

that participation did not interfere with perceived learning. The *t* tests for correlated measures suggested that students found the demonstration ( $M = 3.37$ ;  $SD = 0.64$ ) to be significantly more helpful in their understanding of neuron anatomy and operation than was the review ( $M = 2.50$ ;  $SD = 0.89$ ). Interestingly, however, 97.9% of all students favored retention of the review. These findings suggested that, although the demonstration was seen as being more helpful than the traditional lecture/review method, students perceived the educational relevance of the review in combination with the demonstration.

### CONCLUDING COMMENTS

Recently, two business students who had taken Introductory Psychology 3 years earlier approached the first author to request assistance in setting up a demonstration for a management class using student participation. The gratifying nature of this encounter was that the students could recite the basic components and operation of the neuron by conjuring up an image of ". . . all those funny people running around on stage," and that they were interested in applying this active teaching method to another field of study.

Although neither the preceding anecdote nor the subjective evaluations of students proves that the active demonstration method enhances learning and retention, the colossal neuron appears to have been well received by introductory students over the past 5 years. Because the anatomical and electro-chemical aspects of neuronal activity are often seen as abstract and irrelevant to students' everyday experience, the colossal neuron combines the visual, auditory, and humorous aspects of live drama to allow difficult content to become anchored to concrete events. Although some instructors may prefer to spend less time on the molecular aspects of physiological psychology, the importance of neuronal activity in understanding such phenomena as schizophrenia, habituation, the effects of drugs, and other content areas, may justify the 2 ½ class periods devoted to this issue. Regardless of teacher preference, the colossal neuron may provide an effective alternative to the traditional presentation of physiological content in the large undergraduate classroom.

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### NOTE

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## A Method for Teaching Name Mnemonics

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*Name mnemonics provide a powerful technique for remembering names. This classroom demonstration teaches students how to construct and use name mnemonics. Students create mnemonics for each other in small groups. Students then describe*

*their name mnemonics to the class. The exercise teaches mnemonics, gives students an experience with group creative problem solving, and ensures that nearly every class member's name will be known to all others in the class.*

When people meet me for the first time, they can't help noticing my bushy *beard*. This may remind them of the man with the beard on packages of *Smith Brothers* cough drops. Now, if you need cough drops for your cough or cold, you may also have a stuffy nose; if so, you should remember that in an emergency, one's *sleeve* may be substituted for a missing handkerchief. Because *sleeve* rhymes with *Steve*, you can remember my entire name simply by seeing me, face to (bearded) face: The *beard* leads to *Smith Brothers* cough drops, which leads to *sleeve*, which rhymes with *Steve*.

This is an example of a name mnemonic, a mental device for remembering names that works surprisingly well, even for novices. The mnemonic associates a person's appearance and name, using imagery and rhymes. Teaching name mnemonics on the first day of class in introductory psychology, cognition, memory, or experimental psychology can demonstrate the power of cognition via a firsthand experience. Within a short period of time, not only can it be demonstrated that "psychology really works," but students will be impressed with their own untapped mental abilities. The exercise teaches about mnemonics, the use of interacting imagery and rhymes to achieve useful associations in memory (see Shimamura, 1984). Students will also get experience with group creative problem solving as small groups try to think divergently in order to create name mnemonics for each group member. Finally, and perhaps most important, the exercise helps to ensure that everyone in the class (including the teacher) will know everyone else's name, a situation likely to facilitate any class where frequent and open discussions are encouraged.

## METHOD

The exercise should begin with a brief discussion on the importance of knowing others' names in a variety of social and professional situations. Students can be given the opportunity at this time to testify as to how difficult it is for them to remember names, and how that difficulty may have caused some of them considerable embarrassment.

At this time the teacher should come to the rescue with the name mnemonic, which one can use either to remember others' names, or to ensure that others will remember one's own name. The name mnemonic technique could be described (see Bellezza, 1982) with the aid of the teacher's own name mnemonic as an example. Briefly, a mnemonic is a mental device that helps memory, often creating associations via the creation of interacting mental images that link or integrate the items to be associated, or creating associations via acoustic properties (such as rhymes) which the to-be-associated items have in common. Generally, names are needed when the person in question is seen; hence, the name mnemonic should begin with an image of the person's appearance (or with some real or imagined component of the person's appearance), and should link that image with an image related to the sound of the person's name (or related to the sound of part of the name).

The teacher might throw out a few other examples of both good and poor name mnemonics. For a good example, my burly former teaching assistant named Rodney Flanary could be easily imagined as a football player who had a knee injury; hence the *rod* in his *knee*—*Rodney*. Benched for the

injury, he kept warm by wearing *flannel*—*Flanary*. This example makes use of a physical cue (burliness) that immediately evokes an image, and the components of the image are acoustically related to the name. Mnemonics that fail to use a physical appearance cue or imagery associations, or that use obscure personal characteristics unknown to the learner (e.g., "I like to read science fiction") are typically less memorable.

At this time the teacher should inform the students that their task for the next few minutes will be to convene in small groups (2 to 4 students per group) and create name mnemonics for each member of the group. Students will ultimately be responsible for their own name mnemonic, but the groups greatly facilitate this creative process. Assign students to the small groups, and recommend that they first appoint a secretary to write down the name of each member of the group. Also, recommend that each student try to come up with a mnemonic for at least one of their names, but preferably for both names.

Briefly monitor the groups, one at a time. Ask about current progress and make a few suggestions to groups that seem to be totally stuck. Encourage them to be as creative and free-wheeling as possible, as it will help them get ideas. Teachers familiar with brainstorming or other group techniques devoted to divergent thinking should make suggestions along those lines. Briefly, brainstorming has four basic rules: (a) avoid criticism of ideas, at all costs; (b) the wilder the idea, the better; (c) the more ideas, the better; and (d) combine and modify ideas. For a further discussion of brainstorming, see Osborn (1957).

After 5 or 10 minutes, have the students reassemble into the original large group. One at a time, each student should go to the chalkboard, legibly print his or her name, speak the name aloud, clearly enough to satisfy everyone in the room, and give the mnemonic for his or her name. It is also helpful if, while at the chalkboard, students briefly mention a bit of personal data, such as where they are from, why they are taking the course, or what their hobbies are. Such information helps to enrich and elaborate learning, making it more memorable. After giving all information, each student should erase his or her name before returning to be seated. If names are left on the board, confusion about which name belongs to which student is bound to result.

Finally, when all the name mnemonics have been given, the teacher should call on two "volunteers" from the class to recite every name in the class. Students are rarely impressed with a psychology teacher who can use mnemonics, but they are greatly impressed when they can use the mnemonics successfully. The volunteer should select students in any order he or she wishes, looking at each one for a visual cue, and recalling each name aloud. When a volunteer falters on a name, the class should prompt the student with a hint about the mnemonic in question. After the first student has finished, a second volunteer should say the names again. This procedure will assure that nearly everyone will know nearly everyone's name in the class.

Once students' names have been learned with this mnemonic, there is likely to be a considerable amount of repetition of names throughout the semester and names are not likely to be forgotten. Even without such repetition, however, the instructor can demonstrate later in the semester

that the mnemonics can endure the test of time by giving a pop quiz over the names of class members. Performance should remain at a high level.

This method for teaching name mnemonics may be limited by class size, but possibly not so much as one might think. The largest class for which I have used this technique had 64 students, and both student volunteers got more than 50 names correct even without prompts from class members.

Another limitation that may concern teachers is the anticipated difficulty with very unusual or "foreign" names. My experience has been that such names are no harder than more common "American" names and occasionally such names are easier than others because of their distinctiveness. Memorable examples are "Bahardoust," who said her name might be "the hardest," or "Sinha," who had us imagine that he looked like a "sinner."

Should the learner be advised to use bizarre imagery rather than more common images? There is no clear consensus on this question, as the relative usefulness of bizarreness appears to depend on such factors as number of learning trials, type of test (free or cued recall), and delay between learning and testing (see O'Brien & Wolford, 1982; Wollen & Cox, 1981).

One final problem may be in the mnemonic "decoding" stage. That is, sometimes learners recall the mnemonic device, but cannot remember the correct name that goes with

it. For example, Rodney Flanary (rod-knee-flannel) might be remembered as Rodney Flannigan, or Steve Smith (sleeve-cough drops) might be remembered as Steve Vicks. The remedy for such difficulty is fairly simple; one or two practice trials will usually solve the entire decoding problem.

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## A Research Practicum: Undergraduates As Assistants in Psychological Research

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Two recent surveys highlight the fact that participation in research is becoming increasingly popular as a means of teaching research methodology in the undergraduate curriculum. This article describes a project that combined a research practicum for 17 undergraduates with the implementation and evaluation of an assertiveness training program for physically disabled college students. A follow-up of students' post-baccalaureate activities revealed that the majority were indeed using skills that they had learned in the project. Analyses of students' course evaluations revealed knowledge gained that would not have been obtained from more traditional courses in methodology or statistics. Interrater reliability scores ( $r = .98$  and  $r = .97$ ) as well as other variables demonstrated that undergraduates are capable of functioning as competent and dedicated research assistants. A cost/benefit analysis indicated that benefits outweighed the costs of the project.

For years psychology educators have stressed the importance of teaching methodology, research design, and statistics in the undergraduate curriculum. In a survey conducted among small liberal arts colleges, Cole and Van Krevelen (1977) found this material to be the most frequently cited as an appropriate requirement for all psychology majors. Two more recent surveys highlight the fact that undergraduate participation in research is becoming increasingly popular as a means of teaching even in colleges that are not research centers. The American Psychological Association's Educational Affairs Office has just completed the first national survey of undergraduate curriculum in 15 years via a 17-page questionnaire mailed to the department heads of 200 two-year and 200 four-year colleges. They report that student research with faculty members can be performed for credit in 55% of the four-year colleges and in