

## Course Learning Outcomes for Unit I

Upon completion of this unit, students should be able to:

1. Discuss how research-based decision-making can directly affect organizational practices.
  - 1.1 Develop a literature review that includes specific examples of how research-based decision-making has made a positive organizational impact.
3. Compare and contrast the differences between qualitative and quantitative research methodologies.
  - 3.1 Differentiate between research methodologies.
5. Examine the advantages and disadvantages of collecting primary and secondary data.
  - 5.1 Research both primary and secondary sources of data.

| Course/Unit Learning Outcomes | Learning Activity                                                                                                                                |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1                           | Unit Lesson<br>Chapter 2<br>Video: <i>Literature Reviews: Common Errors Made When Conducting a Literature Review</i><br>Unit I Literature Review |
| 3.1                           | Unit Lesson<br>Chapter 1<br>Chapter 4<br>Unit I Literature Review                                                                                |
| 5.1                           | Unit Lesson<br>Video: <i>Primary, Secondary, and Tertiary Sources: Home</i><br>Unit I Literature Review                                          |

## Reading Assignment

**Chapter 1:** The Selection of a Research Approach, pp. 3–8, 11–14, 16–20

**Chapter 2:** Review of the Literature, pp. 25–34, 36–39, 44–45

**Chapter 4:** Writing Strategies and Ethical Considerations, pp. 77–88

*In order to access the following resources, click the links below:*

Center for Research Quality. (2015, January 23). *Literature reviews: Common errors made when conducting a literature review* [Video file]. Retrieved from <https://www.youtube.com/watch?v=NiDHor3NHRA>

Click [here](#) for a transcript of the video.

Columbia Southern University. (2018, May 2). *Primary, secondary, and tertiary sources* [Video file]. Retrieved from <http://libguides.columbiasouthern.edu/primarysecondarytertiary>

Click [here](#) for a transcript of the video.

## Unit Lesson

### Welcome

Welcome to the course! We will be using evidence and data to enhance business decision-making. The purpose of conducting business research is, at its core, to improve firm performance and to reduce risk. The research process is intended to answer a question, solve a problem, or remedy a management problem. The purpose of this lesson is to lay the foundation for research methods, which the remainder of the course will be built upon.

### Evidence-Based Management

When thinking about how decisions are made within organizations, what comes to mind? Often, business professionals and managers place trust in the wisdom and experience of corporate leadership teams, betting that their decisions based on experiences, intuition, conventional wisdom, and anecdotal evidence will be successful (Pfeffer & Sutton, 2006). Rarely is a thorough and methodological analysis of the facts conducted, as would be done if the decision pertained to one's own personal health or financial situation. Given the fact that there is often a lot at stake in business decisions (e.g., revenue, profit, costs, jobs, reputation, etc.), evidence-based management should routinely be used to make those decisions. The following passages explain evidence-based management (EBM) and how it relates to business research.

Accepting scientific inquiry as integral to business decision-making allows EBM to work (Charlier, Brown, & Rynes, 2011). EBM means translating principles, based on the best evidence, into organizational practices. Evidence-based management encourages practicing managers to evolve into experts by utilizing social science and organizational research to make organizational decisions (Rousseau, 2006). This works to ensure that decisions are not based on personal preference and unsystematic experience (Rousseau, 2006).



Evidence-based management  
(Lancelotlachartre, 2011)

Although EBM is intended to replace, or at least supplement, decisions based on opinion, hunches, and anecdotal evidence, businesses have been traditionally slow to adopt best practices as identified in academia. Fortunately, this mindset has been changing in recent years, and there is an EBM movement taking place among many business sectors (Charlier et al., 2011; van Aken & Romme, 2009). This movement is being driven in part by hyper-competition that demands better strategic decision-making abilities, technology and the ability to capture large amounts of data for analytical purposes, and the increasing pressure to produce measurable financial performance (Mohrman, Gibson, & Mohrman, 2001). Still, few managers read the academic literature to aid in EBM, and there are a variety of inhibitors to its adoption, including reigning conventional wisdom, group decision-making, multiple stakeholders, internal politics, competing incentives, and lack of knowledge regarding the discipline of business research (Rousseau, 2006). Research methodology and the interpretation of results can be intimidating, even for students of business research, and even more so for the business manager (Myers, 2011). By following a systematic process, however, the mystery and apprehension can be removed. This is important because EBM produces a measurable return and offers a competitive advantage since it is not often practiced by competitors (Pfeffer & Sutton, 2006).

EBM is applicable to all business disciplines, including health and safety, finance, marketing, operations, information technology, human resources, and others. This course is intended to provide the tools to use EBM on a practical level. It will show you how to use the literature to discover research that has already been conducted, which can assist in addressing management problems. Additionally, students will be given the

tools to conduct their own business research so they can engage in EBM as informed by their own data. Not only will this knowledge allow students to provide additional value to their companies, but also it will make them more personally marketable as business leaders. Charlier et al. (2011) found that only a small minority (26%) of MBA courses had a focus on EBM, and this focus was more likely to occur in elite business schools, so there is a unique opportunity here to learn a systemic framework for making business decisions.

## Research Disciplines

Research generally has two disciplines: pure research (also known as basic research) and applied research. *Pure research* can be thought of as a process to expand our knowledge as a human race. It should preferably answer some important questions, but there are many research studies that may not be profound, yet they still satisfy our curiosities. Pure research is normally associated with academic research, such as the type of research that you would find taking place within a research university where they are developing and testing theories.

*Applied research* is intended to address a specific problem and will be the primary focus in this course. Applied research is often used in business since there are many management problems that can be addressed with a scientific approach. Business research is based on the scientific method, which is a process-driven approach to answering questions and reducing risk. This course will explain that process so students have a greater appreciation for the usefulness of business research and are able to develop a comfort level with applying these tools in a practical setting.

## Research Methodologies

Both pure and applied research methods use several methodologies. Research methodology refers to general categorical approaches to research (e.g., quantitative, qualitative, mixed methods). These categories, or approaches, are rooted in different philosophical traditions. For example, a quantitative methodology is rooted in a positivist tradition while a qualitative methodology is rooted in a constructivist tradition. Mixed methods, as its name suggests, are rooted in both positivist and constructivist research traditions. Research traditions will be explained shortly in this lesson.

A quantitative research methodology approaches a research problem with the assumption that it can be solved by collecting relatively large amounts of numerical data that are later statistically analyzed. Results of quantitative research can be generalized to populations. For example, results from sample data can be used to make statistical inferences about populations. A qualitative research methodology also tries to solve business problems, but the data collected are non-numerical and, instead, reflect ideas like thoughts, feelings, attitudes, and behaviors. These qualitative concepts can be thought of as fluid since they can be difficult, if not impossible, to measure numerically. Qualitative research provides a deeper and richer understanding of small groups of people, but the results are not generalizable to a larger population. A mixed methods methodology combines aspects of both quantitative and qualitative research, and a mixed methods methodology can be powerful because it includes the best of both worlds; however, this approach also increases the time, cost, and complexity of research projects. This course focuses only on quantitative and qualitative methodologies.

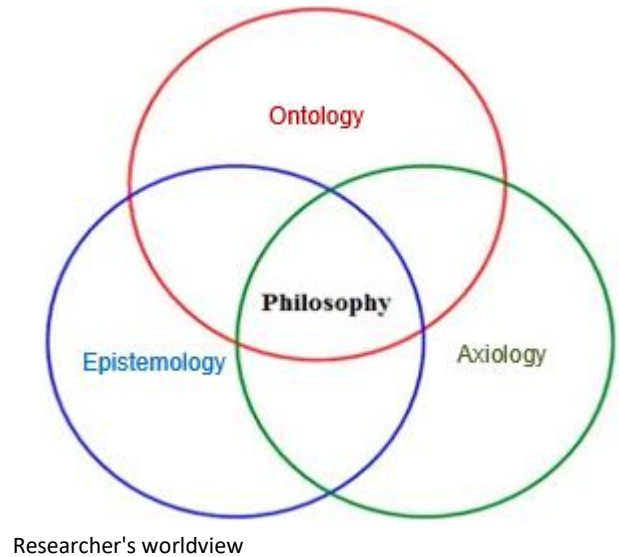
When deciding which methodology is most suitable for a research project, the business problem itself should dictate the approach. For example, if ABC Consulting was interested in identifying the top 10 concerns of U.S. safety managers, a quantitative approach would be appropriate. They could survey a random sample of safety managers to make inferences about the concerns of the U.S. population of safety managers. If, however, the business problem was to understand why a client's lost-time rates were skyrocketing despite training, a qualitative methodology would be most appropriate. ABC Consulting could conduct interviews with employees to try to understand where the divide was occurring.

## Worldviews and Philosophical Assumptions

Although the business problem should dictate the methodology, the reality is that often a researcher's worldview determines the methodology chosen. A researcher's worldview includes *ontology* (the nature of reality), *epistemology* (the nature of knowledge), and *axiology* (the nature of value). The intersection of these domains creates the researcher's worldview, or philosophical assumptions about the world. For the purposes of this course, there will be only two worldviews considered.

The first worldview is post positivism (sometimes referred to as simply positivism), which is aligned with a quantitative research methodology. Post positivist researchers believe that reality is fixed, measurable, and independent of experience. Post positivists believe that knowledge is gained through empirical analysis and scientific measurement of data. Post positivists believe that research should be value-free, objective, and free from subjective interpretation.

The second worldview we consider is constructivism, which is aligned with a qualitative research methodology. Constructivists, as the name implies, believe reality is created through experience. They believe there are shared and multiple realities. Constructivists believe that knowledge is created through experiences, memories, stories, culture, and self-reflection. When conducting research, constructivists believe researchers must interject subjectivity and interpretation to create a value-laden research process.



Since one's worldview begins to form at an early age, it is normally stable and unchanging throughout one's lifetime and permeates all facets of their interaction with the world. Therefore, it is not unusual that researchers naturally adopt a methodology, whether quantitative or qualitative, that is consistent with their own worldview. What is your worldview?

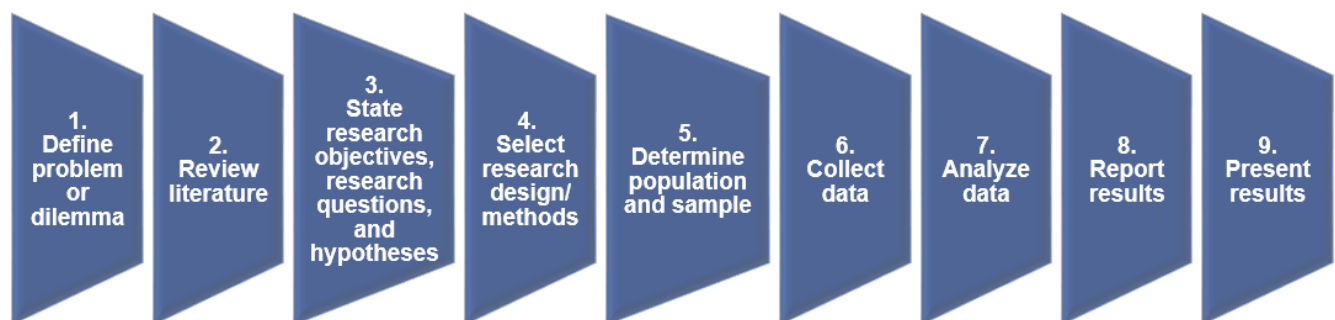
## The Scientific Method

Although this course discusses both quantitative and qualitative research methodologies, it is heavily focused on quantitative research. There are several reasons for this approach:

- We live in a data-driven society;
- data is inexpensive and readily available;
- most firms base their strategic decisions on quantitative data; and
- the course project is based on a quantitative methodology, which will provide more structure to work through the research process.

Many people are intimidated by business research. It can be quite overwhelming given the breadth and depth of information for this discipline. When data and statistics are introduced into the equation, it is understandable why some people tend to shut down. Fear can create a mental block—not unlike the stress created during a final exam. As mentioned previously, business research uses a systematic approach called the scientific method. If the scientific method is used as a road map, much trepidation and fear should dissipate.

The scientific method is comprised of the below steps.



Students in this course will complete steps two, three, four, seven, eight, and nine throughout this course. The problems will be defined for you, the population and samples have been determined, and the data has already been collected. The first step in the course project will be to conduct the literature review.

### **Primary, Secondary, and Tertiary Data**

There are three broad sources of information to consider when beginning a literature review: primary, secondary, and tertiary sources. In business research, it is preferable to only draw from primary and secondary sources. Primary sources are preferred over secondary sources because the primary source information has not been biased or filtered by a third party. Primary sources are normally found in academic journals (e.g., *Journal of Marketing*, *Journal of Management*, etc.). Academic journals can be found in the CSU Online Library and include many articles that describe the results of primary research. Secondary sources are also found in academic journals. These typically take the form of literature reviews where the results of primary studies are analyzed and interpreted. Academic journal articles have a very high level of credibility because both primary and secondary sources are peer-reviewed. Peer-review is a process where a panel of experts reviews articles for worthiness before they are approved for publication in scholarly journals.

In addition to academic journal articles, there is a large volume of credible, non-academic, secondary sources that can be useful in business research. These commonly include newspapers (e.g., *Wall Street Journal*), magazines (e.g., *Harvard Business Review*), many books, business databases (e.g., *Hoovers*), and other reference materials. Discretion should be used when citing websites. Many are either not credible (e.g., Wikipedia) or are tertiary sources, which simply summarize the information that would be found in primary and secondary sources. Tertiary sources generally have a very low level of credibility and authority and should be avoided in lieu of more credible and authoritative sources. Examples of tertiary sources include encyclopedias, dictionaries, handbooks, fact books, directories, abstracts, and bibliographies.

Using primary and secondary sources of information helps clarify the problem and research questions so that time and money are not wasted studying the wrong thing. By using primary and secondary sources, the purpose of the study can be clarified before launching into a full-blown research design. Reviewing the literature can effectively be accomplished several ways. Cooper and Schindler (2011) list several sources of information to be used in a literature review including the analysis of published studies (e.g., scholarly articles), books, industry and association data, organizational data, expert interviews, individual depth interviews, and group discussions. A literature review is often the first step in any research project, and the ubiquity of sources available provides a wealth of information. Gathering this information will help the researcher not only clarify the management problem and research questions but also provide additional insights about which research methodology, design, method, measure, and sampling frame would be most appropriate to use in the study (Cooper & Schindler, 2011).

### **Literature Review**

When searching databases for information on a topic, first search for articles in scholarly journals (not within magazines like *Harvard Business Review* or *Forbes*). Scholarly journals have names like *The Journal of Marketing*, *The Journal of Accounting*, and *The Journal of Occupational Health and Safety*. Scholarly journals are information dense. The scholarly articles contained within scholarly journals are always peer-reviewed. When searching for scholarly articles within the CSU Online Library, "scholarly peer reviewed journals," should be checked in the search options. If non-peer-reviewed sources are used, like the *Harvard Business Review*, *Wall Street Journal*, and *Forbes*, they may be credible, but it should be noted that a lot of this content is opinion-based and, therefore, not empirical.

Google Scholar is another resource to find articles, but it should not be assumed that articles found there are all credible sources (it really should not be assumed that every source found in any database is credible). It is necessary to evaluate each source on a case-by-case basis. Generally, researchers can have confidence in the sources they have found if they use academic, peer-reviewed journal articles because they are the best sources to use. Non-peer-reviewed types of sources often provide their interpretation of primary research, which is fine, but it is much preferred to go to the original source(s) of the research so one can draw one's own conclusions about the study. When sources like *Harvard Business Review* or *Forbes* interpret a study, they will provide enough information in the article so it is easy to find the original article in an academic database, like those housed in the CSU Online Library. The other thing to keep in mind is that this library is

free. Google Scholar articles will often charge a fee to read or download. Most times, any article found on Google Scholar can also be found in the CSU Online Library databases.

## In Closing

Although there are many things to consider when conducting research, there is an overwhelming number of great resources to turn to that can help guide a researcher as he or she begins the research process. No one commits everything to memory, and that is why all researchers, experts and novices alike, refer to sources when assembling a research plan.

## References

- Charlier, S. D., Brown, K. G., & Rynes, S. L. (2011). Teaching evidence-based management in MBA programs: What evidence is there? *Academy of Management Learning & Education*, 10(2), 222–236. Retrieved from <https://libraryresources.columbiasouthern.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=62798931&site=ehost-live&scope=site>
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## Suggested Reading

Please visit the link below to explore the many research and library tutorials that Columbia Southern University offers. This site may be of great assistance to you as you move through the course because of its links to library tutorials under the Library Orientation heading on the bottom left of the screen. You can always revisit Unit I to utilize this link and the resources within it.

Columbia Southern University. (2018). Research methods (graduate): Introduction. Retrieved from <http://libguides.columbiasouthern.edu/researchmethods>

Below are links from the source above. Please review the first tutorial to learn how to search the CSU Online Library databases for peer-reviewed sources. Please review the second tutorial to learn how to read scholarly articles.

Columbia Southern University. (2018, June 29). *How to find peer reviewed resources* [Video file]. Retrieved from <http://libguides.columbiasouthern.edu/howtopeerreviewed>

Click [here](#) for a transcript of the video.

Columbia Southern University. (2018, March 21). *Reading scholarly journal articles* [Video file]. Retrieved from <http://libguides.columbiasouthern.edu/readingscholarlyarticles>

Click [here](#) for a transcript of the video.

Here is an example of the type of article that should be used in the literature review assignment. It should relate to the course project industry of interest, which is health and safety, and includes results of a quantitative research study.

Ceballos, D. M., Gong, W., & Page, E. (2015). A pilot assessment of occupational health hazards in the US electronic scrap recycling industry. *Journal of Occupational and Environmental Hygiene*, 12(7), 482–488. Retrieved from <https://www.tandfonline-com.libraryresources.columbiasouthern.edu/doi/pdf/10.1080/15459624.2015.1018516>