-09): Your professor gave you an assignment to find journal...
- Question 9 (2009-10) = Question 12 (2006-09): The website www.feedthechildren.org likely belongs to...
- Question 10 (2009-10) = Question 13 (2006-09): Say you are writing a paper about gun violence...

Appendix D

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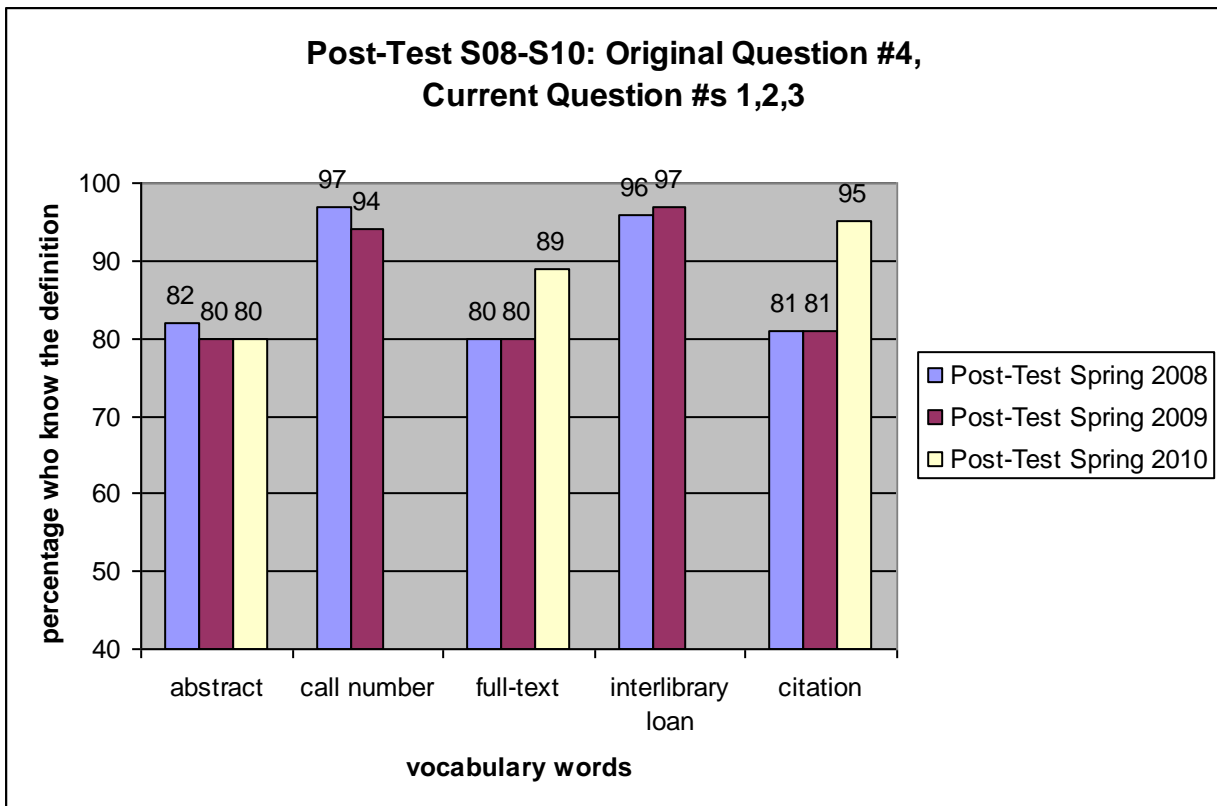
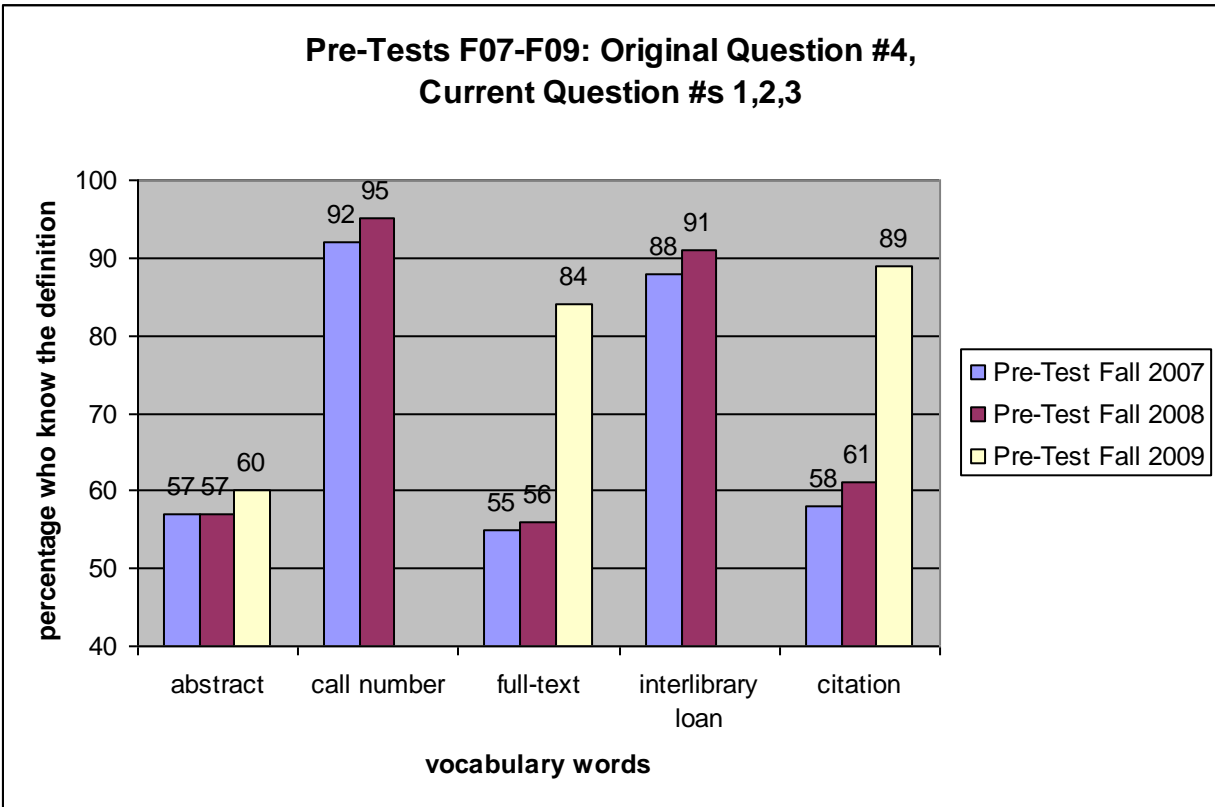


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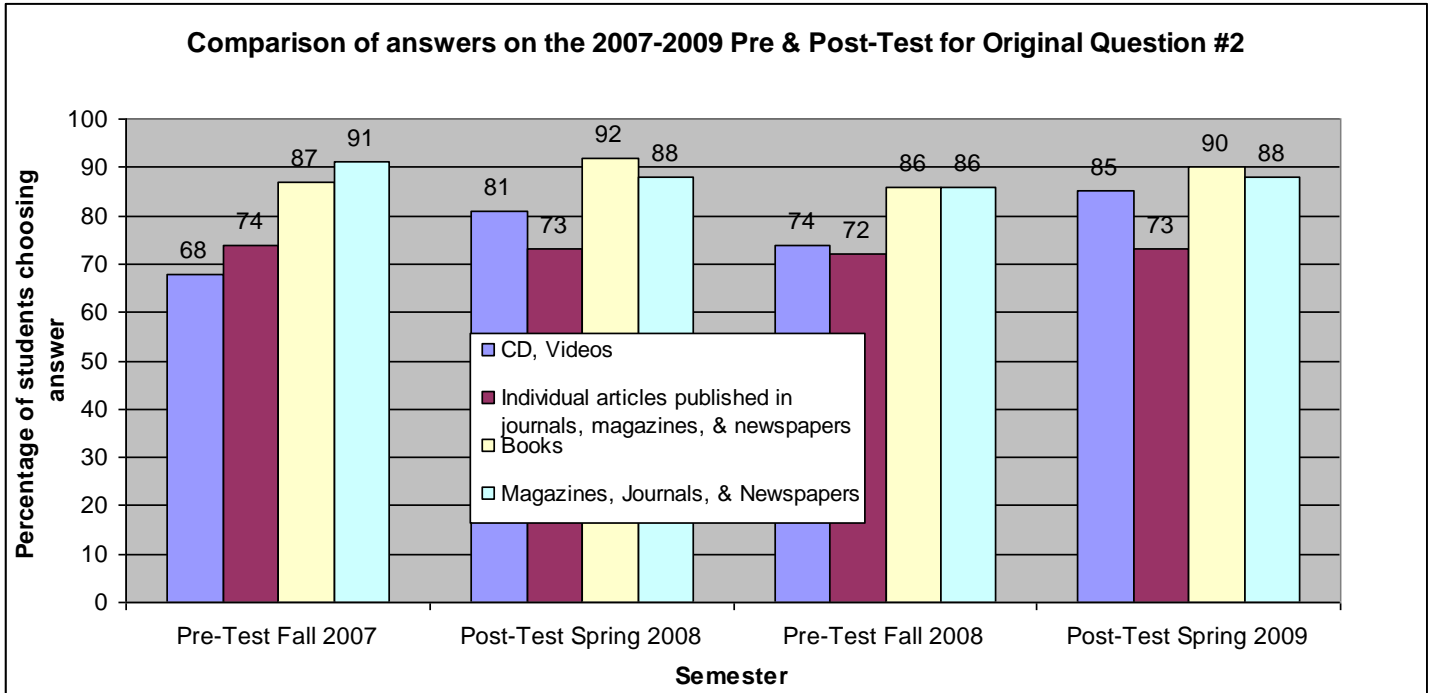
Appendix E

Since the clickers do not allow for Matching-type questions, Original Set question #4 was divided out into 2009 Revision questions #1, 2, & 3 (questions asking about the definitions for Call Number and Interlibrary Loan were not included in the revision, since pre-test rates had consistently been high). Since the same content was asked, but just in varying format, these charts allow for the comparison of the pre and post-test data.

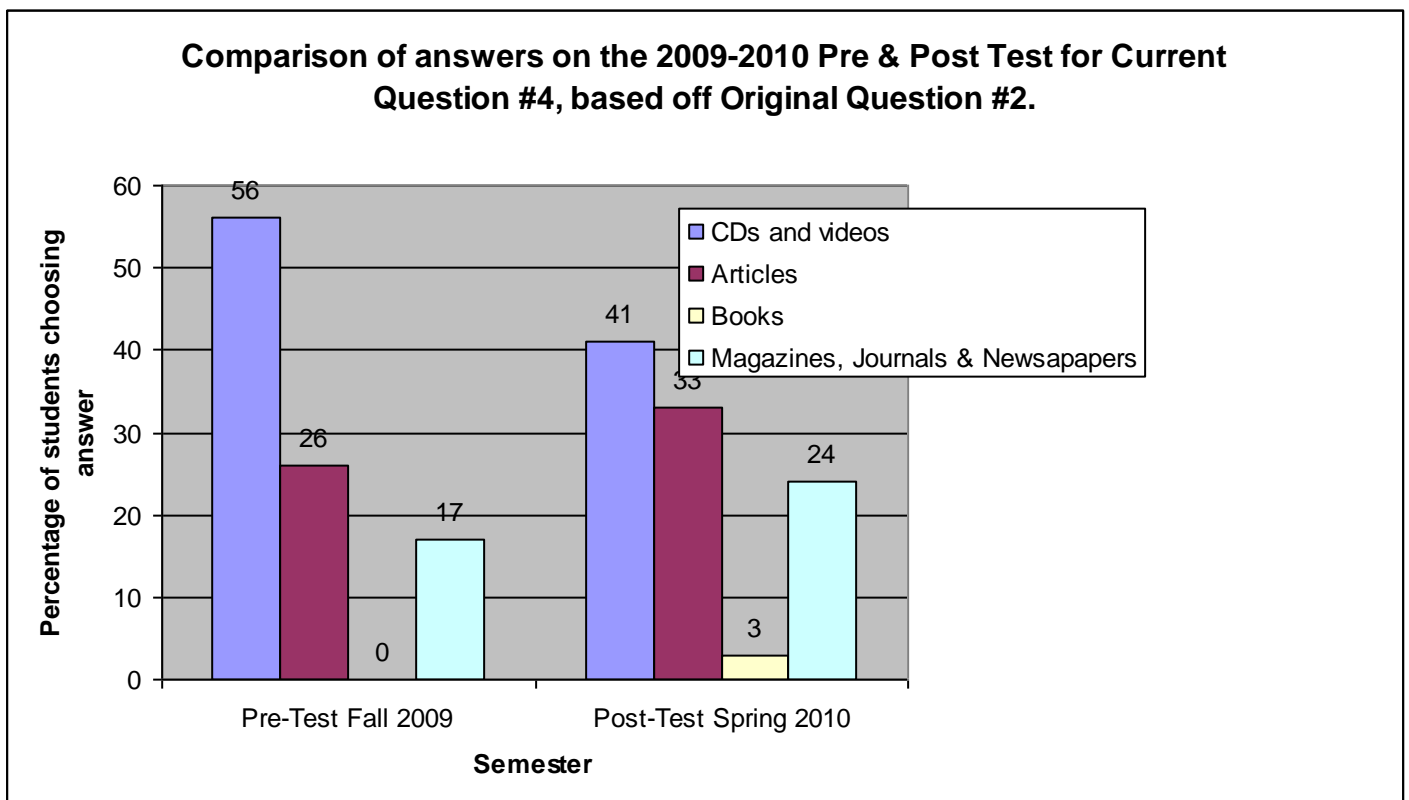


Original Set question #2 was reworded to become 2009 Revision question #4. This question was modified so that students would now choose which items the library online catalog DOES NOT contain information for finding (instead of all it DOES contain information for finding- as it was worded in the Original Set). Since the question asks for the same data in a different format, the questions were not immediately correlatable. The charts below serve to make that comparison.

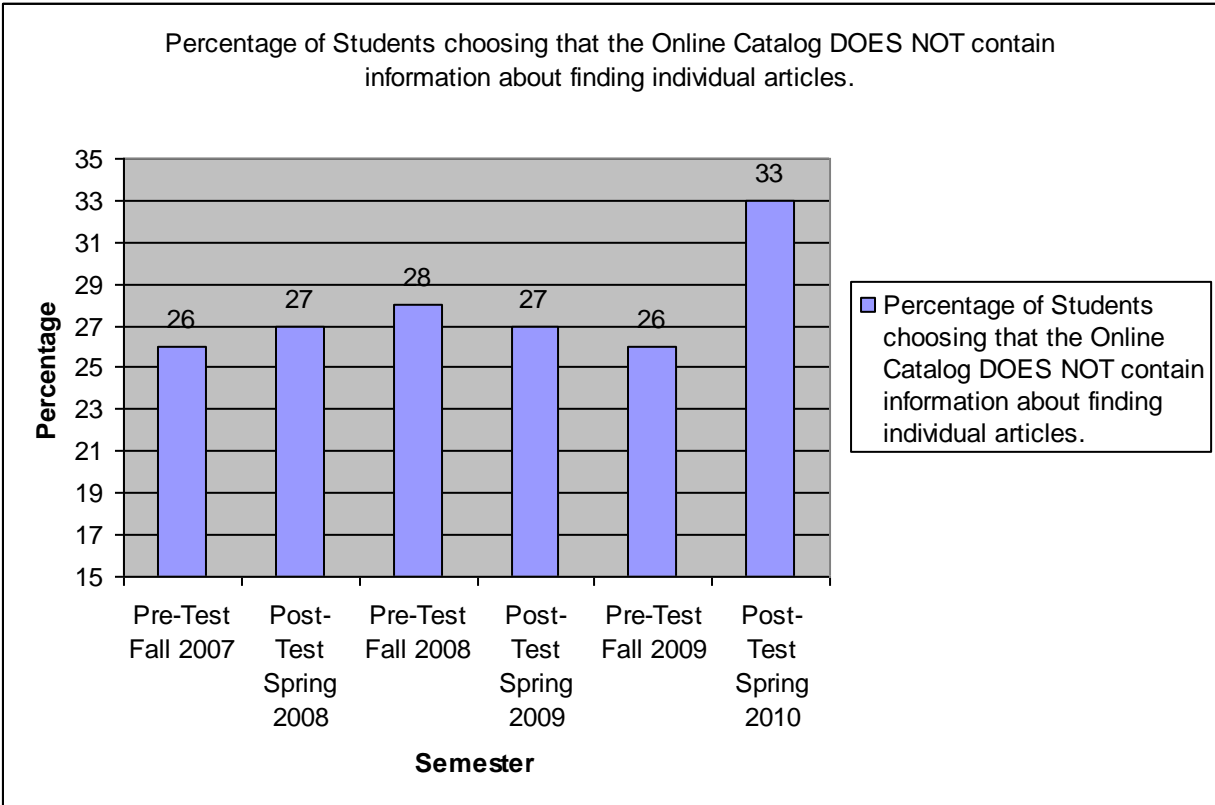
This chart shows the answers selected on the pre-and post test from 2007-2009 (DOES contain question format).



This chart shows the answers selected on the pre- and post test from 2009-2010 (DOES NOT contain question format).



This chart converts the original data from 2007-2009 into the DOES NOT contain question format, thus making the data comparable. The number of student choosing the correct answer for this question, “The Library’s Online Catalog does not contain information for finding Articles” is displayed below.



For the current year, 2009-2010:

In the Fall Pre-Test, 26 percent of students answered this question correctly.

For the Spring Post-Test, 33 percent of students answered correctly.

Appendix F

Original Set

1. Books in Millikin University's Staley Library are organized by: (choose one)
 - a. Author
 - b. Title
 - c. Subject
 - d. Color
2. MILLINET, the Millikin University Library catalog, contains records for: (choose all that apply)
 - a. CDs, Videos
 - b. Books
 - c. Journals, Magazines, Newspapers
 - d. Individual Articles
3. In MILLINET, the Millikin University Library catalog, which of the following is the best search to find books written by Willa Cather? (choose one)
 - a. "Any Word Anywhere" search
 - b. "Browse Author" search
 - c. "Journal/Magazine Title" search
 - d. "Boolean" search
4. Match the following terms to the definitions: a.) abstract b.) citation c.) interlibrary loan d.) full text e.) call number. (Note: partial credit allowed.)
 - a. Brief summary of an article - **A**
 - b. Basic information about a source - **B**
 - c. Requesting items not owned by Staley Library - **C**
 - d. The entire article is available online from a database. -**D**
 - e. Use this to find a book on the shelf in the library. -**E**
5. An encyclopedia: (choose one)
 - a. Can give you all possible information on the subject your are researching
 - b. Is useful for getting background and introductory information on a topic
 - c. Should only be consulted after you have looked at other resources
 - d. Never includes a bibliography or a list of additional resources for further reading
6. All of the following apply to scholarly journals, EXCEPT: (choose one)
 - a. Scholarly journals contain references or a works cited list
 - b. Scholarly journals are written for an informed, knowledgeable audience
 - c. Scholarly journals are often published only a few times a year
 - d. Scholarly journals contain short articles written by journalists

7. Say you need to do research on the topic drug problems among athletes. Your first step is to identify some keywords that will help you search for information. Which of the following is NOT a good keyword to get useful results? (choose one)
- a. drugs
 - b. athletes
 - c. steroids
 - d. problems**
 - e. sports
8. The library periodical databases are freely accessible on the web to anyone from anywhere. True or False? (choose one)
- a. True
 - b. False**
9. What type of material is the following citation? Katz, Marco. "Salsa Criticism at the Turn of the Century: Identity Politics and Authenticity." *Popular Music and Society* 28 (2005): 35-54. (choose one)
- a. It is a book
 - b. It is a journal article**
 - c. It is a newspaper article
 - d. It is music recording
10. Your professor gives you an assignment to find journal articles about global warming. What should you do? (choose one)
- a. Search a library periodicals database for journal articles about global warming**
 - b. Browse the journals in the current periodicals section of the library until you come across an article about global warming
 - c. Search MILLINET, the Library catalog
 - d. Use an Internet search engine (such as Google or Yahoo)
11. If you were looking for current information on U.S. gasoline prices, which TWO sources would be the best? (choose two)
- a. encyclopedia
 - b. book
 - c. journal article
 - d. newspaper article**
 - e. internet**
12. The website www.feedthechildren.org/ likely belongs to a: (choose one)
- a. Commercial or for-profit business
 - b. U.S. government agency
 - c. Non-profit Organization**
 - d. Educational institution

13. Say you are writing a paper about gun violence and you use information from the National Rifle Association (NRA) website. In this example, which website evaluation criterion do you need to pay attention to the most? (choose one)

- a. Bias/Objectivity/Accuracy
- b. Currency/Timeliness
- c. Functionality/Website easy to navigate
- d. The website's domain (does the web address end in .com, .org, .edu, .net)

14. Suppose you are writing a paper and you read an article on your topic that you want to include in your paper. In which of the following scenarios would you cite the article? (choose all that apply)

- a. When you copy a whole paragraph from the article
- b. When you write it over in your own words
- c. When you quote one sentence from the article
- d. None of the above

15. Is there anything that the librarian or the online tutorials didn't discuss that you would have liked to learn about? Is there anything you would change about the research instruction sessions? What was the one thing that you found most helpful (this could be something taught by the librarian, learned in the online tutorial, etc...)

2009 Revision

1. What is a CITATION?

- a. Brief summary of an article.
- b. Use this to find a book on the shelf.
- c. When the entire article you need is available online.
- d. Requesting an item not owned by Staley Library
- e. The basic information about a source.

2. What does FULL TEXT mean?

- a. Brief summary of an article.
- b. Use this to find a book on the shelf.
- c. When the entire article you need is available online.
- d. Requesting an item not owned by Staley Library
- e. The basic information about a source.

3. What is an ABSTRACT?

- a. Brief summary of an article.
- b. Use this to find a book on the shelf.
- c. When the entire article you need is available online.
- d. Requesting an item not owned by Staley Library
- e. The basic information about a source.

4. What type of material is the following citation (choose one type) Purnell-Webb, Patricia and Craig P. Speelman. "Effects of Music on Memory for Text." Perceptual & Motor Skills 106.3 (2008):927-957.
- It is a book.
 - It is a journal article.
 - It is a newspaper article.
 - It is a video.
5. You are asked to write a three-page research paper on the following question: "Should colleges be allowed to restrict student speech?" You have decided to enter two keywords into a Web search engine (Google). Which **two keywords** will get the best results?
- college and censorship
 - college and student
 - college and speech
 - college and restriction
6. Millikin Staley Library's Online Catalog DOES NOT contain information about finding (choose one):
- CDs and videos
 - Articles
 - Books
 - Magazines, Journals, & Newspapers
7. In the Library's Online Catalog, what type of search lets you combine search terms with the words "and, or, not"?
- Author search
 - Any Word Anywhere search
 - Boolean search
 - Title search
8. Choose one statement that is NOT TRUE about Scholarly Articles.
- Scholarly journals contain references or a works cited
 - Scholarly journals are written for an informed audience.
 - Scholarly journals are published only a few times a year.
 - Scholarly journals contain short articles written by reporters/journalists.
9. Your professor gave you an assignment to find journal articles about global warming. What should you do? (choose one).
- Search a database for journal articles about global warming.
 - Search Staley Library's Online Catalog.
 - Browse the journals in the current periodicals section of the library until you find an article about global warming.
 - Use an internet search engine (such as Google or Yahoo).
10. The website www.feedthechildren.org likely belongs to a: (choose one).
- Commercial or for-profit business.
 - U.S. government agency.
 - Non-profit organization.
 - Educational Institution

11. Say you are writing a paper about gun violence, and you use information from the National Rifle Association (NRA) website, www.nra.org. In this example, which website evaluation criterion do you need to pay attention to the most? (choose one).
- Currency/timeliness
 - Bias/objectivity/accuracy.
 - Functionality of the website.
 - Number of visitors to the website.
12. Let's say you are looking for CURRENT information on U.S. gasoline prices, which TWO sources would be the best? (choose two).
- Encyclopedia
 - Journal Article
 - Book
 - Newspaper Article
 - Internet
13. Encyclopedias and other reference works (including wikipedia.org) are useful because they often provide: (choose all that apply)
- A bibliography or a list of additional resources for further reading.
 - An overview of the topic, including background and introductory information.
 - Entries written by the foremost expert on the topic in the world.
 - All of the possible information about a topic.
14. You are writing a report on automobile tires and safety. You have found several sources. Which would be the most trustworthy because of the likelihood of having unbiased, factual information?
- Report from an automobile manufacturer association.
 - Survey from a tire company.
 - Article in a consumer reporting magazine.
 - Article in a sports magazine.
15. Suppose you are writing a paper and you read an article on your topic that you want to include in your paper. In which of the following scenarios would you cite the article? (choose all that apply).
- When you copy a whole paragraph from the article.
 - When you write it over in your own words.
 - When you quote one sentence from the article.
 - None of these.
16. When is the BEST time in the research process to record the citation information for a source?
- The first time you access a source you might want to use.
 - After you have finished writing the section of the paper that uses information from a source.
 - When the teacher asks for proof that you did not plagiarize the information in the paper.
 - When you are getting ready to print your final draft.