

English Composition Needs Assessment Report

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I. Introduction

In the spring of 2004, the USU Libraries engaged in a needs assessment to address workload and pedagogical issues that had arisen with library instruction for English composition classes. Several methods were used to determine the issues that needed to be addressed as USU Libraries embarked upon a curriculum re-design project for English composition library instruction.

II. Issues

Two main issues were identified at the beginning of the needs assessment process. First and foremost, library instruction did not seem to be meeting the needs of our current students. There was a gap between what librarians were teaching, and being asked to teach by English instructors, and what students actually needed. Instruction was focused on using tools such as article databases, but students had trouble with focusing a topic, selecting appropriate resources, evaluating information, and other high-order thinking skills. Furthermore, librarians and instructors tried to cover too much in one or two library sessions, contributing to confusion and overload. Finally, librarians had only a vague understanding of the learning goals of English instructors, making it difficult to develop more realistic and meaningful library instruction.

The second issue prompting the needs assessment was time and space. Librarians were being asked to teach more English classes each semester, partly because of an increased number of English 1010 and 2010 sections, and partly because of more instructors bringing classes in for more than one session. Yet fewer librarians were teaching these sessions because of a hiring freeze and changing assignments within the library. By 2002-2003, librarians were teaching, on average, two more 1010 sessions and more than twice as many 2010 sessions as they had taught in 1999-2000. See Table 1 for a summary.

	Librarians	Classes Taught	Average # English classes taught per librarian
Eng 1010			
1999/2000	13	111	8.5
2000/2001	13	107	8.2
2001/2002	14	153	10.9
2002/2003	10	130	10.8
Eng 2010			
1999/2000	13	88	6.7
2000/2001	14	108	7.7
2001/2002	14	140	10
2002/2003	12	149	14.9

Table 1: Library instruction statistics (compiled by Betty Dance)

In addition to workload issues, the increased demand for library instruction classes placed a burden on our classroom facilities. Librarians had a difficult time scheduling sessions for the dates requested by English instructors because we had only two classrooms to accommodate instruction. Furthermore, the SciTech classroom will eventually be unavailable because of library construction. Librarians needed to figure out a way to address the time and space issues before the situation became worse. A team was assembled to conduct a needs assessment and design a more standard curriculum to address these issues. Team members included: Betty Dance, Wendy Holliday, Judith Johnson, Daren Olson, Flora Shrode, Sandra Weingart, and Deleyne Wentz.

III. Questions

The following questions were identified as the most important for the needs assessment:

- What are the English instructors' learning outcomes for English 1010 and 2010, especially as they relate to information literacy? What are their priorities for learning outcomes in each class?
- How do the librarians define and prioritize information literacy learning outcomes?
- Where is the common ground between librarians and English instructors?

III. Methods

Literature Review

We conducted a literature review of undergraduate information behavior in order to determine whether our view of student behavior and needs matched our hunches and observations. We focused on research written in the last 3-5 years. The following summarizes our major findings or observations.

- Students use the World Wide Web for class assignments and papers, and few use the library as their primary source of information (Jones, 2002, OCLC, 2002, Whitmire, 2001). They perceive the web as a "one-stop shop," providing speed, easy access, and convenient printing and downloading (Armstrong et al., 2001).
- Students' bibliographies are longer and less scholarly when compared from 1996 to 2000. Students were citing as many scholarly works, but they were including additional non-scholarly material from the World Wide Web (Davis, 2003). Students' criteria for evaluation of web resources include whether they are based on a print source, a domain name with .gov, .edu, or .org, and clear ownership (Krajewski, 2002).
- Valentine found that students are motivated largely by grades and that they attempt to figure out what their instructors want in a research paper, focusing on the number of pages and types of sources. There was often a gap between the instructors' definitions of "good resources" and the students' ability and inclination to find them. Students tend to find information in a chaotic fashion, using the most familiar

resources, such as the Web, and focusing on speed and convenience (Valentine, 2001). Few students used advanced search features, and many used a single, broad term that would be unlikely to yield clear and specific results (Nowicki, 2003).

- Students have poor mental models of the search process, which limits their ability to search effectively. Macpherson notes that information processing involves two types of knowledge: declarative (facts, concepts) and procedural (routines and sequences for performing tasks). Macpherson suggests that librarians need to teach thinking skills, such as problem-solving and decision-making, rather than search skills alone, in order to build up their procedural knowledge at a deeper level (Macpherson, 2003).
- Whitmire has conducted several recent studies of undergraduate epistemological beliefs and their impact on information seeking behavior. She found that absolute thinkers (the most basic level of epistemological development) tended to select only those information sources consistent with their own views, selected the first hits, and did not use criteria to evaluate sources. In some cases, they asked authority figures to determine the quality of the sources they found. Transitional thinkers used some criteria to evaluate sources and welcomed conflicting information. Contextual thinkers were much more advanced in their evaluation of sources (Whitmire, 2004).
- Many traditional undergraduates are from the Millennial Generation, born after 1982. They like technology and are confident in their abilities to navigate the Web. They can often be overconfident in this regard and resist information literacy instruction (Brown et al., 2003). Manuel suggests that librarians need to be less critical of the Web and begin teaching our students with what they already know and do (Manuel, 2002).
- From preliminary results of a study conducted at USU by Holliday and Li, undergraduate students do not seem very persistent in their search for information. They do not spend much time thinking about their topic and developing a solid focus. They can easily find material somewhat related to their topic, so they often stop here instead of narrowing their focus and thinking critically about the information they find. They tend to search only the database that was demonstrated in library instruction, rather than looking at a wide range of information sources and seeking out the best resources for their particular topic and questions (Holliday and Li, 2004).

English 2010 Evaluations

In Fall 2003 and Spring 2004, several librarians asked their English 1010 and 2010 classes to complete an evaluative survey. The survey asked the following questions:

Question 1: What aspects of the library sessions ended up being most helpful to you?

Question 2: What additional instruction, if any, would have helped you in your research?

Question 3: Please describe (briefly) your research experience for this class letting me know the types of resources you used.

Question 4: What didn't work for you? Did you consult a librarian at any point?

Question 5: Can you make any suggestions for the improvement of future library research classes?

All of the surveys reflect the fact that students have much different skill levels. Some find the most basic instruction, such as a tour of the library, to be valuable, while others find it boring. Students were concerned about repetition with what they had learned in English 1010. When asked about additional instruction they would like, there was little consensus among students. Students did seem to appreciate instruction in how to track down physical items in the library and how to locate a print article from a citation. Most students seemed to like handouts to take with them.

Students liked working one-on-one with a librarian on their topic. They were less enthusiastic about the lectures, calling for more excitement and enthusiasm. Some liked group exercises and topic exploration in class. Others did not like the group exercises and wanted more time simply to find material on their topics. Students want instruction related to their individual topic, but this can be problematic. The only way to provide this is with individual attention, and it gives librarians little lead time to develop quality instruction of any depth. Students are very focused on the task at hand, finding sources for their papers. The one- or two-shot sessions encourages the expectation that students will be able to find their sources during the instruction session. A more staggered approach, with instruction integrated throughout the course, might address some of these concerns.

The surveys also noted that many students sought the help of a librarian and found that a useful endeavor. This confirms that face-to-face instruction is valuable, even if there is some debate about the utility of specific content.

Librarian Surveys

USU Reference Librarians completed a survey to determine which learning outcomes (based on the ACRL Information Literacy Competency Standards for Higher Education) should be taught in English 1010, English 2010, or whether they should be prerequisites or taught in other courses. Librarians were also asked to rate each learning goal for level of coverage (1=minimal; 2=partial; 3=complete). A follow-up discussion was held to clarify the results, and librarians reached a consensus on the ideal scope and sequence of learning goals.

In general, librarians thought that English 1010 students should be introduced to concepts and skills, such as how to identify different types of information and how to evaluate and use information. They should master skills such as defining their information need, searching effectively, and citing sources. The following summarizes the depth of coverage proposed for English 1010.

Partial Coverage in 1010:

- 1.2: Identify a variety of types and formats of potential sources for information.
- 1.3: Consider the costs and benefits of acquiring the needed information.
- 1.4: Reevaluate the nature and extent of the information needed.
- 2.1: Select the most appropriate investigative methods or information retrieval systems for accessing the needed information.
- 2.5: Extract, record, and manage the information and its sources.

- 3.2: Articulate and apply initial criteria for evaluating both the information and its sources.
- 3.3: Synthesize main ideas to construct new concepts.
- 3.4: Compare new knowledge with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information.
- 3.5: Determine whether the new knowledge has an impact on the individual's value system and take steps to reconcile differences.
- 3.6: Validate understanding and interpretation of the information through discourse with other individuals, subject-area experts, and/or practitioners.
- 4.1: Apply new and prior information to the planning and creation of a particular product or performance.
- 4.2: Revise the development process for the product or performance.
- 4.3: Communicate the product or performance effectively to others.
- 5.1: Understand many of the ethical, legal and socio-economic issues surrounding information and information technology.

Complete Coverage in English 1010:

- 1.1: Define and articulate the need for information.
- 2.2: Construct and implement effectively-designed search strategies.
- 2.3: Retrieve information online or in person using a variety of methods.
- 2.4: Refine the search strategy if necessary.
- 3.1: Summarize the main ideas to be extracted from the information gathered.
- 3.7: Determine whether the initial query should be revised.
- 5.2: Follow laws, regulations, institutional policies, and etiquette related to the access and use of information resources.
- 5.3: Acknowledge the use of information sources in communicating the product or performance.

Librarians thought that English 2010 students should review concepts and skills such as determining an information need, effective searching, and citing sources. They should also receive more instruction in information evaluation and use. Complete mastery of many of these skills, however, should be taught in discipline-specific courses in the major, which would build on the basic skills taught in English 1010 and 2010. Librarians wanted partial coverage of most of the 22 skills and concepts outlined in the survey. See Appendix A for a summary of the results.

Reference librarians were also asked to complete a survey about who should take responsibility for teaching and assessing information literacy skills (1=Librarians; 2=English instructors; 3=shared). There were 22 skills included in the survey, based the previous survey. Most librarians want primary responsibility for teaching skills under Standards 1 and 2, including:

- 1.2: Identify a variety of types and formats of potential sources for information.
- 1.3: Consider the costs and benefits of acquiring the needed information.
- 2.1: Select the most appropriate investigative methods or information retrieval systems for accessing the needed information.

- 2.2: Construct and implement effectively-designed search strategies.
- 2.3: Retrieve information online or in person using a variety of methods.
- 2.4: Refine the search strategy if necessary.

Most librarians thought English instructors should have primary responsibility for teaching the skills under Goals 3, 4, and 5.

- 3.1: Summarize the main ideas to be extracted from the information gathered.
- 3.3: Synthesize main ideas to construct new concepts.
- 3.5: Determine whether the new knowledge has an impact on the individual's value system and take steps to reconcile differences.
- 3.6: Validate understanding and interpretation of the information through discourse with other individuals, subject-area experts, and/or practitioners.
- 4.1: Apply new and prior information to the planning and creation of a particular product or performance.
- 4.2: Revise the development process for the product or performance.
- 4.3: Communicate the product or performance effectively to others.

However, librarians propose shared responsibility for teaching some skills under all goals, including the following:

- 1.1: Define and articulate the need for information.
- 1.4: Reevaluate the nature and extent of the information needed.
- 2.5: Extract, record, and manage the information and its sources.
- 3.2: Articulate and apply initial criteria for evaluating both the information and its sources.
- 3.7: Determine whether the initial query should be revised.
- 5.1: Understand many of the ethical, legal and socio-economic issues surrounding information and information technology.
- 5.2: Follow laws, regulations, institutional policies, and etiquette related to the access and use of information resources.
- 5.3: Acknowledge the use of information sources in communicating the product or performance.

In general, librarians wanted primary responsibility for skills related to identifying the best information sources and searching them effectively. They wanted to share responsibility for teaching how to determine and refine an information need, how to evaluate resources, and how to use information ethically. They felt that English instructors should have primary responsibility for teaching how to synthesize, apply, and use information. For complete survey results, see Appendix B.

English Instructor Survey

The next step was to survey English 1010 and 2010 instructors to determine their information literacy priorities. The librarians first simplified the wording of several of the ACRL Information Literacy Standards, focusing on 22 skills that were most relevant to the

English composition curriculum. See Appendix C for the list of simplified standards/outcomes. English instructors were asked to rate the level of need for students to learn the 22 information literacy skills. They rated skill importance using the scale below.

- 1=Very low need
- 2=Low need
- 3=Moderate need
- 4=High need
- 5=Very high need

Instructors were asked to rate the importance of these learning goals for both English 1010 and 2010. Consequently, one goal might be rated as more important to know in the 2010 course than in the 1010 course. Instructors were encouraged to rate the learning goals according to what they thought would be ideal, not what is being taught currently.

A web-based survey was sent to all of the English 1010 and 2010 instructors in April, including concurrent enrollment instructors at the local high schools (for a total of 64 surveys distributed). 24 surveys were submitted. One survey was submitted twice, so the second set of data was removed. Another survey included “not rated” ratings for each skill. This survey was also removed. A total of 22 surveys were analyzed. For every skill, instructor ratings were counted for each point on the scale (Very low to Very high). The number of “not rated” skills was also recorded.

The results suggest that approximately 80% of the instructors would rate all 22 skills as being of medium to very high importance in English 1010. There were very few “not rated” ratings for these 22 skills, with only 5 skills receiving any “not rated” ratings. Most skills received few low or very low ratings. In general, the instructors tended to rate skills in Goals 1 and 2 (determining an information need and accessing information effectively) as being more important than skills in Goals 3, 4, and 5 (evaluating information, using information, and using information ethically). The skills under Goal 4 received the lowest ratings in both English 1010 and 2010. See Figures 1 and 2.

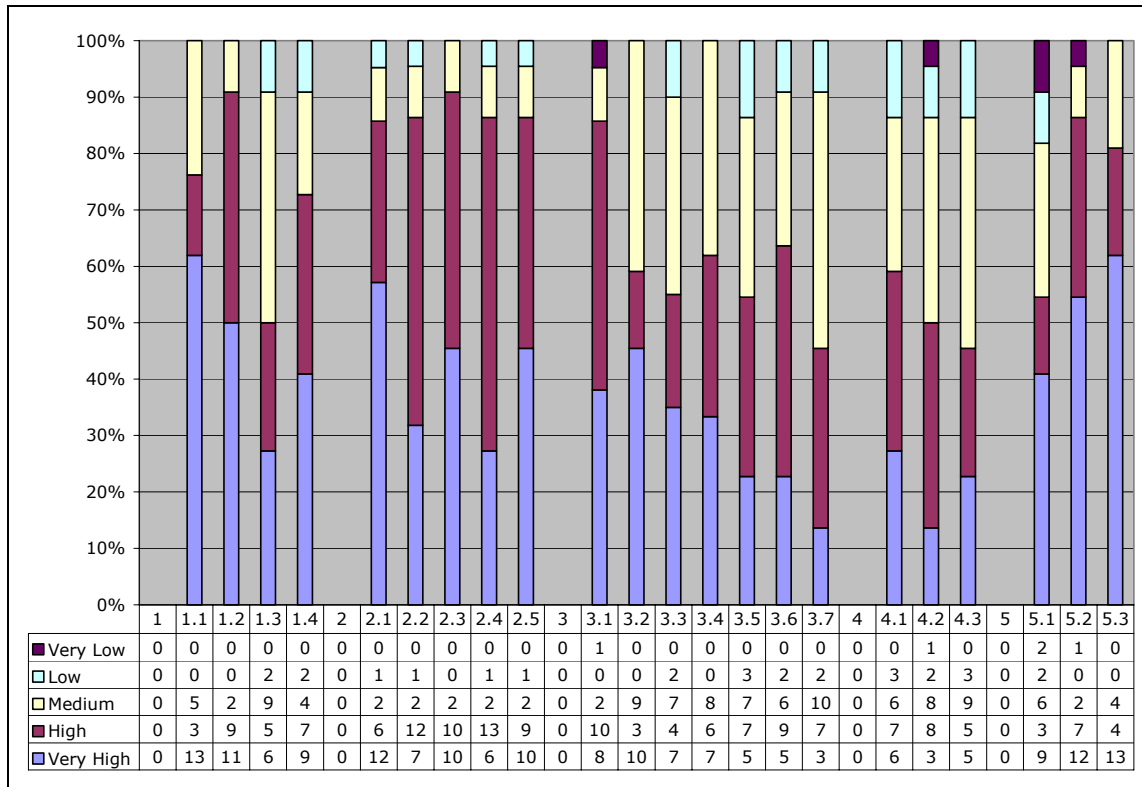


Figure 1: English 1010 ratings, with not rate dropped

For English 2010, approximately 50% of the instructors rated all 22 skills as being of medium to very high importance. It should be noted that the rating of “not rated” accounts for approximately 30% of the ratings for all 22 skills. All skills had between 6 and 8 “not rated” ratings. It is likely that some English 1010 instructors did not think they should rate skills for an English 2010 class they had not taught. Almost all of the “not rated” skills came from surveys in which all skills were rated for English 1010 but there were no ratings for any skills in English 2010. If the “not rated” ratings are dropped from the analysis, approximately 85% of the instructors rate the skills as being of medium to very high importance to English 2010 students. Only one skill (4.2) goes below that 85% level. In comparison to English 1010 ratings, there is an increase in the importance of skills under Goals 1, 3, and 4 in English 2010. See Figure 2.

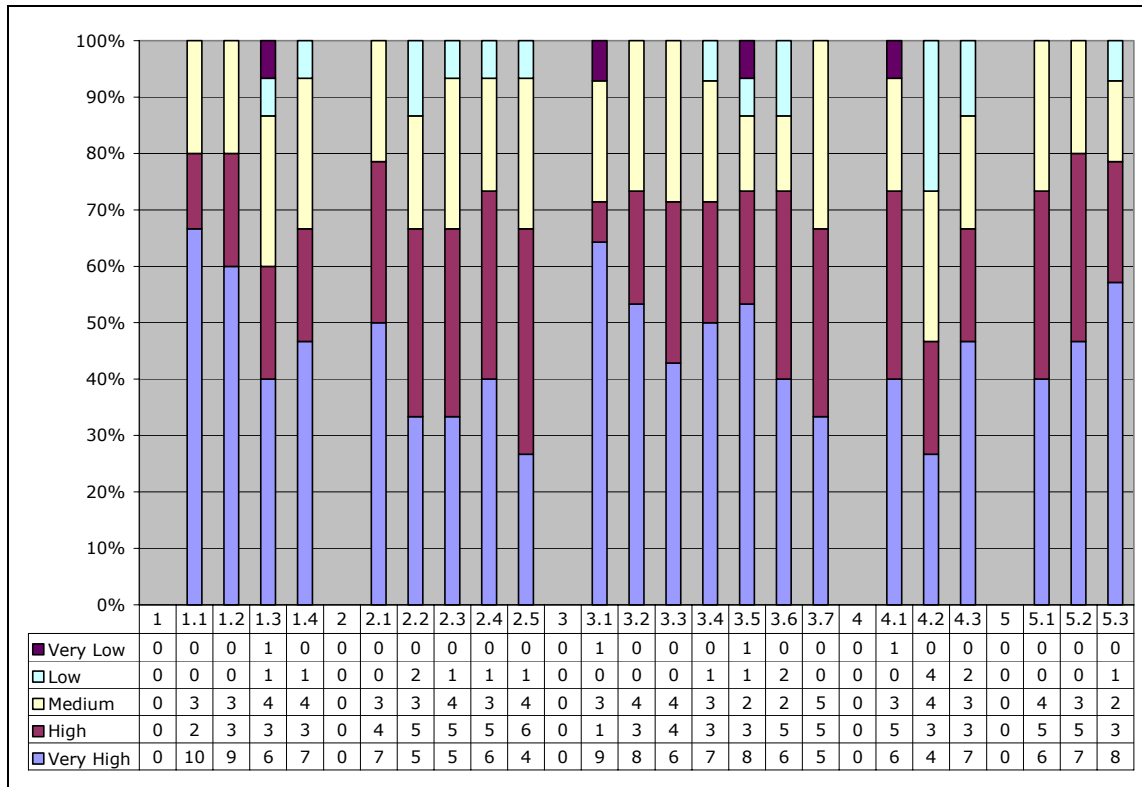


Figure 2: English 2010 ratings

In general, English instructors rated the following skills very high or high for English 1010:

- 1.1 Define and state the need for information.
- 1.2 Identify a variety of types and formats of potential sources for information.
- 1.4 Reevaluate the nature and extent of the information needed.

- 2.1 Select the most effective search tools for accessing the needed information by investigating the scope, content, and search features of various search systems or tools.
- 2.2 Construct and implement effective search strategies.
- 2.3 Locate and retrieve information sources, either physically or electronically.
- 2.4 Refine the search strategy as needed.
- 2.5 Record and manage the information found.

- 5.1 Understand legal, ethical, and economic issues.
- 5.2 Follow laws and university policies.
- 5.3 Acknowledge sources by choosing appropriate citation format and applying it consistently.

They rated the following as high or very high for English 2010:

- 1.1 Define and state the need for information.
- 1.2 Identify a variety of types and formats of potential sources for information.

- 2.1 Select the most effective search tools for accessing the needed information by investigating the scope, content, and search features of various search systems or tools.
- 2.2 Construct and implement effective search strategies.
- 2.3 Locate and retrieve information sources, either physically or electronically.
- 2.4 Refine the search strategy as needed.
- 2.5 Record and manage the information found.

- 3.1 Summarize main ideas.
- 3.2 State and use evaluation criteria.
- 3.4 Compare new knowledge with prior knowledge.
- 3.5 Determine impact of information on his/her value system.
- 3.6 Check understanding through discussion with others.
- 3.7 Determine whether question needs to be revised.

- 4.1 Apply new information to existing knowledge to plan and create a particular product (e.g. a paper, speech, performance, etc.).
- 4.3 Communicate the product or performance effectively to others.

- 5.2 Follow laws and university policies.
- 5.3 Acknowledge sources by choosing appropriate citation format and applying it consistently.

It seems that determining an information need, finding information effectively, and using information ethically (especially in citing sources) are priorities in both English 1010 and 2010. In English 2010, however, evaluating information sources for the credibility and appropriateness and using information for a specific product, such as a research paper, become increasingly important.

IV. Summary of Findings

When looking at the results of both the librarian and English instructor surveys, common themes and priorities begin to appear. These commonalities can be used to build information literacy instruction that better meets the needs of students in the sequencing of both courses. The commonalities also confirm recent trends in student behavior found in the literature and in course evaluations at USU. For a comparison of the survey results, see Appendix D.

Both librarians and English instructors place a high priority on Standards One (defining the nature and extent of the information need) and Two (accessing needed information effectively and efficiently). In the case of Standard One, librarians felt that students should have complete mastery of defining and articulating the need for information (outcome 1.1) by the end of English 1010. In English 1010, they should also be able to begin to identify various types of information formats and sources and they should start to re-evaluate the nature and extent of their information need after they have done some background reading. Instruction in English 2010 should build on these latter two skills, introducing students to a wider range of formats and getting them to reflect more deeply on their information needs.

English instructors rated all of the Standard One skills from High to Very High in English 1010 and Medium to Very High in English 2010, confirming the notion of introducing the skills

in 1010 and building on them in 2010. The ability to define and evaluate an information need involves critical thinking skills, and addresses one of the gaps found in the literature and needs assessment discussions among librarians: namely, students need to think more critically about their research questions, rather than simply finding five articles related to a general topic. As such, it is no surprise that librarians feel the responsibility to teach and assess these skills should be shared between librarians and English instructors.

For Standard Two (access needed information effectively and efficiently), English instructors rated all of the constituent skills high to very high. Librarians thought that English 1010 students should master the skills of constructing a search strategy, retrieving information physically or online, and refining the search strategy. In English 2010, students should review these skills and refine them in more sophisticated ways. There was also widespread agreement that this was the primary area of expertise of librarians and that they should be responsible for teaching and assessing these skills.

Standard Three relates to evaluating information. Students need to evaluate information for credibility and accuracy. They also need to evaluate whether the information answers their questions, changes their opinions, and is appropriate for their product or their assignment. For English 1010, instructors ranked these skills moderately, as did librarians. Students should be introduced to criteria for evaluation and begin to reflect on the information they find and how it relates to their existing knowledge. English instructors ranked these skills higher for 2010 students and librarians proposed that students refine these skills at this level. Librarians also thought that these were skills that should become more fully developed in the context of the student's major or discipline and upper-division courses. Librarians felt that the primary responsibility for teaching and assessing these skills should rest with English instructors, with some support for librarians in evaluating sources for appropriateness and credibility.

Standard Four (using information effectively to accomplish a specific purpose) was rated in a similar way. English 1010 students should begin to work on using information to plan and create a product, such as a paper or presentation. The emphasis, however, should be on more personal reflection and integration, rather than on more specific requirements or constraints, such as providing evidence for a particular argument. Students should build on these skills in English 2010 and in upper-division classes. The products in these upper-level classes, for example, would get more sophisticated, requiring a wider range of sources, greater synthesis and integration, and greater emphasis on evidentiary requirements and the perspectives of different disciplines or audiences. Primary responsibility to teach and assess this area should rest with the English instructors.

English instructors and librarians ranked Standard Five (using information ethically and legally) highly for both English courses, possibly reflecting growing concerns about plagiarism. By the end of English 1010, librarians felt that students should be able to follow laws, regulations, and institutional policies regarding the access and use of information sources. They should also be able to acknowledge those sources, using proper citation styles. In English 2010, students should review these skills and also be introduced to legal and socio-economic issues related to the production and dissemination of information (such as public access to information paid for by the government, or the concept of academic disciplines and the invisible college). Librarians felt that teaching and assessing these skills is a shared responsibility.

V. Proposal and Implementation Plan

An initial discussion with the English 1010 and 2010 coordinators confirmed many of the findings of the needs assessment. Students need more instruction in higher-level thinking skills, such as developing a focused topic, refining their information needs, and evaluating and synthesizing information sources. They also noted a concern that students come to the English courses with widely different research experience. Some need very basic library instruction, while others are bored because they have had the same instruction in more than one class. Thus, USU Libraries must develop a scope and sequence of curriculum that addresses these differing levels of student need.

The following outlines a tentative scope and sequence for English 1010 and 2010 classes. The details of specific learning outcomes, activities, and assessment need to be developed in conjunction with the English 1010 and 2010 coordinators. The following should be viewed as a working framework.

English 1010

The following can incorporate in-person instruction, both inside the library and in the regular classroom, and online tutorials for learning outcomes that are more conceptually based, such as plagiarism. Instruction should focus on a few select resources and tools, such as the reference collection, the online catalog, the Web, and general article databases, rather than more specific disciplinary tools at this stage. A conversational metaphor might be used to frame much of the instruction. For example, students can begin by incorporating one to two new voices into the conversation on their topic after having reflected on what they know and what they would like to know.

Standard 1: Define and state the need for information

Basic activities could involve using the reference collection and the Web to find background information to identify key concepts, different perspectives and opinions, and develop a better understanding of what they want to know about the topic.

Learning goals covered:

- Identify a research topic or information need
- Develop a research statement and formulate questions
- Consult general sources to identify background information
- Identify key concepts and terms that describe topic or information need
- Understand that information is produced and organized differently depending on the discipline
- Identify different audiences and purposes of information resources (scholarly versus popular; historical versus current)
- Review the initial research statement to see if it needs to be revised, clarified or focused
- Determine criteria to revise and clarify the research question

Students could also be introduced to a selection of information sources on the same topic or theme, representing different formats and perspectives. They could discuss what they learned and did not learn from these sources, and why some might be useful in different ways for different questions.

Learning goals covered:

- Recognize the varying types of formats of information sources
- Identify key concepts and terms that describe topic or information need
- Understand that information is produced and organized differently depending on the discipline
- Identify different audiences and purposes of information resources (scholarly versus popular; historical versus current)

Standard 2: Access needed information effectively and efficiently.

Basic activities could include simulating search tools using printed examples, or having students demonstrate the effectiveness of different terms and search techniques in different search tools, with a focus on the online catalog, the web, and a general article database

Learning goals covered:

- select the most effective search tools
- construct and implement an effective search strategy, including use of keywords, synonyms, specialized vocabularies, Boolean operators, limiters, etc.
- refine the search strategy as necessary

Also reinforces the following learning goals from Standard One:

- Identify key concepts and terms that describe topic or information need
- Understand that information is produced and organized differently depending on the discipline
- Identify different audiences and purposes of information resources (scholarly versus popular; historical versus current)

Students could also practice a real search in the online catalog and an article database and locate and/or download the actual source. Students would also need to record the relevant information for a citation and format the citation in MLA style.

Learning goals covered:

- locate and retrieve information sources either physically or electronically
- record and manage the information found

Also reinforces learning goals from Standard Five:

- acknowledge sources by choosing appropriate citation format

Standard 3: Evaluate sources and information in order to decide whether or not to use it or make it part of his/her value system.

Basic activities could include the use of reflective writing, such as a research journal, annotated bibliographies, concept mapping, or blogs to get students to reflect on the information they find

and how it changes their minds, introduces them to something new, or stimulates new questions. This activity could be designed in conjunction with the reference collection introduction or introduction to different resources on the same topic (see above). Group work could be incorporated to check personal understandings and see interrelationships.

Learning goals covered:

- summarize the main idea
- state and use evaluation criteria
- see interrelationship between ideas and combine and adapt ideas
- compare new knowledge with prior knowledge
- determine impact on value system
- check on understanding with others
- determine whether question needs to be revised

Standard 4: Use information effectively to accomplish specific purpose

Basic activities might include using the reflective writing mentioned above to think about the research process and create a final paper or product. Emphasis would be on keeping track of “what you know” and “what you would like to know” throughout the research process.

Learning goals covered:

- apply new knowledge to existing knowledge to plan and create a product
- apply knowledge and skills from prior experience
- integrate new and prior information in manner that supports purpose of final product
- revise development process for product and communicate the product effectively to others

Standard 5: Understands legal, ethical, and economic issues involved in finding and using information and behaves accordingly

Basic activities might include tutorials on plagiarism, copyright, and how to cite sources. Students could also do some reading on recent plagiarism scandals or view clips from “Shattered Glass” (a film about a New Republic reporter who made up information for stories). An annotated bibliography could be used to practice and demonstrate citing sources.

Learning goals covered:

- understand legal, ethical and economic issues
- follow laws and university policies
- acknowledge sources by choosing appropriate citation format

English 2010

In English 1010, students will be introduced to some basic elements of the research process, such as looking for background information on a topic, searching for information, and citing sources. They will have mastered these skills at different levels, and 2010 instruction should account for this. Possible solutions include using a pre-test of basic search concepts, such as selecting a database or Boolean operators, to determine who has mastered the skills and who hasn't. High-performing students could teach their fellow students, or the instruction could be based on an optional, extra-credit workshop option (e.g. “Home Depot” instruction, where you drop in for a

class on search strategies). Instruction should also become more sophisticated, building on basic skills through repetition that becomes increasingly advanced. For example, there might be more focus on specialized information sources, such as data or statistics. Students should also use more criteria to evaluate resources, such as disciplinary perspective, audience, or evidentiary qualities, to address the information needs of a much more specific writing product, such as a persuasive essay.

Standard 1: Define and state the need for information

Basic activities could include an assignment that requires students to review and use the reference collection, identify some disciplines that do research on their topic, identify some keywords in the language of that discipline, and develop a research plan to find information sources that will answer their research questions. A problem-based learning activity that requires them to take different roles or points of view could provide useful review and practice, especially if resources were more varied than in 1010. A scenario-based activity would require students to think more critically about the information needed for a specific purpose or role, rather than the more reflective approach in English 1010.

Learning goals covered:

- Identify a research topic or information need
- Develop a research statement and formulate questions
- Consult general sources to identify background information
- Identify key concepts and terms that describe topic or information need
- Understand that information is produced and organized differently depending on the discipline
- Identify different audiences and purposes of information resources (scholarly versus popular; historical versus current)
- Recognize the varying types of formats of information sources
- Review the initial research statement to see if it needs to be revised, clarified or focused
- Determine criteria to revise and clarify the research question
- Consider the costs and benefits of acquiring information

Standard 2: Access needed information effectively and efficiently

Basic activities could include self-help tools, such as online tutorials, and optional workshops to review basic search skills. Peer teaching could also be incorporated here.

Learning goals covered:

- select the most effective search tools
- construct and implement an effective search strategy, including use of keywords, synonyms, specialized vocabularies, Boolean operators, limiters, etc.
- locate and retrieve information sources either physically or electronically
- refine the search strategy as necessary
- record and manage the information found

Standard 3: Evaluate sources and information in order to decide whether or not to use it or make it part of his/her value system

Basic activities could include using the same problem-based learning activity to practice and expand on the skills learned in English 1010. Students could reflect on their own experience and opinions and compare them to the “role” they are playing in the scenario.

Learning goals covered:

- summarize the main idea
- state and use evaluation criteria
- see interrelationship between ideas and combine and adapt ideas compare new knowledge with prior knowledge
- determine impact on value system
- check on understanding with others
- determine whether question needs to be revised

Standard 4: Use information effectively to accomplish specific purpose

Basic activities could involve component assignments, such as annotated bibliographies, research plans, reflective writing, discussions, blogs, etc. to contribute to a final paper or product.

Students could also use the problem-based learning activity as a debate to practice skills of using information in final product that isn't a paper.

Learning goals covered:

- apply new knowledge to existing knowledge to plan and create a product
- apply knowledge and skills from prior experience
- integrate new and prior information in manner that supports purpose of final product
- revise development process for product and communicate the product effectively to others

Standard 5: Understands legal, ethical, and economic issues involved in finding and using information and behaves accordingly

Use refresher workshops, readings, and tutorials to review these concepts.

Learning goals covered:

- understand legal, ethical and economic issues
- follow laws and university policies
- acknowledge sources by choosing appropriate citation format

Implementation Plan

- Work with English 1010 and 2010 coordinators to review their learning goals and planned curriculum. Develop some shared learning goals by mapping their goals to the ones outlined above.
- Work with English 1010 and 2010 coordinators to group skills and concepts together, so that instruction can be designed to teach related concepts and skills at the same time. For example, defining an information need and evaluating resources could be incorporated into a problem-based learning activity. Learning basic search skills could reinforce the notion of specialized vocabularies and research tools by comparing search results across search systems.

- Develop a list of instructional options, including online and face-to-face activities to address each set of skills and concepts.
- Develop appropriate assessments.
- Develop a teacher's guide that outlines instruction and assessment options.
- Test and revise instruction in the summer and fall.

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Appendix A: Librarian Scope and Sequence Survey Results

Goal	1010	2010
1.1: Define and articulate the need for information.	Complete	Review
1.2: Identify a variety of types and formats of potential sources for information.	Partial	Partial
1.3: Consider the costs and benefits of acquiring the needed information.	Partial	Minimal
1.4: Reevaluate the nature and extent of the information needed.	Partial	Partial
2.1: Select the most appropriate investigative methods or information retrieval systems for accessing the needed information.	Partial	Minimal
2.2: Construct and implement effectively-designed search strategies.	Complete	Review
2.3: Retrieve information online or in person using a variety of methods.	Complete	Review
2.4: Refine the search strategy if necessary.	Complete	Review
2.5: Extract, record, and manage the information and its sources.	Partial	Partial
3.1: Summarize the main ideas to be extracted from the information gathered.	Complete	Review
3.2: Articulate and apply initial criteria for evaluating both the information and its sources.	Partial	Partial
3.3: Synthesize main ideas to construct new concepts.	Partial	Minimal
3.4: Compare new knowledge with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information.	Partial	Partial
3.5: Determine whether the new knowledge has an impact on the individual's value system and take steps to reconcile differences.	Partial	Minimal
3.6: Validate understanding and interpretation of the information through discourse with other individuals, subject-area experts, and/or practitioners.	Partial	Minimal
3.7: Determine whether the initial query should be revised.	Complete	Review
4.1: Apply new and prior information to the planning and creation of a particular product or performance.	Partial	Partial
4.2: Revise the development process for the product or performance.	Partial	Partial
4.3: Communicate the product or performance effectively to others.	Partial	Partial
5.1: Understand many of the ethical, legal and socio-economic issues surrounding information and information technology.	Partial	Partial
5.2: Follow laws, regulations, institutional policies, and etiquette related to the access and use of information resources.	Complete	Review
5.3: Acknowledge the use of information sources in communicating the product or performance.	Complete	Review

Appendix B: Teaching and assessment responsibility survey results

Survey

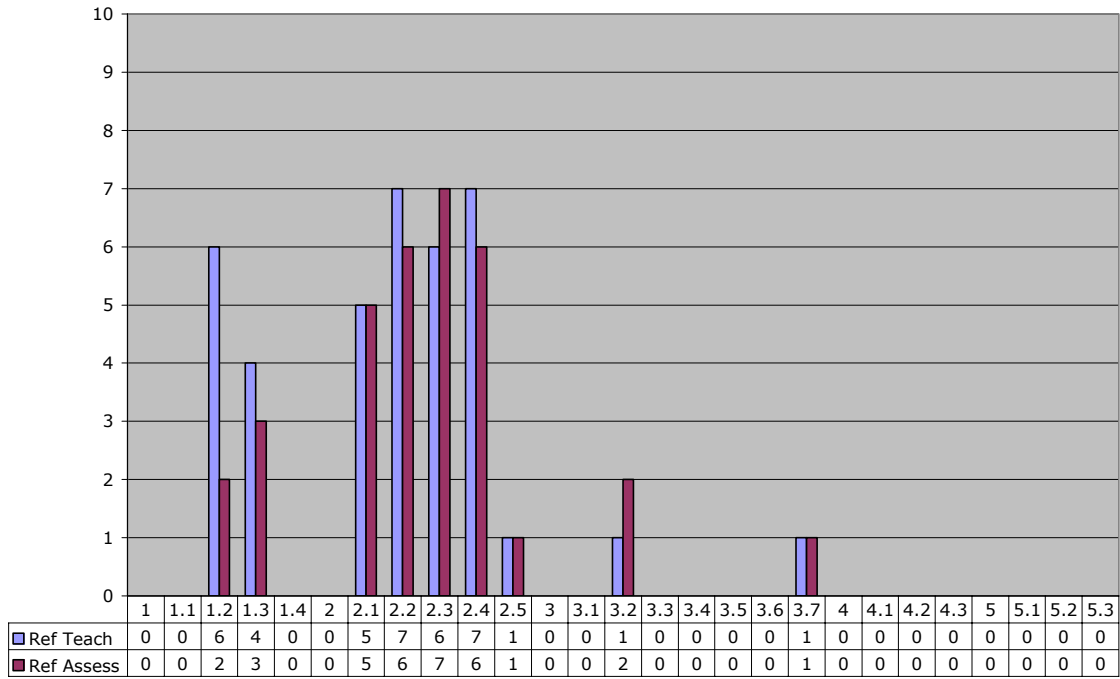
1=Reference librarians. 2=English instructors. 3=Shared.

Teach	Assess	Goal No.	Learning Goal
		1	Determine the nature and extent of the information needed.
		1.1	Define and articulate the need for information.
		1.2	Identify a variety of types and formats of potential sources for information.
		1.3	Consider the costs and benefits of acquiring the needed information.
		1.4	Reevaluate the nature and extent of the information needed.
		2	Access needed information effectively and efficiently.
		2.1	Select the most appropriate investigative methods or information retrieval systems for accessing the needed information.
		2.2	Construct and implement effectively-designed search strategies.
		2.3	Retrieve information online or in person using a variety of methods.
		2.4	Refine the search strategy if necessary.
		2.5	Extract, record, and manage the information and its sources.
		3	Evaluate information and its sources critically and incorporate selected information into your knowledge base and value system.
		3.1	Summarize the main ideas to be extracted from the information gathered.
		3.2	Articulate and apply initial criteria for evaluating both the information and its sources.
		3.3	Synthesize main ideas to construct new concepts.
		3.4	Compare new knowledge with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information.
		3.5	Determine whether the new knowledge has an impact on the individual's value system and take steps to reconcile differences.
		3.6	Validate understanding and interpretation of the information through discourse with other individuals, subject-area experts, and/or practitioners.
		3.7	Determine whether the initial query should be revised.
		4	Individually or as a member of a group, use information effectively to accomplish a specific purpose.
		4.1	Apply new and prior information to the planning and creation of a particular product or performance.
		4.2	Revise the development process for the product or performance.
		4.3	Communicate the product or performance effectively to others.
		5	Understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.
		5.1	Understand many of the ethical, legal and socio-economic issues surrounding information and information technology.
		5.2	Follow laws, regulations, institutional policies, and etiquette related to the access and use of information resources.
		5.3	Acknowledge the use of information sources in communicating the product or performance.

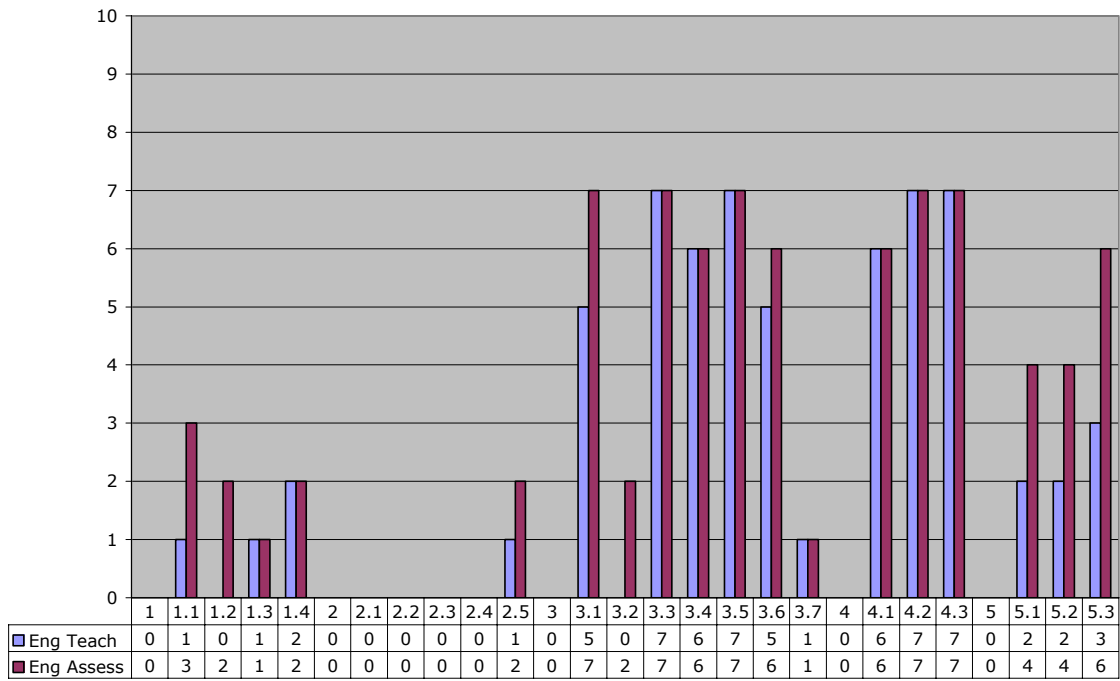
Survey Results

Goal Number	Ref Teach	Eng Teach	Shared Teach	Ref Assess	Eng Assess	Shared Assess
1	0	0	0	0	0	0
1.1	0	1	5	0	3	3
1.2	6	0	1	2	2	3
1.3	4	1	2	3	1	3
1.4	0	2	5	0	2	5
2	0	0	0	0	0	0
2.1	5	0	2	5	0	2
2.2	7	0	0	6	0	1
2.3	6	0	1	7	0	0
2.4	7	0	0	6	0	1
2.5	1	1	5	1	2	4
3	0	0	0	0	0	0
3.1	0	5	2	0	7	0
3.2	1	0	6	2	2	3
3.3	0	7	0	0	7	0
3.4	0	6	1	0	6	1
3.5	0	7	0	0	7	0
3.6	0	5	2	0	6	1
3.7	1	1	5	1	1	5
4	0	0	0	0	0	0
4.1	0	6	1	0	6	1
4.2	0	7	0	0	7	0
4.3	0	7	0	0	7	0
5	0	0	0	0	0	0
5.1	0	2	5	0	4	3
5.2	0	2	5	0	4	3
5.3	0	3	4	0	6	1

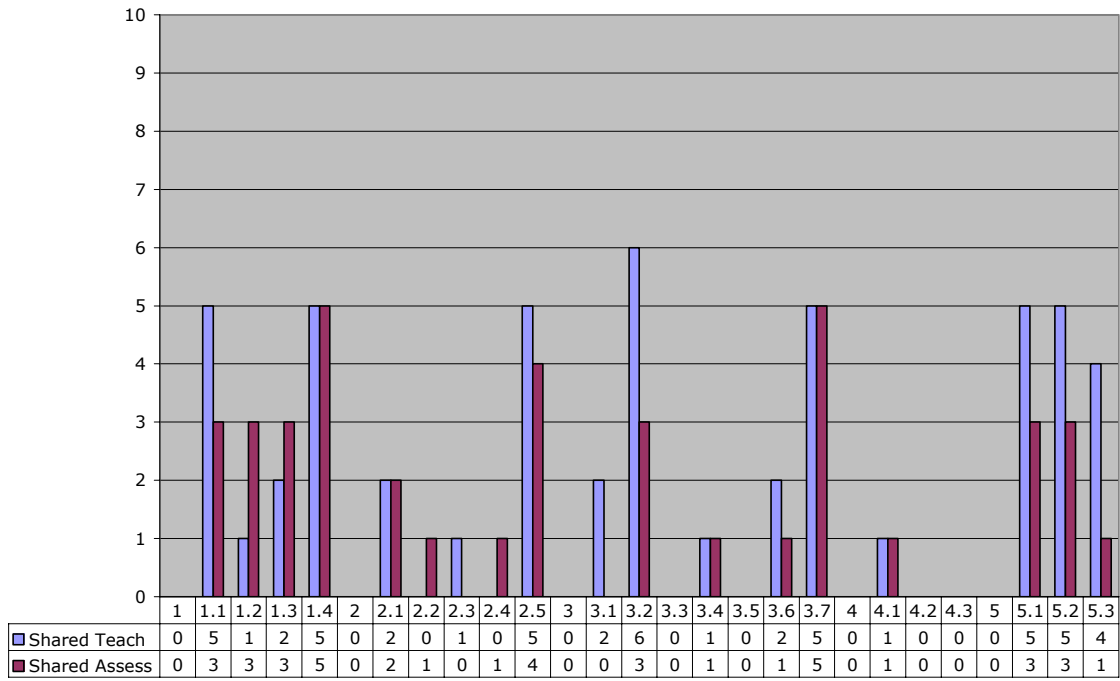
Reference Librarians



English Instructors



Shared: Reference & English



Appendix C: Simplified standards/learning outcomes

Goal 1: Determine the nature and extent of the information needed.

1.1 Define and state the need for information.

- Identify a research topic or information need by conferring with instructors or participating in class or electronic discussions.
- Develop a research statement and formulate questions.
- Consult general sources to find background information.
- Identify key concepts and terms that describe the topic or information need.

1.2. Identify a variety of types and formats of potential sources for information.

- Understand that information is produced and organized differently depending on the discipline (e.g. sciences versus the humanities).
- Identify different audiences and purposes of information resources (e.g. scholarly versus popular, current versus historical).
- Recognize the varying types of formats of information sources (databases; multimedia; web sites; books).

1.3. Consider the costs and benefits of acquiring needed information.

- Realize that not all materials are held by a library and can be borrowed from other libraries.
- Outline a realistic overall plan and timeline to retrieve the needed information.

1.4. Reevaluate the nature and extent of the information needed.

- Review the initial research statement and determine if it needs to be revised, clarified, or focused.
- Determine the criteria to revise or clarify the research statement.

Goal 2: Access needed information effectively and efficiently.

2.1. Select the most effective search tools for accessing the needed information by investigating the scope, content, and search features of various search systems or tools.

2.2 Construct and implement effective search strategies.

- Identify keywords, synonyms, related terms and any specialized vocabulary from the discipline or search tool.
- Construct search strategies using appropriate commands (e.g. Boolean operators, truncation, limit features, or the internal index of a book).
- Implement the search strategy in various search tools using different interfaces and search features.

2.3. Locate and retrieve information sources, either physically or electronically.

- Use library catalogs and call number systems to locate items within the library.
- Access electronic resources in a variety of online systems.

2.4. Refine the search strategy as needed.

- Assess the quantity, quality, and relevance of the search results to determine if the results address their questions or information need.
- Identify gaps in the information found.
- Revise the search strategy or select another search tool and repeat the search.

2.5. Record and manage the information found.

- Create a system of organizing the information, such as note cards, a search log, etc.
- Understand the correct elements of a citation for different types of sources.
- Record all the pertinent citation information for future use.

Goal 3: Evaluate sources and information in order to decide whether or not to use it or make it part of a personal knowledge base and value system.

3.1 Summarize main ideas.

- Select main ideas.
- Restate in own words.
- Quote appropriately.

3.2 State and use evaluation criteria.

- Compare sources and evaluate reliability, validity, accuracy, authority, and timeliness.
- Examine point of view and be alert to signs of bias and prejudice.

3.3 See interrelationships between ideas. Combine and adapt ideas.

3.4 Compare new knowledge with prior knowledge.

- Draw conclusions based on evidence from information sources.
- Integrate information.
- Determine if information need has been satisfied.

3.5 Determine impact of information on his/her value system.

- Investigate differing viewpoints.
- Decide whether to accept or reject viewpoints encountered.

3.6 Check understanding through discussion with others.

- Participate in classroom discussions in person or online.
- Seek expert opinion, for example, via interviews, e-mail, listservs, etc.

3.7 Determine whether question needs to be revised.

- Determine if information need was satisfied.
- Revise search strategy if necessary.
- Expand search in additional sources if necessary.

Goal 4: Individually or as a member of a group, use information effectively to accomplish a specific purpose.

4.1 Apply new information to existing knowledge to plan and create a particular product (e.g. a paper, speech, performance, etc.).

- Organize the content in a manner that supports the purposes and format of the product (e.g. outlines, logs, drafts).
- Apply knowledge and skills from prior experiences to plan and create the product.
- Integrate the new and prior information, including quotations and paraphrasing, in a manner that supports the purposes of the product.

4.2 Revise the development process for the product or performance.

- Maintain a journal or log of activities related to the information seeking, evaluating, and communicating process.
- Reflect on past successes, failures, and alternative strategies.

4.3 Communicate the product or performance effectively to others.

- Choose a communication medium and format that best supports the purposes of the product and intended audience.
- Incorporate principles of design and communication.
- Communicate clearly and with a style that supports the purpose and of the intended audience.

Goal 5: Understand that there are economic, legal and ethical issues involved in finding and using information and behave accordingly.

5.1 Understand legal, ethical, and economic issues.

- Privacy.
- Free vs. fee-based sources.
- Censorship and freedom of speech.
- Intellectual property, copyright, fair use.

5.2 Follow laws and university policies.

- Participate in electronic discussions in a courteous and responsible manner.
- Comply with laws and university policies regarding access to, and storage and distribution of information.
- Understand what constitutes plagiarism and do not commit it.

5.3 Acknowledge sources by choosing appropriate citation format and applying it consistently.

Appendix D: Comparison of Librarian and English Survey Results

Summary of Follow-Up Survey with Librarians and English Instructor Survey

1010 Learning Goals

Goal	Librarians	English Instructors	Responsibility
1. Determine the nature and extent of the information needed.			
1.1 Define and state the need for information.	Complete	Very High	Shared
1.2. Identify a variety of types and formats of potential sources for information.	Partial	High-Very High	Librarians
1.3. Consider the costs and benefits of acquiring needed information.	Partial	Medium	Librarians
1.4. Reevaluate the nature and extent of the information needed.	Partial	High-Very High	Shared
2. Access needed information effectively and efficiently.			
2.1. Select the most effective search tools for accessing the needed information by investigating the scope, content, and search features of various search systems or tools.	Partial	High-Very High	Librarians
2.2 Construct and implement effective search strategies.	Complete	High-Very High	Librarians
2.3. Locate and retrieve information sources, either physically or electronically.	Complete	High-Very High	Librarians
2.4. Refine the search strategy as needed.	Complete	Very High	Librarians
2.5. Record and manage the information found.	Partial	High-Very High	Shared
3. Evaluate information and its sources critically and incorporate selected information into your knowledge base and value system.			
3.1 Summarize main ideas.	Complete	High-Very High	English Instructors
3.2 State and use evaluation criteria.	Partial	Medium-Very High	Shared
3.3 See interrelationships between ideas. Combine and adapt ideas.	Partial	Medium-Very High	English Instructors
3.4 Compare new knowledge with prior knowledge.	Partial	Medium-Very High	English Instructors
3.5 Determine impact of information on his/her value system.	Partial	Medium-High	English Instructors

3.6 Check understanding through discussion with others.	Partial	Medium-High	English Instructors
3.7 Determine whether question needs to be revised.	Complete	Medium	Shared
4. Individually or as a member of a group, use information effectively to accomplish a specific purpose.			
4.1 Apply new information to existing knowledge to plan and create a particular product (e.g. a paper, speech, performance, etc.).	Partial	Medium-Very High	English Instructors
4.2 Revise the development process for the product or performance.	Partial	Medium-High	English Instructors
4.3 Communicate the product or performance effectively to others.	Partial	Medium	English Instructors
5. Understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.			
5.1 Understand legal, ethical, and economic issues.	Partial	Very High	Shared
5.2 Follow laws and university policies.	Complete	Very High	Shared
5.3 Acknowledge sources by choosing appropriate citation format and applying it consistently.	Complete	Very High	Shared

2010 Learning Goals

Goal	Librarians	English Instructors	Responsibility
1. Determine the nature and extent of the information needed.			
1.1 Define and state the need for information.	Partial	Very High	Shared
1.2. Identify a variety of types and formats of potential sources for information.	Partial	Very High	Librarians
1.3. Consider the costs and benefits of acquiring needed information.	None	Medium-Very High	Librarians
1.4. Reevaluate the nature and extent of the information needed.	Partial	Medium-Very High	Shared
2. Access needed information effectively and efficiently.			
2.1. Select the most effective search tools for accessing the needed information by investigating the scope, content, and search features of various search systems or tools.	Minimal	Very High	Librarians
2.2 Construct and implement effective search strategies.	Partial	High-Very High	Librarians
2.3. Locate and retrieve information sources, either physically or electronically.	Partial	High-Very High	Librarians
2.4. Refine the search strategy as needed.	Partial	High-Very High	Librarians
2.5. Record and manage the information found.	Partial	High	Shared
3. Evaluate information and its sources critically and incorporate selected information into your knowledge base and value system.			
3.1 Summarize main ideas.	Partial	Very High	English Instructors
3.2 State and use evaluation criteria.	Partial	Very High	Shared
3.3 See interrelationships between ideas. Combine and adapt ideas.	Minimal	Medium-Very High	English Instructors
3.4 Compare new knowledge with prior knowledge.	Partial	Very High	English Instructors
3.5 Determine impact of information on his/her value system.	Minimal	Very High	English Instructors
3.6 Check understanding through discussion with others.	Minimal	High-Very High	English Instructors
3.7 Determine whether question needs to be revised.	Partial	High	Shared

4. Individually or as a member of a group, use information effectively to accomplish a specific purpose.			
4.1 Apply new information to existing knowledge to plan and create a particular product (e.g. a paper, speech, performance, etc.).	Partial	High-Very High	English Instructors
4.2 Revise the development process for the product or performance.	Partial	Low-Very High	English Instructors
4.3 Communicate the product or performance effectively to others.	Partial	Very High	English Instructors
5. Understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.			
5.1 Understand legal, ethical, and economic issues.	Partial	Medium-Very High	Shared
5.2 Follow laws and university policies.	Partial	Very High	Shared
5.3 Acknowledge sources by choosing appropriate citation format and applying it consistently.	Complete	Very High	Shared