Use this SMRTguide to format hypotheses in quantitative capstone studies. These examples are simple demonstrations and suggested formatting that is APA compliant, only. These examples are not a requirement. Students should always defer to the instructions of their chair, committee members, and the conventions of the specific discipline. There are multiple correct ways of formatting hypotheses across disciplines and approaches.

Check out resources from the Center for Research Quality (CRQ) as well, on design and analysis of quantitative studies.

**Basic Research Question (RQ) and Hypothesis**

RQ: What is the relationship between time spent on personal activities at work and employee productivity?

\[ H_0: \] There is no relationship between time spent on personal activities at work and employee productivity.

\[ H_1: \] There is a relationship between time spent on personal activities at work and employee productivity.

**NOTE:** It is also important to include the measures of each variable in the RQ and hypothesis, for example “…personal activities at work (measured by...) and employee productivity (measured by...)”? We have omitted the variable measures here for simplicity of the examples.

**ADDITIONAL NOTE:** Typically, the “a” in the alternative hypothesis indicates that the hypothesis is exploratory and “1” is used in place of the “a” indicating a research hypothesis which is based on the literature and a predicted outcome. This convention will vary by discipline. See Table 4.5 in the APA 6th Edition (p. 120).
RQ with Multiple Hypotheses

In many studies, researchers test multiple sets of hypotheses under the same, main RQ. Because each hypothesis will need its own discussion in the text and decision regarding whether the null hypothesis is rejected, each hypothesis requires a unique identifier. This way, the researcher can clearly discuss the results and substantive implications for each hypothesis in the discussion of the results of the study.

**Research Question and Hypotheses**

RQ: What is the relationship between time spent on personal activities at work, time spent on breaks, and employee productivity?

\[ H_{01}: \text{There is no relationship between time spent on personal activities at work and employee productivity.} \]

\[ H_{11}: \text{There is a relationship between time spent on personal activities at work and employee productivity.} \]

\[ H_{02}: \text{There is no relationship between time spent on breaks and employee productivity.} \]

\[ H_{12}: \text{There is a relationship between time spent on breaks and employee productivity.} \]

NOTE: This is one possible way to write and format an RQ with multiple hypotheses under the same question. Some chairs and/or disciplines may request researchers separate out this type of RQ into two, distinct RQs, each with their own set of null and research hypotheses. Remember to always defer to the chair, especially when formatting these more complicated sets of questions and hypotheses.
For complicated RQs, including multiple variables and different types of tests, separate RQs and hypotheses will be needed.

**Multiple RQs and Hypotheses (varying tests)**

Here is an example of formatting with an additional RQ and additional hypotheses:

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**Research Questions and Hypotheses**

RQ1: What is the relationship between time spent on personal activities at work, time spent on breaks, and employee productivity?

- **H⁰¹₁:** There is no relationship between time spent on personal activities at work and employee productivity.
- **H¹¹₁:** There is a relationship between time spent on personal activities at work and employee productivity.

RQ2: What is the difference in average employee productivity before and after employees were disallowed Facebook access in the workplace?

- **H⁰²:** There is no difference in average productivity of workers before and after employees were allowed Facebook access in the workplace.
- **H¹²:** There is a difference in average productivity of workers before and after employees were allowed Facebook access in the workplace.

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Each hypothesis is numbered to indicate that it belongs to the corresponding numbered RQ. Below is an additional example for a second RQ, RQ2.

**H (italicized); subscript zero “0” to indicate the null, “1” to indicate RQ1, and subscript “1” to indicate first hypothesis.**

**H (italicized); subscript “1” to indicate the research hypothesis; “1” to indicate RQ1, and subscript “2” to indicate second hypothesis.**

Formatted as in the previous example as there is one set of hypotheses under this second RQ.
These are a few types of general or typical examples that we see in Walden doctoral capstones. Again, we want to remind students to seek the guidance of their chair and committee members as well as the CRQ methodology advisors.

**Additional Note:**

Students should be sure that there is alignment between the RQs and hypotheses. All variables tested in the hypotheses need to be covered by the RQ. All variables mentioned in the RQ need to be tested in the corresponding hypotheses. If all variables are not accounted for between the RQ and corresponding hypotheses, the researcher needs to review for alignment and add or remove variables or hypotheses.

For more on alignment among the elements of a doctoral capstone, see the Doctoral Capstone Research Resource and the Research Design Alignment Table on the CRQ Research Planning and Writing page. See also the SMRT guide on Alignment Language in the Problem, Purpose, RQ.

*Contact editor@waldenu.edu with questions about preparing the proposal and final doctoral capstone document for submission.*

*Chat live with an editor via our online Editor Office Hours.*