**THE RESEARCH EXPOSURE REQUIREMENT OF PSYCHOLOGY 1000**

As part of Psychology 1000, students are required to learn about psychological research beyond what is presented in their lectures and textbook. This is accomplished through participating in research studies that are offered through the Department of Psychological Sciences, by completing alternative assignments, or by some combination of the two. The research credits (via research participation and/or alternative assignments) figure into the students' final grades. They are required of every Psychology 1000 student (i.e., not simply extra credit).

Having students in Psychology 1000 participate in research for course credit offers three significant benefits. Students benefit through exposure to research, which is a central feature of psychological science. Participating in studies conducted within the Department of Psychological Sciences specifically also exposes students to areas of research for independent study and honors capstones. Faculty members and graduate and undergraduate student researchers benefit from an available pool of participants.

There are three main sections to this document containing:

1. Guidelines for Psychology 1000 Instructors
2. Guidelines for Researchers using the Psychology 1000 participant pool.
3. Information for Psychology 1000 students (to be posted on course syllabi or webpages)

Table of contents:

Page

**I. Guidelines for Psychology 1000 Instructors 2**

**II. Guidelines for Researchers Using the Psychology 1000 Participant Pool 3**

* Procedures for accessing the Psych 1000 participant pool 3
* Setting up & Getting Started 4
* Important points for running Psych 1000 participants 5
* Departmental Policy on the Paying of Human Participants as Part of the 6

Psychology 1000 Research Exposure Requirement

* Suggestions for completing IRB applications and Consent Forms 7

**III. Information for Psychology 1000 Students 8**

**(to be posted on course syllabi or webpages)**

**Debriefing supplement 12**

**Sample debriefings 14**

1. **Guidelines for Psychology 1000 Instructors**
2. All instructors of Psychology 1000 courses will offer course credit for participation in psychological research. Points derived from participation must comprise 10% of a student’s final grade.
3. Although students can participate in as many experiments as they would like, only a maximum of 16 credits from experiments and/or alternative assignments can be earned toward their grade. No extra credit can be earned from participation in experiments or alternative assignments.
4. All instructors should provide the appended document, Information for Students on Research Exposure, in their course syllabus and/or webpage.
5. The research requirement is 8 hours per semester (typically awarded in half-hour credit blocks), with (a) one hour (two credits) being awarded for completion of the mass pretesting survey; and (b) one hour (two credits) being awarded for logging on to the Sona System Psych 1000 Research Participation Website (<http://missouri.sona-systems.com>).
6. Instructors must offer seven alternative activities (in addition to signing on to sona) in which students who cannot or do not wish to participate in experiments can earn equivalent course credit. Alternative activities require students to read articles, watch movies or complete textbook exercises and then write a one page, double-spaced paper for each activity. Completing an activity and writing the subsequent one page paper should take about one hour.
7. Alternative activities must conform to IRB regulations.
8. Instructors will offer one overall course extra credit point for students who have no unexcused “no-shows” for research participation (see statement on no-shows below).
9. At the end of each semester, the Human Subjects Committee (HSC) will provide instructors with a list of the research credits earned by each of their students to be integrated into their course gradebook. If an instructor would like the HSC to integrate credits from alternative assignments to this list, the instructor should contact the HSC.
10. If instructors would like they can keep track of non-study credits (i.e., alternative assignment points) through sona. When viewing their roster through sona, there is a Grant Credit choice next to each student’s name. If you click on this link, you can grant a non-study credit grant to that student. To grant the credit, simply enter the credit value and a comment about the credit grant, and the credit will be granted immediately. If you grant a credit by mistake and would like to delete it, please contact the administrator and they can do this for you.
11. Suggestions for how to integrate research participation into course content, and thus enhance the educational impact of research participation, will be made available. Please contact Ines Segert ([SegertI@missouri.edu](mailto:SegertI@missouri.edu)) for more information.
12. **Guidelines for Researchers Using the Psychology 1000 Participant Pool**

During the Fall semester, we typically have about 2000 individual participants providing a total of approximately 21,600 participant hours, assuming that about 90% of the students fulfill their research credits through participation (vs. alternative assignments). During the Spring semester, we typically have one or two less sections of Intro Psychology or approximately 1200 individual subjects and about 13,000 subject hours. Note though that most students will get 1 hour from participating in the mass pretesting survey and the numbers above reflect that expectation. Note also that with expected drops in MU enrollment, these numbers are expected to decline. Researchers should plan their studies and requested amount of credits accordingly.

1. Participation in experiments should be an educational activity. This education piece is largely provided by the debriefing and explanation of the research once the student has completed his/her participation. Researchers must provide a thorough debriefing and explanation, even if students appear uninterested in receiving it. ***Please see the supplement on debriefings on page 12.***
2. Because the educational value to students comes from exposure to a variety of research studies, students may earn no more than three hours of credit (six credits) from any one experiment~~. In addition, students may earn no more than 50% of their credits from participating in online studies as this helps to facilitate exposure to different kinds of research.~~  Continuing COVID-19-related precautions are expected to influence the kinds of studies investigators are planning and students’ willingness to participate in laboratory studies. Accordingly, there will be no limit on the proportion of credits students can earn from online studies for the Fall Semester of 2022.

Procedures for accessing the Psych 1000 participant pool

1. Prior to the start of each semester an email will be sent from the HSC noting the deadline for requests to use the pool. This deadline is typically the first Monday after the start of the semester.
2. In addition to the regular deadline noted above, researchers who would like a few extra days to run subjects at that start of the semester may request a credit advance. Such requests should include the same forms described below but should generally be turned in by the first day of the semester. The HSC will endeavor to process these as quickly as possible and “advances” of up to 100 credits per faculty member may then be granted. Note that this does not mean 100 credits per study, but an advance of 100 credits for any individual faculty member.
3. The following steps must be followed to gain access to the pool:
   1. For each study, email the items listed below to [psych1000research@missouri.edu](mailto:psych1000research@missouri.edu) .
      1. a "Credit Request Form"(CRF). Note if the PI is not a faculty member, than the project must have a faculty supervisor.
      2. a completed eIRB online application from the Campus (or Health Sciences, as appropriate) IRB,
      3. a copy where possible of all materials to be presented to participants,
      4. the consent form,
      5. the debriefing (the debriefing is intended to not just debunk any deceptions should they exist, but should provide educational compensation for students' participation.  It is imperative that your debriefing provide an adequate educational experience; **see supplement on debriefings on page 12**).
      6. A copy of the IRB approval notice (if the project is pending IRB review, please indicate)
   2. Renewals (studies approved from previous semesters) need only submit the CRF, consent form, debriefing, and IRB approval notice.
   3. The HSC will then create experimenter and PI logon accounts for all those listed on the CRF. Those listed on the form will then receive via email a logon and password, and these accounts will enable those listed to logon to the Sona System Psych 1000 Research Participation Website (<http://missouri.sona-systems.com>). As soon as you receive a logon and password and your study is setup, you are welcome to modify it to suite your needs. Once you have made any modifications, you should click the link to notify the administrator that your study is ready. The administrator will enable your study to be displayed to students if your application has been approved by the Committee.
   4. If your application is approved by the Committee, you will receive via email the assigned experiment number, and your allotment of credits. If your application is not approved, you will be contacted by one of the Committee members with information regarding necessary steps to facilitate the approval of your application.
   5. No additional credits will be distributed for the first 12 weeks of the semester; during that time, your allotment of credits is guaranteed. After 12 weeks, access to the pool may be unlimited, so there may be no guarantee that there will be subjects left to meet your needs.

Setting up & Getting Started

1. In order to access the Psych 1000 Research Participation Website go to: <http://missouri.sona-systems.com> and logon using the login and password you already have or will soon receive via email. If you have not received this logon and password, contact [psych1000research@missouri.edu](mailto:psych1000research@missouri.edu) and we'll take care of that promptly.
2. By the time you get your credit allocation notification, we will have (or will very soon) set up the basic information for your study on the website, using the title and number referenced in the email you receive. Please double check the information we set up and modify/expand this information as desired for posting on the website. To check/modify this information, first click on my studies and then select the study you wish to modify. Then click change study information. This page includes:
   1. Information that will be displayed to subjects, as well as basic and more advanced settings.
   2. Options through which to set eligibility or pre-requisite criteria for your study. You will find a list of all experiments in the system, go through these and select pre-requisite or disqualifier as desired.
   3. Note that if filling in a detailed description, this should only include a procedural overview of the study.
   4. After you enter information, be sure to click the save changes button so the system will accept your input.
   5. If you have already set up the information yourself or would prefer to do so, that is fine. Please just remember to include the study number (e.g., FS16-00X) in parentheses after the study name. Note that “FS16” refers to the semester and year of the current semester and should be adjusted as appropriate.
3. In order to set up time slots, you must designate your experiment as active. Note only studies for the current semester should be listed as active. Then click on Add/Administer Time Slots. You can then either add single or multiple time slots. You should be sure to specify here the location of the session. You can also enter a student who you have recruited (e.g., via phone) directly into the schedule by adding their userID or last name through manual signup. Note also that when a student is entered directly an e-mail confirmation will be sent to the student automatically. If for any reason you would like to send an email to all participants who have signed up (or are awaiting credit, etc) for your experiment, you may do so by using the contact participants feature.
4. One you have checked your study information and are ready to make your study visible to students, you need to click the link to notify the administrator that you are awaiting approval for your study to be visible to students. This message will be sent to ([psych1000research@missouri.edu](mailto:psych1000research@missouri.edu)). We will then make the study visible as quickly as possible.

Important points for running Psych 1000 participants

1. Subject sign ups will occur using the sona website (<http://missouri.sona-systems.com>). Experimenters will use this website to set up experimental sessions and students will logon to sign up for these sessions. Experimenters will also give credits (or indicate no-shows) to subjects using the website. Note all studies using the Psych 1000 Subject Pool must be posted on the website (even those for which students will be recruited by the researcher).
2. Psych 1000 students have been informed that they are to email the Committee Clerk in the event that the experimenter has not arrived by 10 minutes after the scheduled time. In such cases, the experimenter is to give the subject one credit for his or her inconvenience.
3. Subjects must be given credit for each half hour or part thereof that they participate even if they do not complete the experiment.
4. All credits should be dispensed within one week of a student’s participation.
5. Students from PSYCH 1000 cannot be asked to participate on or after "reading day" at the end of the semester. Therefore, the last day for running students from Psych 1000 for that semester is the day before Reading Day.
6. The Office of Human Research Protection (OHRP; part of the U.S. Department of Health and Human Services) determined that assessing a penalty for participants who fail to show up for their appointment was not allowed. You can read more information directly from them here: [http://www.hhs.gov/ohrp/policy/correspond/OHRP20100108.html](https://owa.missouri.edu/OWA/redir.aspx?C=2b74cd63f1b348bcac841685013feea3&URL=http%3a%2f%2fwww.hhs.gov%2fohrp%2fpolicy%2fcorrespond%2fOHRP20100108.html). The following procedures should therefore be followed in the case of no-shows:
   1. Sona-Systems allows the investigator to specify two types of no-shows: excused and unexcused.  It is vital that investigators reliably and punctually input this information.
   2. After a participant receives 2 Unexcused No-Shows, their account will become "Limited". With a limited account, they may still login, but they will not be allowed to sign up for research studies. They will receive an email informing them:
      1. that their account is now limited, that they are unable to sign-up for additional studies, and that they must now complete the research exposure requirement of the course by the additional options specified by their instructor (i.e., writing a series of short papers).
      2. that researcher time is valuable and a failure to show up without notice is an inconvenience both to the researchers, and for certain studies requiring a specific number of people, their classmates as well.
      3. that they will now have the opportunity to write and explain their no-shows to the committee clerk; at which point they may be given another chance to participate in research studies.

Departmental Policy on the Paying of Human Participants as Part of the Psychology 1000 Research Exposure Requirement

The Humans Subjects Committee of the Dept has the policy that students enrolled in Psych 1000 cannot simultaneously receive Psych 1000 credit (educational) compensation and monetary (or e.g., gift card) compensation for participating in research studies. There are two reasons for this:

* First, the primary benefit of participating in research for Psych 1000 students is the education that such participation provides. This benefit is facilitated by a thorough debriefing that is of educational value to the student.
* Payment in addition to credit allocation would create an unlevel recruiting field, disadvantaging some investigators, and further, could be viewed as coercive.

The following are exceptions to this policy:

* Although monetary (or e.g., gift card) compensation cannot be offered in addition to credit compensation, a study may present the student with the option of choosing one or the other.
* If the length of a study extends beyond a single semester (i.e., a longitudinal study), the study may offer credit compensation for the portion of study conducted during the semester in which the participant is enrolled in Psych 1000 (assuming an adequate debriefing for this portion), and then monetary compensation for any portion of the study that extends beyond the semester of enrollment in Psych 1000. Similarly, if the hourly duration of the study exceeds 3 hours and thus credit compensation is not sufficient, the study may offer credit compensation for the first 3 hours and then monetary compensation for any portion of the study that extends beyond that time.
* Studies can include payments (or gift cards and the like) if such payments are an integral part of the study’s focus and substantive interest (e.g., the effects of incentives on learning or performance). However:
  + Such payments should not be an advertised or posted part of the study or used in any way for recruitment purposes.
  + Investigators should request that those who participate not disclose this aspect of the study to other potential participants.
* If you would like to request an exception to this policy, please contact the chair of the Dept HSC (John Kerns, [kernsj@missouri.edu](mailto:kernsj@missouri.edu))

Suggestions for completing IRB applications and Consent Forms

1. The Campus IRB requests the inclusion of specific text on your eIRB application to address the research requirement in Psych\_1000.Under the section pertaining to subject inducement, you should include the following text:

*In all Psychology 1000 classes, students are required to learn about psychological research beyond what is presented in their lectures and textbook. This is accomplished through one of two means. First, students may serve as subjects in psychological research projects that are offered through the Department of Psychological Sciences. Through their participation in these projects, students may earn up to 16 research/experiment credits (total of 8 hours of participation). Alternatively, students may demonstrate their knowledge of psychological research by completing a series of short papers (e.g., 1-2 pages) on some topic in research. Students are also welcome to use a combination of research participation and short papers. The research credits (via research participation and/or papers) figure into the students' final grades. They are required of every Psychology 1000 student (i.e., not simply extra credit).*

1. You should also put this statement in the consent form:

*I am aware that my participation in this study will at least partially fulfill the research requirements for my Psychology 1000 class. I am also aware that there are alternative ways of fulfilling my research requirement (e.g., completing a short paper). These alternatives are described in the syllabus for my Psychology 1000 class.*

1. **Information for Psychology 1000 Students (to be posted on course syllabi or webpages)**

**IMPORTANT INFORMATION ABOUT PSYCH 1000 RESEARCH PARTICIPATION**

As part of this course, you are asked to acquire first hand knowledge about psychological research. There are two ways to do this. One way is to volunteer 16 half-hours of service as a participant in ongoing psychological research during this semester. For each hour of service you will earn points to be applied to your course grade. This means that a portion of your course grade can be earned simply by serving as a participant. The other way to acquire this research participation knowledge is to complete assignments designated by your Psych 1000 Instructor. The research exposure requirement accounts for 10% of your course grade.

Soon after the start of the semester, you will have the opportunity to complete the on-line group questionnaires (you will be able to link there from <http://missouri.sona-systems.com> and will soon receive an email with further info). By completing the on-line group questionnaire survey, you will receive 2 credits toward research participation. After receiving the notification email, you will have 2 weeks within which to complete the forms. The information provided will later be used by experimenters to contact students to offer credit to participate in further studies. Thus, by completing the on-line group questionnaire survey, you will likely have many more opportunities to participate in other studies [The information that you provide on the Group Questionnaires is treated **confidentially**. This information is used to pre-select participants based on traits or attitudes that may be relevant to a psychological study. Additionally, any data that you may provide as a participant is also kept **confidential** and your name is often **not attached** to your responses or to any measures of your performance in any experimental task.]

Your participation in the Group Questionnaires, as well as your participation in ongoing psychological research is voluntary. If you choose not to serve as a participant then you may earn an equivalent amount of credit by completing assignments designed by your PSYCH 1000 instructor. See your instructor or TA for more information.

**YOUR RIGHTS AS A PARTICIPANT**

If you have any complaints or are unhappy with your treatment during your participation, you should **contact a member of the human research committee or leave a message** with the Committee Clerk ([psych1000research@missouri.edu](mailto:psych1000research@missouri.edu) ; 882-7209).

The current faculty member(s) of the Human Research Committee are:

Dr. John Kerns, Chair 204A McAlester Hall 884-6017 [kernsj@missouri.edu](mailto:kernsj@missouri.edu)

You may also contact the Campus Institutional Review Board (IRB) at 882-9585.

When you arrive for an experiment, the experimenter will provide a description of the basic procedures or tasks that you will be asked to perform. You will then be asked to give your consent to be a participant. **You are free to leave the session if you are concerned about the procedures at any time during the session without fear of recourse or any other penalty. You may leave the session at any time without the approval of the experimenter**. If you appear at the right time and place for an experiment but the experimenter does not appear (after you wait 10 minutes), you are entitled to receive one credit for that experiment. In such an event, email or call the Committee Clerk ([psych1000research@missouri.edu](mailto:psych1000research@missouri.edu); 882-7209).

**Please note in order to receive the proper credit, you must report this event on the same day that it happened.**

**HOW TO VOLUNTEER**

A video overview of how to sign up for experiments is available at <http://www.youtube.com/watch?v=uXw0Aj-rtvc&feature=youtu.be>

Please also read the information below.

All Psychology experiments are listed on the Psych 1000 Research Participation Website, located at:<http://missouri.sona-systems.com>. You must logon at this webpage to receive credits for participating in experiments.

Your user name and password for the website will be automatically created based on the class roster as of the first day of class. Shortly after the start of the semester, you should receive an email to your university email address with your logon and password information.

**If you do not receive an email with your Research Participation Logon and Password within the first 10 days of the semester, you should notify The Human Subjects Committee Clerk** ([psych1000research@missouri.edu](mailto:psych1000research@missouri.edu); 882-7209) **so that an account can be created for you. When you contact us, please include your first and last name, university UserID (pawprint), student number, course section, and university email address.**

Throughout the semester, researchers will post a description of their experiments, including the date, time and location of each session. Each description will provide an option for you to signup if there is an available appointment time. In some instances, an experiment may request that you email or call the investigator so that you may be contacted for an appointment. After you sign up for an experiment, you will be sent a confirming email, and some experiments may also send you a reminder email the day before your appointment.

You can view a record of what experiments you have signed up for, and your history of participation, at the website at any time. Most experiments will be conducted in the Psychology Building which is located at the corner of 7th Street and Locust Street at 200 South 7th Street, or Noyes Hall located on South 6th Street between the Engineering Building and Parker Hall. Other studies may be conducted online. **~~Note that only 50% of your total credits may be earned by participating in online studies. This means that only 7 credits may be earned by participating in studies conducted over the internet.~~**

When using this boilerplate text in syllabi and webpages in Fall 2022, please omit the struck through text. Students may earn all research credits through participation in online studies if desired.

If you have any questions about the time or location of an experiment, see the website.

Note that the website we use to administer research opportunities has very recently released an app for Android phones and tablets and can be downloaded at:

<https://play.google.com/store/apps/details?id=com.sona_systems.mobile>

or simply search for "Sona Systems" or "Sona Mobile" in the Google Play store.

The iOS (iPhone/iPad) version is available at <https://itunes.apple.com/us/app/sona-mobile/id562898091?mt=8>

or can be found by searching for "Sona Systems" or "Sona Mobile" in the App Store.

**HOW TO RECEIVE CREDIT**

You will generally receive credits from experimenters via the website within 1 week of your participation. See the “My Schedule and Credits” option. Each experimenter will give you 1 credit for each half-hour of service as a participant. You need to earn 16 credits to complete your requirement. If you find a discrepancy between the number of credits assigned to you on the web and how many you think you have earned, contact [psych1000research@missouri.edu](mailto:psych1000research@missouri.edu) (882-7209).

Note also that although students can participate in as many experiments as you would like, only a maximum of 16 credits from experiments and/or alternative assignments can be earned toward your grade. No extra credit can be earned from participation in experiments or alternative assignments.

**CANCELLATIONS & NO\_SHOWS**

When you sign-up for an experiment you are making a *commitment to appear* and your space in the session is reserved. That means that other students will not be able to utilize that space. **Because of this, your commitment will impact your classmates, as well as the researchers, so it is very important that you keep your scheduled session.** Do not sign up unless you are sure that you can attend the session. If an emergency arises and you find that you cannot uphold your commitment to attend the research session, then you **should call or email the experimenter AT LEAST 24 HOURS BEFORE your scheduled session** in order to cancel your appearance, **or cancel via the website**. The researcher will then mark you as “excused” from the session (if you cancel by leaving a voicemail message, you should SPELL out your name in your message and also spell out your USER ID. If the experimenter cannot understand your name, then you will not be marked as excused).

Failing to appear on time to your scheduled research appointment wastes time and resources and can negatively impact your classmates’ opportunities to participate in research. Students who fail to cancel their session in advance (an “unexcused” no-show) 2 times will have their sona-systems research participation account limited. Students with a limited account will be unable to sign up for further studies. This means that after 2 unexcused no-shows, you will not be able to sign up for research studies, and will have to fulfill the research component of the course by completing the options designated by your instructor (i.e., writing a series of short papers).

**\*\*Note also that students who have ZERO unexcused no-shows will receive one extra credit point toward their final grade.\*\*\***

**DEBRIEFING SUPPLEMENT**

**[GUIDELINES FOR THE RESEARCH EXPOSURE REQUIREMENT OF PSYCHOLOGY 1000]**

**Introduction**

A debriefing for studies utilizing the Psych 1000 participant pool should (potentially) accomplish 3 goals: (1) debunk any deceptions should they exist (2) desensitize any ill feelings or knowledge about self that may have been elicited by participation and (3) provide educational compensation. Goals 1 and 2 may not be relevant to particular studies, but when relevant are of paramount importance. For example, beyond just deception, participating in studies where one expresses undesirable attitudes (e.g., prejudice or bias), realizes irresponsible risky behavior (e.g., unsafe sex), or performs poorly (e.g., on memory assessments) can be unsettling. Great care and sensitivity should be taken in handling such situations. Resources (e.g., help lines or risk information) should be provided as appropriate.

Goal 3 is always critical for studies utilizing the Psych 1000 participant pool. The justification for the existence of the Psych 1000 participant pool is that research participation is an educational activity that enhances knowledge of the science of psychology. There are both pedagogical and ethical implications of this justification that we, as both researchers and educators, have an obligation to meet. However, the experience of participating in research by itself offers at best minimal education. The education piece is largely provided by the debriefing; that is, the explanation of the research once the student has completed his/her participation.

**Policies for Debriefings**

The following policies are intended to enhance the educational experience of research participation.

* Researchers must provide a thorough debriefing and explanation of their study, even if students appear uninterested in receiving it.
* It is *strongly encouraged* that, when possible, the debriefing be delivered verbally in addition to written form. We all know that many students simply toss a written debriefing sheet in the trash upon leaving the session. Verbal debriefings have the potential when delivered effectively to enhance students’ experience and convey respect for the student by communicating investment in student learning.
* Debriefings should be roughly commensurate with credits allocated (or time spent). For example, a 4 credit (2 hour) study should provide more education (perhaps involving 10-20 minutes of discussion with the students) than a 1 credit (1/2 hour) study (which may involve about 5 minutes of discussion with the students).
* *If a debriefing is not sufficient, the study will not be approved by the Department HSC until the debriefing is sufficiently improved.*

**Suggestions for Educating through Debriefing**

* Like any form of effective teaching, an effective debriefing recognizes the nature of the audience. One way to think of a debriefing is as a mini-lecture to an introductory psychology class. Participants will be mostly freshmen and sophomores and the information should be presented accordingly.
* The goal is that participants leave the session having learned something about the nature of the study. This may include but is not limited to the societal importance of the issue, a particular theoretical perspective, or the methodological approach.
* Some studies can be relatively nuanced in the (of course) critical contribution they seek to make. But this level of nuance is not necessarily appropriate for a freshman or sophomore student. At times a more general orientation to the subject area may offer more educational impact.
* There are multiple ways to approach debriefings.
  + One way to approach a debriefing is as follows:
    - Orient the participant to the question or issue or problem of interest to psychological science. Explain why it is interesting or important.
    - Provide a brief description of the ideas or concepts that are guiding the effort to inform this issue. This may entail describing how a hypothesis is derived from a particular theory and then tested, or the need for exploratory studies.
    - Describe how the student’s actual experience in the study enables testing of this hypothesis or insight to otherwise be gained.
  + Another way to approach debriefing is similar to the above but instead provides a more general orientation to the research program of which the particular study is a part. Some researchers use one debriefing for multiple studies.
  + Additionally, asking participants at the beginning of a verbal debriefing what they thought the study was about is not only good practice for assessing suspicion, but can also help engage participants in the debriefing process and allow the experimenter to tailor the debriefing to the participants’ level of understanding.
  + Again, some studies may focus on conceptual ideas, others on methods, others on societal importance, and so forth.
* Examples of debriefings are attached in the appendix.

**SAMPLE DEBRIEFINGS**

Debriefing for Working-Memory Laboratory [*note: typically delivered for a 60 min study*]

Nelson Cowan, Professor

January, 2006

We can never thank our research participants enough. We run a large number of experimental conditions, with the general goal of understanding *working memory*, humans’ ability to keep in mind a small amount of information to be used in ongoing tasks, and *selective attention*, the ability to pay attention to relevant stimuli and block out irrelevant, interfering stimuli. We are interested in the mechanisms of working memory and selective attention, which we examine largely in adults, and in the development of these abilities during childhood.

Currently, the following specific procedures are under way. The experimenter will tell you which was the one in which you participated:

1. Working memory for items and associations in visual arrays, in children and adults

On every trial, a sequence or a simultaneous array of objects is presented and then is followed by a second sequence or array that is used to test the memory for the first array. In one type of procedure, arrays of differently-colored squares are presented and the task is to determine if the second array is the same as the first or if one color has changed. In other conditions, arrays or sequences of sounds instead of colors are used. Sometimes, an additional distracting task is presented to determine whether attention is needed to keep in mind the sequences or arrays. The goal is to determine the extent to which remembering one kind of thing in working memory comes at the expense of forgetting other things, and the role of selective attention in working memory.

In one procedure currently in use, we present locations and names to determine how well children of various objects can remember the associations between names and locations. Names make use of a verbal type of working memory and locations make use of a spatial type working memory, but it remains to be seen how children can carry out the task if it requires that the verbal and spatial types of information in working memory be linked to one another.

2. Working-memory capacity for spoken or printed word lists.

The purpose of this study is to determine the fundamental limit on people's ability to retain series of items. Many adults can retain lists of about 7 random digits or words, but not longer lists. Why? Some prior research suggests that we group items together and can retain about 4 groups. The number appears to be less in children. We would like to know more about how to measure the limit in children and adults, and its implications for other tasks such as solving math problems (where it is easy to forget part of the information that is needed for the task). Also, we know that children recall less than adults but we are trying to find out whether the difference is in how well groups of words can be formed or in how many of those groups can be recalled. We can use evidence such as the pauses between groups of words and the length of runs of correct words to help understand how (and indeed, whether) words are mentally grouped together in children versus adults, and how many groups can be recalled.

3. Effects of attention on memory for word lists.

In this series, we are attempting to determine whether conditions that require extra attention will interfere with memory for lists. The general purpose is similar to what was explained in #1, but using stimulus materials composed of words as in #2. Conditions that require extra attention in these experiments are those in which a word is presented in a color that is misleading. For example, the cue “animals” indicates that you should recall all of the animal names that you saw but the cue may be presented in a color that previously was used not for the animal words, but for the words for types of furniture.

4. Thinking and working memory.

We believe that people need the ability to hold information in mind not only to remember things, such as a telephone number that has just been given to you, but also to solve problems. As children mature, the ability to solve problems clearly increases; but we are trying to find out how much of that ability depends on working memory. We present a problem that is simple for adults: sorting tokens on the basis of color, shape, and texture at the same time. This problem is typically more difficult for young children. In our study we present this sorting task either alone or in combination with a multi-digit number to be remembered. The question is whether having to remembering the number will decrease the complexity of the problem that can be solved at the same time. If so, this would tell us that working memory is needed for problem-solving.

In all of these experiments, we are looking for group averages. The experiments are not developed enough to be of use in determining how good or how poor a particular person’s memory may be.

If you have additional questions, please feel free to call me (telephone 883-4232) or write an e-mail message (CowanN@missouri.edu) and I will return your message. Sometimes, if I am out of town, I will be able to answer e-mail more promptly than a telephone message.

Thanks very much.

Nelson Cowan

Professor and Director of the Working-Memory Laboratory

“Application of Behavioral Economics to College Drinking Behavior”

Debriefing Form

Thank you very much for participating in our study today. In this experiment, you were asked to estimate how many alcoholic beverages you would consume at a variety of drink prices, including some situations in which drinks were available at discounted “happy hour” prices. You also completed several questionnaires regarding your alcohol use and personality characteristics.

The purpose of this study was to investigate factors that contribute to drinking behavior and associated consequences among college students. Excessive alcohol consumption by college students is a major public health concern. The National Institutes of Health (NIH) reports that about 4 out of 5 college students drink alcohol and about half of those who do drink also engage in binge drinking episodes. Each year, alcohol is estimated to contribute to over 1,800 deaths, more than 500,000 injuries or assaults, and more than 97,000 cases of sexual abuse on college campuses and surrounding communities. College drinking is also associated with academic consequences in about 25% of students, including missing class and receiving lower grades. Therefore, studying what leads to excessive alcohol consumption in this population is very important.

One factor that has been shown to contribute to increased alcohol consumption among college students is drink specials or promotions at bars or other alcohol vendors. These specials have been shown in prior research to be associated with consuming a greater number of drinks, achieving a higher blood alcohol concentration, and engaging in alcohol-related risky behaviors (e.g., drinking and driving). Our study used a behavioral economic framework to examine how drink specials and promotions affect alcohol consumption at a variety of prices. This approach allows us to examine how participants’ consumption patterns are affected by various drink discounts (including “dollar-off” and “all-you-can-drink” specials).

We hypothesized that participants would report increased alcohol consumption during “happy hour” situations in which drinks are available at discounted prices. We further predict that these differences will be influenced by the overall level of alcohol use and engagement in other risky drinking behaviors (e.g., binge drinking). We also plan to examine how these effects are related to demographic and personality characteristics.

Ultimately, we hope this study will further our knowledge of how drink specials and promotions contribute to excessive alcohol consumption in college students. The results of this study may also be informative for developing more effective intervention programs and policy changes aimed at reducing college drinking risk.

We would be happy to further discuss the experiment or our hypothesis with you or to answer any questions you may have now or in the future (Dr. Amlung’s office number is 573-884-9750). You may contact the Campus IRB Office at (573) 882-9585 to ask about your rights as a research subject or to report research related problems.

Thanks again for your participation!

**Debriefing for Study**

There was a little more going on in the study than I told you about in the beginning. What I’d like to do now is give you an idea of the theory behind our research and how it relates to what you were doing here today.

Prior research shows that people often use simpler ideas to help them make sense of more complicated ones. For example, people can have difficulty expressing their feeling of sadness; they find it easier to talk about sadness in terms of being “down,” or feeling “low,” even though being sad does not literally bring people closer to the ground.

In today’s study, we’re interested in whether these kinds of metaphors also play a role in the way we think about health issues. Health issues are often very abstract, and people may find it helpful to think about them in terms of other concepts that are more concrete. Today’s study looked at the health issue of skin cancer. This is an abstract topic, and some people find it helpful to think about preventing cancer as though it were a battle. In other words, people might think about cancer prevention in terms of actively fighting against cancer.

The purpose of today’s study is to see whether *hearing* that metaphor leads people to think with that metaphor. That is, if we hear someone talk about preventing cancer as though it were a battle, do we start to think about skin cancer that way? Does it increase our motivation to take steps to prevent it?

To answer these questions, we had some of you read an article describing cancer prevention as though it were a battle. The other half of you read a similar article, but it didn’t use that metaphor. Which article you were asked to read was determined by the flip of a coin, and says nothing about you. Afterwards we asked about your willingness to take steps to prevent skin cancer. We also asked what kind of sun lotion you might like. We did this to get more of a behavioral index of how much a person is interested in sun protection; that is, would certain people select lotions with higher SPFs.

Since we are ultimately interested in preventing health risks, we are giving everybody the same SPF 30 sample lotion, which meets recommended guidelines

So, now you know that there was a bit more going on in the study than we told you about in the beginning. Specifically, the articles you read, though based on information that health communications use, were designed to encourage some people to think about cancer metaphorically. The reason I didn’t tell you these details in the beginning of the experiment was that we needed to create a situation in which you felt comfortable responding naturally to the materials. If you’d known all along what the purpose of our study was you probably wouldn’t have responded naturally and given us your honest opinions. In that case, we wouldn’t have been able to see how people really react to this kind of information in the “real world.” This would have invalidated our results, which means you and I would’ve been wasting our time and efforts today. So that’s why I didn’t tell you all the details about our study in the beginning. I want to make sure that everyone understands why we didn’t tell you this information up front, and I also want to make sure that you all feel okay about that.

Remember that your data will be analyzed and presented completely anonymously and that we will destroy any information linking you to the data we have collected in this study. However, you still have the right to withdraw from the study if you would like. We would destroy any data associated with you or your responses. If you would like to do so, please let me know afterwards.

One more very important point before I let you go: hopefully it’s obvious that we’ve invested a lot of work into this research, and we take it very seriously, and as I mentioned, if you came in here knowing what the experiment was about then your responses would be skewed and our results wouldn’t be interpretable at all and everyone would have wasted a lot of time and resources. In other words, it is very important that you don’t mention to anyone else what the experiment was about or what we were really looking at. Can I get your word that you won’t tell anyone what we were really looking at in this experiment? Thanks: if someone asks you what the experiment is about, please don’t tell them everything I just told you; feel free to tell them truthfully that we do research on how people think about health issues. Alright, thanks again for participating!