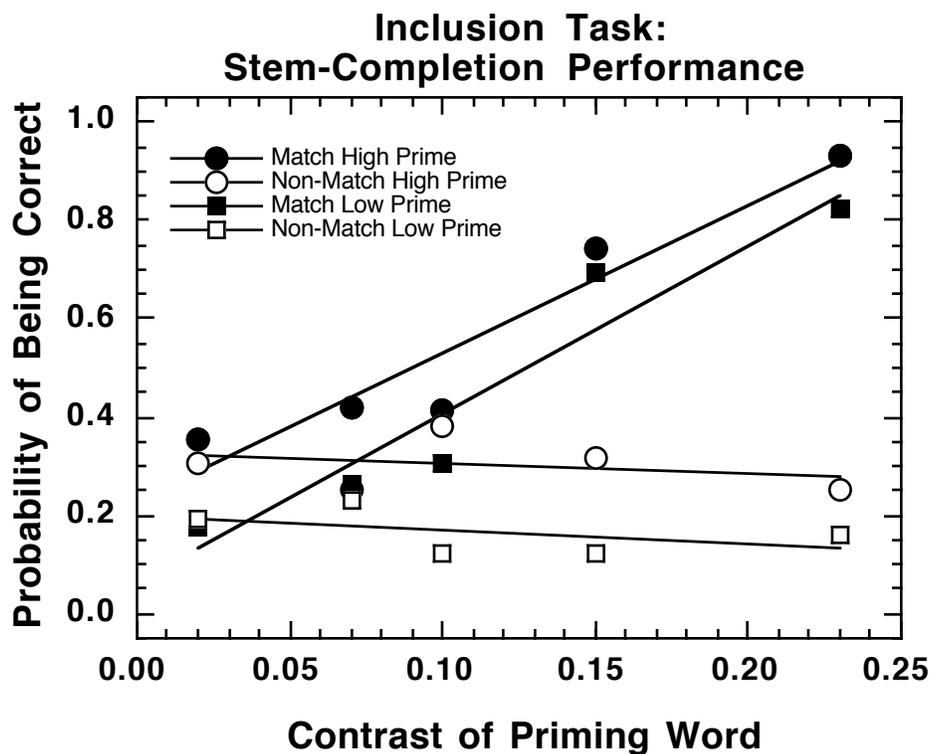


Psychology of Perception  
Psychology 4165, Spring 2002  
Laboratory 4  
Group Project



## Lab 4: Group Project

### Introduction

With this laboratory you will learn how to go through the various stages of scientific experimentation: from getting ideas for research to completing a finished experiment. You will work in groups to brainstorm about what questions to ask, then to search the recent experimental literature, then to design an appropriate experiment and finally to carry out the experiment and write up the results. You will proceed in six steps:

1. The class will be divided into four or five groups. Each group should choose a group leader to keep track of the group discussion by taking notes and then to summarize it to the rest of the class.
2. Each group will then discuss for 10 minutes what questions about perception they would want to answer. The group should make a list of the three most interesting questions.
3. Each group leader will make a three minute (maximum) presentation of their group's questions. The TA will keep track of these ideas by writing them down on the blackboard. At the end of the presentations there will be at least 10 questions. There will then be a class discussion about these ideas. Each person should write down the three questions that most interest him/her.
4. The groups will now reconvene and pick one question from the lists of questions compiled by the group members. Each group member should go to the library and locate two papers published within the last ten years related to the question. The papers should be published in one of the journals listed below. Each group member should make copies of these articles for themselves and for of the other group members.
5. The group members should read all the articles gathered by their group and discuss these papers among themselves. The purpose of these discussions is to identify a question that can be answered by a relatively simple experiment.
6. The group should now design an experiment that will answer the question your group has chosen. It will be very helpful during this stage to refer to the relevant chapters of the book *Doing Psychology Experiments* (Martin, 2000). Before the experiment is carried out you need to have it approved by the instructor or the TA.

### Laboratory Report

The first draft of your lab report should contain **three** of the standard five parts: **Introduction, Methods, Results, Discussion and References**. In the introduction explain what the question is that you propose to answer. You should refer to the relevant literature, including the papers that your group has assembled. The introduction typically starts out broadly and concludes with the specific question you intend to answer. In the methods section describe what you propose to do. Make this section as concrete as possible at this stage. Include a description of the equipment you need and the specific procedure you will follow. Be explicit about what independent variable(s) you will

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manipulate and what values they will have. Be explicit about the dependent variable(s) you will collect and how you will analyze the data. Include a reference list of all the papers you have cited. Use the standard format of the American Psychological Association for citations and references.

Conciseness and clarity are extremely important characteristics of good scientific writing. Strive for them. We will give you feedback on your first draft before you actually start to carry out your experiment. Remember, keep these reports short, clean, and clear. **First draft is due in lab on 19 or 21 March 2002**

### Suggested Journals

*Journal of Experimental Psychology: Human Perception and Performance*  
*Journal of the Optical Society of America*  
*Perception and Psychophysics*  
*Vision Research*  
*Perception*

### Schedule

1. **19 or 21 March 2002**  
First draft due (Cover Page, Introduction, Methods, References)
2. **2 or 4 April 2002**  
Second draft due (Cover Page, Introduction, Methods, Results, References)
3. **22 April 2002, Monday**  
Poster presentation at Undergraduate Research Day, 15:00-17:00
4. **23 April 2002, Tuesday**  
Oral presentations of Lab 4. Both laboratory sections.
5. **29 April 2002, Monday**  
Final version due. Each group turns in one paper with an Introduction, Methods, Results and Reference section and each member of the group turns in their own discussion section. (80 points total: 40 points for group report, 20 points for individual discussion and 20 points for the group presentation).

### References

Martin, D. W. (2000). *Doing Psychology Experiments* (5th ed.). Pacific Grove, California: Brooks/Cole Publishing.