

How-to write an abstract

Purpose of the Experiment

- An introductory statement of the reason for investigating the topic of the project.
- A statement of the problem or hypothesis being studied.

Procedures Used

- A summarization of the key points and an overview of how the investigation was conducted.
- An abstract does not give details about the materials used unless it greatly influenced the procedure or had to be developed to do the investigation.
- An abstract should only include procedures done by the student. Work done by a mentor (such as surgical procedures) or work done prior to student involvement must not be included.

Observation/Data/Results

- This section should provide key results that lead directly to the conclusions you have drawn.
- It should not give too many details about the results nor include tables or graphs.

Conclusions

- Conclusions from the investigation should be described briefly.
- The summary paragraph should reflect on the process and possibly state some applications and extensions of the investigation.

In the following example, which is from a Yorktown student who went on to the international fair, can you identify each part?

The purpose of this experiment was to determine the effects of race, age, and gender on human spatial behavior. Spatial behavior is defined by movement in reaction to surrounding objects or people. Human spatial behavior around strangers is informed by implicit associations and attitudes towards "in-groups" like race, age, and gender. In this experiment, Metro riders' seating choices were used to represent the characteristic spatial behavior of members of different in-groups towards strangers. It was hypothesized that the races, ages, and genders of Metro riders would have a significant effect on seating behavior, with passengers of common race, age, and gender choosing to sit together more often than apart. Of the in-groups considered, it was hypothesized that gender, followed by race and then age, would have the greatest effect on spatial behavior. Ten hours of observation were conducted on the D.C. Metrorail (Washington D.C.'s subway system) to test the hypothesis. The gender and approximate age and race of each passenger to sit down was noted, in addition to the characteristics of the person he or she sat next to. Ninety-one interactions were observed. It was shown that the majority of Metro riders preferred to sit with women, Whites, and riders close to their own age. However, Chi square tests run on the data supported the null hypothesis, showing that associations between race, age, and gender were not statistically strong. The rejection of the hypothesis could indicate either that Metro riders' spatial behavior is not strongly informed by implicit associations and prejudice, or that sitting on the Metro does not represent the degree of spatial invasion necessary for implicit associations to significantly affect spatial behavior.

For additional information, try the Powerpoint at <http://www.societyforscience.org/isef/document>. Under the Section "Students, Teachers, and Affiliated Fair Personnel" click on Master the Abstract Writing Process.