

Teaching Tips

Submitted by Kristi S. Multhaup, Chair, APA Division 20 Education Committee

My name is Kristi, and I am a card-carrying nerd. As such, I enjoy thinking about the strengths and weaknesses of different research designs and the elegance with which the appropriate design can help a researcher answer an interesting question. Most of my students, however, are closet nerds, at best, and they typically approach the week we spend in Psychology of Aging covering the basics of research design as if it were as dry as the Sahara. I can't claim that I now leave them clamoring for more, but several exercises have increased students' appreciation for the importance of understanding research methods (beyond the fact they'll be tested on it).

I now begin the research methods week with a brief class discussion of Donald Hebb's (1978) *Psychology Today* article "On Watching Myself Get Old". In a conversational style, Hebb reports how distressing it was to experience his first "memory blackout" when he read a paper he thought was new but then discovered a note in his own handwriting on the back of a page. Hebb reports his strategies for coping with memory problems (e.g., taking breaks, putting objects near a door to remember to take them) and then outlines three additional age-related changes he observed in himself: declines in word-finding ability, increased difficulty getting irrelevant information out of his mind, and a declining interest in intellectual challenges.

Students find the article accessible and engaging so it is a good assignment early in the semester (I use it in the second week). A bonus is that I can introduce subsequent course material with reference back to Hebb's comments (e.g., introducing Hasher and Zacks' inhibitory breakdown view by reminding students of Hebb's difficulty getting tunes out of his head). After we have covered Hebb's observations and students' responses, I highlight what an outstanding scientist Hebb was and then ask students whether we should take Hebb's careful observations as a good description of the aging process. Students are typically quick to say "no", and then the heart of the teaching begins. I ask students to explain their responses, often following their point (e.g., he's only one person) with "Why does that matter?" Once an important principle comes out (e.g., generalizability), and it often takes students several tries to articulate the idea clearly, I ask for another reason why students said "no", and the process repeats. By the end of the conversation, students have talked themselves into the need to test relatively large numbers of people, the need for research participants to be unaware of hypotheses, and the general need to use careful research methods.

At that point, I begin my lectures about concepts such as sampling and research designs. These lectures contain a number of interactive exercises. For example, after explaining the basic cross-sectional, longitudinal, and time-lag designs, students create a table like many textbooks use with columns for research design, what each design measures, what source of variance is held constant in each design, and which sources of variance are confounded in each design. After giving students time to fill in the last two columns on their own, for each of the designs I ask the class what is confounded (e.g., age and cohort for cross-sectional designs) and then what is held constant (e.g., time of testing for cross-sectional designs).

The last point for the week is that the study of research methods is incomplete without some discussion of ethical principles. I cover basic points about ethics (voluntary participation, stress minimized, deception as method of last resort, confidentiality, use of lab animals, IRBs) before using a hands-on exercise modified from Ault (personal communication). Students imagine that they are on an IRB panel and read a project summary proposing to study whether recent experiences of success or failure affect how well older adults can solve social problems. The details of the methods are laid out, and students are asked to consider whether they believe the researcher should be allowed to do the research. After a few minutes during which students make notes about their opinion, I divide the class into small groups of roughly 5 to role play different IRB panels. As discussion winds down, I tell the IRBs to vote and then poll the groups' decisions before leading a discussion that explores what led to the varied views expressed by individuals and the small groups.

The final class exercise applies what we have learned all week and, as a group, we begin to design a study to answer a question like "Does aging affect memory for text?" If there is time, I make this a small group activity as

Continued on pg. 13

well because inevitably one group will chose to use a cross-sectional design and another will chose to use a longitudinal design (rarely has a sequential design been proposed), allowing us to review the strengths and weaknesses of each when I conclude the unit with the full class.

The Hebb article, IRB role play, and research-design exercise have yet to lead students to explicitly come out of the closet and embrace being nerds, but they have brought water into the Sahara by engaging students with one another and the material. You may have used exercises much like those here, and I am sure many of you have novel teaching tools to share. If you'd like to write about them for a future Teaching Tips column (roughly 1000 words), please submit them to Kristi Multhaup at krmulthaup@davidson.edu

Reference

Hebb, D. O. (1978). On watching myself get old. *Psychology Today*, 15-23.

Executive Committee Meeting Minutes, Continued from page 5

Division 20 and 12-II will have a role in revising the guidelines on dementia. CONA will collaborate with the Practice Directorate also on the revision.

Peter Lichtenberg is the new president of CONA. He will be the CONA liaison to D20.

M. APA Science Directorate (Virginia Holt, Patricia Kobor): Virginia announced that Howard Kurtzman is going to be new deputy executive director of the Science Directorate.

At the request of the APA Council of Representatives, the Science Directorate is staffing a task force to see how the convention might be improved for the science community. Please let vholt@apa.org know if you have any ideas or suggestions about this: what works well, what doesn't work so well, etc.

Pat Kobor: suggested that there will be a small increase in funding to NIH this year probably between 2.5 and 4 percent. She also thanked everyone for comments sent to her regarding the strategic plan for NIA.

Comments on NIH peer review system are still being solicited. There's a place on the NIH web site where you can give comments. Please also share comments with Pat Kobor so she can co-ordinate (needed by Sept 4th).

Pat also announced that there is a science policy fellowship (supported by Science Directorate) places a psychologist in a federal agency. Fellowship applications are due in January. It's a wonderful experience for people and Pat encouraged members to consider applying. Application information is available www.apa.org/ppo/fellows/scifellow.html

N. APA Education Directorate (Clare Porac): Materials were circulated describing Education Directorate activities. Clare mentioned the Education Efficacy Trust, a mechanism for voluntary donations to support lobbying activities that APA employees can't perform. Funds in the Trust allow lobbyists to attend events and make donations to groups that support the Education Directorate agenda.

The Education Directorate will be sponsoring a national conference on undergraduate education in psychology to be held next year. The call for participants has already out. The conference will be held in Tacoma, WA at the University of Puget Sound. Costs of the conference are covered for accepted participants, other than travel. The goal of this conferece is to produce some guidelines for future undergraduate education in psychology.

O. *Psychology and Aging* journal benefit to D20 members (Liz Stine-Morrow): The current contract for *Psychology and Aging* goes through 2010. Liz Stine-Morrow recommended that we put on a future agenda the issue of whether we want to keep the paper journal. Another idea was to ask Michael Marsiske to poll the membership on whether they like the journal as part of their membership. One issue is whether the journal is an incentive or disincentive for joining D20 because its costs are part of division dues. For example, paying for the journal may be a disincentive to potential non-academic division members.

P. Wrap-up (Liz Stine-Morrow): Liz Stine-Morrow thanked the members of the Executive Committee for their work over the past year during her term as President.

The meeting was adjourned at 10 am.