Information Literacy Objective 1, Topics 1-4

Overview of Information Literacy and Its Relevance to Research

Many student researchers experience both excitement and dread when they first consider a research project. They may feel this way because they may be unsure of the most effective approaches to gathering and using information. Each research project has a unique focus and therefore has unique challenges, which means there is no cookie cutter approach to designing a research project or finding adequate, reliable sources. Adding to the demands of the student researcher's tasks is the vast, complex, and varied world of sources accessed through college libraries and the Internet. Although these sources offer valuable specialized knowledge, student researchers can easily feel overwhelmed when searching for and evaluating these sources. The nature of conducting research and documenting the findings is intricate, but some strategies can make the process more manageable. This lesson on Objective 1 addresses the desired outcome of successfully determining the nature and extent of the information needed to answer a research question. Proficient information literacy skills help student researchers pursue and complete thorough, well-supported, and well-articulated research projects.

Research and writing are quintessential activities of the information literate person. Effective, efficient gathering and use of information is critical for success in one's personal and professional life. Information literacy is defined by Association of College & Research Libraries (ACRL) as the ability to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information." Brandman University defines information fluency as "the ability to identify, locate, evaluate, and effectively and responsibly use information for a given question or problem." As Michael Eisenberg notes, information literacy is also the ability "...to filter out information we don't need." In the information age, we are bombarded with large amounts of data of which we must make sense, so it is important to possess the critical thinking and technological skills needed for making informed decisions about the most relevant and reliable information for a research question.

This important skill set also reflects strong analytical, organizational, and technological skills; students also need to locate a range of sources through various information systems such as library catalogs, databases, Internet search engines, and digital archives. Activities that develop information literacy engage students in "…learning where to access quality and legitimate information sources, make informed decisions, complete projects, and develop a knowledge base that will support our academic and professional pursuits" (Brandman University). According to *The Information Literacy User's Guide* produced by the State University of New York, students

who are proficient in information literacy can do the following tasks: identify gaps in knowledge in a subject area; articulate a research topic/question and define it using simple terminology; discuss current knowledge on a topic; recognize a need for information to achieve a specific end; use background information to underpin the search; take personal responsibility for an information search; and manage time effectively to complete a search. All of these capabilities help one navigate the research process and evaluate the nature of sources.

Given the importance of responsible gathering and use of information in our information-centered society, researching and writing are the standard activities of the information literate person. Solid information literacy skills facilitate the key step of formulating a research question and pursuing a research plan to answer that research question. In this lesson you will learn about the features of an appropriate research question, the importance of a research question, strategies for articulating a research question, and how to develop an idea that grows out of a research question into a focused topic.

Overview of Objective 1

Objective 1 focuses on determining the nature and extent of the information needed to answer research questions. It involves evaluating the content and purpose as well as the different sources relevant to the research question. To work towards this objective, it is necessary to review four main points about research questions: **1)** what a research question is; **2)** why a research question is important; **3)** how to develop a research question; and **4)** how to move from a research question to a topic. These initial steps of the research process can be daunting; however, if a student spends time on these steps to develop a manageable research question, he or she will have a solid research project.

Topic 1: What is a Research Question?

A research question is a narrow, clear, and arguable question that guides your research. Think of a research question as a path that directs the research and writing process. It marks where you have come from as well your intended future direction in your efforts to learn about a topic. In an effective research project, the research question, hypothesis (or working thesis statement), the purpose of the research project, and the goals of the project are related. A research question helps a student researcher anticipate which kinds of relevant resources to explore, and it also influences how he/she evaluates and analyzes sources so that they support the thesis. In addition, a research question seeks a solution to a problem that you--as well as other scholars--think is valuable. For these reasons, research can be extremely rewarding as you contemplate and present

information that is personally meaningful. Research is not simply finding information; its true power is in the evaluation and application of the information.

Some researchers also call the research question the **problem** or **problem statement**. Such statements clearly explain the problem, and they keep researchers on track during the research process. Often a research problem reflects a lack of knowledge about the topic. In fact, researchers will identify gaps in a body of scholarship in order to develop a research question that will shed new light on the topic. This approach also ensures that a researcher is not duplicating existing research. Researchers engage in a **literature review**, which involves summarizing the current knowledge and findings in a field based on primary and secondary sources. A literature review is helpful for identifying gaps. Here is an example of a sentence describing a research topic and a brief acknowledgement of the related research gap:

> While there is a substantial amount of research about social interactions of younger dolphins in their original pod, few studies have explored the social interactions of older dolphins when they join a different pod.

Noting the gaps in research helps to develop the rationale and the focus of a research topic. Addressing the research gaps also builds on previous research by others. It shows how you will contribute to knowledge about a topic, so make sure you review the research pertaining to your topic as your formulate your research question.

A conscientious student researcher knows that a good research question may change throughout the research and writing process. Be prepared to refine your question as you proceed with your research, so you do not get boxed in to using a research question that might not yield a wide range of relevant resources. Many students constantly read over their research questions throughout the research and writing process to assess whether they are still on course or not. Many student researchers revise their questions as they go along in order to strive for fair and reliable research design and methodology. As a student researcher gathers more information, his/her expanding knowledge base shapes the research question. Consider the following example as an illustration of revising the research question as a result of evaluating and analyzing sources found in an initial search:

A student researcher named Betty started her research process with the following question: What are some dominant voting patterns among young adults? After she reviewed statistics on voting patterns and conducted interviews with young adults, she realized she needed to refine her research question so that it narrowed the focus. The initial research question was too broad and

vague, and as a result, she mainly found data that was too general. Betty then revised her research question based on her impressions from the initial review of sources (statistics and interviews). She noticed a significant pattern in the interviews and statistics: young adults expressed great concern about job opportunities and access to affordable health insurance. Therefore, she realized her sources revealed the research subjects (young adults) focused on specific political issues, and she decided to investigate the relation between voting patterns and the concerns about specific issues. Given this development in Betty's understanding of the topic, a possible example of Betty's revised research question would be the following question: What do the voting patterns of young adults reveal about the key political issues for this segment of the population? A potential secondary thesis statement would be: What is the relationship between the concerns of young people indicate about their perception of political candidates or parties? This example shows how developing a research question is a fluid process that is shaped by the student researcher's ongoing evaluation of information.

Just like Betty and many other student researchers, you most likely will find that you must refine your research question, especially after conducting some initial research. As you revise, make sure your question is open-ended versus closed; in other words, ask a question that will result in a thorough and elaborate response as opposed to a question that will elicit a "yes or no" minimal response.

Also eliminate any unnecessary jargon. It is productive to use some key terminology that is used in your field of study, but do not overdue it. Even though you are writing about a specific topic that will have implications for other researchers in your field or discipline, you also want to present your research question and related research in a way that makes this information accessible for individuals outside of your field. Also avoid any value-laden language that signals your personal values or assumptions. Such language interferes with an objective approach to gathering sources and answering the research question. Revising your research question does not mean starting over; it just means you have clarified the future path you are taking in your research endeavor. As you proceed with the research process, note when and why a source makes you rethink your research question.

Topic 2: Why Are Research Questions Important?

A research question guides the student researcher through the research process; it directs a line of argument and inquiry. A research question keeps a student researcher grounded in a specific focus on a topic, and it helps him/her avoid getting distracted by irrelevant or un-authoritative sources. In particular, a research question helps a student researcher avoid producing papers that are too broad and thus unfocused. They force a student researcher to avoid a narrow focus that

may hinder the research process. Instead, a research question helps a student writer focus in-depth on a topic and determine which sources are appropriate for answering the questions.

Ideally, a research question leads to logical research methodology and objective investigation. A successful research question is worded so that avoids bias and predetermined assumptions about the topic. For example, the following question reflects some bias: What are some reasons factory workers on the overnight shift make more errors than those workers who work the day shift? The way the question is written suggests the student researcher has already made assumptions about the factory workers who work the overnight shift. The research question suggests that factory workers on the overnight shift are not as accurate, but it disregards the possibility that more errors are made during the morning and afternoon shifts. If the researcher pursued this question as it is, he or she may only focus on research pertaining to overnight workers, instead of statistics and observational studies which might reveal the significant rate of mistakes on the part of day shift workers. Therefore, the research question led to flaws in collection and evaluation of sources. A better way to write the research question with the bias removed would be: During which shifts do factory workers tend to make the most errors, and what are some of the contributing factors? The revised research question seeks to understand the relational aspects of this workplace issue, and it also directs the researcher to use more appropriate sources that will present equal information on the three different shifts and error rates.

A research question also reflects the value of the topic for the student researcher as well as others. To assess the value of your research question in terms of how others might perceive it, think about the potential contribution of your project to the discipline or field of study. Is your research question addressing a timely need, or is it targeting a topic that is becoming obsolete? Did you use current social or theoretical concerns to inform the design of your research question? Will your question stimulate the interest of others? Did you present an existing problem to research in a refreshing new way?

The point of research is to gather and use information for a distinct purpose. A research question can enlighten inform, evaluate, critique, or classify. Some research questions have practical value for many; many research questions can potentially improve a process or condition. As Badke points out, “Information is not an end in itself, but a means to help solve a problem” (Badke p. 33). Research is not simply finding information; its power is in the evaluation and application of the information.

Topic 3: How to Develop a Research Question

A student researcher undergoes many stages while working towards a research question. Information science theorist and scholar Carol Kuhlthau coined the phrase "Six Stages of the Information Search Process." The six stages are involving task initiation, topic selection, prefocus exploration, focus formulation, information collection, and search closure. Each stage involves specific tasks, thoughts, feelings, actions, strategies, and moods. All stages are important for the development and answering of the research question. **Task initiation** represents the stage when a person initially realizes that he/she needs to acquire knowledge in order to complete a research project. During this stage, the researcher may also begin to craft a preliminary and exploratory research question. In the **Topic Selection** stage, the person identifies a general topic and decides on a tentative research methodology that will best address the research question. **Prefocus Exploration** involves reviewing sources that provide general information on the topic. Sources that provide a conventional understanding of the topic are more useful than specialized sources at this point in the process. The stage of **Focus Formulation** allows the researcher to sharpen his/her perspective on the topic based on insights gained during the previous stages. In the **Information Collection** stage, the researcher examines a wide array of sources obtained through diverse information systems (e.g., databases, Internet, librarians, experts, professors, etc.). At this point, the sources collected are more limited in focus. The **Search Closure** stage marks the final efforts to confirm which sources will be used.

Although these stages may seem distinct, you may find that you will weave back and forth between the stages at certain points in the research process. For example, you may be in the information collection stage, but a recent discovery forces you to engage in tasks associated with the prefocus exploration and focus exploration stages. Revisiting of a previous stage does not indicate moving backwards in the research process or stagnation; it actually is an expected aspect of the process. Rutherford, Hayden, and Pival characterize the stages of research as iterative: "One does not conduct research in a series of predetermined steps; rather, research involves looping back or returning to previous stages in the process as necessary to refocus a topic, search for missing information, or to verify new concepts discovered" (3). The recursive nature of research means that your understanding of the topic, as well as how it relates to your own experience and goals, will continuously evolve as your research question evolves. While some researchers feel they are not making progress given the non-linear progression of research, researchers do in fact make progress when they are looping back to previous stages. Evidence of progress may not be easy to recognize during the research process, but the depth and breadth of one's research will be apparent in how one eventually answers the research question.

Take inventory of your existing knowledge of your topic and gather background information. You can begin by assessing your existing knowledge of the topic as well as things you do not

know about the topic. According to Bobish and Jacobson in *The Information Literacy User's Guid*e, there are several important questions you can ponder to generate a research topic: What do you know about the topic? How do you know it? As you progress in your project, you also want to ask an additional question: How confident are you about the accuracy of your sources? *The Information Literacy User's Guide* also advocates using a "KWHL" chart in which the student researcher completes the chart below as he/she develops a research topic:

KWHL Chart

What do you already **KNOW** about your topic?	What do you **WANT** to know about your topic?	**HOW** will you find information on your topic?	What have you **LEARNED** about your topic?

The first three columns should be filled in early in the research process. The answers will help you identify your knowledge base, critical information you need to find out, and investigative methods and places to seek credible sources. After a preliminary review of the existing research on your topic, pay close attention to the answers you place in the last column. See what these new insights suggest about the future direction and need of your research project. Note what realizations surprise you and motivate you to explore further.

<u>Selecting a Topic</u>

Pick a topic that interests you. Choosing a personally meaningful topic or a solution to a problem will make the research process more valuable to you. You will care about it and stay inspired to research it! Select two or three subtopics within this larger topic that you would like to know more about. Also talk to fellow students, professors and friends about your research interests. As you express your interests and potential plans for research inquiry, they will ask you perceptive questions about the topic's background information and related past research. Write down their questions and comments as well as your answers; these insights will highlight some key concepts about the topic.

Once you have decided on a general topic, identify specific aspects of this topic. Make sure your topic is not too broad or narrow, so your searches will not result in limited amount of information. As Booth, Colomb and Williams believe, "A topic is usually too broad if you can state it in four or five words" (43). It is tricky to know when your research topic is too broad or

too narrow, but the words and phrases used to describe your topic can reveal if you have a manageable and adequate topic. Evaluate whether your description includes phrases that provide clear and specific details. For example, *themes in Greek drama* would be too large for a research topic, and the words do not specify unique aspects of the topic. However, the topic *analyzing themes of mortality and sacrifice in Greek drama* offers reasonable boundaries for further research, because it includes key words such as mortality and sacrifice which limits the wide world of themes to two. Here are some more examples of too broad and too narrow topics:

- Too broad: Discuss global solutions to water shortages
- Too narrow: Discuss one successful approach to the water shortage in Lake Mead, Arizona between the years 2005 and 2007

The first example covers such a vast range of topics that it would be difficult to refine the topic and find sources that offer specific information. The second example is so narrow that it will be challenging to find a sufficient amount of sources pertaining to this topic. An acceptable research topic that is neither too broad nor too narrow would be: Discuss the disadvantages of the current state government plans to address water shortage in Arizona. Of course, the size requirements and time constraints on a research assignment are directly related to the breadth of a topic. If you are writing a 300 page book, then it would be possible to cover global solutions to water shortages. If you have to submit a two page paper within a week, it would be reasonable to focus on one successful approach to the water shortage in Lake Mead, Arizona between the years 2005 and 2007.

Here is another set of examples that show a research topic that is too broad and one that is too narrow. *Examining literacy rates in the United States* would be too broad a topic, but *examining the factors impacting literacy acquisition for Los Angeles kindergarteners who speak several languages* would be too narrow. *Examining the effects of reading instruction on bilingual kindergarten students* would be a more reasonable research topic. In order to become more proficient at determining suitable parameters for a research topic, review sample topics found on college library websites and in textbooks on research skills.

Consider the following example of a student narrowing a topic and how a sharper focus makes the research process more manageable. An architecture student named Joe was interested in researching environmentally friendly building designs. Researching the specific kind of building design was too extensive for this research project, so he worked towards defining his research focus and question. Joe narrowed this wide topic of environmentally friendly building designs by limiting the kind of buildings he would research. Joe decided that he wanted to know how the

use of green technology in newly constructed homes contributed to a significant reduction in electric use. Joe used some additional key concepts such as newly constructed homes and the reduction of electric use. By doing so, he also identified a research problem that needs further examination. He also has identified a topic that has significant implications for his research and the research of many others.

Once you are firm about your choice of topic, you can start to work towards crafting an effectively written research question. Keep in mind that the topic and research question are not the same; a research question addresses a limited aspect of the topic. The next section will cover information that will help you move from identifying a potential research topic to formulating a research question.

Creating a Realistic Research Plan

It is also important to gauge the scope of the project. What is a manageable and productive research and writing plan given your time and resource constraints? How many sources does your professor expect you to discuss and cite in your research paper/project? Choose a topic that has ample and diverse sources of information about it. The sources should lead you to defensible conclusions about your topic.

What are the size or length requirements and the time deadlines? Estimate what you need to do in how much time in order to analyze your research sources and answer your research question in the most efficient manner possible. Having a reasonable work schedule is critical, and it may be helpful to plan certain stages leading up to the final deadline. For example, if you know you have three months to complete a research paper, aim to have a research question completed by the first two weeks, gathering and analysis of the sources by six weeks, and a full draft by the end of two months. Ideally, this plan will allow the student researcher a full month to revise the draft and search for new or additional sources as needed.

Determining Your Information Need

To determine your research question, identify your information need. What is the purpose of your research, and who is your intended audience? What kinds of sources do you think would be most useful and reliable? Where will you find the most recent sources? Consider whether you will be able to use background information to guide your search. As *The Information Literacy User's Guide* shows, an information literate person must be able to understand, know, and recognize new information and data is constantly processed; ideas and opportunities are created

by seeking information; the scale of the world of information and data; and developing a learning habit reflective of an information literate person.

Don't be surprised if you discover you need additional sources or completely different sources along the way. Anticipating this development in the process may seem frustrating, but accepting the need for a change of direction ultimately enhances your final product.

Let's consider the example of Joe the architecture student once again. He determined his information needs included data on electric use and expenses, scientific journal articles about the latest designs in green technology, and the function of green equipment in newly constructed homes. As he progresses further in the research process, he may realize he should focus on specific aspects of green home technology, such as lighting and powering of appliances. These key subtopics will help Joe to write a clear, concise, and doable research question.

Identify Gaps in the Existing Research

What does a literature review suggest about the current research needs regarding your topic? Try to determine whether there are any voids in the research. For example, if studies of the social behaviors of teenagers only focused on high school students in public schools, then there would be a need to research the social behavior of teenagers attending private schools. Identifying research needs also highlights the significance of your potential research topic. The ability to summarize specific research needs in an academic discussion or paper will convince your reader of the significance of your intended research question. As you start to review sources as part of your initial search, you may discover that other researchers have also indicated similar or related gaps in the research. Some studies mention key areas for future research in the final discussion of their research.

Use of Key Terms and Special Terminology

Defining **key terms** to facilitate your search is the next important step. One approach is to break down your topic down into a few main concepts and then list and/or define key terms related to those concepts. For example, if your topic deals with the relationship between overfishing of the Mexican Gulf and meeting the demand for fish consumption, the following key terms may apply:

Gulf of Mexico --commercial fishing -- wildlife regulations-- consumption

breeding habits-- overfishing --economy--fish identification --environmental concerns

When listing the key terms or concepts of your topic, think of synonyms for these terms. You may find that additional key terms can be utilized to find additional related material. For example, a student may start the research process on the effects of boa constrictors in the

Everglades. A search using the word biodiversity might result in thousands of sources, while the key phrase "invasive species" may result in only a few hundred sources. Identifying key terms will facilitate your search. You should also anticipate that different databases may organize their data according to different key phrases. Use a small variety of search terms related to the same topic (for example, dog and canine) in order to cull as many sources as possible.

Also consider special terminology of a specific field and the expected research methods of certain disciplines. For example, if you are writing a sociology paper on the experiences of immigrants adjusting to life in the United States, you might use the terms such as *assimilation*, *dominant culture*, and *institutionalized means* to articulate your research question. If you are writing a history paper discussing royalty in 17th century England, you might use the terms *absolute monarchy* and *divine right.* Specialized terminology also makes very useful search terms and phrases when conducting database searches.

Formulating a Research Question:

Now that you have given thought to your research topic, its value and purpose, it is time to formulate a research question that will direct the research process. Be prepared to refine your question as you proceed with your research. As mentioned above in the Selecting Your Topic section, the research process is iterative and involves revisiting previous stages.

Depending on your research goal, your research question will reflect a specific focus and purpose. University of North Carolina's mass communications professor Anthony Curtis classifies research questions into three main categories: descriptive (when a study aims to describe what exists or is happening), relational (examining the relationship between two or more variables), and causal (a study designed to determine whether one or more variables affect an outcome). The wording of your research question will reflect one of these main categories. For example, if your research topic is determining the effectiveness of mandatory study hall time for college athletes, most likely your research question will examine the causal relationships between mandatory study hall and the athletes' academic performance. An example of an appropriate research question would be: What are some key factors of mandatory study halls that contribute to student athletes' higher grade point averages?

It is important to determine if your research question is too elementary or too advanced. If it is too elementary, your audience may not be convinced of your viewpoint. If it is too advanced, your audience may feel patronized and alienated. Strike a balance between these two extremes so that your research question is clear, sophisticated, and arguable.

Several Exercises for Formulating a Research Question

The Information Literacy User's Guide offers a helpful exercise entitled "Research Question/ Thesis Statement/Search Terms." Following these steps will help you target your research focus and compose a carefully worded research question. You may also identify some initial search terms that will be useful in starting your search.

1. Write down a current research question you are investigating.
2. Then write your proposed answer to your question.

Think of this answer as a draft of your thesis statement which you will attempt to support with your research. You may also think of it as the first draft of a hypothesis that you will go on to test experimentally. The statement should be based on your current understanding of your topic and what you expect or hope to find is the answer to the question you asked. It most likely will change as you progress with your research.

3. Look at your question and your thesis statement/hypothesis, and make a list of the terms common to both lists (excluding "the", "and", "a", etc.). These common terms are likely the important concepts that you will need to research to support your thesis/hypothesis. They may be the most useful search terms overall or they may only be a starting point.

For example, if your research question focuses on the relationship between Korean and Japanese marriage ceremonies, and your thesis statement claims that the differences in the two cultures' marriage ceremonies indicate distinct sets of values, some common terms may be vows, wedding apparel, traditions, and family roles in the ceremony. These terms may help you get a strong start in finding helpful sources.

It is possible that the terms from your question and thesis/hypothesis may not overlap; in this case, you might assess whether or not your research question is answered by your working thesis statement or tentative hypothesis. If you think the thesis statement or hypothesis does not answer the research question, start to revise your research question ("The Information Literacy User's Guide").

Determine whether your research question really asks on what you are trying to learn. Evaluate whether your proposed answer directly addresses the research question. Do not be afraid to revise either your question and/or your answer. You might discover an aspect of the topic that really seems important to you that your initial research question and proposed answer did not highlight. Revision is an integral component of the research and writing processes.

Other Exercises for Formulating a Research Question

Another helpful exercise is to focus on a "formula" that goes into creating a research question. Booth, Colomb and Williams offer a useful template for writing an effective research question in their book *The Craft of Research*.

First, they suggest writing a sentence that indicates the focus of your potential research topic. This sentence essentially names the topic. They suggest completing the following sentence:

1. I am trying to learn about (working on, studying) _____. (46)

Example: I am trying to learn about meditation practices

Second, add an indirect question that specifies something that you do not know or understand about your topic but want to know.

2. because I want to find out who/what/when/where/whether/why/how _____.

Example: because I want to find out effective methods for managing stress

Finally, add a clause that suggests why this topic might be important for others and not just you.

3. in order to help my reader understand better _____.

Example: the reasons and benefits for many people who suffer from anxiety

Making the first statement will clarify your research focus. As Booth, Colomb and Williams point out, "When you add that because I want to find out *who/what/when/where/whether/why/how clause*, you state why you are pursuing your topic: to answer a question important to you" (48). This point suggests the second sentence clarifies the purpose of your research topic. Answering the third question will develop your rationale and articulate the value of your research question.

Use this formula to focus your topic. Booth, Colomb and Williams (48) also describe these three parts as:

1. what you are writing about

2. what you do not know about

3. what you want your reader to know and care about

Hopefully the points made in this section will help you understand the qualities of precise and plausible research questions. Use the exercises in this section to formulate your research question, and keep in mind that you most likely will revise the question at least once during the research process.

Topic 4: Moving from the Research Question to the Topic

Once you have identified your research need and gaps in existing research, you can explore which sources would be most useful for informing your understanding of the topic. As Booth, Colomb and Williams suggest, ask yourself what evidence do your readers expect you to offer in support of your research question? For example, do they expect you to present, analyze, and evaluate research reports, authoritative Web resources, firsthand anecdotal information, and quantitative data? Where might be good places to fund such sources? What have others prior to your research highlighted about the topic, and how will your work build on their research findings? Is there a sufficient amount of data on which to base your research project? Thinking about these questions will facilitate your transition into the stage of careful gathering and evaluation of research sources.

Where to Look for Sources:

Start to identify suitable places to find sources. Some good places to start include common resources such as subject specific dictionaries, encyclopedias, handbooks, textbooks, and authoritative web sites. Print and electronic sources available through your college library should also be searched throughout the entire research process. These sources have some key advantages: they are cataloged and indexed so they are convenient to retrieve, and they contain reliable information having been reviewed by publishers. Talking to classmates, professors, and reference librarians may also highlight relevant background information. Exploring sources that represent different viewpoints will inform your perspective on the topic. As you become more clear about your research direction, review sources such as professional publications, professional online forums, scholarly publications, government data collections, trusted non-profit organization reports, and leading professionals and researchers in your field. Advanced

search strategies can be used to more adeptly and efficiently navigate the vast amount of information available.

Identifying a Hypothesis or Working Thesis Statement

As suggested in the *The Information Literacy User's Guide*, focus on developing a tentative thesis statement after you have refined your research question. This statement should clearly state the main idea or concept of an essay. It should focus on one main idea or concept, reflect a clear stance on the issue, and be written so that it appears relevant and important for your audience. It may also be helpful to helpful to divide your thesis statement into two parts. For example, state the main topic (Answer the "What?" question) and comment ("What about the topic?"). These two questions will make the focus and purpose clear. Just as you will revise your research questions, be prepared to revise the thesis statement as your paper develops.

Examples of Thesis Statements:

- The increasing rates of childhood obesity may result in increased health insurance premiums.
- As a result of rapidly rising tuition fees, many college students are attending college on a part-time rather than a full time basis.

These thesis statements are broad enough to allow a student researcher to find relevant sources, yet they are not so narrow that they would result in a limited amount and quality of sources.

Review of Objective 1 and Looking Ahead to Objective 2

In this section, you have learned about the importance of information literacy in the research and writing process. This section also provided an overview of Objective 1, in which you reviewed points that help a research determine the nature and extent of the information needed to answer the research question. Some key ideas pertaining to this objective included the definition of a research question, why a question is important, how to develop a research question, and how to move from a research question to a topic.

Now that you have completed the lesson on Objective 1, you are ready to consider the processes of how to locate, evaluate, and cite sources addressed in Objective 2. This objective will also explain how to utilize appropriate research tools. While Objective 1 briefly discussed some points to consider for locating and evaluating sources, Objective 2 goes into greater detail about these topics. As you proceed through the material, you may realize how and why a student

researcher loops back to the research question formulation stage at certain points in the gathering of sources stage. This section also points out some tips to use as you proceed in your research project, such as forming a working thesis statement and hypothesis, the range of sources you should consider, and initial steps in searching for sources.

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