

## Research Rundowns >Intro > **Writing Research Questions**

This review is a collection of views and advice on composing research questions from problem statements. It mostly reads as a list of tips and suggestions.

**A research question is the fundamental core of a research project, study, or review of literature. It focuses the study, determines the methodology, and guides all stages of inquiry, analysis, and reporting.**

The research question begins with a *research problem*, an issue someone would like to know more about or a situation that needs to be changed or addressed, such as:

- Areas of concern
- Conditions that could be improved
- Difficulties that need to be eliminated
- Questions seeking answers

A *research problem* leads to a hypothesis (H) and/or research question (RQ)

Questions should in some way . . .

- Be worth investigating
- Contribute knowledge & value to the field
- Improve educational practice
- Improve the human condition

Characteristics of a good research question:

- The question is feasible.
- The question is clear.
- The question is significant.
- The question is ethical.

### **From Research Problem to Research Questions and Purpose**

#### **Step 1. Draft a research question/hypothesis.**

*Example:* What effects did 9/11/01 have on the future plans of students who were high school seniors at the time of the terrorist attacks?

*Example (measurable) Questions:* Did seniors consider enlisting in the military as a result of the attacks?, Did seniors consider colleges closer to home as a result?

#### **Step 2. Draft a purpose statement.**

*Example:* The purpose of this study is to determine the effects of the 9/11/01 tragedy on the future plans of high school seniors.

#### **Step 3. Revise and rewrite the research question/hypothesis.**

*Example:* What is the association between 9/11/01 and future plans of high school seniors?

#### **Step 4. Revise and rewrite the research question/hypothesis.**

*Example:* Purpose Statement (Declarative): The purpose of this study is to explore the association between 9/11/01 and future plans of high school seniors.

## Operationalize

Notice that the above research question suggested an association or a relationship. When composing your own, it is helpful to determine which variables you would like to understand, and then word your question in such a way as to suggest how you will test your question. This is called operationalizing, referring to the actions, processes, or operations used to measure or identify variables.

Finally, you will want to be specific about whom you are studying. Using my example above, “students” is not specific, so I might revise to public high school seniors in the Midwest.

## Expanding Simple Research Questions

You can expand your question by introducing additional variables or characteristics. We call these connecting, mediating, or moderating variables.

*Example:* What is the relationship between 9/11/01 and enlisting in the military?

Variables I might introduce to expand the question include:

- Demographics (gender/age/ethnicity/religious preference)
- Geographic location
- Parent’s educational level
- Role of parent
- Student’s /parent’s political affiliation

## Common Errors

- **The Nobel Laureate (taking on your life’s work)**  
*Example:* The Effects of 9/11/01 on K-12 students
- **The term paper (taking on too little)**  
*Example:* How many high school seniors enlisted in the military prior to 2002 graduation?
- **The Black Hole (taking on too much)**  
*Example:* The Effects of 9/11/01 on High School Seniors

## A Few Good Wording Tips\* . . .

### **1. When a relationship is expected among a certain type of subject, reference the population.**

*Example:* Among young children, there is a positive relationship between level of psychomotor coordination and degree of self-esteem.

### **2. Make RQs and Hs as specific and succinct as possible.**

*OK:* Administrators who provide wellness programs for their employees project positive effectiveness.  
*Better:* Administrators who provide wellness programs for their employees receive higher employee ratings on selected leadership qualities than administrators who do not provide wellness programs.

### **3. Avoid words or terms that do not add to the meaning of RQs and Hs.**

*Rather than:* Among elementary school teachers, those who are teaching in year-round schools will report having higher morale than those who are teaching in elementary schools that follow a more traditional school-year schedule.

*Try:* Among elementary school teachers, those who teach in year-round schools have higher morale than those who teach on a traditional schedule.

**A Few Good Wording Tips\* . . . , cont.**

**4. Stick to what will be studied, not implications or your value judgments.**

*Rather than:* Religion is good for society.

*Try:* Regular attendance at religious services is inversely associated with cheating behavior while taking classroom tests.

**5. Name the variables in the order in which they occur or will be measured.**

*Example.* There is a positive relationship between College Board Scholastic Aptitude Test scores and first-semester grades earned in college.

**6. Avoid the words significant or significance.**

**7. Avoid using the word “prove.”**

**8. Avoid using two different terms to refer to the same variable.**

**\*Note:** “Wording” examples are attributed to Dr. Kathy Haywood, UMSL