

APS Interest Group on Psychology Education

Resource Material Submission – Front Page

Title of Material	Undertaking Research in a First Year Bachelor of Psychology Course
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Description/Aim	The aim of this exercise is to design and conduct a field study within groups, and present the findings. Presentations are assessed and feedback is provided via a single feedback grid (per student).
Benefits of Resource	A clear guide as to how to introduce first year psychology students to undertaking research.
Issues for Consideration	Care must be taken concerning group dynamics. That is, instructor training in how to facilitate and manage group work is highly recommended.
Approximate Duration	Intermittent group work across several weeks
Primary Content/ Process Topic	Research--Design and conduct Studies
Other Categories	Oral Communication
Intended student level <i>(e.g. Secondary, Undergraduate Introductory, Undergraduate 4th Yr/ Honours, Post-graduate)</i>	Undergraduate – Introductory
Type of Material <i>(e.g. classroom materials, assessment, lectures, teaching tips, articles, syllabi, simulated learning environments.)</i>	Classroom Practical/Tutorial
Format of Material	Pdf file
Further Information Contact <i>(email only)</i>	j.cranney@unsw.edu.au
Review Requested <i>(Nb: A 'Yes' response to this category indicates that you would like feedback/comments on the materials via email.)</i>	Yes
Evaluative Data Included <i>(E.g. Student evaluation, comments etc.)</i>	No

Description:

This exercise is one that first year Bachelor of Psychology students enjoy—usually their first taste of conducting psychological research. Scaffolding is provided by (a) limiting the topics, (b) having them conduct the research in groups, (c) ensuring that there is time in practicals/tutorials to initially design the study, and further time to discuss the data, with the help of an experienced instructor/tutor. Usually the instructor will make an executive decision as to whether differences are significant or not, as UNSW students at least would not have undertaken any statistics training in this first semester course. Communication is an oral rather than written piece for this particular exercise. Each group gives an oral presentation (15 min usually) in a practical, and there are usually two markers (eg tutor and course coordinator). The marking grid is given to students one week before the oral presentation (see separate handout). After the practical, the markers may confer briefly and finalise one single feedback grid that may be given to students in their final week. The entire exercise is spread across several weeks of the semester (they need at least two weeks to gather the data, and we usually give them a week off practicals to do this). This exercise was worth approximately 20% of the final grade. In terms of ethics, each year we usually submit an omnibus first year psychology ethics application to cover a number of small projects, including this one. Student need to indicate on the form what group they are in, in case there are any issues and we need to find the group.

Scholarship/Evaluation of Student Learning/Continuous Improvement:

Initially the students only had one research topic. This was a little boring particularly at oral presentation time, so we increased the number to three. We hope to include one or two more topics for next year. The groups usually do reasonably well with this task, and there is usually not at great deal of difference in their marks. As indicated above, student evaluation of this exercise is positive. This learning strategy aligns with the UNSW/ALTC Guideline for learning #2, “Effective learning is supported by a climate of inquiry where students feel appropriately challenged and activities are linked to research and scholarship” (see <http://www.guidelinesonlearning.unsw.edu.au/guideline2.cfm>).

PSYC1021 Group Field Study Handout

Design

Your task is to design and conduct a field study. You should start by re-forming the small groups (around 5) you had for your report-writing exercise. There should be no more than 4 groups. We will spend some time in the Week 8 tutorial on this task.

Each group will choose one research topic (see attached) and test a specific hypothesis within that topic by collecting data from at least 20 participants. For each topic we have suggested several variables that might be looked at in your research projects. However, these lists are not exhaustive and you are free to include additional variables. As soon as you decide on your topic/variables, please send an email to either Jacquelyn (j.cranney@unsw.edu.au) if you are in the Tuesday 1pm tutorial or xxx if you are in the other two tutorials.

This email should contain this information:

1. Your research question
2. Your hypothesis
3. Your independent variables
4. Your dependent variables—be specific
5. Your procedure
6. Your debrief (a couple of sentences or dot-points).

Your design **should be approved by the tutorial time in Week 9**. There are no actual tutes on that week, but Jacquelyn will be available in her office (509) from 2-3pm Tuesday, and Glynis will also give you times she will be available during that week.

One big hint: Keep it simple!

Procedure and Ethical Considerations

You should NOT ask other students in PSYC1021 or students enrolled in SCIF1021 (advanced science psychology), or anyone under 18 years of age, to participate in your study. You may not approach schools, hospitals, or any other government agency to recruit participants. Participants must be recruited on this campus or from your acquaintances.

In approaching a potential participant, tell him/her that you are doing a class project for an undergraduate Psychology course at UNSW. Invite them to participate, emphasising that it will only take 5-10 minutes (10 minutes is the maximum it should take), that their responses will be anonymous, and that they can stop their participation at any time. You should tell them that the task involves filling in a brief survey and/or making some judgements about images or puzzles. You should give them the STUDY INFORMATION form to read. If they agree, then they need to sign two copies of the CONSENT form (which you would have already signed). You keep one copy of the signed consent form; they keep the other two forms. These forms are available on WebCT. If they don't agree, thank them for taking the time to consider it (under NO circumstance do you coerce participants).

If they agree to participate, then give them the RESPONSE FORM that (a) at least obtains age and gender information, and also asks them to sign their consent to undertaking the study, and (b) gathers any other information that you need for your particular hypothesis. It would be good idea to number your participant's response forms. After gathering data, you should ask participants if they have any questions about the study. You should then read out your prepared DEBRIEF FORM to briefly explain the study (possibly without giving away the hypotheses). It is important that:

1. NO INDIVIDUAL IS TO BE COERCED TO UNDERTAKE YOUR STUDY
2. YOUR PROCEDURE AND MATERIALS (including the forms mentioned above) ALL NEED TO BE APPROVED BY JACQUELYN OR GLYNIS PRIOR TO COMMENCING THE STUDY

You are expected to have collected *all data by the Week 10 tutorial*.

Data reduction

Please bring all your data to the week 10 tutorial. At that time, we will discuss how you should summarise and present your data for your oral presentation. Please note that you are not expected to run inferential statistical analyses on this data, and you will not receive extra marks if you do.

Presentations

You will be required to give a group oral presentation of this project in the Week 12 tutorials, which will be evaluated by Jacquelyn Cranney and xxx. A marking sheet will be given out in Week 10.

The presentation should be no longer than 20 minutes. The presentation should outline the background to your research questions, hypotheses, design, methodology, research findings, the support (or lack thereof) of your hypotheses, your conclusions and suggestions for improvement, and at least one specific suggestion for future research.

Topic 1: Body Image

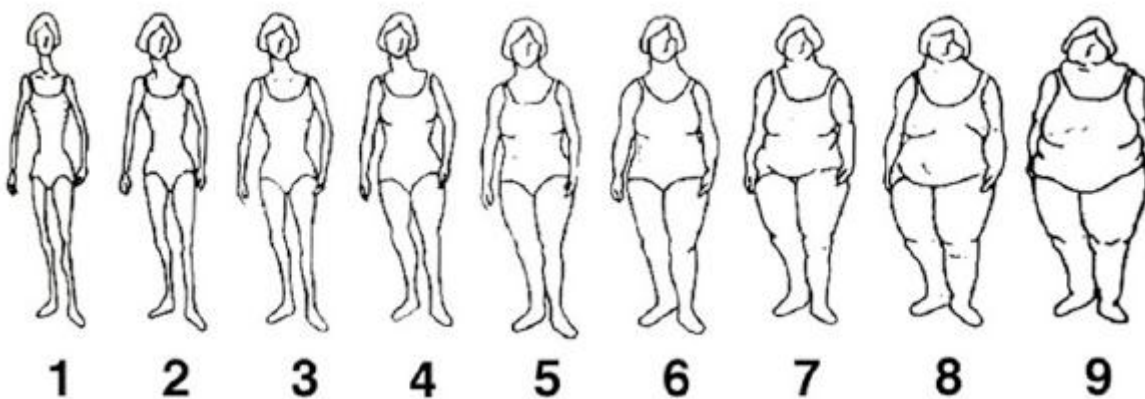
The general research question is: What factors influence people's judgements of body shape? You are required to explore the influence of one factor (independent variable), on specific aspects (dependent variables) of how people react to body shape.

The suggested independent variables are: gender, age, college vs. independent living, adult attachment style. You may also consider manipulating a variable, rather than just choosing a grouping variable.

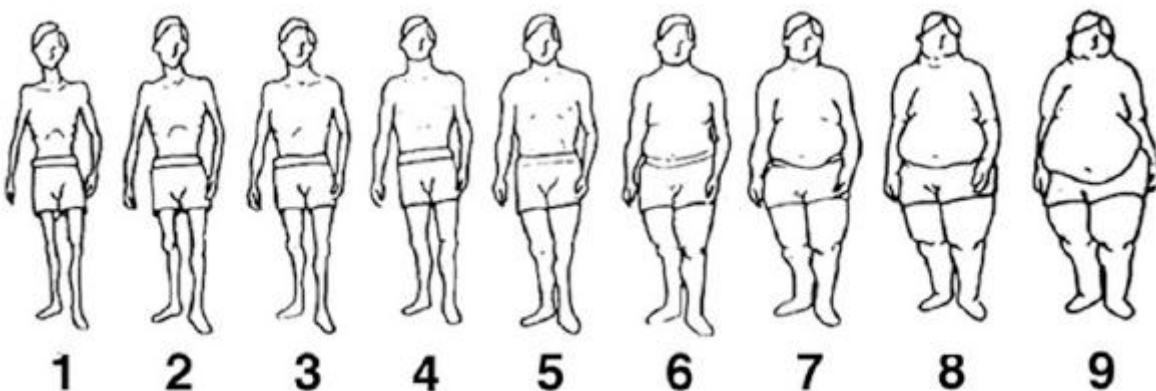
Materials:

Fallon & Rozin (1985) used the following figure drawings to collect a number of judgments from their participants.

Female silhouette figure rating scale:



Male silhouette figure rating scale:



After reading the Fallon and Rozin (1985) reference, your task is to design a study in which you use these pictures to collect data from 20 participants.

In narrowing down your specific research question and hypothesis, your group should think about:

- 1) at least **2** different judgments that each participant will make
- 2) at least **2** different groups that you will be testing (you will have to get at least 10 participants in each group).

Reference:

Fallon, A.E. & Rozin, P. (1985) Sex Differences in Perceptions of Desirable Body Shape. *Journal of Abnormal Psychology*, 94, 102-105.

Topic 2: Adult Attachment

An individual can have a secure style, meaning he or she is comfortable and well adjusted in close relationships, or an insecure style, meaning he or she is either intimacy-avoidant or anxious and clingy in relationships. Research on adult attachment is guided by the assumption that the same motivational system that gives rise to the close emotional bond between parents and their children is responsible for the bond that develops between adults in emotionally intimate relationships.

The general research question is: Are differences in attachment styles associated with differences in patterns of close relationships (number, satisfaction, duration) or related personality characteristics such as loneliness, self-perceived popularity among peers etc..

Suggested variables of interest: gender, age, dating behaviour, marital status, body-image satisfaction...

Materials:

Adult Attachment Scale

Select the statement that best describes how you feel about your relationships.

- A. I find it relatively easy to get close to other people. I am comfortable depending on other people and having them depend on me. I don't usually worry about being abandoned or about having someone get too close to me. I never worry about being alone or about others not accepting me.
- B. I find it difficult to trust people completely. I am somewhat uncomfortable being close to others. Often, I feel like people want me to be more intimate than I feel comfortable being. I do not like to cling to others, nor do I like having others to cling or rely on me. I am quite happy without close friends.
- C. I find that other people are reluctant to get as close as I would like. I often worry that someone I am close to doesn't really love me or won't want to stay with me. I want to merge completely with another person and this sometimes scares people away.

After reading the Hammond & Fletcher (1991) reference, your task is to design a study in which you use the Adult Attachment measure to collect data from 20 participants.

In narrowing down your specific research question and hypothesis, your group should think about:

- 1) at least 2 different judgements that each participant will make
- 2) at least 2 different groups that you will be testing (you will have to get at least 10 participants in each group).

Reference:

Hammond, J.R. & Fletcher, G.J.O. (1991) Attachment Styles and Relationship Satisfaction in the Development of Close Relationships. *New Zealand Journal of Psychology*, 20, 6-62.

Topic 3: Naïve physics

Surprisingly, many people exhibit systematic errors when predicting the behaviour of simple physical events. These errors are strikingly similar to the preoperational child's difficulty with simple Piagetian developmental tasks. For example, Piaget and Inhelder's water-level task (WLT) was originally designed to investigate the development of children's spatial concepts. Children gradually come to construct a euclidean (3-dimensional) conceptual system of horizontal and vertical axes with which to represent space. Very young children typically represent the waterline as fixed relative to the sides of the container, regardless of the container's tilt. Next, they show the water as tilted in all but upright containers. Finally, at about age 9, children consistently produce horizontal lines. However, in the mid-60's, researchers found that undergraduate and even graduate students had difficulty with the task. A clear gender difference also emerged. Results across several experiments indicated that while about 50 percent of males performed very well on the task, only about 25 percent of females did so.

The general research question is: Are there systematic differences in performance in water-level and similar tasks? What might these differences be related to?

Suggested variables of interest: gender, age, physics and mathematics background

After reading the Vasta & Liben (1996) reference, your task is to design a study in which you use the water level task (and possibly at least one of the other two tasks) to collect data from 20 participants.

In narrowing down your specific research question and hypothesis, your group should think about:

- 1) at least 2 different judgements that each participant will make
- 2) at least 2 different groups that you will be testing (you will have to get at least 10 participants in each group).

Reference:

Vasta, R., & Liben, L.S. (1996). The water-level task: An intriguing puzzle. Current Directions in Psychological Science, 5, p.176.

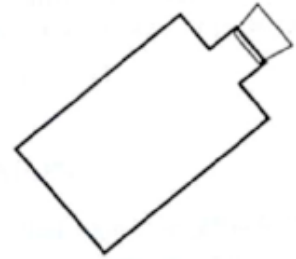
Materials:

Please note the answers are:

1. horizontal
2. a
3. d

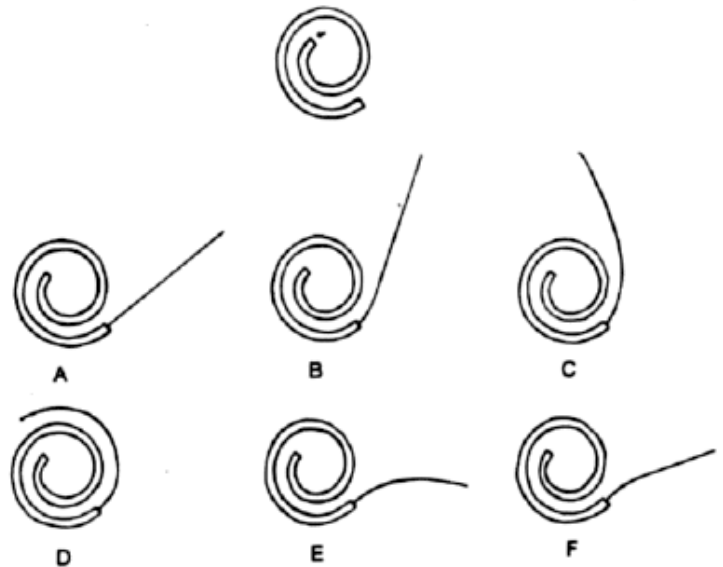
1. The Water Level Task

A partially-filled bottle of water is tilted to the right. Please draw a line to indicate the water level in the tilted bottle.

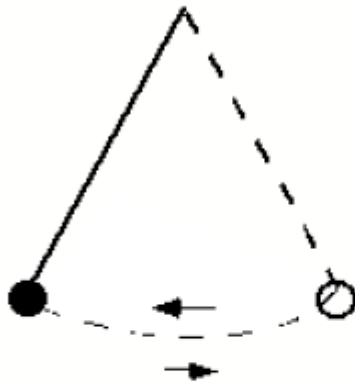


2. The Trajectory Extrapolation

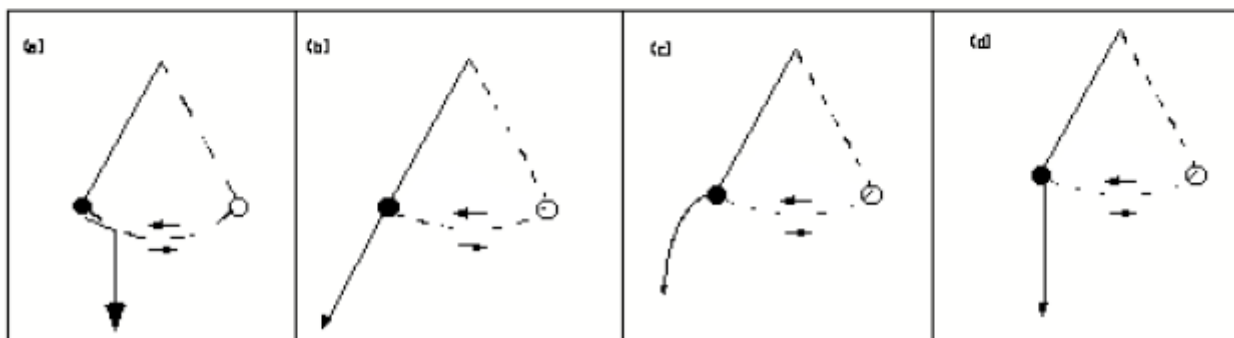
Consider a metal tube lying on the horizontal surface so that it appears as below when viewed from above. Next, a metal ball is pushed through the inner end of the circular tube (indicated by arrow). Circle the letter which corresponds to the correct trajectory of the ball as it leaves the tube at great speed.



3) The Ball and String Pendulum



Consider the ball and string depicted in the line drawing as moving in an arc as a pendulum. Select the path the ball would follow if the string were cut when the ball was at the location indicated by the black colour.



UNSW Psychology Oral Presentation Assessment

(Adapted from UNSW Learning Centre form)

Tutorial Time: _____

Date: _____

Team: _____

Rater: _____

Rate on a scale of 0 (did not meet criteria at all) to 5 (fully met criteria):

Content/Process: criteria	Comments and rating
<u>Background</u> , Research Question, Hypothesis: all clearly stated and logical; to the point.	/5
<u>Methods</u> : - design made clear; independent and dependent variables explicitly stated and operationalised; materials, subjects, and procedure clearly stated, logical, feasible; ethical constraints adhered to.	/5
<u>Presentation of Results</u> : Clear and logical; tables/figures clear.	/5
<u>Discussion</u> : clear statements of how results relate to hypotheses; consideration of alternative explanations; clear and valid conclusions; consideration of what could be done differently next time re. design, methodology.	/5
<u>Performance and Techniques</u> Made appropriate eye contact. Awareness of body language. Presentation audible; presenter clearly seen by everyone. Pauses and silences used effectively. Verbally fluent. Material clearly organised. Appropriate for oral medium. Presentation interesting. Audiovisual aids/handouts used where appropriate. Clear evidence of adequate preparation. Keeps within time constraints.	/5
<u>OVERALL</u> , how effective was this presentation? Were you convinced this is a worthwhile study to undertake?	/5

Total: /30 (20%)

What did they do well?

Suggestions for Improvement:

Other Comments:

