APPENDIX A: ACRL STANDARDS

To view the Information Competence Standards for Higher Education go to:

http://www.ala.org/acrl/ilcomstan.html
APPENDIX B

Phase II Research Methods (Excerpt from the Phase II Report, October 31, 2001)

Intended to enhance and expand on the Phase I survey, Phase II consisted of a multi-method, qualitative study of students as they accomplished an information task within a two hour period. Four tasks were designed to maximize opportunities for students to demonstrate their skills in meeting assessable outcomes found in the ACRL Standards. (See Appendix A.) The tasks were also related to the Core Competencies identified by the CSU; however, these competencies are stated in broad terms without identification of measurable outcomes and therefore, did not lend themselves to assessment.

One hundred students were invited to come to one of four CSU campuses on a Saturday to participate in a study designed to detail how students go about accomplishing information tasks. Student names were randomly selected from samples obtained from the Offices of Institutional Research at each of the 21 participating campuses. The students received a stipend of $100, travel expenses, and lunch. In addition, one librarian from each of the 21 campuses was invited to participate in a librarian/faculty focus group in the morning and student, librarian, faculty discussion groups in the afternoon. The librarian was asked to invite a faculty member from their campus.

The number of students who actually attended the four events was 76. Students were called and reminded of the event two days beforehand and were mailed a packet of information a few days before. Alternates were lined up to replace cancellations. Despite these efforts, there were a number of “no shows” and cancellations within a few hours of the starting time. Faculty participation was only half that of librarians with 20 librarians and 10 faculty attending from the 21 campuses.

The exercise took place in the libraries of the campuses with the exception of San Jose where a nearby building was used for the morning introduction and lunch. The research sites chosen for their geographic location were: Fullerton, San Jose, Northridge, and Sacramento. Librarians at those sites assisted in making arrangements for rooms and equipment and in solving other logistical problems. A team of twelve researchers from the SBRI traveled to the sites and participated in data collection.

After a general introduction at each site, students were divided into four groups with each group being given a different task to do. Each group was facilitated by a senior member of the research team from the SBRI. One librarian and one faculty member were also assigned to each group to observe students being given instructions and to participate in afternoon discussion groups. Because of the low attendance of faculty, some groups had only library representation.

While the students were doing the assigned task for two hours, the librarian and faculty participants met in a separate group to talk about the kinds of things they
anticipated students would do or that they hoped students would do during the allotted two hours. In thinking about their expectations, the groups often segued into other topics related to information competence, providing additional useful data.

After lunch, the four groups of students, librarians and faculty convened for two hours. During the first hour, the facilitator asked students to talk about their experience doing the task. Probing questions were asked in order to get a full description of students’ experience. During the second hour, librarians and faculty joined in querying the students as well as responding to questions from students. At three times - before beginning their work, right after completing the work, and at the end of the day - students were asked to fill out short forms regarding: 1) familiarity with the topic, 2) what they had found and what they would do if given more time, and 3) their experience with Library instruction, using the Library and accessing the Library from off-campus.

In order to study the routine processes of students, four types of data collection and analysis were employed: 1) video and audio taping of the day’s activities taking place in assigned rooms, i.e., the introduction and presentation of the tasks to students, and focus and discussion groups of librarians alone and mixed groups of faculty, librarians and students 2) ethnographic work involving observation and informal interviewing of 16 randomly selected students, four at each site, as they worked, 3) computer screen capture to record students’ moment by moment interaction with computers used in their searches, and 4) task sheets that required students to fill out answers to essay questions regarding their research and to provide information about their background and experience with the specific subject of the task and with the library in general.
Appendix C: Tasks with Pre and Post Questions

Task #1

Please circle the appropriate response to the following questions:

1. How much do you know about global warming?
   - A great deal
   - Some
   - Very little

2. How interesting is this topic to you?
   - Highly interesting
   - Somewhat interesting
   - Not interesting

3. How much do you know about environmental issues in general?
   - A great deal
   - Some
   - Very little

4. Have you ever had a class that discussed global warming?
   - Yes
   - No

5. Have you ever done research or written a paper on global warming?
   - Yes
   - No
**TASK #1**

While you may not know a lot about environmental issues, you have heard about “global warming” and mention it to a friend. Your friend tells you that he has found a web site that claims global warming is a hoax. He says he was convinced by the site’s argument and tells you to find the statement by going to www.anxietycenter.com

1. List all the possible things you could do to verify whether global warming is an actual threat or whether it is just a hoax perpetuated by the media and the scientific community.

Pick one of the possible ways listed in #1 and begin your research. Please write down the way you have chosen.
POST TASK

2. What have you found out?

3.A. How will you evaluate the argument that global warming is an environmental and social problem?
3.B. How will you evaluate the argument that global warming is a hoax?

4. Are there things you would do if you had more time?
TASK #2

Name ____________________________

Please circle the appropriate response to the following questions:

1. How much do you know about islands?
   A great deal     Some     Very little

2. How interesting is this topic to you?
   Highly interesting     Somewhat interesting     Not interesting

3. How much do you know about creating a web site?
   A great deal     Some     Very little

4. Have you ever created a web site by yourself?
   Yes               No

5. Have you ever contributed to creating a web site?
   Yes               No
A young neighbor who is in middle school tells you she is going to create a web site on islands. You ask her what information about islands is going to be on the web site. She’s rather vague and says she thinks islands are cool and she’ll put everything about islands on the web site. You plan to do some investigating about islands because you suspect “putting everything” may be a problem for her.

1. How will you go about your investigation?
POST TASK

2. What did you find out about the topic of islands?

3. What advice would you give your young neighbor on organizing her web site?

4. Are there other things you would do if given more time?
TASK #3

Name ____________________________

Please circle the appropriate response to the following questions:

1. How much do you know about farm workers?
   A great deal     Some       Very little

2. How much do you know about what pesticides do for crops?
   A great deal     Some       Very little

3. How much do you know about the effect of pesticides on children’s health?
   A great deal     Some       Very little

4. How much do you know about agricultural businesses?
   A great deal     Some       Very little

5. How interesting to you is the topic of agricultural business practices and their effects on farm workers?
   Highly interesting   Somewhat interesting   Not interesting
TASK #3

Your instructor mentioned in class that child farm workers are routinely exposed to pesticides and suffer many health problems due to the practices of farming corporations. You ask the instructor: Do the businesses realize that using pesticides is a problem? What alternatives do the corporations have while still earning a profit?

Your instructor suggests you investigate and share your findings with the class for extra credit.

1. How can you go about finding out answers to your questions? List as many possibilities as you can think of.

2. Choose one of the possible ways and begin your research. Please say what method you are going to use first.
POST TASK

3. What did you find out to answer the question: “Do the businesses realize that using pesticides is a problem?”

4. What did you find out to answer your question: “What alternatives do the corporations have while still earning a profit?”

5. What would you like to do that you didn’t have time for?
**TASK #4**

Name _______________________

Please circle the appropriate response to the following questions.

1. How much do you know about the visual arts? (Painting, sculpture, photography etc.)
   
   A great deal          Some          Very little

2. How much do you know about the performing arts? (Music, dance, theater etc.)
   
   A great deal          Some          Very little

3. How often would you participate in or attend visual arts events if money was not an issue?
   
   Weekly      Monthly     Several times per year     Three times a year or less

4. How often would you participate in or attend performing arts events if money was not an issue?
   
   Weekly      Monthly     Several times per year     Three times a year or less

5. How often have you made any kind of presentation to groups, either in a class or in other situations?
   
   20+          10-15          5-10          Less than 5 times
TASK #4

You are a community representative appointed to a task force by your local School Board. The task force is to advise the district on the course content for a high school multi-disciplinary arts class. A number of topics have been proposed by the teachers but all of them cannot be included. Everyone has different preferences and at the next meeting, each task force member will be presenting arguments for including particular topics in the curriculum.

Choose one of the topics from the following list that you would most like to see taught in the course.

- Painting in Fifteenth Century Italy.
- Improvisation in Acting.
- Dance Forms in India.
- Blues Music from 1930 to 1990.
- The Pottery of Aztec, Maya and Navajo Cultures.

1. Circle your choice.

Look for materials that might be helpful to you in creating a presentation that will convince other task force members, including administrators, teachers and community members, to include your topic in the curriculum.
POST TASK

2. What materials have you found?

3. List the materials that seem most promising. For each one, tell why you think they will be helpful in creating a convincing presentation.
4. How will you remember the sources you are going to use?

5. Is there anything you would do if you had more time?
SOME FINAL QUESTIONS: (Given to all four groups)

NAME:__________________________________

1. Have you ever had instruction on using the library for research? By this we mean a class, a presentation, a workshop, a workbook, a tutorial or other session delivered or taught by a librarian at the college level.

   Yes  No  Don’t Remember

2. How many times during the last semester or quarter have you physically gone to your campus library?

   None   1-2 times   3-5 times   6 times or more   Don’t remember

3. Have you ever accessed your campus library electronically from off-campus?

   Yes  No   Don’t remember

4. How many times during the last semester or quarter have you accessed your campus library electronically from off-campus?

   None   1-2 times   3-5 times   6 times or more   Don’t remember
APPENDIX D: SAMPLES OF STUDENTS' PLANS

TASK #1

While you may not know a lot about environmental issues, you have heard about "global warming" and mention it to a friend. Your friend tells you that he has found a website that claims global warming is a hoax. You were convinced by the site's argument and tells you to find the statement by anxietycenter.com

List all the possible ways you could do to verify whether global warming is an actual threat or whether it is just perpetuated by the media and the scientific community.

TYPICAL PLAN: Focused on Resources

Research Information by:

- Searching the library for articles, books, newspapers, magazines etc...
- Surf the web (articles, news stories)
- Talk to people that know about the subject
- Ask librarian what might be the best resource of information
- Read what researchers & the media have said about the topic

Pick one of the possible ways listed in #1 and begin your research. Please write down the way you have chosen.

Surfing the Web
While you may not know a lot about global warming in particular issues, you have heard about “global warming” and mention it to a friend. This friend states that he has found a website that claims global warming is a hoax. He was convinced by the site’s argument and tells you to find the statement by www.anxietycenter.com

List all the possible things you could do to verify whether global warming is an actual threat or whether it is just a hoax perpetuated by the media and the scientific community.

- Check National Weather Service database for trends in temperature increase.
- Look at environmental websites.
- Read transcripts from congressional subcommittees on environment.
- Look at university studies on global warming & greenhouse effect.

Pick one of the possible ways listed in #1 and begin your research. Please write down the way you have chosen.
TASK #2

A young neighbor who is in middle school and who is going to create a web site on islands. You ask her what information about islands is going to be on the web site. She’s rather vague and says she thinks islands are important and wants to put everything about islands on the web site. You plan to do some investigations. You are concerned because you suspect “putting everything” may be a problem for her.

How will you go about your investigation?

• To start my investigation I would search the Internet. Under “Search” I would type in islands to find various names of islands. One can not rely solely on the Internet information, because information on the Internet can sometimes be wrong or outdated. Also, search engines do not always find exact topics that you are interested in.

• Second I would go to the library to find books on various islands.

• Third, I would call a travel agency for pamphlets and brochures on what certain islands have to offer.
A young neighbor who is in middle school is going to create a web site on islands. You ask her what information she is going to be on the web site. She's rather vague and says she thinks islands are just going to put everything about islands on the web site. You plan to do some investigating of islands because you suspect "putting everything" may be a problem for her.

How will you go about your investigation?

- Begin outline with wanted and ideas and periodic asks.
- Research on islands
- How many are known

> Different geological aspects of an island compared to solid land
  - marine patterns
  - crops
  - rain fall
  - animals

> Different people in how islands were created?
  - shipwreck tales
  - local legend and myth

- National Geographic
  (Other Science Journals) 
- Encyclopedia famous islands
  (dictionary) 
- Internet weather resources
TASK #3

Your instructor mentioned in class that child farm workers are routinely exposed to pesticides and suffer many health problems due to the practices of farming corporations. You ask the instructor: Do the businesses realize that using toxic chemicals is a problem? What alternatives do the corporations have while still earning credit.

Your instructor suggests you finding out answers to your questions? List as many possibilities as you can think of.

1. World Wide Web articles
2. Periodical (Newspaper search)
3. Books Pesticides - purpose, composition vs. health
4. Journal articles on pesticides + health
TASK #3

Your instructor mentioned in class that child farm workers are routinely exposed to pesticides and suffer many health problems due to the farm farming corporations. You ask the instructor: Do the businesses realize that using pesticides is a problem? What alternatives do the corporations have while still earning a profit?

Your instructor suggests you investigate and share your findings with the class for extra credit.

How can you go about finding out answers to your questions? List as many possibilities as you can think of.

1. FIND STATISTICS
   a) How many agricultural corporations use pesticides?
   b) Do they use them on all of the produce?
   c) Which growers choose to not use pesticides (organic)?

2. DIFFERENT TYPES
   a) What kinds of pesticides are used?
   b) How much is used
   c) How necessary is it?

3. PROFIT LOSS
   a) How much profit would be lost if not used?
   b) Would the opportunity cost of not using pesticides outweigh the lawsuits?

I. Internet #1 source - up to date & accurate (generally)
II. Books & magazines - more accurate than some internet, but sometimes outdated. Magazines good all around.
A TOTAL ANOMALY: One student mapped out his thought process in a notebook.

(4 pages)

1. Since the student stated she is going to build a website, I would make the assumption that this student has some knowledge of website construction.

2. However, when the student makes the statement that she plans to include everything about islands on her website, sort of implied to me that she may not be as knowledgeable of creating websites as she may think she is.

3. I would ask the student a few details about her planned website. Such as how many bytes or megabytes does she have available to her for this website.

4. Hopefully, she will have a valid answer and not think that she has a limitless amount of memory available for her use.
5. Once she and I have established just how much memory she will have to construct her website, then we could begin to formulate some concepts as to what she will be able to design into her website.

6. Does she plan to include images, pictures, in her website? If so, these images would utilize a great deal of the "working space" which she has which in turn would limit the amount of text that could be included on the web page.

7. Next she and I would either go to the library or to the internet and see just what type of information was available about islands in general.

8. Based upon the results of the preceding statement, we could then better determine just what she wants to and has the resources to include in her website design.
9. A search of the internet will probably be a more efficient method of ascertaining this prerequisite information.

10. DO TO THE COMPUTER WE GO.

11. AT THE COMPUTER:
   A. FIRST I WOULD SELECT A SEARCH ENGINE AND HAVE IT SEARCH FOR GENERAL INFORMATION SOLELY ABOUT "ISLANDS" AND SEE WHAT PROSPECTS THE SEARCH ENGINE FINDS.

12. AFTER A GENERAL SEARCH OF ISLANDS" IS PERFORMED IT BECOMES OBLIGING THAT THE STUDENT WILL HAVE TO NARROW THE SCOPE OF WEBPAGE TO EITHER MORE DETAILED INFORMATION ABOUT ISLANDS, SUCH AS HOW THEY ARE FORMED, ETC. OR TO FOCUS ON A SPECIFIC ISLAND OR GROUP OF SPECIFIC ISLANDS (I.E., THE HAWAIIAN CHAIN OF ISLANDS).

13. AS A POINT OF REFERENCE THERE IS A WEBSITE FOUND AS PART OF A GENERAL SEARCH, "LEARNING OBJECTIVE 16" WHICH EXPLORERS THE HAWAIIAN ISLAND FORMATION.
IV. At this website the role of plate tectonics in island formation is discussed. Additionally, there is a “Plate Tectonic” link on this webpage.

V. Since this Plate Tectonic Phenomenon is related to island formation in general, I would suggest to the student that this information is a definite candidate for her website. Also there is information regarding the reef which volcanic activity plays in the formation of islands.

VI. Since this hypothetical student is not present today to make a decision regarding the content of her website, whether it be just some details about a few specific islands, such as when they were first inhabited, their economy, the dialect spoken and things she could easily learn from reading a travel brochure about a given island, I will assume that she would rather have more detailed info regarding what is an island, how was it formed, how long did the formation take, etc. An island could be used by for our purposes. The Hawaiian Islands were chosen.