Information Fluency at California Maritime Academy: Improving Instruction with Wikis and Webpages

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Design and Implementation of Instructional Strategies for Information Professionals
LIBR 250-01 – Fall 2008
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Abstract

Collaborative learning environments can utilize Web 2.0 tools for the purpose of teaching information literacy (IL) and information and communication technology (ICT) to college students. The California Maritime Academy (CMA) Library administered IL course is used in this paper to present a Web 2.0-based lesson unit. The authors designed a plan after conducting a demographic and stakeholder analysis of CMA and adhered to standards set forth by the ACRL as well as IL/ICT competency levels. The goals included the comprehension and utilization of wiki editing and website building in group-oriented projects, wherein a "Think Model" was used as a proctoring basis. A SWOT analysis was also conducted to ascertain future use of the unit and its viability to CMA.
Information Fluency at California Maritime Academy: Improving Instruction with Wikis and Webpages

Libraries are changing the ways in which knowledge is accessed. In the academic community, the field dealing with this topic has been labeled Information Literacy (IL). Essentially, IL involves an academic library’s ability not only to house information sought by students, but also to teach these same students how to analyze and critique the information for their own interests and understanding. In doing this, the academic library helps fulfill a university’s obligation “to assure students that they will graduate with the skills necessary to remain relevant and to know how to learn throughout their careers,” (Cody, 2006, p. 403).

In keeping with this line of research, the authors wish to develop unit, rubric, and lesson plans based on Web 2.0 tools. The plans will incorporate current theories of learning involving 18-22 year olds and are intended for students attending the California Maritime Academy in Vallejo, CA. Due to the learning style of this age group, the authors believe that the most efficient instructional method for these students will utilize collaborative Web 2.0 technology in group oriented projects. The promotion of information and communication technology (ICT) skills and collaborative group work in library instruction will prepare students for future class work during their academic tenure, as well as their post-graduation career needs.

Demographic Study of Stakeholders

*Description of University*

The California Maritime Academy (CMA) is located in Vallejo, CA. The school is one of only seven in the United States offering degrees in merchant marine training. The list of majors includes international business and logistics, facilities engineering technology, global studies and maritime affairs, marine engineering technology, marine transportation, and mechanical engineering (“About Cal Maritime”, n.d.). The school began on June 3, 1929, when a bill
authorizing the establishment of the California Nautical School was signed by Governor C.C. Young (Peterson, 2004, p. 2). Beginning as a two year program, it commenced offering four-year BA degrees in the 1970s. In 1995 it joined the California State University (CSU) system, becoming the 22nd CSU campus (Peterson, 2004, p. 13).

**Description of Information Fluency Class**

CMA’s Library 100: Information Fluency in the Digital World (LIB100) class is a 2-credit, general elective course, with three sections being taught in the current semester (Fall 2008). It is a requirement for all Engineering Technology and Global Studies and Maritime Affairs (GSMA) students in their freshman year. There are three main goals of the class, according to the course instructors; the third, and most important according to the authors, is to “[e]mpower students to efficiently carry-out future assignments, projects, and presentations through the use of information resources and common software programs” (*LIB100: Information fluency in the digital world*, n.d.). These goals are met through in-class instruction two days a week, along with assignments requiring the use of Microsoft Office programs, website building, and the creation of annotated bibliographies. Students are also taught search techniques for the Internet, the use of databases, and the evaluation of sources based on strict criteria.

**Description of Stakeholders**

*CSU system.* As part of the CSU system, CMA is required to give an iSkills assessment tests to the students in order to determine their information literacy progress from freshman to senior year. The iSkills test was designed by the Educational Testing Service (ETS) and measures “students’ ability to navigate, critically evaluate and make sense of the wealth of information available through digital technology,” (*iSkills overview*, n.d.). The CSU system has a vested interest in ensuring information literacy skills as part of their agenda as institutions of
higher learning. The inclusion of LIB100 at broadens the aptitude of students in their freshman year and should raise their scores when they retake the iSkills assessment at the conclusion of their four-year program. The improvement in CMA’s scores contributes to greater results for the CSU system as a whole; higher numbers help CSU to advertise their campuses as places of higher learning.

*Cal Maritime Academy.* The first bullet point in CMA’s Mission Statement is to “[p]rovide each student with a college education combining intellectual learning, applied technology, leadership development, and global awareness” (*Mission statement*, n.d.). The LIB100 class offers CMA a chance to capitalize on their Mission Statement by providing incoming freshman with an early introduction to the process of learning and research. The class serves to introduce students to the standards and results that will be expected of them in the next four years of their education and quality results. The class also helps CMA to raise their standing within the 22 campuses of the CSU system by offering early information literacy training and improved iSkills results.

*Library staff.* The class is taught by two staff members, Ben Bolin and Mindy Drake. In order to demonstrate the critical importance of a class on information fluency to the mission of the university as well as to student learning outcomes, the instructors must ensure excellent teaching standards, high-quality work from their students, and significantly improved iSkills results. The Library staff therefore has a strong incentive to help the course achieve its goals, as their professional reputations depend on its success.

*Student body.* The class of 2012 has 260 members out of a total of approximately 800 students (Cal Maritime, 2008, p. 8). Of the incoming freshmen, approximately 75 are being taught in the three sections of LIB100. The student investment in the LIB100 class is to increase
their research skills and their ability to competently utilize Microsoft Office technology in future classes. The students come from a wide array of backgrounds, with varying levels of familiarity with the academic standards required at a four-year university. This class helps to introduce them to the tools and resources that will help them succeed in their academic work and chosen careers.

**IL/ICT Competency Levels**

For the LIB100 class, students need to have a basic understanding of information literacy. The class is for college freshmen and most students will have some basic computer and Internet knowledge from high school. It can be expected that the students, prior to entering the class, will have used web search engines such as Google and Yahoo, and possibly social networking sites such as Facebook and MySpace. Since the class is designed for college freshmen to develop their IL/ICT skills, students need to have enough understanding of basic computer and Internet use to independently access material online. The instructor of the class also expects the students to have a working knowledge of Microsoft Word and limited knowledge of Microsoft Excel.

Prior to beginning LIB100, students’ IL/ICT Competency Levels can be ranked by the following levels.

- **Deficient:** none or minimal experience with basic computers and programs such as Microsoft Office; or none or minimal experience with basic usage of the Internet, such as online searching, emailing and downloading.

- **Sufficient:** moderate experience using computers and Microsoft Office programs; or basic understanding of the Internet and moderate experience using web search engines as well as emailing, downloading, social networking, etc.

- **Extraordinary:** advanced knowledge using computers and Microsoft Office programs; or advanced understanding of the Internet and advanced experience using online search tools and knowledge of Web 2.0 and website building.

**IL/ICT Skills Rubric**

*Unit Objectives*
This unit will meet the five points that define “Information Fluency” as stipulated by the Cal Maritime Library, as well as the following information fluency standards for Maritime Academy students:

- “Accessing maritime treaties and conventions” (*LIB100: Information fluency in the digital world defined*, n.d.)
- “Locating and reading nautical maps and charts” (*LIB100: Information fluency in the digital world defined*, n.d.)

The unit will also meet the following goals:

- “Students will evaluate materials in print, electronic, & audio-visual formats to verify their authority, purpose, accuracy, relevancy, and reasonableness” (B. Bolin, personal communication, October 15, 2008)
- “Students will organize and synthesize a collection of informational resources to create a cohesive body of knowledge that documents the development of a particular research process” (B. Bolin, personal communication, October 15, 2008)

*Goal of Lesson 1*

The goal of Lesson 1 is for students to practice the search, reference writing, source evaluation, and wiki editing skills taught in lectures 1-3. By using a constructivist approach, Global Studies & Maritime majors will learn how these IL/ICT skills can be applied to their studies.

*Accompanying lectures.*

- Lecture 1: Basic search skills—Boolean operators, wildcards, truncation, using Google Scholar, and multi search systems (ixQuick, Mamma, Metacrawler, etc.).
- Lecture 2: Using APA—writing references, in-text citations, and links to online APA guides. Introduce students to reference managers (BibDesk, Reference Manager, etc.).
- Lecture 3: Introduction to Wikis—history of Wikipedia, demonstrating how to login and edit the class wiki.
- Lecture 4: Evaluating Sources—peer review journals, government publications, newspapers, blogs, Wikipedia.
Activity 1: Evaluating sources, using APA, & using wikis. The People’s Republic of China (PRC) has many contested territorial claims in the South China Sea. Identify four contemporary contested claims. Use at least four sources (one must be a print source), and cite them using APA format. Post your sources on the class wiki, and then evaluate two sources posted by your classmates. You will evaluate their sources for “authority, purpose, accuracy, relevancy, and reasonableness” and post your evaluation below their sources on the wiki. If the source you are evaluating does not conform to APA guidelines, post the correct version with your evaluation and you will receive extra credit.

Assessment of activity 1.

<table>
<thead>
<tr>
<th>Area</th>
<th>Point Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify four contested claims</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Use four sources</td>
<td>8</td>
<td>One source must be printed or be available in print</td>
</tr>
<tr>
<td>APA format</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Post to wiki</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Evaluate two sources by classmates</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Correct classmate’s source</td>
<td>+2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>32 (+2)</td>
<td></td>
</tr>
</tbody>
</table>

Expected learning outcomes. At the end of Activity 1, students are expected to be able to a) locate and evaluate sources, b) use APA formatting, and c) edit class wikis with little or no difficulty. Learning outcomes will be measured by the following three levels:

- Deficient: students did not use four sources or did not include one printed source; students made 3+ errors when citing sources using APA format; students had difficulty evaluating sources for “authority, purpose, accuracy, relevancy, and reasonableness”; and/or students had difficulty accessing and editing the class wiki.
• Sufficient: students used four different sources with at least one printed source; students made 1-2 errors when citing sources using APA format; students had little trouble evaluating sources for “authority, purpose, accuracy, relevancy, and reasonableness”; and/or students had few problems accessing and editing the class wiki.

• Extraordinary: students used more than four sources in multiple formats; students made no errors when citing sources using APA format; students easily evaluated sources for “authority, purpose, accuracy, relevancy, and reasonableness”; and/or students had no problems accessing and editing the class wiki.

Materials. Materials needed include an instructor, classroom, one computer per student or student group in classroom, and instructional technology including teacher computer, projector, wireless mouse and keyboard. Information services: Google Scholar, Wiki, ixQuick, Mamma, Metacrawler, BibDesk, Reference Manager, Cal Maritime Library computers. Information sources: the Internet, Cal Maritime Library Databases, APA Handbook.

Goal of Lesson 2

The goal of Lesson 2 is for students to strengthen their IL/ICT skills through the use of reliable resources, group cooperation, and activities involving Web 2.0 technologies. Students will use their search skills to synthesize information found using appropriate search tools, while participating in a group activity. The group activity is a project designed to strengthen website building skills and incorporate advanced searching skills.

Accompanying lectures.

• Lecture 1: Students will spend time learning about basic website design, including text, links, graphics, and tables. Students will be using Microsoft FrontPage for this lesson.

• Lecture 2: Students will spend time on the class wiki researching various postings made by other students from the Lesson 1 activity.

Activity 2: Building websites. Students will break into small groups of 4 to 5. Each group will select one claim from those outlined in Activity 1. The groups will then research their chosen claim and write at least one paragraph on a possible solution. They will then create a
basic website using Microsoft FrontPage presenting their claim and proposed solution. The website should include the following: history of claim; geography (include a map with proper citation); foreign country and UN policies/position; and proposed solution.

For this assignment, students should use at least 10 reliable sources (at least 2 books and 2 database articles). Nautical charts are also included within these 10 sources. All sources must be cited using APA format. The group is then required to submit a ½ page listing the group members and their specific contributions to the project.

**Assessment of activity 2.**

<table>
<thead>
<tr>
<th>Area</th>
<th>Point Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic website design (using Microsoft FrontPage)</td>
<td>14</td>
<td>Includes graphics (map) and text</td>
</tr>
<tr>
<td>History of claim</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Geography</td>
<td>8</td>
<td>Includes map graphic</td>
</tr>
<tr>
<td>Foreign country and UN policies</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Proposed solution</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>10 sources used</td>
<td>10</td>
<td>Includes 2 books and 2 database articles</td>
</tr>
<tr>
<td>APA Format</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Summary of group contribution</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>60 points</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Expected Learning Outcomes.** Students are expected to learn how to create a basic website using reliable information found through the web and library resources, and to achieve the objective by working in a group setting. Learning outcomes will be measured by the following three levels:
• Deficient: students were unable to successfully create a basic website; students demonstrated a lack of understanding of what constitutes a reliable source; and/or students were unable to work effectively as a group.

• Sufficient: students were able to successfully create a basic website including graphics and text; students demonstrated an understanding of the use of appropriate search tools to find reliable sources; and/or students worked effectively as a group.

• Extraordinary: students were able to successfully create a website that went beyond the basics and included links, graphics, tables, and text; students demonstrated an excellent understanding of how to select appropriate search tools to find reliable sources; students went above and beyond the requirement of 10 reliable sources; and/or students worked very effectively as a group and achieved more than the minimum requirements of the assignment.

Materials. Materials needed include an instructor, classroom, one computer per student or student group in classroom, and instructional technology including teacher computer, projector, wireless mouse and keyboard. Information services: Microsoft Office programs, specifically Microsoft FrontPage; CMA Library staff; the CMA LIB100 class wiki. Information sources: Cal Maritime Library databases and print materials; Internet access; and Wikipedia.

Standards of Adherence

Information Literacy Standards Covered Based on ACRL Standards

Information literacy is a set of abilities requiring individuals to recognize when information is needed and to have the ability to locate, evaluate, and effectively use the information. Elements of information literacy—researching, analyzing, interpreting, disseminating—have always been integral to the development of a liberal arts education. However, the redefinition and reclassification of a range of cognitive abilities into the cluster of skills now referred to as “information literacy” is reflective of the centralization of information in today's knowledge-driven society. The rise of the search engine “Google” over the last few years is indicative of this process. Never before has the ability to discriminate between credible
information sources, or the ability to interpret complex and plentiful data (i.e. critical thinking),
been so important to successful performance in life both within and outside of the academy.

Information literacy is underpinned by sound critical and logical skills. In the new
“information society,” the broad range of subjects that students need to master necessitates more
than ever the teaching of thinking strategies. In the case of this class, students will be asked to
locate, evaluate, and effectively use several information sources. These sources will include
databases, websites, thematic research sites, journals, books, and other multimedia sources, as
per the instructor’s choice.

Information and Communication Technology (ICT) Covered by Planned Unit Which Accords
With Information Literacy Standards

Information literacy is related to information technology skills, but has broader
implications for the student, the educational system, and for the instructor. Information
technology skills enable a student to use computers, software applications, databases, and other
technologies to achieve a wide variety of goals. As the emphasis of this course is on Web 2.0, the
bulk of the technological skills presented in this course will involve Web 2.0 software. Tools
such as personal webpages, wikis, and user-driven software will be presented to students. It will
also include database and website search engines. Objectives will include the proper use of these
technologies, and the evaluation of the information obtained and presented through these
technologies.

Think! Model Used

_The Quest Model: A Well-Designed Research, Experiment or Project_

This model is very effective when teaching Library and Information Science skills.
Students are given a mission or goal, for which they construct a research plan or division of
labor, and then perform research to advance toward the goal. This will lead them to answer their
original question, and eventually to reflect on the process. In this case, the question is not as relevant as the process; it is a problem solving system that becomes central to any task given to students under this model. We selected this method because of its compatibility with library and database research. It is an excellent constructive learning process that allows students to pace themselves through a given task. This gives students an opportunity to work with different database styles and come to an understanding about general database use, rather than mastering the use of a single database.

At its heart, this method emphasizes problem solving; whereas the goal of critical thinking is to arrive at a judgment, problem-solving is a process which comprises many decision points at which judgments must be made. The effectiveness of this process hinges on the quality of the critical thinking strategies and skills that have been brought to bear on the issues pertaining to the problem. Critical thinking begins with a previous claim, conclusion or product, and considers the present relevance of that claim, conclusion, or product. The ability to reach a sound judgment as to the significance of an idea or other information, however it may be presented, is fundamental to the development of information literacy. The teaching of this evaluative ability is arguably one of the primary applications of information literacy, and will be developed in this class through our lesson units and teaching strategies.

Relationship of Planned Unite to Cal Maritime Information Fluency Class

This unit is intended to correlate with Cal Maritime Information Fluency classes taught by Ben Bolin, MLIS and Mindy Drake, MLIS. The Information Fluency class is described as providing students with an introduction to research, information management, and computing technology skills that are fundamental for success in the college environment and beyond. Students taking the class will explore the research process, develop efficient search
methodologies in an online environment, and learn to critically evaluate resources. Students will also receive training in the use of Microsoft Office programs, with special attention paid to information management, critical thinking, and problem-solving.

The planned unit described in this paper is composed of two activities: 1) Evaluating Sources, Using APA, & Using a Wiki; and 2) Creating a Basic Webpage, Synthesizing Information, & Using APA. Activity 1 assists in teaching data evaluation skills and information management. Evaluating sources and using a wiki or other Web 2.0 software will provide students with a platform to test their research skills, and allow them to learn how to disseminate the data they gather via the Internet. Activity 2 continues to teach research skills, including information synthesis and technological skills, through basic web site construction. Constructing websites will also assist students in learning how to present data. Both activities also focus on the use of APA format. This will allow the instructor to work with students when producing their research papers, evaluating format and overall construction. Both activities are clearly related to the LIB100 class.

SWOTs (Strengths, Weaknesses, Opportunities, and Threats) Analysis

In creating this unit and planning for its implementation, it is important to take into consideration how it may expand and evolve in the future. A static design that cannot adapt to new situations, however well-designed it may originally have been, will eventually become an obstacle to the future achievement of its goals. A SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis is an important strategic-planning tool for identifying and assessing possible areas of improvement and change (Johnson, 1994).

**Strengths**
The greatest strength of the proposed unit is that it takes as its foundation a set of basic information skills that most incoming freshmen already have and builds on them. The searching and research portions of this unit will provide students with an opportunity to refine and build on their existing abilities, in a way that will help them throughout their college education. Additionally, the portions of the unit dealing with the evaluation of information and the citation of sources will provide students with a set of critical evaluation tools. While most students are familiar with online tools such as Google and Wikipedia, they often use these resources uncritically, making little or no effort to assess the accuracy of the information they find. Teaching them to carefully evaluate and document their sources will allow them to develop valuable critical-thinking skills—as well as creating new habits that will pay off in their further academic work.

*Weaknesses*

As with so much that involves the use of online services, the weaknesses of this approach are intimately tied to its strengths. One possible weakness is; incoming freshmen have had so little experience with critical examination of their sources, this unit may not provide enough opportunities for them to avoid falling back into older patterns. It is possible the evaluation and documentation of sources may eventually turn out to require a considerably larger portion of class time and effort than this one unit can provide.

*Opportunities*

A great benefit of the approach we adopted in developing this unit is, it will be flexible and adaptable to new situations. As new technologies continue to emerge, it will be easy for future classes to adapt the ideas in this unit to address new tools and to identify ways that they can be used in collaborative settings. There will also be many opportunities in the future for
ideas and techniques to spread from this unit to the rest of the information fluency class, and
even into more general classes. This unit could potentially become a laboratory for the
examination of new information-related services and concepts, in order to assess their
applicability to other parts of the course.

**Threats**

The biggest threat to any information literacy program is the effort and expense required
to keep up with rapidly changing technologies. Teachers and IT personnel will need to be
continually trained in the latest services and tools in order to use them effectively in this course.
In particular, teachers will need to learn the skill of constantly adapting to a changing
technological landscape, rather than becoming entrenched in habits that will be obsolete a few
years hence. Such adaptability is often difficult to learn, and limited time and training budgets
will present further obstacles.

**Summary**

For the students of Cal Maritime, the need for Information Literacy (IL) is as important
for their educational experience as the need for them to know the inner workings of a ship. In
presenting these skill sets, we intend to expand upon an already existing course curriculum. In
doing so we hope to help students in the LIB100 class achieve a level of sophistication and
understanding that will benefit them in their education and future careers. This document is
intended to provide a foundation both educational and library leaders can build upon in their own
courses.

**Conclusion**

Taking into account the demographical and historical nature of CMA, one would be hard
pressed to consider that a university of this caliber would ever have a need for an information
skills course. But, according to Alexius Macklin (2003), “…with more institutions recognizing
the importance of information skill building, librarians must be strategic partners supporting, developing, and carrying out educational goals both inside and outside the library.” (p.494). The point of this statement is simple, if a university such as CMA is now finding an ever greater need to teach its students IL/ICT skills, it can be assumed that this trend is only the beginning. Libraries, especially academic libraries, would do well to follow and expand upon this trend. It can even be said that courses of the type taught at Cal Maritime could and should be of use in other facets of librarianship, and not just in the academic realm. This unit demonstrates what is possible when critical thinking skills are at stake and librarians have an incentive to teach and inform.
References


Author Note

The authors of this paper are, in alphabetical order: Anna Chang, Alysa Gerard, Michele Gibney, Joshua Kunkle, Quincy McCrary, and Brian Stovall. They are all students at San Jose State University in the School of Information Science. They are working on their Master of Library and Information Science graduate degrees. This paper was written for the class LIB 250: Design and Implementation of Instructional Strategies for Information Professionals, taught by Professor Connie Costantino in the fall of 2008.

The authors would like to thank the library staff at California Maritime Academy for their assistance in answering questions related to this paper. Special thanks go to Ben Bolin for his time spent being interviewed by one of the authors.
## Appendix A

### Schedule for Unit

<table>
<thead>
<tr>
<th>Session</th>
<th>Task</th>
<th>Time (min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lesson 1: Lecture 1</td>
<td>30</td>
</tr>
<tr>
<td>1</td>
<td>Lesson 1: Lecture 2</td>
<td>20</td>
</tr>
<tr>
<td>1</td>
<td>Begin Activity 1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Lesson 1: Lecture 3</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Continue working on Activity 1</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Lesson 1: Lecture 4</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Finish Activity 1</td>
<td>60</td>
</tr>
<tr>
<td>4</td>
<td>Lesson 2: Lecture 1</td>
<td>60</td>
</tr>
<tr>
<td>4</td>
<td>Lesson 2: Lecture 2</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>Begin Activity 2</td>
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</tr>
<tr>
<td>5</td>
<td>Continue Working on Activity 2</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>Finish Activity 2</td>
<td>30</td>
</tr>
</tbody>
</table>
Appendix B

Interview with Ben Bolin at California Maritime Academy

Student Questions

1. What were some of the comments/suggestions made by students in the last round of surveys for assessing the class?

They complain that the assignments are all just busy work. In response to this the instructors adjusted some of the assignments to be assessed more on format than content. They stress that the content of their work is unimportant, but the format in which it is turned in proves that they understand the assignment.

2. What sorts of skills do you see the students possessing when they start the class? For example do they have a range of aptitude with Microsoft Word, or are they all dismal or proficient? Ditto for PowerPoint, Excel, FrontPage, etc.

Working knowledge of Word—no advance formatting or knowledge of APA or MLA styles. A passing familiarity with internet searching. They trust Google is working and giving them good sources. The have limited refined search skills. When they know exactly what they want, they are specific and tend to find it. When they are no positive of what they’re looking for, they can’t find the information. They have an attention span of about 3 seconds when looking at the results page; if enough keywords don’t pop out at them from the brief description, they move on. They will go through about 3 pages of results before giving up. They don’t know about advance search options. They have a limited knowledge of Excel and need training in what data to put in the graph, which data to give emphasis, and how to logically organize the data. They generally pick up PowerPoint very, very quickly. They’re great at graphics-driven creation. They tend to be good at the website building then too once they conquer PPT.
3. In what areas and in what ways do students have the opportunity to work together to solve problems?

There is not much group work. They sometimes do brainstorming sessions during a class wherein everyone feeds off each other offering suggestions. They are seated at tables of 3 and do exchange ideas/questions/answers while working on assignments in class, but nothing is assigned as group work. The reason for this is because the instructors need individual assessment to determine how good they’re doing. If they did group work, the most tech savvy member would end up bearing the brunt of the work.

4. What kind of role, if any, do the students have in shaping the content of the course? Are the instructors open to suggestions for things to cover in future classes?

Yes, Mindy and Ben encourage input, questions, and suggestions from the students. They might lose time spent on content during a lesson, but it’s important not to lose any of the student’s when teaching new, tricky things. So they welcome interruptions and also encourage emails, calls, and visiting them in the library during office hours.

**Course Questions**

1. What gaps do you see in the course of study?

They work as part of the curriculum map with multiple departments on campus so they have continued one shot sessions of instruction throughout multiple departments at all grade levels. For example, they do an evaluation of print resources during Critical Thinking classes’ junior year for general Ed studies. Due to this continued instruction, Ben felt like there weren’t really any gaps per se in their class—since even if there was; they got to it later. The course is only 2 credits and 2 hours a week, so there isn’t a lot of time to add any further subjects. They cover basic research and computing skills. But Ben
said if he had a choice of adding something it would be more advanced search mechanics, formatting in papers, and building web sites.

2. What learning theories, if any, is the program based on?

The class is primarily based on constructivist learning theories—they build upon what they have; expand and build on foundational knowledge. There’s a hint of behaviorism because they need to pound skills into them like search skills. They also do hands-on-learning; learning-by-doing. The instructors attempt to work with individual learning styles of all the students and Ben thinks they do a good job comprehensively tending to the different learning styles by covering the multiple instructional theories.

3. From the list of Core Competencies, can you rank them in order from most focused on in the class to least?

#1: Goal 1: Students will select appropriate search tools (catalogs, databases, Internet search engines, Indexes etc.) to satisfy research requirements.

#2: Goal 2: Students will implement effective search techniques (Boolean logic, online search mechanics, subject searching, etc.) to generate relevant data to satisfy research requirements.

#6: Goal 3: Students will evaluate materials in print, electronic, & audio-visual formats to verify their authority, purpose, accuracy, relevancy, and reasonableness.

#3: Goal 4: Students will organize and synthesize a collection of informational resources to create a cohesive body of knowledge that documents the development of a particular research process.

#5: Goal 5: Students will interact effectively and ethically with their instructor and peers through a digital learning management system (WebCT). This will include participation in class chat rooms, mail systems, file-sharing and management tasks, and e-portfolio building.
#7: Goal 6: Students will demonstrate an understanding of how to create and update a basic website including text, links, graphics, and tables, using Microsoft FrontPage.

#8: Goal 7: Students will demonstrate an understanding of how to design a template, bullet lists, import graphics, and use basic animation in the Microsoft PowerPoint program.

#9: Goal 8: Students will demonstrate an understanding of how to use formulas, graph data, and sort data in a logical capacity by using Microsoft Excel.

#4: Goal 9: Students will demonstrate an understanding of how to format, edit, and effectively create documents using Microsoft Word.

Though, Ben also said that Goal 3 is not covered quite as much as it’s outlined.

4. The syllabus seems to pay a lot of attention to using various computer programs with only one section on using article databases and searches and one section on evaluation of sources. Is more time spent on using library resources (books, magazines, databases, Campus History Collection) not reflected in the syllabus?

The first 1.5 months are spent basically learning how to do research using books, articles, World Cat, etc. Their assignments require proof of theses efforts. For example they have to make an annotated bibliography of 6 articles from at least 3 different databases. These are assessed on how relevant their searches were, they’re also asked to evaluate the database itself and where they went to search for information—general vs. business vs. science (did they search for business articles in the general article database? Etc.)

Assessment Questions

1. Was there a notable change in the iSkills assessment results last year for students after taking the class?

The iSkills assessment is actually done when they enter as freshman and then not again till
they’re juniors. So there’s no relevant data here. The iSkills is a CSU wide program and is administered on WebCT (like out BlackBoard). Ben said he’s curious to see if there’s a difference between students majoring in deck vs. engineering vs. General Ed. Deck and engineering students generally have a higher grasp of tech skills just because of their pre-existing interests.

2. What does the final project--the E-portfolio--entail? Are there any other student assessment methods (besides the iSkills test)?--quizzes, short papers, etc?

Their E-portfolio is basically like the one we have to do for SJSU—that’s where Ben got the idea for doing it. This is the first year they’re doing it; last year they did a print portfolio which was basically all the assignments they were required to do during the semester—research assignments and the term paper assignment. This year because they’re focusing more on format than content, they discarded the term paper as a requirement. Instead, the e-portfolio requires a bibliography of all the sources they used during the semester (for assignments, and the ones they WOULD use if they were writing a term paper). They can also write a term paper but it’s not required. In addition they have to write reflection papers on how they felt about their sources, which ones were the most difficult to find/cite, etc.

3. How is the iSkills Assessment integrated into the program?

The iSkills assessment is actually done when they enter as freshman and then not again till they’re juniors. So there’s no relevant data here. The assessment test which they use of 15 questions is given the first week and then again the last week. It’s just a simple test with short answers.

4. How do students turn in their assignments for this course, essentially do they just hand in papers, or turn in stuff via online tools (i.e. wikis, blogs, etc)?
They use WebCT for assignments and can also email the teachers. Learning WebCT is a little difficult for them at first.

Technology

1. Is the instructor using Blackboard, chat, email, etc to facilitate discussion? Basically, how much of the class is conducted online? And what technology is used to teach the class? Homework is submitted via WebCT; they also use it for getting information to the students, revisions, and give grades back on it too. The class is primarily taught in the physical classroom though; just documents are passed back and forth online.

2. What procedures are in place for deciding what technological tools need to be upgraded, and when? And for assessing newly emerging tools for possible integration into the program?

Ben is pretty tech-savvy and he is kind of the one in charge of deciding what tech they use and when they upgrade. There is now an employee at the campus whose job is to improve instruction with technology, but so far Mindy and Ben are the only maverick instructors actually using tech. And their tech is pretty minimalist still. They use wireless keyboards and mice in the classroom so they can rove while teaching—granting them the ability to be next to a student showing them something while they can see it up on the big screen.

They considered trying to use some social web tools—like Facebook and YouTube. Their ideas there were to create profile and video and post them and then assign the students to find them. They would use search specific terminology like “Information Fluency Instructor at Cal Maritime”. Then they would just have a little picture/video basically saying, “Yey! You found us! Good job!”
Appendix C

Gantt Chart

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