Human Participants—Respondents and Researchers

IX.A. RECRUITING EXPERIMENTAL PARTICIPANTS

I would like to hear comments from more experienced experimental researchers about standard practices for recruiting and compensating participants in consumer and marketing experiments. What are the pros and cons of using student participants? (I know there was a debate about this in the literature a few years ago, but what is the current prevailing opinion?) Is there a difference between using undergraduate students (business majors or nonbusiness majors) and graduate students? When using student participants, is it better to compensate them with extra course credit or to pay them? And, is one time of the semester or quarter (i.e., beginning, middle, or end) preferable for using student participants? I am especially interested to know if anyone has conducted a systematic study of these last two issues. I have recently run experiments using student samples from the same population, but paying one sample and giving extra credit to the other, which definitely affected the rate at which students showed up for their assigned sessions. It may also have affected the variance in the quality of students that chose to participate. Also, in an experiment that I recently ran at the end of a semester (during the last week and a half of class meetings before the final exam week), I collected informal statements from participants in debriefing sessions that indicated that they were no busier or more distracted than they would have been in the middle of the semester.

Also, what are the standard practices for recruiting and compensating nonstudent participants (e.g., ordinary folks off the street)? And, for experimental marketing and organizational research (on which I am presently embarking), what are the equivalent standards for industry-based samples (i.e., executives, managers, executive MBA students)? (This information is critical for budgeting grant proposals. I recently called the National Science Foundation and they could not offer much help on this point.) Also, does anyone have any great suggestions for increasing our success rate for getting such populations to participate in experimental research? I was discouraged by a recent conversation with George Day and David Montgomery, who said that even they are finding it increasingly difficult to recruit managerial research participants in the executive courses at the Wharton School and Stanford University. (So, where does that leave the rest of us?)

Regarding student respondents, the debate of a few years ago is the best place to understand and take a stand on this issue. Although that debate was conducted primarily on philosophical grounds, it may be prudent to also take into account a sociological issue. If a particular journal and editor look down on student samples, and if that is the journal you want to publish in (and if you are worried about tenure), you might make a choice of study respondents on these considerations.

Regarding undergraduate respondents versus MBA respondents, there are no differences, really, unless you need to worry about the typical MBA respondent’s higher level of cynicism and misplaced belief that they “know” what the study is about (i.e., guessing the hypothesis is more of a problem with the MBA students). Also, I have found that undergraduate respondents are more receptive to study guises.

Regarding compensation, I have used several methods with equal success: individual compensation (when recruiting from a paid participant pool), a large pot of money to a few participants who won the lottery (when recruiting from a research participant pool of the school of business), extra course credit (for various classes), and pure appeal to volunteer for a worthy cause. (This last one I have tried only with students in my own classes, and presumably that is the reason it has worked for me.)

Regarding time of semester or quarter, I have avoided the first 2 weeks, the middle 2 weeks, and the last 2 weeks during a 16-week semester. I have no data to back this up, but I have followed this rule primarily because the concerned faculty (including myself) thought that these times involve much confusion and stress in the lives of students. It is quite possible that this assumption is not justified, or even if present, the stress and confusion would not have any influence on the responses.

I have found other factors that have influenced my decision about when to conduct a study. I have successfully used a natural event in the classroom as a manipulation. I scheduled a study that involved a mood manipulation on a day on which students were to get back their midterm grades. The study was conducted after grades were announced in class, and the actual grades that students received seemed to influence their mood, as the results of the study suggest. However, even if you are not interested in the effect of mood (or other natural
events), random assignment of students to conditions should take care of these variations.

Another factor that appears to influence response is whether the study is conducted in the classroom versus a laboratory setting. In the classroom, there tends to be more apathy, more nonresponses, and more error in following instructions. Also, because students are generally sitting next to people they know, they are not hesitant to try to see what the other person is doing in spite of instructions not to do so, comparing what they are doing to those next to them, and even disturbing their neighbors quite blatantly. In contrast, in a laboratory setting I have noticed that all these tendencies are greatly diminished.

First of all, let me tackle the issue of whether we should use student participants in our research. Overall, I see several advantages in doing so. They are often more homogeneous than other participant populations, reducing unnecessary within-cell variance and making experimental design decisions more straightforward. For example, in a student population, it is much easier to select a product category or commercial presenter that they would all be familiar with or would like. Student participants are often more available and approachable, giving us an opportunity for multiple data collection points if needed. Student participants are also used to completing survey-like instruments, reducing problems with respondent comprehension of question content or instructions.

Why not use student participants? I have used student participants quite infrequently in my own research, so there must be good reasons not to do so. I address your question by identifying several situations that I have faced in my research that required the use of nonstudent participants. First, student participants are not appropriate when one or more of the factors of interest cannot be manipulated within a student participant population. In my work with age differences in children, I cannot reliably manipulate the whole array of developmental differences that exist at different ages in children. Age is correlated with many cognitive factors that are usually too messy to manipulate.

Second, student participants are not useful when one of the basic preconditions for the study is not present in the student population and would be difficult to manipulate. Consider an example from my own research on brand extensions and their effects on the parent brand image. My colleagues and I have used nonstudent populations because the phenomenon being studied—when and how consumers update strong prior beliefs based on new information—required strong sets of prior beliefs about existing product categories and brands based on many years of product exposure and advertising. We were also restricted to looking at brand names that fulfilled several requirements, such as having many different types of products marketed under the same parent brand name. Given these constraints, we found that a nonstudent population had stronger and more homogeneous prior beliefs than a student population. Similar research in psychology has used student participants, but researchers have the advantage of choosing from a wider array of prior beliefs about issues and stereotypes.

Finally, student participants are not advantageous when this population does not provide the variance needed to study specific factors of interest. Although the homogeneity of a student population is usually an advantage, as argued earlier, it is not an advantage if the research requires variance on certain background factors as part of the experimental design. For example, in one brand extension study, my colleagues and I wanted to examine if brand name dilution would occur differentially among different user segments (e.g., nonusers, heavy users, light users). Because of their common lifestyle and stage of life, it is difficult to envision a large degree of variance for product or brand usage in a student population. They all use computers, listen to CD players, and wear brand name athletic shoes; they make relatively little use of credit cards and major kitchen appliances. To obtain a participant pool with enough knowledge about product categories, yet considerable variance in usage, we had much more success with a nonstudent population.

I have mentioned three situations that warrant the use of nonstudent populations. This is probably not a complete list, but hopefully it gives you some idea of the thinking behind the choices that researchers make. In most of my studies with adult populations, my first inclination was to use student participants for all the reasons mentioned earlier. However, faced with the needs in a particular experimental setting, I made the switch to nonstudent participants to provide the best test for the topics of interest.

One reason for being judicious about the choice of nonstudent participants is cost, which touches on your questions about recruiting and compensating nonstudent participants. Given that most of my experience has been with nonstudent participants, I have more to say about these topics than those related to recruiting and compensating student participants, so I restrict my comments accordingly. Recruiting nonstudent participants for consumer research usually happens in one of two ways. First, you can contact organizations and offer to compensate their members for participation in your research. Often, an additional donation to the organization itself can be offered as an incentive. Organizations such as schools, churches, civic leagues, and the like are often open to such offers as a way of fundraising. The amount of compensation can be geared to the time and effort required by participants. If you do not know how to calibrate compensation, you might inquire about norms from local marketing research firms. In addition, you may find that recruiting is more successful with some organizations if you have something of value to trade, such as the results of your study or delivering a brief talk on some related topic to the group. For example, if
you are recruiting organizations for a study of salesperson compensation, you might offer to provide baseline results comparing their firm with others in the study as an enticement.

Second, you may want to use the services of a local marketing research firm or field service to help you recruit and compensate nonstudent participants. This approach is more expensive, but relieves you of many of the organizational headaches involved in recruiting, qualifying, and scheduling participants. To obtain bids, you will need to call several marketing research firms with the details of your study: how many participants, background characteristics, study procedure, method of administration (self vs. interviewer), and approximate time. You can often reduce the cost by simplifying your experimental procedure, using self-administered methods, and reducing the time involved to a minimum (e.g., 15–20 min). The costs for nonstudent participants can vary immensely depending on the types of participants involved and the parameters of the experimental procedure. For example, in my research I have received bids ranging from $100 and up per participant for a 30-min study with children ages 4 through 12 to $18 through $22 per participant for a mall-intercept study with women ages 18 through 54.

If you decide to go this route, I have several suggestions to offer. First, obtain bids from several marketing research firms, including full-service marketing research firms and field service firms that specialize in data collection. You will find that prices vary more than you would expect and that the recruiting procedures and participant pools may vary quite a bit as well. Second, before choosing, talk to the field supervisors in charge of scheduling and visit the data collection points (offices, malls, churches). By visiting the sites and talking with personnel, you may pick up clues about how carefully your study will be treated and what type of population you might expect. For example, mall facilities differ quite a lot in terms of the population they draw. You may find that the mall draws a lot of retired people during the day and teenagers in the evening (which could be good or bad depending on what you are looking for).

Third, after you have selected a research firm and have scheduled the study, do not desert your study. Although you may feel a bit awkward, you need to babysit your study. I would insist on being at the research site during the time interviewers are briefed to ensure that your instructions are being clearly transmitted. If possible, I would stay at the site for at least the first day to ensure that your instructions are being carried out and to troubleshoot if questions arise. (They usually do.) If you are doing experimental research, which requires that certain manipulations or stimuli be presented to different groups of participants, you will probably find some confusion on the part of field supervisors and interviewers that are more accustomed to administering straightforward surveys. After the first day, I suggest visiting the site for a few hours throughout the schedule to check in with the field supervisor about questions or concerns. The interviewers, and sometimes field supervisors, change from day to day or time of day. Therefore, the personnel that did such a great job with your study the first day may not be there on the second day or may be assigned to another study. During your visits, I suggest examining the surveys that have been completed for any problems. Just because you have handed over many of the organizational tasks to the research firm does not mean that they understand everything about your study and can anticipate every concern you may have.

**IX.B. OBTAINING INFORMED CONSENT**

An issue related to recruiting participants and running experiments involves the need to obtain informed consent from our research participants, especially in the case of nonstudent samples. My experimental psychology professors repeatedly stressed the importance of getting all experiments cleared by the university’s human participants committee, which I have done and which I understand is necessary for any future publication in American Psychological Association (APA) journals and conferences. However, many of my business school colleagues (who shall remain anonymous) look at me like I am nuts when I mention dealing with the human participants committee and my undergraduate business student participants (most of whom have plentiful experience as research participants), and look at my consent forms as if it is the first time they have ever seen one. There is also a concern that industry-based participants will be even less familiar with human participants safeguards and will be more subject to demand artifacts if presented with official-looking consent forms before doing an experimental task. However, my local human participants committee coordinator explains that obtaining informed consent is perhaps even more critical with industry-based participants because they need to be informed (and assured) that their participation is both voluntary and anonymous and that their decision to participate and their task performance will not affect their employment in any way. In sum, as a beginning experimental researcher I have been convinced to take the high road and always get my studies approved by the human participants committee. My question, then, is whether this practice is the norm in our applied field of marketing and consumer research and what more experienced researchers think about this issue. What are the policies on this of our major journals (*Journal of Consumer Psychology, Journal of Consumer Research, Journal of Marketing, Journal of Marketing Research, Marketing Science, etc.*)?

Professor Deborah Roedder John
University of Minnesota

Should academic studies, whether they be experimental or survey in nature, undergo review by a human participants committee? Should we obtain consent, where required by hu-
human participants committees, from all of our research participants? Absolutely and unequivocally.

Human participants committees serve at least two purposes for the researcher and the university academic community at large. First, and foremost, it is their responsibility to protect human participants by ensuring proper informed consent procedures. Marketing and consumer behavior studies rarely involve controversial methods or data that would be of concern to a human participants committee. After all, we are not testing experimental drugs or doing electric shock experiments on human participants. Perhaps our work seems so benign in comparison that we ought not to bother with all the paperwork. However, we cannot escape the fact that we are asking people to participate in our research and they deserve to be treated fairly and with the same regard as participants in any area of research.

Second, the human participants committee functions as a legal safeguard for the researcher and university, which, of course, is why the consent forms typically drafted by these committees sound so stilted and full of legalese. Do we really need this kind of stuff confusing our participants and making our life difficult as well? The answer is yes. Although I am not fond of distributing these forms, I realize that human participants review protects me to some degree as a researcher. If problems were to arise with my participants, I have covered myself with university officials by going through human participants review. I would also expect to have access to legal representation from the university, if needed, given the fact that a university committee approved my research protocol and consent form. Once again, these may seem like unlikely events. Who is going to threaten to sue us for asking them to answer some questions about their product preferences? Because I do research with children, who are considered an "at risk population" by human participants review committees, I may have more concerns than others.

Therefore, do we really need to get our research approved through human participants committees? Absolutely. I say this even though these reviews and consent procedures sometimes cause a good deal of difficulty for me. In a typical study with children, I will need to get a letter from the principal and teachers in charge, distribute an approved consent form to go home with children, and collect completed consent forms with the signature of both the child and the parent. I have lost many participants, one time almost 50%, due to lost or incomplete permission forms. However, I feel the consent procedure is absolutely necessary with this participant population and would not knowingly approve research funding or publication from other researchers who did not obtain such approval.

For most researchers, a human participants review will not result in such odious procedures. In many cases, researchers receive an exempt status, which does not require that informed consent procedures be put in place. Perhaps the most bothersome aspect of human participants review is the wait for the committee to meet and approve the research procedures or consent procedures. It may take anywhere from 2 to 6 weeks depending on when and how often the committee meets at your university. Often, you can submit your research for review as long as you can describe the major features of the study and the participant protocol, leaving time to put the finishing touches on the measurement instruments and experimental procedures as the human participants review is underway. There is no excuse not to do it.

IX.C. WHY NOT ASK EXPERIMENTAL PARTICIPANTS FOR MORE PROCESSING INFORMATION?

Why do so many quantitative or economic scholars of marketing never ask their experimental participants any questions directly, such as what they believe they are doing and why they are doing it? Instead, some of these scholars proffer theories and explanations for the behavior that they do observe, mainly purchases, that may benefit substantially from participants’ answers to direct queries.

Professor Brian Sternthal
Northwestern University

In most of the situations typically assessed in marketing and psychological research, the setting prompts research participants to focus their attention on the information that is being presented and to formulate responses on the basis of this information. Memory is thus used as a tool to process information and to relate it to prior knowledge in rendering a judgment. This mental activity often imposes such substantial resource demands that few, if any, resources remain for introspecting about the process by which decisions are made.

This absence of attention to the decision-making process makes it inaccessible to the respondent. As a result, research participants can inform the experimenter about what they know and what they feel, because attention was focused on these cognitions. However, they do not have access to the process by which the decision was made because resources were not devoted to this task. If asked about the causes of their behavior, respondents may offer reasons. Doing so typically entails using salient cues to suggest a plausible scenario for their actions. However, these reasons frequently do not reflect the causal agents. In this circumstance, it is judicious to ask research participants about their psychological state and make an inference about the process at work. This may entail inquiring about a respondent’s knowledge or attitudes as a basis for making inferences about their dispositions.

To illustrate a situation in which respondents offer reasons rather than causes for their behavior, consider the task of evaluating four loaves of bread that are similar except for the wrapping. The order in which the loaves are evaluated is var-
ied between groups. The finding indicates that the last loaf examined is preferred, irrespective of the order in which the four loaves were evaluated. The experimenter’s inference is that the decision rule is to select the last loaf examined if it is as good as or better than its predecessors. In contrast, respondents are likely to attribute their selection to the packaging because it is a highly salient feature that distinguishes the choice alternatives. Respondents offer reasons for their behavior, but these are not necessarily the causes of their behavior.

There is a widely held conception that some measures offer special insight into the process at work. For example, in the context of information processing research it is often asserted that respondents’ thoughts represent process measures, whereas measures such as judgments are better viewed as a criterion. In fact, thoughts are indicators of a state rather than direct measures of a process. Along these lines, the observation that a respondent recorded many message-related thoughts is a measure of a state from which the inference is made that the respondent engaged in literal processing of the message. Although it is true that a thoughts measure is typically more proximal to the causal agent than is a judgment measure, both of these measures entail making an inference about the process on the basis of a respondent’s report about a psychological state.

Although in many situations people use their memory as a tool to make decisions, there are circumstances in which memory serves as an object. In these instances, individuals reflect on the process by which they make judgments. Attention is paid to understanding the causes of their behavior and distinguishing these from noncausal factors. Focusing attention in this way increases the likelihood that respondents can report accurately about the process at work.

Support for the notion that people can have insight about the process by which they make decisions is illustrated in work on correction (e.g., Martin, 1986; Ottati & Isbell, 1996). Ottati and Isbell varied the mood of respondents prior to having them make a decision. They found that experts with regard to the topic of the message viewed the positive mood as relatively young, within a mere 100 years ago when scholars were trying to distinguish it from philosophy, or the thought-provoking and field-shaping yet untestable psychoanalytic theory, and so on, swinging the pendulum strongly and firmly into the behaviorist camp. Furthermore, in our idolatry of the physical sciences, for which there is no possibility of making inquiries to the participants of studies (e.g., “hello mass,” “good afternoon gravity”), perhaps we seek to emulate the objective distance between the stimulus in the laboratory and ourselves as the observers of the phenomena.

More generally, it appears that people are reflective of how they are using memory when surplus resources are available after processing stimulus information or when they are specifically prompted to engage in such analysis.

Even when memory is being used as an object and research participants are attuned to how they are making decisions, they may choose not to share their insight about the process at work with the investigator. Respondents may not wish to share knowledge about their prejudices and proclivities. Asking directly about these proclivities is thus unlikely to prompt an accurate response, whereas monitoring psychological states in response to interventions and inferring the process may be sufficiently subtle so as to disinhibit respondents.

REFERENCES


Editor: The answer to this question probably depends on one’s view of a person’s capabilities for both introspective insight and communication; can we (Nisbett & Wilson, 1977b) and will we (Nisbett & Wilson, 1977a) tell what we know? For respondents to offer accurate descriptions of their reflections is to assume that they (a) understand the question as it is intended, (b) are capable of answering (e.g., have conscious access to the perceptual and thought processes that shaped their attitudes or behaviors), (c) lack motive to censor their responses (e.g., toward social desirability), and (d) are unaffected by survey characteristics (e.g., item wording, ordering, scaling).

Keep in mind, too, that the discipline of psychology is still relatively young, within a mere 100 years ago when scholars were trying to distinguish it from philosophy, or the thought-provoking and field-shaping yet untestable psychoanalytic theory, and so on, swinging the pendulum strongly and firmly into the behaviorist camp. Furthermore, in our idolatry of the physical sciences, for which there is no possibility of making inquiries to the participants of studies (e.g., “hello mass,” “good afternoon gravity”), perhaps we seek to emulate the objective distance between the stimulus in the laboratory and ourselves as the observers of the phenomena.

Rather than taking a low anthropological view of human nature, concluding that people are not good at knowing or telling you what they are thinking or doing, I think it would be far more informative to inquire about the conditions under which they might be more capable (e.g., presumably it already has been established in the literature that accuracy would be enhanced in the presence of greater abilities, time, assistance and prompting, motivation, including “need for cognition”; Petty & Jarvis, 1996, and so on.) In addition, given our fairly straightforward cognitive theories, it is often the case that the cognitive process that gave rise to certain data may be inferred from outcome-like dependent measures (about which there is somewhat less controversy regarding measurement issues). I am usually of the belief that more data are better, but I fear a
REFERENCES


IX.D. ETHICS OF DELETING CONTROVERSIAL FINDINGS

During the initial review process for a manuscript, the reviewers raised some concerns about the results involving participants’ responses to certain measures (e.g., null effects for cognitive responses when significant differences are expected) and the unexpected response patterns observed for one of the three experimental groups. When the revision was returned to the reviewers, the problematic measures and experimental group had been deleted from the manuscript. Is this appropriate?

Professor Deborah Roedder John
University of Minnesota

This question is really several questions in disguise: (a) Should all data collected by a researcher be included in the final article?, (b) Should nonsignificant results be included in the final article?, and (c) Should results contrary to the predictions be included in the final article? In response, I provide my opinion by relating some of the experiences I have had in my own research and the conclusion I have reached as a result. I have no references to offer—just my own thinking on these topics.

Revelation 1: Less is more. During the early days of my doctoral program, I read major journal articles and assumed that all the data that had been collected was reported in the body of the article. About the third year into my program, I got involved in running an experiment and had a revelation. Given the number of measures we took, and most consumer researchers take, it would be simply impossible to report all of these in the body of one 10-page journal article. Some measures were dismissed because they did not contribute to the
production of reliable multi-item measures, because they did not produce any variance due to ceiling or floor effects, or because they were confusing to respondents and did not seem to be measuring what we expected them to. In my opinion, these are appropriate reasons for narrowing down the entire pool of data into a manageable set.

**Revelation 2: Much less is much more.** Once I started to write up experimental results into a journal format, and I began to receive comments from outside reviewers, I got a second revelation: Nonsignificant results have limited value. If a particular effect is nonsignificant, it is of little value unless this effect is being contrasted with significant effects in other conditions or other studies. Nonsignificant effects are nonsignificant unless they are significantly different from significant effects.

To clarify, a nonsignificant effect can be nonsignificant for a variety of reasons. It may be that a lack of difference is expected from a set of theoretical predictions, it may be that the experimental manipulation or operational measure is simply too weak or too noisy to pick up a true effect, it may be that the sample size is too small to produce a powerful test of the true effect, or it may be that some unknown variable is suppressing the true effect. Gee, that is a long list. I guess that is why the reviewers were not that impressed with my nonsignificant results.

For example, in reference to your specific question, the cognitive response measure may not register significant differences as predicted if the number of responses is very low with little variance between conditions. It is not uncommon to see a floor effect caused by minimal processing or thinking on the part of uninvolved or distracted participants. Or, it may be that the researcher has coded cognitive responses into too many categories to have a meaningful number occur in any one category for analysis. In either case, there is probably more value in ignoring the findings than reporting them.

Before we completely dismiss nonsignificant results, let me say once again that not all nonsignificant results are insignificant. If you do not produce a standard effect that has been steadily shown in the literature, that may be significant. Perhaps the effect is more fragile than previously thought or is produced under a more constrained set of conditions than previously thought. If you predict a pattern of results, with some conditions showing significant effects and some not, the pattern is often significant. If you produce a significant result, and experimentally manipulate some moderating factor to render the result insignificant, then that is significant. In short, nonsignificant results typically have to be part of a predicted pattern of results to have value.

**Revelation 3: Something is usually better than nothing.** The first time I saw a significant result from one of my experiments that was opposite of my predictions, my first response was to recheck my data and computer print-outs for a mistake. After all, I rarely saw anyone reporting contrary results in their journal articles, so something must be terribly amiss. Of course, it turned out that I was amiss in my predictions. The poor data had nothing to do with it. This experience led to my third revelation—even a significant result in the wrong direction is more valuable than no result at all. I suppose this is a corollary from my second revelation, but it took me quite a while to see the good side of contrary results. Unlike most nonsignificant results, significant findings in the opposite direction do have value in understanding a phenomenon. They usually tell us that our predictions are not as simple as we thought, that we must consider other factors in our conceptualization, and that a different or modified theory is required.

Does this mean that contrary results of this sort should be reported? Yes, I think so. As researchers, we may be clever enough to figure out or even empirically test the reason for the contrary result. In this case, we may decide to change our predictions if we think we have identified a better explanation for our data and a better theory. Or, we may have to admit that we do not know why something occurred. As long as it remains a minor blemish in the conceptual story an author is trying to tell, I believe we should encourage authors to divulge these anomalies. Unfortunately, reviewers sometimes pounce on even the smallest or most infrequent deviations from the author’s story, which, of course, makes everyone less willing to share these results and gives little guidance to those who attempt to replicate or extend published work. Maybe every journal article should have an appendix labeled, “Stuff that went wrong.”

Professor James Barnes
University of Mississippi

The short answer to your question is, no. The APA (1994) provided a more eloquent answer in the section entitled, “Reporting of results (Principle 6.21)”: The essence of the scientific method involves observations that can be repeated and verified by others. Hence, psychologists do not make up data or modify their results to support a hypothesis (Principle 6.21a). Errors of omission also are prohibited. Psychologists do not omit troublesome observations from their reports so as to present a more convincing story. (p. 292)

**REFERENCE**