Writing a Good Research Question

The following unit will discuss the basics of how to develop a good research questions and will provide examples of well-designed questions.

Learning Objectives:

- Identify the process for writing meaningful research questions.
- Evaluate research questions.

Developing a good research question is one of the first critical steps in the research process. The research question, when appropriately written, will guide the research project and assist in the construction of a logical argument. The research question should be a clear, focused question that summarizes the issue that the researcher will investigate.

How to Develop a Good Research Question:

- Researchers should begin by identifying a broader subject of interest that lends itself to investigation. For example, a researcher may be interested in childhood obesity.
- The next step is to do preliminary research on the general topic to find out what research has already been done and what literature already exists. How much research has been done on childhood obesity? What types of studies? Is there a unique area that yet to be investigated or is there a particular question that may be worth replicating? The following video may be helpful in learning how to choose appropriate keywords and search online databases: http://www.youtube.com/watch?v=2mPapN3XpDo
- Then begin to narrow the topic by asking open-ended "how" and "why" questions. For example, a researcher may want to consider the factors that are contributing to childhood obesity or the success rate of intervention programs. Create a list of potential questions for consideration and choose one that interests you and provides an opportunity for exploration.

Resource Links

What Makes a Good Research Question? - Having trouble finding or deciding on a research question? This journal article provides some tips.

- Finally, evaluate the question by using the following list of guidelines:
  - Is the research question one that is of interest to the researcher and potentially to others? Is it a new issue or problem that needs to be solved or is it attempting to shed light on previously researched topic.
  - Is the research question researchable? Consider the available time frame and the required resources. Is the methodology to conduct the research feasible?
  - Is the research question measureable and will the process produce data that can be supported or contradicted?
  - Is the research question too broad or too narrow?

Developing Research Questions

Examples of research questions:

Considering the information above, the following provides examples of flawed research questions as well as questions that are well-designed:

Too narrow: What is the childhood obsesity rate in Pheonix, AZ? This is too narrow because it can be answered with a simple statistic. Questions that can be answered with a "yes" or a "no"	**Less narrow:** How does the education level of the parents impact childhood obesity rates in Pheonix, AZ? This question demonstrates the correct amount of specificity and the results would provide the

- http://jeps.efpsa.org/blog/201 makes-a-good-research-question/

Formulating a Research Question - This resources provides specific examples of good research question and addresses the difference between a research topic and a research question.

- http://www.vanderbilt.edu/wr

The Relationship Between the Research Question, Hypotheses, Specific Aims, and Long-Term Goals of the Project - This link will explain how the research question should be developed to guide the creation of the hypotheses and the research project.

- http://www.theresearchassist 1.asp

How to Write a Good Research Question - Review examples of correctly written research questions.

- http://writingcenter.gmu.edu/ p=307

Research Questions and Hypotheses - This book chapter takes an in-depth look at the principles used to design and write research questions and hypotheses for qualitative,

should also typically be avoided.	opportunity for an argument to be formed.
Unfocused and too broad: What are the effects of childhood obesity in the United States? This question is so broad that research methodology would be very difficult and the question is too broad to be discussed in a typical research paper.	**More focused:** How does childhood obesity correlate with academic performance in elementary school children? This question has a very clear focus for which data can be collected, analyzed, and discussed.
Too objective: How much time do young children spend doing physical activity per day? This question may allow the researcher to collect data but does not lend itself to collecting data that can be used to create a valid argument because the data is just factual information.	**More Subjective:** What is the relationship between physical activity levels and childhood obesity? This is a more subjective question that may lead to the formation of an argument based on the results and analysis of the data.
Too simple: How are school systems addressing childhood obesity? This information can be obtained without the need to collect unique data. The question could be answered with a simple online search and does not provide an opportunity for analysis.	**More Complex:** What are the effects of intervention programs in the elementary schools on the rate of childhood obesity among 3rd - 6th grade students? This question is more complex and requires both investigation and evaluation which will lead the research to form an argument that may be discussed.

quantitative and mixed methods research and describes the differences in approaches based upon the type of research.

- http://www.sagepub.com/uprdata/22782_Chapter_7.pdf

Suggested Readings

- Alon, U. (2009). How to choose a good scientific problem. *Molecular Cell, 35,* 726-728.
- Cox, C. (2012). What makes for good research? [Editorial] *International Journal of Ophthalmic Practice, 3*(1), 3.
- Taylor, D. (1999). Introduction to Research Methods. *medicine*, *319*, 1618.