Information Literacy Initiative
Information Competence Grant Program

Two-year grant for 2006-2008: Project "Baseline": Information Literacy Study and Assessment of California State University Sacramento Freshman Programs.

Report for year 1: 2006-2007

Submitted by: Co-PI’s Lynn M. Tashiro and Linda J. Goff

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Project Website:
http://library.csus.edu/services/inst/ProjectBaseline/index.html
I. The Abstract, goals and objectives outlined in the grant proposal:

Project Abstract:

It is important to document and build baseline “information competence” early in students’ experience at the university. This project proposes to use the Information and Communication Technology Literacy (ICT) Assessment as a formative and summative assessment tool to evaluate students’ information competence in first year programs at California State University Sacramento (CSUS). There are four first year programs, collectively called “Freshman Programs”:

1) Freshman Seminar Program
2) University Learning Community Program
3) Educational Opportunity Learning Community Program (EOP)
4) General Education Honors Program

Combined these programs reflect the cultural and socioeconomic diversity of first time freshman at CSUS. Data from this project will be used to develop and test best practice information literacy teaching modules and tutorials in each of these programs. The project will support the 1) administration of the ICT Assessment as a pre-test and post-test to 250 CSUS freshman, 2) development and publication of best practice modules via a project Website, and 3) faculty professional development for freshman program faculty. The project proposed will be conducted over two academic years, 2006/2007 and 2007/2008. The assessment data collected during the project will be evidence of both student needs and student learning. The goal of this project is to examine the practical use of the ICT to inform program and lesson effectiveness. The data will be analyzed from the perspective of program improvement and as basic research in the emerging field of information literacy instruction. Results of this study will be disseminated locally on campus through the Center for Teaching and Learning and nationally at conferences such as the American Educational Research Association (AERA) and American Library Association (ALA).

II. Project activities - Please provide a summary of activities completed to-date, and any adjustments made to the original timeline. Please note valuable collaborations, partnerships, innovative e-learning tools or resources being used within the project

Summary of activities:
<table>
<thead>
<tr>
<th>Timeline: Summer/Fall 2006</th>
<th>Outcome/completion date</th>
</tr>
</thead>
</table>
| Recruitment of Participating Faculty | 8 faculty  
6 Freshman Seminar courses recruited |
| First meeting of participating faculty to outline expectations, describe project deliverables. | Fall convocation  
August 29, 2006 |
| Work with University Computing Services to construct project Website and WebCT tool to enable the electronic submission of deliverables from participating faculty. | Website has been constructed. WebCT tool has been postponed to year 2 due to technical instabilities in WebCT |
| Construct a project data base to enable the analysis of data collected from the project | Completed |
| Administer the ICT Literacy Assessment in week 1 of instruction | Completed |
| Collect general and content specific lesson plans, syllabi, and ICT related student learning goals from each participating faculty | Completed |
| Facilitate cooperative faculty work groups, implementing the “Lesson Study” model of curriculum design and assessment | Completed  
2 Lesson Study groups facilitated |
| Administer the ICT Literacy Assessment in weeks 13-15 of instruction | Completed |
| Collect student scores on the ICT related lesson | Completed |
| Post project resources on the Web and prepare data for analysis | Completed |

**Timeline: Spring 2007**

- Analyze data to look for correlations between and emerging patterns in lesson design components, ICT test student/instructor test performance and student demographics. | Completed |
- Literature search to support or inform project findings. | In progress |
- Prepare results and proposals for local dissemination through the Center for Teaching and Learning, ex. proposals to present at the “Brown Bag Series”. | Moved to year 2 |
- Prepare results and proposals for poster and or paper presentation at the 2008 AERA Conference in New York. | Moved to year 2 |
- Post project results on project Web page | Completed |

**Valuable Collaborations/Partnerships with the following campus projects and groups were utilized:**

- CSUS Library
- CSUS Freshman Programs
- CSUS Civic Learning Institute (CLI)
- CSUS College of Education, Department of Teacher Education
- CSUS College of Education, Department of Bilingual and Multicultural Education
Hewlett Packard Technology for Teaching Grant for Higher Education
Hewlett Packard Leadership Grant for Higher Education

The following Innovative e-learning Tools and Resources were utilized:
Hp Tablet and Mobile Technology
Laptop/smart classroom technology
CSUS Faculty Resource Center
CSUS Center for Teaching and Learning

III. ICT Literacy analysis - Please provide an update of where the project stands in terms of administration and analysis of the iSkills (formerly ICT Literacy Assessment) tool.

A. Number of students who took the core iSkills test:

• the iSkills test was administered to 128 students as a pretest in the first month of the Fall 2006 semester

• the iSkills test was administered to 122 students as a post test (these 122 were part of the 128 who took the pretest)

B. ETS report and analysis of pre and post core test:

Aggregate pre and post CSUS test scores compared to the median for freshman at four year colleges

Pre test scores

Post test scores

• analysis of the aggregate scores shows no significant difference between pre and posts ICT core test scores in any of the 7 the ICT Literacy Skill Areas. Although there was a 10% increase in the “Manage” dimension of the test, it is possible that this
can be attributed to improved “test taking ability” since the exact same test was used for the pre and post tests.

- compared to the selected reference group of “College Freshman” in “4-Year Colleges” 
  **CSUS freshman** in our test group **performed between the median achievement level and 10% below** the median achievement level.

**Challenges with the ETS reporting format and options:**

- Test reports from ETS were only available in aggregate, for the whole group of 128 or 122 students. Our project required separate results for each group of 25 freshmen enrolled in different sections of freshman seminar. These reports had to be manually generated and compared only total pre and post test scores of students. From ETS it was not possible to get individual class information on the individual 7 ICT Literacy Skill Areas because they were not set up to create reports for student groups of less than 75.

**C. CSUS generated pre and post score comparisons grouped by Freshman Seminar Class**

<table>
<thead>
<tr>
<th>Pre and post test scores for individual sections of Freshman Seminar</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Results are shown for freshman seminar sections 1-6</td>
</tr>
<tr>
<td>• Exam 1 is the pre test Exam 1B is the post test</td>
</tr>
</tbody>
</table>

![Graph showing Project Baseline 1-B](image)
• In general for each section of Freshman Seminar there were no consistent differences or patterns between the total pre and post test scores.

Some possible reasons for these results:
• although faculty used the ACRL Standards to guide their information literacy lesson design there was a mismatch between the performance indicators for these standards and the assessment instrument, the ETS iSkills test.

Ex. 1 One faculty selected ACRL Standard 5.2. f from the ICT Literacy Standards which addresses plagiarism. There were no test items on plagiarism on the iSkills inventory so any effect of this particular lesson could not be measured by the iSkills test.

Ex. 2 One faculty selected ACRL Standard 3.2.c which requires students to evaluate information to recognize prejudice, deception, or manipulation. Although students were asked to evaluate information on the iSkills test the evaluation was not from this perspective.

The mismatch between instruction and the iSkills instrument ranged from complete mismatch to partial mismatch. Under these conditions one would not expect to see a change in pre and post test scores as a result of instruction.

IV. Assessment - Please describe first year outcomes and activities in which you engaged or those which you plan to implement in order to measure the effectiveness of project goals and objectives.

A. Summary of First Year Activities:

• 4 lessons were designed to address one of the 5 the ACRL standards. At least one specific performance indicator was targeted by each of these lessons. One lesson was designed by a single faculty member, the other 3 were designed by teams of 2-3 faculty. The PI’s Linda Goff and Lynn Tashiro facilitated the collaborative lesson design process by using the “Lesson Study Model” employed in the College of Education.

• The activities of the faculty, facilitators, and students participating in year 1 of this project are summarized by the following tables A. and B. which document the completion of specific tasks and deliverables.
### Table A.
Information Competency Grant: Project Baseline  
Fall 2006 participants

<table>
<thead>
<tr>
<th>Team #</th>
<th>Name</th>
<th>Pre test date/time</th>
<th>Post test date/time</th>
<th>IC Standard selected</th>
<th>Meeting dates/Notes</th>
<th>Budget allocat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ricky Gutierrez <a href="mailto:rickyg@csus.edu">rickyg@csus.edu</a></td>
<td>Th 9/21 12-1:15</td>
<td>Tu 12/19 12:45-2:45</td>
<td>1.1.a,c,d Info: nature and extent</td>
<td>8/29 confirmation of participation 9/21 meeting w/Ricky after ITC test review project 12/13 meet to negotiate deliverables</td>
<td>1750</td>
</tr>
<tr>
<td>2</td>
<td>Hui-Ju Huang <a href="mailto:hhuang@skymail.csus.edu">hhuang@skymail.csus.edu</a></td>
<td>Th 10/5 1:30-2:45</td>
<td>Tu 11/7 5.2.f Plagiarism</td>
<td>1.1.a,c,d Info: nature and extent</td>
<td>9/21 1st meeting (Melanie, Hui-Ju, and Lynn) test protocol confirmation and selection of standard #5 9/25 lesson observation Melanies’ NSM 21 9/28 2nd meeting (Hui-Ju and Lynn) Timeline established for 2nd lesson observation 10/5 pre test to be given 1:30-2:45 Th 10/12 Hui-Ju’s EDTE021 to receive instruction at the library 10/26 2nd lesson study class observation (Melanie, Hui-Ju, Lynn) 11/2 12:30-1:30 Meet to debrief 11/7 1:30-3 Post test</td>
<td>1750</td>
</tr>
<tr>
<td>2</td>
<td>Melanie Loo <a href="mailto:mwloo@saclink.csus.edu">mwloo@saclink.csus.edu</a></td>
<td>N/A</td>
<td>N/A</td>
<td>5.2.f Plagiarism</td>
<td>9/21 test protocol confirmation and selection of standard #5 9/25 lesson observation Melanies’ NSM 21 next meeting pending</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Date/Time</td>
<td>Meeting Date</td>
<td>Standard</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------</td>
<td>-----------------</td>
<td>--------------</td>
<td>----------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| 2 | Melanie             | N/A             | N/A          | 5.2.f    | 9/21 test protocol confirmation and selection of standard #5  
9/25 lesson observation Melanies' NSM 21  
next meeting pending                                                                                                                                  |
| 3 | Pia Wong            | Tu 10/3 6:00-7:30 | M 11/13      | 3.2.c    | 9/25 test protocol confirmation and selection of standard #3  
10/3 Pia, Adrienne, Margarita, Lynn met and selected standard, discussed classroom demographics and technology availability. Lesson, assessment, and timeline drafted.  
Computer tablet on loan from Physics  
10/23-27 Lesson days  
10/18 next meeting in Linda’s office  
Lesson on Ballot initiatives: Property issue drafted. Assessment in progress  
Pia will locate or copy election info pamphlets  
10/23 Pia, 10/24 Margarita, 10/27 Adrienne  
Lesson taught 3 times with observation notes  
11/2 Debrief.                                                                                                                   |
|   | Adrienne Lawson     | Mon 10/2 12-1:15 | M 11/13      | 3.2.c    | 9/25 test protocol confirmation and selection of standard #3  
10/3 Pia, Adrienne, Margarita, Lynn met and selected standard, discussed classroom demographics and technology availability. Lesson, assessment, and timeline drafted.  
Computer tablet on loan from Physics  
10/11 next meeting ARC building  
10/23-27 Lesson days  
10/11 not present… will have to send her lesson plan                                                                                           |
<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Dates/Time</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 3  | Margarita Berta-Avila | Tu 10/3 6:00-7:30 Th 10/12 During class        | 9/25 test protocol confirmation and selection of standard #3  
10/3 Pia, Adrienne, Margarita, Lynn met and selected standard, discussed classroom demographics and technology availability. Lesson, assessment, and timeline drafted.  
Computer tablet on loan from Physics  
10/11 next meeting ARC building  
10/23-27 Lesson days  
10/18 next meeting in Linda’s office  
Lesson on Ballot initiatives: Property issue drafted. Assessment in progress  
Pia will locate or copy election info pamphlets  
10/23 Pia, 10/24 Margarita, 10/27 Adrienne                                      |
| 4  | Linda Martin          | Th 10/12 9:00-10:15 Tu 12/19                    | May participate as part of the Japanese Documentary? No this ended up not happening  
May be photographed by the Sacramento Bee  
Faculty proposal received 10/11  
12/14 meet to negotiate deliverables and complete paperwork  
1/17/07 electronic copies received                                           |
| 4  | Larry Boles           | N/A                                             | 12/14 Meet to negotiate deliverables  
1/18/07 electronic copies received                                          |
| 5  | Steve Crow            | Th 10/26 5:00-5:30 ???? 30 minutes               | Wait until next AY07/0810/210/23  
Steve asked for volunteers to participate. The schedule of his 3 communities not supportive of a single testing time. |
### Table B. Check off list for issuing $50 bookstore gift certificates

<table>
<thead>
<tr>
<th>Faculty Name:</th>
<th>Pia Wong</th>
<th>Margarita Berta Avia</th>
<th>Adrienne Lawson Thompson</th>
<th>Melanie Loo</th>
<th>Hui-Ju Huang</th>
<th>Ricky Gutierrez</th>
<th>Linda Martin</th>
<th>Larry Boles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ICT proposal</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>2. Lesson Study Plan</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>3. Faculty ICT test</td>
<td>Plan for M 11/13? 1:30-2:45</td>
<td>Plan for Yes T 11/7 9:00-10:15</td>
<td>Yes M 10/2 12-1:15</td>
<td>Yes T 11/7 2:00 pm</td>
<td>Yes Th 10/5 1:30-2:45</td>
<td>Yes Th 9/21 12-1:15</td>
<td>Yes 10/20</td>
<td>Yes 10/12</td>
</tr>
<tr>
<td>4. Class pre test</td>
<td>Tu 10/3 6:00-7:30</td>
<td>Th 10/12 9:00-10:15</td>
<td>Mon 10/2 12-1:15</td>
<td>N/A</td>
<td>Th 10/5 1:30-2:45</td>
<td>Th 9/21 12-1:15</td>
<td>N/A</td>
<td>Th 10/12 9:00-10:15</td>
</tr>
<tr>
<td>5. Class post test</td>
<td>M 11/13 1:30-2:45</td>
<td>T 11/7 9:00-10:15</td>
<td>M 11/13 12:00-1:15</td>
<td>N/A</td>
<td>T 11/7 1:30-2:45</td>
<td>T 12/19 12:45-2:45</td>
<td>N/A</td>
<td>Tu 12/19 8:30-10:00</td>
</tr>
<tr>
<td>6. Lesson standard</td>
<td>3.2.c 3.4.c Eval:bias</td>
<td>3.2.c 3.4.c Eval:bias</td>
<td>3.2.c 3.4.c Eval:bias</td>
<td>5.2.f Plagiarism</td>
<td>5.2.f Plagiarism</td>
<td>1.1.a,c,d Info: nature and extent 2 and 4 access info &amp; use effectively</td>
<td>3 eval and encorp</td>
<td></td>
</tr>
<tr>
<td>7. Lesson Plan Template</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>8. Lesson in electronic form</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>9. Lesson Assessment Results</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>10. 021 Syllabus</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>
B. First Year Outcomes

• The primary goal of collecting baseline data about CSUS freshman students has been achieved.

• The collaborative lesson design component of the project resulted in significant community building between faculty involved in the lesson study component. Reflective lesson planning and assessment fueled many hours of insightful and practical discussions of information literacy and technology skills.

• Four lesson plans addressing at least one performance indicators in each of the Information Literacy Standards 1, 2 3, 4 and 5 have been designed, tested, and assessed by Freshman Seminar Faculty. These lessons are posted on the website for other freshman program faculty to use.

• Awareness of the mismatch in content between the ACRL Information Literacy Standards/Performance indicators and the ETS iSkills core test.

• Awareness about the types of reports that can be generated by the ETS online service. Note: as the project was implemented several changes in the report format and parameters for report generating were changed, however the system still does not meet our project needs. The Co-PIs also had a phone conference with the ETS project manager for the iSkills test and discussed the limitations and potential of the iSkills test as a formative and summative assessment of information literacy at CSUS.

C. Plans for next year:

• Although iSkills baseline data has been collected for the general enrollment sections of freshman seminar, data has not been collected for the honors and Educational Opportunity (EOP) sections of Freshman Seminar. These sections will be targeted in year 2.

• A new set of performance indicators for the ACRL standards that are in better alignment with the iSkills test was distributed at a Spring 2007 meeting. The document titled “Higher Education ICT Literacy Assessment Fit with ACRL Standards” will be used to select lesson objectives for year 2.

• The biggest challenge in using the iSkills as a tool to improve student learning and curricular design is that the 7 dimensions of feedback given in the ETS report (define, access, evaluate, manage, integrate, create, and communicate) do not easily map onto the standards or the specific performance indicators. We will attempt to create this map for our faculty and perhaps focus on one dimension, ex evaluate, that is addressed in each of the 5 standards. With this focus we may be able to measure some change in iSkills score as a result of a specific lesson or curriculum.