

Final Report

Submitted by the Information Working Group of the General Education Advisory Committee

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Background

The Information Working Group was charged in Fall 2007 with crafting general education learning outcomes for UNLV students in the areas of critical thinking, information literacy, qualitative and quantitative reasoning, and research. After reviewing written feedback and video from the September 2007 UNLV General Education Retreat and the Association of College and Research Libraries (ACRL) *Information Literacy Competency Standards for Higher Education*, the group decided to focus on outcomes language that integrates critical thinking, information literacy, and quantitative and qualitative reasoning skills into a Research framework. The group agreed to look at outcomes developmentally; therefore, acquisition of skills in the early steps of the framework should aid students in learning higher-order skills that come later. In creating these outcomes, the group tried to strike a balance between making them general enough so that they can be adopted across the curriculum, yet specific enough that instructors will be able to integrate them into assignments and assess student learning.

Proposed UNLV General Education Information Learning Outcomes

- **Information literacy:** ability to recognize when information is needed and to locate, evaluate, and use effectively the needed information.
- **Critical Thinking:** ability to infer, recognize assumptions, deduce, interpret, analyze, and evaluate in context.
- **Quantitative/qualitative literacy:** ability to seek out quantitative/qualitative information, to analyze and critique it, and to use it in public, personal, and professional contexts.

In light of the above definitions, students who complete the General Education requirements at UNLV will demonstrate an ability to:

1) Define and articulate the need for information

Specific Outcomes:

- a) Formulate research questions
- b) Discern from questions the information need
- c) Consider ethical issues, if any, related to the research questions
- d) Explore and document general information sources to increase familiarity with the topic
- e) Define or modify questions to achieve a manageable focus
- f) Identify keywords, synonyms and related terms to guide the information search
- g) Develop a hypothesis or thesis statement

2) Access and collect the needed information

Specific Outcomes:

- a) Identify appropriate investigative methods
- b) Develop a research plan appropriate to the investigative method
- c) Perform a preliminary literature review
 - Select controlled vocabulary specific to the discipline or information retrieval source
 - Use appropriate search systems to retrieve information in a variety of formats

- Select among various technologies the most appropriate one for the task of extracting the needed information
- d) Create a system for organizing retrieved information
- e) Use various technologies to manage and organize the information selected
- f) Differentiate between the types of sources cited
- g) Record all pertinent citation information for future reference
- h) Use the appropriate elements and correct syntax of a citation for a wide range of resources

3) Use quantitative and qualitative reasoning

Specific Outcomes:

- a) Demonstrate knowledge of basic quantitative principles
- b) Demonstrate knowledge of basic statistical methods
- c) Use data and/or document analysis to test the hypothesis or research question
- d) Identify fallacious data, statistics, or arguments
- e) Apply discipline-appropriate quantitative and qualitative methods to problem solve
- f) Employ appropriate evidence-based and logical reasoning
 - Differentiate evidence and impressions in building arguments
 - Differentiate logical and emotion-based persuasive techniques

4) Analyze and evaluate gathered information

Specific Outcomes:

- a) Select data or information that most appropriately addresses the research question
- b) Analyze data or information based on appropriate criteria
- c) Articulate and apply discipline-specific criteria for evaluating both the information and its sources
- d) Summarize main ideas from the information gathered and paraphrase textual concepts
- e) Evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias of information used
- f) Construct and deconstruct arguments
- g) Analyze the structure and logic of supporting arguments or methods
- h) Recognize prejudice, deception, or manipulation
- i) Recognize the cultural, physical, or other context within which the information was created and identify the effects of context on interpreting the information
- j) Synthesize and summarize existing, relevant literature

5) Report findings and conclusions

Specific Outcomes:

- a) Synthesize main ideas to construct new concepts
- b) Compare new knowledge with prior knowledge to confirm, contradict, determine value added, or articulate other unique characteristics
- c) Identify interrelationships among concepts and combine them into potentially useful primary statements with supporting evidence
- d) Determine whether findings confirm or contradict
- e) Draw conclusions
- f) Apply new and prior information to the planning and creation of a particular product or performance
- g) Integrate the new and prior information, including quotations and paraphrases, in a manner that supports the purposes of the product or performance
- h) Select an appropriate documentation style and use consistently to cite sources
- i) Organize the content in a manner that supports the purposes and format of the product or performance
- j) Report conclusions and how they extend existing thinking

6) Place findings in perspective and identify areas for future research

Specific Outcomes:

- a) Identify limitations of findings
- b) Discuss ethical issues, if any, associated with findings
- c) Report other factors that deserve attention
- d) Demonstrate a willingness to reappraise position in the light of new evidence

Recommendations

The working group recommends the following actions:

- Vet the proposed outcomes across campus for widespread opportunities to create buy-in
- Draw on specific lessons of institutions that have undergone general education transformation (e.g., Washington State University -- an AAC&U “Promising Model” of General Education -- recently focused heavily on what we have considered “information skills” in its General Education Goals and Outcomes)
- Create alternative learning methods to implement these outcomes so that transfer students and others may fill in skills gaps retrospectively
- Offer faculty development opportunities to instructors, focusing on integrating and assessing these skills across content areas
- Encourage classroom instructors to utilize available resources to create learning opportunities and to assess students’ abilities to locate, evaluate, and effectively use information (e.g., collaborations between instructors and librarians)
- Consider using external exams or benchmarks along with traditional assessment strategies (e.g., ETS’s iSkills, a test that measures students’ ability to navigate, critically evaluate, and make sense of the wealth of information available through digital technology)