

# Designing Assignments that Effectively Integrate Scholarly Inquiry

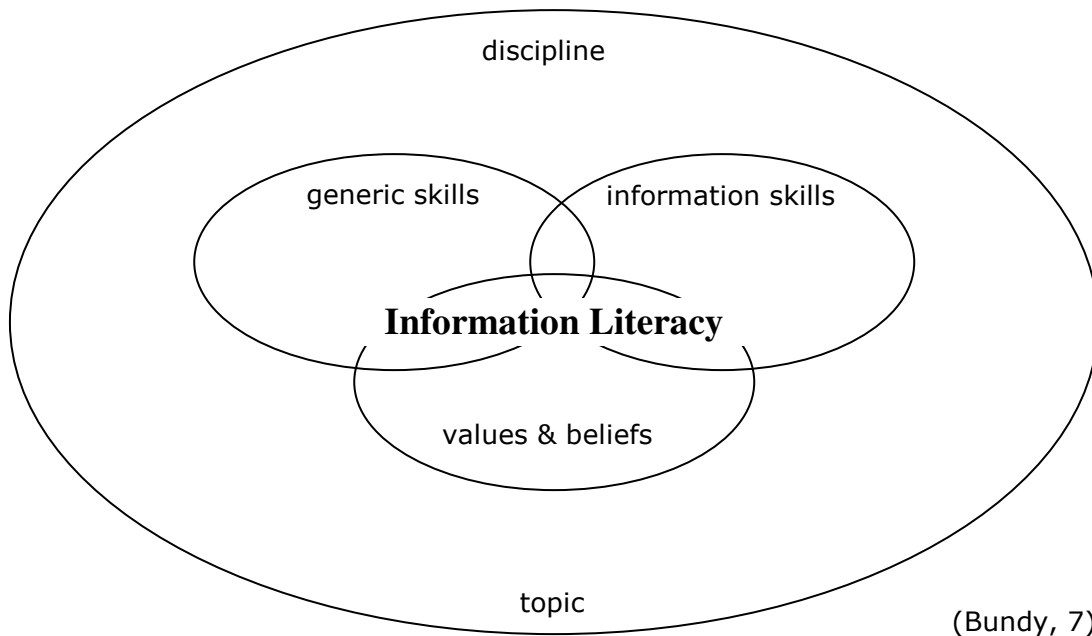
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## Context: Information Literacy

Information literacy forms the basis for lifelong learning. It is **common to all disciplines**, to all learning environments, and to all levels of education. It enables learners to **master content and extend their investigations**, become more self-directed, and assume greater control over their own learning. An information literate individual is able to:

- › determine the extent of information needed
- › access the needed information effectively and efficiently
- › evaluate information and its sources critically
- › incorporate selected information into one's knowledge base
- › use information effectively to accomplish a specific purpose
- › understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally (ACRL)



## Uncovering our Assumptions



⇒ Millennial and Net-Gen students are information seekers, not knowledge builders

From *Desperately Seeking Citations*: (Leckie)

A second year resource geography course gives the following research paper assignment:

Choose one of the following topics:

- Biodiversity;
- Ocean pollution;
- Transportation of hazardous wastes;
- Desertification; or
- The Tropical Rainforest.

In your paper, discuss:

1. The nature of the issue;
2. Its natural/biophysical aspects;
3. What has been done on the issue since 1980?
4. What is being done on the issue currently?

What assumptions is the instructor making about these students and scholars?

- students understand the requirements of the assignment
- through general introductory reading, they will gain a comprehensive grasp of a large topic, and will be able to focus on specific questions
- they understand the nature, purpose, and use of different information formats (e.g., dictionaries, encyclopedias, textbooks, newspapers, journal articles, books, government documents, the web)
- there are scholars around the world who have been working on this issue and who have left a readily accessible record of their research
- it's possible to find out who these scholars are
- it's important to find out who these scholars are
- students already have a scholarly information-seeking strategy, or at least will begin to develop one
- students are able to anticipate the knowledge that they will gain from information gathering
- students understand that there are multiple avenues for information retrieval, each requiring different strategies or knowledge of its peculiar search requirements
- students understand enough about the topic being explored to be able to move beyond a general subject search
- librarians are generally nice people who will be there to help students if they have problems with the assignment

### A Model Process for Designing Effective Assignments

#### Identify learning goals

- › Linked to course objectives
- › Demonstrate knowledge and skills



#### Identify tasks

- › Correspond to one or more specific, important learning goals
- › Adequately represent the skills (critical thinking, research, writing, etc.) you want students to develop
- › Use authentic, enduring real-world tasks or problems that students will view as meaningful and relevant
- › Use appropriate assignment framework (i.e., type of assignment) for defined tasks
- › Include opportunities for student decision-making



#### Develop clear directions

- › Provide overview: what you want them to do and why
- › Clearly state what student is to do
- › Identify the skills/knowledge you want to elicit
- › Write as directions, not questions
- › Provide models or examples if format is unfamiliar to students
- › Encourage high performance expectations



#### Develop assessment criteria

- › Linked to learning goals
- › State point value
- › Describe &/or demonstrate how assignment will be evaluated (rubric)
- › Establish deadline, optimal length
- › Does spelling/grammar count?



#### Plan learning interventions

- › Evaluate each assignment task for needed intervention
- › Determine who should provide intervention (you, librarian, writing centre, etc.)
- › Schedule intervention(s)

[Adapted from Suskie, 152-167]

### Five Dimensions of Higher Learning

Declarative Learning	learning <b>what</b>	facts & principles
Procedural Learning	learning <b>how</b>	skills & procedures
Conditional Learning	learning <b>when &amp; where</b>	application/s
Reflective Learning	learning <b>why</b>	understanding one's self & others
Metacognitive Learning	learning <b>how to learn</b>	directing & managing one's own learning

**Learning Interventions**

- Address a specific task or skill
- Are developmental in nature
- Are active (versus passive) learning opportunities

ANALYSIS	TRIANGULATION		INTERVENTION
Record learning goals	Establish benchmarks		Responsibility
Task or Learning Goal	Level of Proficiency	Acquisition Type	Provider

*Definitions*

**Proficiency Levels**

**E: Elementary**

Student requires a basic understanding of concepts and should be able to perform most of the relevant skills with little or no guidance

**P: Proficient**

Student must understand a number of specific concepts, would necessarily be able to demonstrate mastery of a broad range of specific skills, and should be able to apply them with no guidance

**A: Advanced**

Students exhibits a thorough understanding of an extensive array of complex concepts, understands the contexts within which they apply, and should be able to perform all relevant skills independently and at the highest level across a range of contexts

**Acquisition Types**

**D: Developmental**

Task-specific skills requiring direct and planned intervention

**C: Consequential**

Secondary-level skills learned as a result – or consequence – of direct and planned intervention

**A: Attitudinal**

Knowledge and concepts which underpin task-specific and secondary skills development that develop over time and with experience

[*Information literacy framework & syllabus*. (2004). Queensland University of Technology Library]

### **Alternatives to Essays, Term Papers, and Research Reports**

Depending on the objectives or learning outcomes for a course or assignment, the traditional essay, term paper or research report may not be the best option. Think about the formats used within the discourse of your own discipline – in your disciplinary journals or at your disciplinary meetings, do you find letters, debates, reviews, posters, oral papers, or other formats? Below is a list of suggestions, all of which can be designed to integrate the goals associated with more traditional academic assignments.

- › Abstract or executive summary
- › Advertisement or commercial
- › Analysis of a key publication in the discipline
- › Annotated bibliography
- › Autobiography or realistic fictional diary from a historical period
- › Briefing paper
- › Brochure or pamphlet
- › Campaign speech
- › Case study/analysis
- › Client report
- › Collaborative group activity
- › Comparison of discussions on the same topic written for different audiences (e.g., a scholarly journal and popular magazine), or the way in which two disciplines handle the same topic
- › Database
- › Debate or discussion (plan, participate, and/or lead)
- › Debriefing interview preparation
- › Dramatization of an event or scenario (written or oral)
- › Editing and revising a poorly written paper
- › Evaluation of opposing points of view
- › Experiment or other laboratory experience
- › Field notes
- › Game invention
- › Graph, chart, diagram, flowchart, or other visual aid
- › Graphic organizer, taxonomy, or classification scheme
- › Handbook or instruction manual
- › Identifying key issues or scholars in a discipline
- › Journal or log
- › Letter to an editor, business, or disciplinary journal
- › Model, simulation, or illustration
- › Narrative
- › News report on a concept or from a historical period
- › Oral history recording of an event
- › Plan for researching and solving a problem
- › Portfolio
- › Poster, display, or exhibit
- › Presentation, demonstration, or slide show
- › Process description
- › Proposal for and justification of a solution to a problem
- › Pros and cons of alternative solutions to a problem
- › Reflection on what and how one has learned
- › Review and critique of one's own work, or that of a peer, performance, exhibit, work of art, writer's arguments, or how something could have been done better
- › Selected portions of an essay or term paper (e.g., the problem statement or literature review)
- › Survey, including an analysis of the results

- Teaching a concept to a peer or child
- Video or audio recording
- Web site

[Adapted from Suskie, 154-155]

### **Effective Use of Library Resources**

Below are some suggestions for making the most effective use of library resources in assignments.

- Involve the liaison librarian for your department at all stages in planning your assignments.
- Design your assignment so that students are asked to find information and use it in a meaningful way, applying information not just retrieving facts, constructing meaning not just regurgitating it.
- Clearly define the task and identify any sources students should or should not use.
- Work through the assignment yourself, even if you're just revising an old assignment, making sure that the assignment does what you want it to and that the library has the resources you're requiring students to use.
- Give students a copy of the assignment, which, if you have very specific requirements, includes a list of resources you'd like them to consult. Also check to see if the library has already created a research aid for your subject area. These aids include commonly used reference materials, research databases, and World Wide Web resources.
- Put materials on reserve if many students will need to use the same resource (except for reference books, which do not circulate).
- Send a copy of your assignment to the liaison librarian for your department; we use these as a "heads up" for the librarians at our information desks.
- Give students enough time to complete the assignment successfully. Remind students that even under the best circumstances, research takes time.
- Encourage students to stop by the Information/Reference Desk or to schedule an individual research consultation (generally offered over several weeks each semester) if they need assistance.
- Contact the liaison librarian for your department if, in the course of your students' assignment, you need to clarify something with the librarians or if your students are experiencing a problem that we can solve.
- Use complete and accurate titles when referring to a particular resource. For example, don't tell your students to use Standard & Poor's since S&P publishes many well-known reference books – be more specific by asking them to use Standard and Poor's *Industry Surveys*.
- Make sure the library owns any sources that students are required to use.
- Avoid "scavenger hunts" or assignments that ask students to find answers to hard-to-answer trivia questions or use a specific resource to find a particular fact; students generally do not learn anything, because librarians usually end up giving students the answers.
- Avoid giving students a generic assignment out of a handbook or textbook, unless you've already tested it to make sure it works for our institution.

### *A Note about Internet and Web Sources*

At the reference desk, we often hear students say that they aren't allowed to use Internet or Web sources. At UCFV, we have made huge strides in increasing access to journal literature through the addition of many full-text, online article indexes and e-journal collections, most of which are not available in our print collection. There are also many very reputable sources on the Web. We encourage you to stress the difference between the resources the Library subscribes to and "free" Web and Internet Sources. Librarians are also willing to talk to you about strategies to encourage students to select reputable web sources.

[Adapted from *Effective Library Assignments*, Bowling Green State University Libraries, <http://www.bgsu.edu/colleges/library/infosrv/lue/effectiveassignments.html>]

### References & Recommended Reading

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## **A Checklist of Information Competencies for College Students**

This Checklist is a collaborative work by a team of California State University and California community college librarians. Together, we are developing a common understanding of the competencies students should master during their college years. The Checklist is intended to be a succinct list of essential competencies. We hope it will encourage collaboration among libraries serving two- and four-year institutions and also serve as a resource for planning and assessing information literacy programs.

### **Lower Division Students ⇒ Basic Information Resources and Search Strategies**

Ability to:

- › use signage, maps, and user guides to locate library collections and services
- › use the library's classification system to browse by subject and to locate an item by call number
- › develop a focused topic and strategies for obtaining needed information
- › gather background information in books and encyclopedic works
- › search by author, title, and keyword in library online catalog and locate relevant items
- › identify relevant keywords and controlled vocabulary terms for searching a topic
- › conduct a search in an interdisciplinary database (e.g., *Expanded Academic ASAP*) using Boolean operators, limit function, etc.
- › identify relevant subject databases, e.g., *PsycInfo* and execute a basic search
- › use database features to mark/save/print/email citations and link to fulltext
- › interpret catalog and database search results; link from subject headings to find additional resources
- › determine local availability of cited items and use interlibrary loan services as needed
- › match search tool to information need: academic library databases, search engines (e.g., *Google*), etc.
- › evaluate information gathered by such criteria as: relevance, authority, currency, peer review process
- › revise topic and/or strategy if search results are unsatisfactory
- › understand and differentiate between primary vs. secondary, popular vs. scholarly resources
- › summarize, organize, and synthesize information found
- › cite sources properly according to appropriate style guide
- › observe copyright guidelines; legally obtain, store, and use text and data
- › recognize the need for information for any purpose (academic, work, personal)

## Upper Division Students ⇔ Disciplinary Resources and Critical Evaluation

Ability to:

- › identify and use specialized reference sources in the major field, e.g., subject dictionaries
- › use special features of subject databases, e.g., chemical structure searching in *SciFinder Scholar*
- › select controlled vocabulary specific to the discipline
- › use appropriate subject-based style manuals and/or citation style formatting software
- › describe how research literature is generated and disseminated in the major subject
- › identify investigative methods in the major subject, e.g., fieldwork in anthropology
- › identify and use unique resources in the major subject, e.g., case studies (business) and datasets (geography)
- › observe guidelines and standards endorsed by the discipline/profession, e.g., human subjects research
- › use appropriate criteria to evaluate and select resources suitable for upper-division work, such as relevance, scope, authority, objectivity, and currency
- › perform cited reference searches in order to follow a research topic forward and backward in time
- › conduct a comprehensive literature review for papers/projects, including books, journal articles, dissertations, technical reports, non-print media, etc.
- › analyze a body of research literature, drawing conclusions and developing new insights
- › use research collections beyond the local library when needed (e.g., special libraries and archives)
- › apply ethical and legal principles to the use of information in all formats and contexts
- › apply acquired information and research skills in new situations and contexts

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Consultant: Ilene Rockman

Source Documents:

- › “Online Tutorials.” CSU Information Competence. 1999. <<http://www.lib.calpoly.edu/infocomp/modules>>
- › Information Literacy Competency Standards for Higher Education. Chicago: ACRL, 2000. <<http://www.ala.org/ala/acrl/acrlstandards/informationliteracycompetency.htm#stan>>
- › “Competencies For Each Year of Study.” Information Literacy: Program and Desired Outcomes. University of Connecticut Libraries, 2003. <<http://www.lib.uconn.edu/using/tutorials/instruction/infolitmain.htm>>

4/25/05

## Research Paper Grading Rubric

*For Research Component*

**Uses:**

1. To set performance expectations by distributing to students when a paper is assigned.
2. To grade the portion of a student's paper related to research and information use.

		<b>Beginning</b> <i>(0-12 points)</i>	<b>Proficient</b> <i>(13-16 points)</i>	<b>Advanced</b> <i>(17-20 points)</i>	<b>Score</b>
<b>I</b>	Determine the Extent of the Information Needed <i>(20 points)</i>	Student creates an unfocused or unmanageable research question. Student identifies few or no relevant information tools.	Student formulates a question that is focused and clear. Student identifies concepts related to the topic, and identifies some useful information tools to meet the information need.	Student formulates a research question that is focused, clear, and complete and identifies key concepts. Student identifies most or all relevant information tools in various potential formats.	
<b>II</b>	Access the Needed Information Effectively <i>(20 points)</i>	Student uses information tools poorly and gathers information that lacks relevance, quality, and balance.	Student executes an appropriate research strategy. Student solves problems by finding a variety of relevant information resources and evaluates search effectiveness.	Student implements a clear and focused research strategy, uses tools effectively, and finds information that directly fulfills the information need.	
<b>III</b>	Evaluate Information and its Sources Critically <i>(20 points)</i>	Student uses inadequate criteria to judge information quality. Student makes little effort to examine the information located for reliability.	Student examines information using criteria such as authority, credibility, relevance, timeliness, and accuracy, and makes good judgments about what to keep and what to discard.	Student compares and evaluates multiple and diverse sources and viewpoints according to specific criteria appropriate for the discipline.	
<b>IV</b>	Use Information Effectively to Accomplish a Specific Purpose <i>(20 points)</i>	Student shows little evidence of incorporating information into their knowledge base. Student uses information poorly to accomplish a specific purpose.	Student often uses appropriate information and evidence to support their claims and conclusions and to accomplish a specific purpose.	Student effectively synthesizes and integrates information from a variety of sources, draws appropriate conclusions, and clearly communicates ideas to others to accomplish a specific purpose.	
<b>V</b>	Use Information Ethically <i>(20 points)</i>	Student inadequately cites ideas and information of others.	Student cites ideas and information of others with few errors.	Student consistently and accurately cites ideas and information of others.	

2005. Adapted with permission from California State University ([http://www.calstate.edu/LS/1\\_rubric.doc](http://www.calstate.edu/LS/1_rubric.doc))



**Appendix C. Assignment Planning Worksheet**

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Course: \_\_\_\_\_

Semester:    **F**    **W**    **S**

Year: \_\_\_\_\_

**Assignment Learning Goals:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

<b>Task</b>	<b>Learning Goal</b>	<b>Level of Proficiency</b>	<b>Acquisition Type</b>	<b>Intervention</b>	<b>Resources Required</b>

**Assessment Plan:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

