



Rediscovering Wisdom

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 APA President*

King Solomon was wise and Albert Einstein was intelligent, but whatever their special ways of thinking were, these ways of thinking seem to have been quite different. Wisdom, as exemplified by Solomon, and intelligence, as exemplified by Einstein, are two important attributes in our society, but they are not quite the same. That they are not identical can be shown with the following exercise.

A Classroom Exercise

Try this exercise with your students:

1. Ask your students to write down on a sheet of paper the three *most intelligent* people, living or dead, they know or know of. These might be the kinds of people who have shown outstanding performance in their school or in their work.
2. Now ask your students to write down on the sheet of paper the three *wisest* people, living or dead, they know or know of. These might be the kinds of people who have given outstanding advice, or who have shown that they can help resolve very difficult conflicts, or who many individuals look to or have looked to as role models in life.
3. Now ask your students whether the three people they listed as being most intelligent were the same as the three people they listed as most wise. If not, was there any overlap?
4. What it does show is that, for most students, the two lists may contain people who overlap, but who are not exactly the same?
5. Ask your students if they can think of any people who are intelligent but not particularly wise? If so, what might it mean that people can be intelligent, but not necessarily wise?
6. What do you think wisdom is? How about intelligence? And finally, how are they related?

The lack of identity between the lists of intelligent and wise people—and the fact that many of us know people who are intelligent but not especially wise—suggests that people distinguish between intelligence and wisdom. They see some degree of overlap between the two constructs, but do not see them as being exactly the same. Winston Churchill, Mahatma Gandhi, Kofe Annan, Nelson Mandela, and Martin Luther King, Jr. are all people who have been known especially for their wisdom. They were or are, certainly, people of intelligence, but they are not best known for their intelligence but rather for their wisdom. In contrast, people like Albert Einstein and Enrico Fermi—two great physicists—or Francis Crick and James Watson—the biochemists who were the codiscoverers of the structure of DNA—are best known for their intelligence, although they may well have shown many aspects of wisdom as well.

What is the relation between the two constructs, and why should we care?

The Relation between Intelligence and Wisdom

When people speak of intelligence, they usually are referring to the skills involved in learning from and adapting to the environment (Sternberg, 1985, 1997, 2000). These are important skills for succeeding in school and, to some extent, for succeeding in life. When people speak of wisdom, however, they are speaking of somewhat different skills. Wisdom is the use of intelligence and experience in order to attain a common good (Sternberg, 1998, 2001). Intelligence, then, is a beginning for wisdom, but not an end.

Balancing the Interests of Oneself, Others, and Institutions

Wise people seek to balance multiple and diverse interests in generating solutions to difficult life problems. In looking at problems, they consider their own interests, as does almost anybody else. But they also consider the interests of other people, and of institutions as well. For example, wise students do not cheat on a test. Why? Because whatever they may view as the self-interest involved, cheating on a test is unfair to others who do not cheat, and unfair to the school, which has a code that prohibits cheating. Wise students do not pick on other students, because no matter what thrill they may imagine such aggression will bring them, they hurt the person they pick on and they

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dishonor the school through their aggressive behavior.

Balancing Short-Term and Long-Term Outcomes

There is another reason why wise students do not cheat or pick on others—and this reason pertains to the fact that often what seems attractive in the short-term ends up being unattractive, or even disastrous, in the long-term. Thus, students may imagine that by cheating they will improve their grades. But if they carefully consider the long-term consequences, they will reason that the punishments that will ensue if they are caught, and even the damage they will do to their own and others' sense of who they are, does not justify cheating in order to get an immediate benefit on a test. Similarly, whatever imagined pleasure there may be of picking on someone else, in the long term, one establishes oneself as a bully and as someone who will lose the respect of teachers and other students.

Implication

The implication of this discussion is that there really is a difference between intelligence and wisdom. Some people are very smart, but only look out for themselves and perhaps the handful of people they seem to care about. Many dictators and villains throughout history have been persons of this sort. People like Genghis Khan, Adolph Hitler, and Joseph Stalin, however intelligent they may have been, cannot be viewed as wise, because they continually sacrificed the interests of others and even of their countries for themselves. And as Hitler's probable suicide and the eventual imprisonment or assassination of many ruthless dictators show, many smart but foolish people end up paying for their behavior in the end.

A Problem for School and Society

There has been much more research in the field of psychology on the nature, measurement, and development of intelligence than there has been on the nature, measurement, and development of wisdom. Perhaps this overarching emphasis on intelligence is a mistake. In a world that is rife with conflicts, violence, and wars, do we not need to be paying at least as much attention in our schools and in our societies to wisdom as we do to intelligence? Might we inadvertently be developing in students the view that what is important is how intelligent one is, but not how one uses one's intelligence

wisely? Should we perhaps think of schools as places to help students develop not just their intellectual and their academic skills, but also their wisdom-related skills, so that they use their intelligence and experience toward good ends?

A Research Agenda

We are currently pursuing in our work at the Center for the Psychology of Abilities, Competencies, and Expertise (PACE Center) at Yale a research agenda designed to explore the nature of wisdom and to try to formulate ways of enhancing the wisdom of students in school. We have two active projects regarding wisdom.

In one project, people are being asked to solve problems requiring wisdom—for example, problems involving conflicts between individuals or organizations and those requiring advice. These people then are evaluated for the extent to which the responses reflect emphases on working toward a common good, balancing different kinds of interests, and balancing short-term and long-term goals. We are attempting to show that it is possible not only to construct a theory of wisdom, but also to measure wisdom.

In a second project, we are developing a curriculum for upper elementary-school students that is designed to foster the development of wisdom-related skills. The curriculum is based on the teaching of American history. Students learn the same basic ideas as do other students studying American history, but they also learn to view these ideas from multiple and diverse points of view. So, for example, they might learn that the doctrine of "manifest destiny," which was used to justify the occupation of Native American, Mexican, and by colonists from the United States and its territories, was perceived very differently by those peoples whose lands were occupied than the way it was perceived by the colonists. As another example, the witch-hunts of Senator Joseph McCarthy, which seemed to locate a Communist in every corner, scarcely represented a wise path in preserving the integrity of the government of the United States. Thinking wisely about history involves seeing it from many different points of view, and understanding how historical events have affected diverse people whose interests may not have been the same

as each other's, or of those of authors and publishers of textbooks, who often glorify a country's past while omitting or diminishing some of its blemishes.

Conclusion

Intelligence and wisdom are related, but they are not the same thing. Although most people who are wise are at least fairly intelligent, there are many people who are intelligent but not particularly wise. Wisdom involves applying one's intelligence and experience in the service of a common good. Not everyone is willing to apply his or her intelligence in the service of a common good. But given the many challenging problems individuals, institutions, and society face, perhaps it is time that schools think about not only developing intelligence in their students, but wisdom as well.

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Online Psychology Collaboratories: A Model for High School and College Collaboration Through Online Psychology Laboratories

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The past decade has been exciting for psychology at the secondary level. Enthusiasm has largely been centered on new forms of support for teaching high school psychology as an empirically based science. In the past, empirical research has often been absent from the secondary curriculum and some students have failed to gain a thorough understanding of psychology's real scientific basis (Brewer, 1999). Because most high schools lack the resources for detailed psychological research, many teachers may find this a difficult curricular area to actively teach to their students.

Nonetheless, high school psychology teachers increasingly strive to encourage collaboration and active learning. The importance of such activity is clear. As Brewer (1997) noted, "no consideration of undergraduate psychology would be complete without noting drastic changes in the teaching of psychology at the high school level" (p. 439). This focus will be the basis of future progress and reform in psychology education, as inquiry-based learning continues to receive considerable attention in the broader education community (Olson & Loucks-Horsley, 2000).

Two key issues are still paramount in the teaching of high school psychology. First is the problem of teacher isolation on the secondary level. Teachers rarely have the time, opportunity, or resources needed to work with professionals from outside their classrooms. This dilemma is shared by other science teachers who feel overwhelmingly isolated from their professional colleagues (Cushman, 1994). A second problem is that the transition from high school to college is difficult for many students, and attending college is not always an easy option for those of disadvantaged backgrounds (Ascher & Schwartz, 1989). High school students who have a personal experience with colleges will be more properly prepared and motivated for higher education.

Technology has begun to rectify the problem of teacher isolation on a number of levels. Computer-based collaboration allows teachers to break out of their classroom walls and gain exposure to new colleagues. A number of internet-based communities have already been formed which offer exchanges of information and support for teachers (Bransford, Brown, & Cocking, 2000) in addition to email, websites, and listservs. DiMauro and Gal (1994) note that one of the specific conditions needed for progressive, reflective teaching is collaborative research. Even with the current emphasis on inquiry-based science in secondary psychology, original research can be quite difficult to carry out in high schools.

Computer-based collaborations between colleges and high schools represent a powerful way to impact the overall educational system. With these collaborations in place, high school students will become more knowledgeable and inspired for future success in undergraduate psychology courses. One high school and college collaboration is currently available



thanks to an online psychology laboratory from Bethel College in North Newton, Kansas.

Interactions with college students and faculty prepare high school students for future academic success – especially in the sciences. Colleges also benefit, as they are better able to recruit knowledgeable students who are prepared for the transition from high school.

In the interest of exploring new methods for active collaborative research between high schools and colleges, an online psychology laboratory has been established at Bethel College. This collaborative laboratory, or

"collaboratory," allows for high school psychology teachers to expose their students to behavioral learning research with the help of Bethel's psychology faculty, students, and resources.

Interactive experiments in operant conditioning are available on the Web for use in high school classrooms. Bethel College students train rats in operant chambers. Once the rats are trained, Bethel College makes the controls of these chambers available to high school classrooms online. High school students can then choose different schedules of reinforcement, and observe the rats' behavioral responses by live video and cumulative digital graphics. Internet-based communication makes it possible for high school students to communicate directly with the college faculty to discuss the progress and results of the experiments. In the end, this project's success indicates the valuable role that technology-driven collaborations play in high schools and colleges seeking to enhance the teaching of psychology.

Method

Our online behavioral learning experiments are conducted with operant chambers (i.e., Skinner boxes) controlled by Macintosh computers. The equipment is programmed by means of LabVIEW (National Instruments), a visual programming language and data acquisition package. Communication between the computers and the operant chambers is easily accomplished with LabVIEW, which displays response and reinforcement data as they occur in charts and digital displays on the screen. Graphical controls for changing reinforcement schedules are also shown. Cumulative responses and reinforcements are saved each minute and these files are posted on the Web.

Students can observe and control the experiment in their remote Web browser just as if they were present in the laboratory. Additionally, live video recordings of the rats are available online thanks to a Sony digital camcorder (DCR-TRV900) connected via firewire (IEEE-1394) to a Macintosh iMac G4.

Upon completion of these online experiments, the data are made available in tab-delimited text for downloading over the web and analysis with spreadsheet software. Students

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can graph these data themselves and look for patterns over time to visually compare different experimental conditions. Classrooms in Wichita and Hillsboro, Kansas have both participated in online experiments thus far.

One of the experiments involving students from Wichita High School East will serve as an example for the remainder of this report. In this experiment two rats were monitored in separate operant chambers for approximately eight days. At the beginning of this experiment, rats were shaped to press the levers with independent 60-second variable interval (VI) schedules of reinforcement on each of the two levers. The schedule was progressively increased to VI 300 sec, then to VI 450 on each lever in the operant chamber. The high school classes were then allowed to monitor the rats' responses and make one further change in the reinforcement schedule. These classes decided to place the right and left levers on different schedules, VI 300 sec and VI 600 sec, respectively.

After completing the experiments, students evaluated the project using a downloadable LabVIEW program. A variety of questions were asked based on established inquiry standards from the National Research Council (Olson & Loucks-Horsley, 2000). Students rated their responses to several statements using a five-point scale (5 is highest, 1 is lowest). Among these statements, the five in Table 1 seem particularly relevant.

Behavioral data from the rats and evaluation data from 48 students (out of

58 who participated) were compiled and analyzed using SYSTAT™.

Results

Plotting the rats' cumulative responses over time allows for a simple visual analysis of the overall patterns of behavior throughout the experiment. Despite the fact that the two rats experienced identical schedules of reinforcement, Figures 1 and 2 indicate that they had substantially different behavioral responses. For the most part, rat 1 pressed the left and right levers equally during the early phases of the experiment when these two levers were governed by equal reinforcement schedules. Shortly after the left lever went to a VI 600 sec schedule and the right lever went to VI 300 sec, rat 1 began pressing the right lever more than the left.

These results contrast with those from rat 2, which showed a preference for the left lever early in the experiment. Even after the reinforcement schedule changed to VI 600 sec on the left and VI 300 sec on the right, rat 2 continued pressing the left lever more than the right, even though it only provided food half as often as the right lever.

Discussion

Overall, this online collaboration has provided some of the necessary ingredients for quality research. The students rated the project highly on its ability to help them test hypotheses and analyze data, two essential aspects of empirical research.

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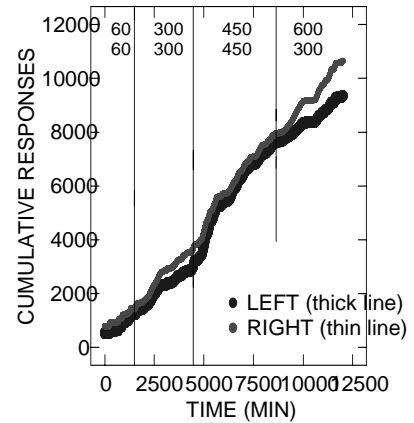


Figure 1: Cumulative response data from both levers for rat 1 over the course of the experiment. Schedules of reinforcement are indicated for each lever along the top axis so that the top and bottom numbers represent VI schedules (in seconds) for the left and right levers, respectively. NOTE: Both levers used identical schedules until the last phase, during which the left lever took on a VI 600 sec schedule and the right took on a VI 300 sec schedule.

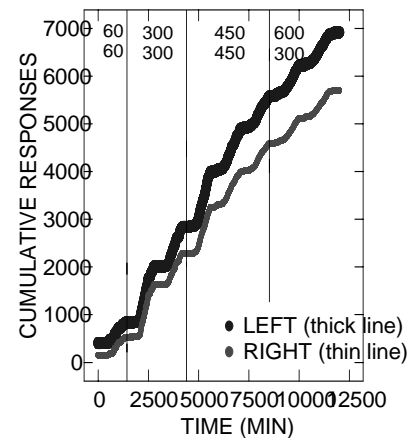


Figure 2: Cumulative response data from both levers for rat 2 over the course of the experiment. For other details, see Figure 1.

Table 1. Students' responses to the operant conditioning project

Question on evaluation	Mean Response (1=unfavorable; 5=favorable)
This experiment helped me better understand what scientists study.	3.891
This experiment increased my interest in pursuing a major in some area of science.	3.217
This experiment helped me in learning to set up and test a hypothesis.	3.850
This experiment increased my confidence in my ability to do college work.	3.539
This experiment helped me in learning how to analyze and present scientific results using computer technology.	4.045

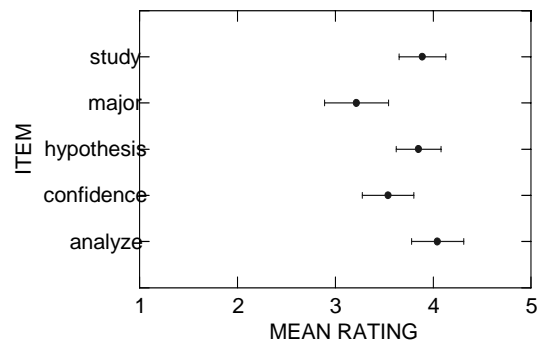


Figure 3: Mean student ratings for five evaluation items, each assessing a different type of educational impact. Each mean score is presented in the context of its 95% confidence interval.

The behavioral data collected during this project (as seen in Figures 1 and 2) show that rats can exhibit very different forms of behavior, even when surrounded by the same environmental conditions. These data could be analyzed on many different levels depending on the abilities and interests of the students. Beginning students should easily be able to recognize the visual patterns of behavior and make general comparisons between the animals. Advanced students can analyze the data more closely by using descriptive and inferential statistics to quantify the differences between the two animals.

The online laboratories described here have the potential to alleviate some problems that currently plague secondary psychology classrooms: teacher isolation, a lack of collaboration between high schools and colleges, and difficulties that students face in the transition to college. During this experiment, professors from Bethel College conversed via e-mail with both high school teachers and students. As seen in their ratings, students felt that this experience helped them to better understand what scientists study. In the future, video conferencing, internet chat, field trips to the College, and undergraduate presentations in the high school could provide additional ways to share ideas between institutions.

In many ways this project is still in its infancy, and we look forward to considerable growth of the project in the future. This online laboratory may serve as an example to other educational institutions as well. Many opportunities would be opened for high school students and teachers if more colleges and universities provided this type of project. Behavioral learning research offers many possible experiments in operant conditioning, and other areas (e.g., involving human participants) may be feasible in the future as well.

The participation of high school students in this project has been limited to Kansas so far, but we seek a broader audience across the nation as awareness of the project spreads. High schools in more isolated geographic areas could be empowered

through collaboration with college faculty and students, no matter how many miles separate them. Meaningful interactions among high school classes around the country are also possible. Students would profit tremendously from sharing thoughts and opinions with students from other geographical parts of the country. Perhaps highly motivated high school students could even be given more control to manipulate and design new experiments online.

Overall, the possibilities of online psychology laboratories are very exciting. Along with other innovative uses of technology, these research projects have a tremendous potential to bring high levels of empirical research into secondary classrooms. As more collaborations of this type become available, high school students from around the country will have the opportunity to build a more empirically based foundation of psychology. We are optimistic that online collaborative experiments will have substantial benefit for high school teachers and students of psychology in the years to come.

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APA Office of Precollege and Undergraduate Education Welcomes New Director

Maureen McCarthy, PhD, an associate professor of psychology at Austin Peay State University, has joined APA as the new Director of Precollege and Undergraduate Programs. She succeeds former director, Barney Beins, PhD, who resumed his post as professor of psychology at Ithaca College last fall.

Dr. McCarthy has expertise in psychometrics, assessment, and research methods, and a longstanding commitment to education in psychology. She has been active in the Psychology Partnerships Project and a leader in APA's Division 2 (Society for the Teaching of Psychology). Dr. McCarthy helped organize the APA/Division 2 Undergraduate Departmental Consulting Service as well as the "Measuring Up: Best Practices in Assessment in Psychology Education," conference, the first national conference on assessment in psychology, held last fall.



In her new role, Dr. McCarthy will have a chance to make a significant impact on psychology through APA's outreach to psychology teachers at all levels. Dr. McCarthy will coordinate teaching workshops, represent APA's Education Directorate and the Office of Precollege and Undergraduate Programs at psychology meetings, and work with the higher education community to enhance and innovate the psychology curriculum.

"Her expertise in assessment of undergraduate departments, her considerable work with the Society for the Teaching of Psychology, and her experience at two- and four-year institutions and with high school teachers give her a unique perspective that will permit her to continue the momentum already created in this department," says Beins.

If you wish to contact Dr. McCarthy, her e-mail address is mmccarthy@apa.org.

Human Factors/Ergonomics: How Can It Influence Your Students?

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An introductory psychology course usually includes information about classical psychological topics. Brief mention is sometimes given to Human Factors or Ergonomics which deals with how people function as part of a system (e.g., an air traffic controller governing our nation's aviation, a physician performing surgery in a modern operating room, a nuclear power plant operator governing the generation of electric power, a computer programmer improving code so that a computer will run more efficiently, or a consumer using a telephone or the Internet to find important information).

Indeed, some students may graduate from high school and not recognize that Human Factors is a part of psychology. Similarly, the students' parents and teachers may not realize this gap in the educational process. Neither the students, their family members, nor their educators may realize how much their lives might be affected by good and bad human factors. Thus, they may be willing to accept that they have an inability to use a computer or a VCR or a new telephone system when, in reality, the system is poorly designed. As a matter of fact, the students and their families are influenced by good or bad human factors design thousands of times every year. The following scenarios illustrate practical applications of human factors.

The Influence of Human Factors

The alarm clock rings at 6:30 in the morning. Our student, Susan, decides that 15 minutes more sleep is desirable, so she presses the snooze button. By mistake Susan turns the alarm off and oversleeps. Why? Is Susan incompetent or is it just too easy for a sleepy student to press the wrong button on the clock? Due to bad product design or bad human factors, Susan is about to miss an important exam. Fortunately, the backup system, Mom and Dad, are there to wake Susan so she won't miss her exam and, this afternoon Mom is going to the store to buy Susan a second alarm clock. This clock will be positioned on the dresser so that Susan cannot turn it off without getting out of bed. Thus, Susan and family are compensating for poor product design. A great alarm clock could have been designed to allow Susan to easily press the snooze button, but would make it more difficult to accidentally turn the clock off. A good human factors professional would have the knowledge to design a teen-proof clock in which it is easy to do the appropriate activity and more difficult to do "typically undesired" activity.

Now that Susan is 15 minutes late, her father has taken her car to work since it was the last car parked in the driveway, so Susan needs to drive his car. She turns on both the lights and the wipers, since it is raining. The rain stops and she attempts to turn off the wipers, but instead finds herself in the dark, since she turns off the lights instead. Susan is distracted by the absence of lights on a dark morning with wet roads. This distraction nearly leads to a collision. Some people might attribute this incident to "operator error" or "driver error." A human factors practitioner might, more accurately, attribute this incident to "poor design compatibility" or "design error," since, the two car makers have their lights and wipers in

different positions which was the real cause of this incident. Fortunately, the location of the brake and the gas pedals are standardized!

Upon arrival at school Susan is a bit late. She rushes up the stairs and trips. Feeling a bit rushed and clumsy, she tells her psychology teacher, Ms. Wise, about the day's experience. Ms. Wise asked "Do you think there could be something wrong with the stairs?" At first Susan said no, but then Ms. Wise told her to watch the stairwell for about half an hour and record the number of people that came close to tripping on that step versus all of the other steps. Susan did this exercise and discovered more people tripped on her step. Then Ms. Wise told Susan to figure out why. Susan decided to measure all of the steps in the stairwell. She noticed that "her" step had a rise about half an inch different than all of the other steps. When the building was designed the builders decided to "cheat a bit" rather than redesigning the entire stairwell. They thought no one would be hurt by a small change in height. So, the trip was the fault of the stair designer, not Susan's! The stairs are an example of poor human factors at work.

Susan is now in school. We have seen that bad human factors design nearly caused her to miss an exam, have an automobile accident, and a personal injury. We will now see how less than ideal human factors delayed one of her classes, helped to provide the content for another class, and caused professional drivers, power plant operators, and medical professionals to have accidents and what is now being done to prevent these incidents in the future. We will also see how good Human Factors makes using the Internet easier and more fun. We will conclude by discussing human factors as a profession and ways to include it in the high school curriculum. Let us now rejoin Susan on her way to history class.

The history teacher is attempting to project some artifacts from the museum web site onto a screen for all to see. The projection device being used is a new one, and it is taking the



Dr. John Ruffner (first person on left), President of the Potomac Chapter of HFES, and Dr. Shapiro (last person on right), pictured with students and HFES staff.

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history teacher about 10 minutes to obtain the image. It took 9 minutes too long to get started. Clearly, the Human Factors design of the projector is not a good one.

Next, Susan's physics class is going to a power plant for a field trip. An older style school bus has just pulled up to the curb to take Susan's class on the field trip. Susan notices the bus has the engine up front. The driver apologizes for being late, but he says taking the morning kindergarten children home took a bit longer than expected. Susan is one of the first to get on the school bus and sits up front. When she sits down, Susan notices that she can not see the road right in front of the bus. Susan asks the driver "How do you see the little children in front of the bus when they cross?" He explains that he cannot see them if they get too close. Indeed, he cites several accidents in which the school bus actually bumps into children who got off of the bus, cross the street, and run back for some papers. That, he explains, is the reason why the bus has a gate that comes out from the bumper when the bus stops to release children. The gate discourages children from getting too close to the front of the bus. In addition, children are taught never to come back to the front of the bus after they cross if they drop something. The driver also explains that the addition of the STOP sign to the side of the school bus was made about 20 years ago to discourage motorists from passing a stopped school bus. The driver explains that Human Factors professionals actually were involved in studying school bus safety and the effectiveness of the signs and lights and they designed an advertising campaign to encourage compliance with school bus laws.

Once in the power plant, the operator shows Susan's class a photograph of some of the earlier control rooms as well as today's room. She notices that in the early photograph there are some beer cans on top of the control handles. She asks why. The operator explains that in the early days the handles all looked the same. The operators needed an easy way to differentiate one type of control from another so that they placed a different beer can on each control, and actually referred to the controls by the name of the beer. Today, the human factors team has designed better controls.

Susan asks the operator what had caused accidents at power plants in the past. He explains that it was the result of human error which is sometimes called "operator error." Often, he explains, this human error is caused by poor design of the system, not by the operator on duty. An operator might, for example, be told through a signal that an action had been completed, for example, a valve was closed, whereas in fact all that really happened is that the operator instructed the system to close the valve — but the valve may have malfunctioned and not closed. He explains that in the event of an emergency, sometimes too much information might come in to be handled by a human. Thus, he explains, today a human factors team is involved in determining what messages will be shown under certain circumstances. A Human Factors professional also participated in designing the operator's training program to insure that the operator was not overloaded.

After school Susan goes to the hospital where she does volunteer work. She asks the nurses if errors are ever made in giving patients the wrong medicine. The nurses reluctantly answer yes — this does happen. Susan asks if any Human Factors studies were done to figure out procedures to reduce these errors. The nurse sends her to the hospital pharmacist,

who explains that studies of medication errors within a Human Factors framework are just beginning. He refers her to a specialist who is pioneering some of this work. Susan decides, given her interest in psychology and people, medicine, and her knowledge of technology that she wants to study how to prevent medication errors to save patients' lives. Thus, she eagerly returns home to search for more information about Human Factors on the web.

Fortunately, the web sites were well designed by Human Factors professionals, so they were easy for her to use. She quickly finds the web site of the Human Factors and Ergonomics Society (WWW.HFES.ORG) which provides her with some great basic information about Human Factors and Ergonomics, which might, one day, become her career. She then calls upon some human factors specialists and she finds that:

- Human Factors and Ergonomics is the design and testing of systems so that they will be safe, easy (and perhaps fun) for people to use.
- Psychologists, because they understand people, are able to define what the person can do — and what the system must do to optimize safety as well as the human resources required to perform a task.
- Human Factors and Ergonomics are essentially the same discipline. The term Human Factors originated in the US, and the term Ergonomics originated in Europe.
- Human Factors Psychology is a great career for individuals interested in people as well as technology, because psychologists design and test systems and products based on what people need, want, and can use. It is possible, for example, because of the multidisciplinary nature of the field, to be working on the design of airplanes, possibly even the space shuttle, consumer products, automobiles, medical equipment, and computers all in a single career!
- Typically a Human Factors professional will have a BA or BS degree in Psychology or Industrial Engineering and a MA, MS, or PhD in Engineering, Experimental Psychology, or Human Factors. Some Human Factors professionals may have degrees in medicine (MD) or law (JD).
- It is best for a human factors professional to study technology as well as psychology in college.
- A future engineer, designer, or scientist will benefit from at least studying an introduction to human factors to better design and to know when to call the experts.
- A consumer will make better purchasing decisions if they understand human factors.
- October is National Ergonomics Month.
- The Human Factors and Ergonomics Society consists of a group of professionals with an interest in psychology and one or more of the following technical interests:
 - ❖ Aerospace Systems
 - ❖ Aging
 - ❖ Cognitive Engineering & Decision Making
 - ❖ Communications
 - ❖ Computer Systems
 - ❖ Consumer Products
 - ❖ Education

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- ❖ Environmental Design
- ❖ Forensics Professional
- ❖ Individual Differences in Performance
- ❖ Industrial Ergonomics
- ❖ Internet
- ❖ Medical Systems and Rehabilitation
- ❖ Macro ergonomics
- ❖ Perception and Performance
- ❖ Safety
- ❖ Surface Transportation
- ❖ System Development
- ❖ Test and Evaluation
- ❖ Training
- ❖ Virtual Environments

The Human Factors and Ergonomics Society (HFES) typically invites a select number of high school teachers and students to its annual meeting. The 2002 annual meeting in Baltimore, MD was attended by psychology teachers Nancy Kreloff, Faye Johnson, and Geri Acquard, and students Rebecca Dreifuss, Amanda Shapin, and Jess Engenbretsen. Teacher Geri Acquard indicated that she was truly impressed with the program. Nancy Kreloff indicated that the conference had been most worthwhile and recommends that teachers and students attend the HFES meeting in the future. Jess Engenbretsen said, "I am mostly interested in psychology and the people, rather than the machines, but today's visit [to the HFES annual meeting] has shown me how important the interaction is." Amanda Shapin indicated that she really enjoyed the presentations, became really excited about human factors, and even edited some of her college essays to indicate this interest. (Teachers interested in being invited to the HFES 2003 meeting in Denver, Colorado or the 2004 meeting in New Orleans, Louisiana should send a note to the author of this article at rshapiro@us.ibm.com.)

Upon completing her web search and interviews, Susan receives an evening telephone call from her brother, Bill, who is in the Army. During the conversation she mentions her new found interest in Human Factors. Bill responds that he had just finished meeting with some Human Factors professionals who were working on making equipment safer and easier to use. He mentions that the Human Factors professionals observed him at work and prepared a detailed workflow analysis showing exactly what he and his colleagues did at every second. They also asked him to test some prototype equipment and observed in great detail how he used this equipment as opposed to the equipment he normally uses.

Recommendations For Teachers

Teaching human factors is consistent with the *National Standards for the Teaching of High School Psychology*, although Nancy Kreloff points out that there is a disparity between the

breadth of the human factors field and the tiny reference to human factors in typical high school psychology textbooks. Nonetheless, human factors does integrate well into the standards for teaching high school psychology. Example discussion topics and questions for several of the performance standards (*in italics*) follow:

Standard Area: Sensation and Perception:

◆ *1.2 Describe the operation of sensory systems.* Students can discuss and explain how one would design equipment, optimizing the strengths of the sensory systems and compensating for the weaknesses.

◆ *1.4 Relate knowledge of sensory processes to applications in areas such as engineering psychology, advertising, music, architecture, and so on.* Students can discuss current products and systems and how they take advantage of the visual system and how they can be improved. For example, are red or yellow-green fire trucks better?

◆ *2.2 Describe binocular and monocular depth cues.* Discuss the appropriate design of computer displays so that a system can be visualized. Perhaps, read some of the medical literature on how physicians can get lost while doing endoscopic procedures. How can the displays be improved?

◆ *3.2 Describe how attention differs for demanding versus simple tasks.* Discuss how people can and cannot multitask. Do a task flow diagram on how a person can actually perform in a complex system, such as driving a car.

Standard Area: Learning:

◆ *3.1 Describe the operant conditioning paradigm.* Discuss how people learn to use computer programs. Where does conditioning take place?

◆ *4.2 Describe cognitive learning approaches.* Explain how to best design learning modules, help panels, and other types of computer learning. When is computer learning better? When is classroom learning better?

Standard Area: Memory:

◆ *2.1 Describe the operation of short-term memory.* Discuss how to optimize a system to complement the limitations of short term memory.

◆ *2.2 Describe the operation of long-term memory.* Discuss how to optimize a system to reduce recall errors.

◆ *3.2 Explain the role that interference plays in retrieval.* Discuss how to minimize interference.

Standard Area: Thinking:

◆ *2.3 Analyze the obstacles that inhibit problem solving and decision making.* How does one design systems to encourage, not inhibit problem solving? How do you prepare people to be able to solve problems optimally under crisis conditions? How well do decision-making models describe your behavior/experience in retail environments? How well do the models describe your shopping/buying behaviors and experiences on the internet? What else might be going on in these experiences?

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Editorials and Newsletters as Teaching Tools



Wayne Viney, PhD
Colorado State University, Fort Collins, CO



William Douglas Woody, PhD
University of Northern Colorado, Greeley, CO

The growth in size of university classes presents a persistent challenge to explore methods that engage students more actively in the learning process. Student editorials and class newsletters are promising pedagogical techniques that encourage higher levels of student involvement in the classroom and deeper and more critical interaction with text and lecture materials. We tested editorial and newsletter techniques in courses in the history of psychology which you can easily adapt to almost any course. We discuss the value of editorials and newsletters as teaching tools, follow it with a description of ways to use these techniques in the learning environment, and provide a summary of student reactions.

The Value of Editorials and Newsletters

Many pioneering psychologists (e.g., Alfred Binet, G. Stanley Hall, William James, John B. Watson, and Wilhelm Wundt) considered it their duty to educate the public at large as well as their students (see Benjamin, 1986; Fried, 1994; Leary, 1987; Viney, Michaels & Ganong, 1980; Viney, Michaels & Ganong, 1981). Early pioneers in psychology often spoke to the public through descriptive and evaluative articles published in general cultural and popular family magazines. The active involvement of early psychologists in sharing and selling psychology to the larger public through informal non-technical articles may have helped create a climate of opinion that was receptive to the new discipline.

If the public is to understand psychology and we are to promote it on a larger scale, it is important that there be continuing meaningful communication with lawmakers, social institutions, and the general public.

A central feature of educating students is to teach them to write for professional, technical, and scientific outlets. However, such teaching may encourage an unfortunate insularity unless it is complemented by an emphasis on the importance of sharing ideas and opinions with larger audiences in less formal media. To develop skills required for communicating in less formal media, students can have the option of writing short opinion papers

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Standard Area: Social and Cultural Dimensions of Behavior:

◆ 3.2 Describe how social structure can affect intergroup relations. How does technology (such as a virtual classroom or virtual meeting room) help or hurt the ability of people to build relationships and work together to get things done as teams?

For additional resources, teachers may wish to:

- ❖ Check the HFES web site over the summer to see what additional HF activities may be available to you in October for National Ergonomics Month.
- ❖ Read the following articles in *Teaching of Psychology* which promote HF thinking and provide a strong argument for the necessity of this type of education.

- Carkenord, D. M. (1994). Promoting human factors psychology thinking through design assignments. *Teaching of Psychology, 21*, 235-237.

- Stone, N. J. & Moroney, W. F.

(1998). Teaching undergraduate human factors: The need, activities, and benefits. *Teaching of Psychology, 25*, 185-189.

- ❖ Encourage students who are residents of Maryland to apply for admission to Maryland MESA's summer camp for Maryland residents. If interested in applying to this camp contact HFES Diversity Chair, V. Grayson Cuqlock-Knopp by e-mail (vgrayson@arl.army.mil).

- ❖ Consider attending the following sessions at the Eastern Psychological Association meeting in Baltimore (March 13-16, 2003): *Games To Explain Human Factors* and *Preparing For Your Career With A Psychology Degree*.

- ❖ Consider inviting a Human Factors Practitioner to address your state or regional psychology conference or your classes. You may try to locate an HF professional by contacting the officers of a local HFES chapter, an HFES student chapter or a university department with a HF program your

area. These organizations may be found through the HFES web site (WWW.HFES.ORG). If there are no such organizations in your area, you may contact the HFES central office through the web site or the author of this article for further help.

Summary

As a result of our better understanding our human capabilities and limitations, and demanding that product manufacturers do the same, our society will be safer. We will be more efficient, and will have more fun! Enjoy teaching Human Factors as part of your psychology course. Let me know if I can help.

Acknowledgments

I would like to thank Arnold M. Lund, Haydee M. Cuevas, Elizabeth B.-N. Sanders, Rob McEntarffer, Jean E. Fox, Mark Sortino, Geraldine Acquard, V. Grayson Cuqlock-Knopp, John Gosbee, and Raquel Shapiro for helpful comments and suggestions which improved the overall quality of this article.

(editorials) for class credit. The concept of asking students to express their ideas about a topic and then presenting their opinions to the class is not a novel idea. Waller (1994), for example, encouraged students to write microthemes expressing their opinions on various dichotomies in psychology (e.g., nature/nurture and free will/determinism). The primary difference between Waller's methods and the methods described below is that students write editorials on a broad range of topics that they select from course materials. Further, student editorials can be read to the class and/or published (with the student's permission) in a more formal class newsletter. The class newsletter serves several additional functions to be described below.

Student editorials help promote awareness of the range of opinions on topics, and they stimulate stronger involvement of students with each other and with course materials. Editorials can be rewarded regardless of whether they support or challenge the views expressed in course reading materials. Instructors may write comments on student papers, so the editorials present students with opportunities for private written dialogue with the instructor. Additionally, editorials can provide a safe and comfortable outlet that encourages exploration of ideas and presentation of those ideas, with permission, in a small public forum. When students know that their thoughts *do* matter, that they are important enough to be shared and are taken seriously by the instructor and the class, students gain confidence. Such confidence promotes intellectual freedom and individuality—traits that are highly desirable in an academic community.

Class newsletters can convey information on a wide variety of topics and greatly enhance communication between students and the instructor. Newsletters may contain practical information such as examination dates, syllabus additions, and other business matters but they may also include substantive materials such as editorials, sample examination questions, suggested readings, and outlines of material to be included on examinations. They also foster student interest when they include humorous materials, trivia, or birthdays of field leaders. Newsletters present an important means for engaging students in a course, and they are easily adapted to course content and are thus valuable as sources for supplementing and

amplifying material from textbooks and lectures.

Implementing the Editorial and Newsletter in the Classroom

We pilot tested editorials and newsletters in classes in the history of psychology at large western universities. In these classes, a student's total grade for the class was comprised of major examination scores, quiz scores, and scores on written projects. Editorials were among the options for possible written projects. The range of projects, along with a flexible time schedule for their completion, allowed students to work at their own pace. Students were told they could write editorials on any topic that was covered in the text or lecture. In these particular classes, students were encouraged to apply, analyze, synthesize, and evaluate ideas from a range of topics (e.g., the free will/determinism issue, the question of whether there is a pattern in history, the treatment of women in the Renaissance, and reactions to the theories of Sigmund Freud; see Bloom, et al., 1956; Gronlund, 2000; McKeachie, 2002). Initially, one had to limit the length of editorials to 350 words, but this criterion met with little success as students insisted on deeper and more lengthy treatments of topics.

Students also had opportunities for their editorials to be read aloud in class. After obtaining permission from the student, we read editorials without critical comment and discussed or edited and printed it in the class newsletter (see below)¹. Public discussion of editorials and the publishing of editorials in the class newsletter introduced students to the ideas of their peers. Students thus received the benefit of criticisms and comments voiced by their peers. Such exchanges foster an intellectually open environment.

Using newsletters

In the Spring 1994 class in the history of psychology at Colorado State University, newsletters were regularly prepared and distributed to students prior to each of the four major examinations. Newsletters employed in the aforementioned course included materials on important dates (c.f. Street, 1994) in the history of psychology (e.g., birth and death dates of famous psychologists, publication dates of

classic works in Psychology), study questions for upcoming examinations, announcements, and student editorials². Again, written permission was obtained from each student prior to printing that student's editorial. The student was also given the choice of whether his or her name would be attached to the editorial.

Student Reactions to Editorials and Newsletters

Student reactions to editorials and newsletters were assessed. Of 60 students, 36 wrote at least one editorial, and 25 of these students wrote more than one. A 7-point Likert scale, ranging from one (Strongly Disagree) to seven (Strongly Agree) was used to evaluate student opinions of these exercises. Questions concerning editorials included such items as "I enjoyed writing editorials," "It feels safe to write editorials that disagree with the opinions of the instructor," and "The editorial is a good tool to encourage diversity of opinion." Those who had written an editorial found it to be an enjoyable experience ($M = 5.84$, $SD = 1.36$). Further, the editorial was a comfortable way to disagree with the instructor ($M = 6.51$, $SD = .80$). The editorial also promoted a diversity of opinions ($M = 5.7$, $SD = .61$) and opened up new avenues for student expression ($M = 6.63$, $SD = .58$). When asked if we should include the editorial option in other classes in Psychology, the response was positive ($M = 6.5$, $SD = .95$).

Newsletters generated similar positive student feedback. Eighty-three percent of the students reported reading most or all of the newsletters. Students found the newsletters to be interesting ($M = 5.58$, $SD = .62$) and helpful in preparing for the examinations ($M = 5.28$, $SD = 1.03$). Overall attitude toward newsletters was positive ($M = 5.77$, $SD = .77$)³.

Discussion

There are numerous variations for the administration of editorials and newsletters in classroom settings. Indeed, one possibility is to encourage students to be in charge of the administrative work and production of a newsletter. Based on the feedback concerning these teaching tools, the overall student reaction is likely to be very positive. Furthermore, such tools will promote a deeper involvement with

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text and lecture materials by creating a safe forum for the expression of opinion. Student enthusiasm for these activities and increased student involvement in the course are more than adequate compensation for the extra work involved in employing these techniques.

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Author notes

1. For reprints, please contact Wayne Viney, Department of Psychology, Colorado State University, Fort Collins, CO 80523; electronic mail: vineyw@lamar.colostate.edu.

2. Contact the senior author for an example of a newsletter employed in a course in the history of Psychology.

3. Complete tabular information for questionnaire results are available from the senior author.

APF/TOPSS Scholars Meet Dr. Phil Zimbardo



At the 110th APA Convention in Chicago, IL, two winners of the 2002 APF/TOPSS Scholars competition, Gretchen Sisson and Bryan Read, had the unique opportunity of meeting with Dr. Phil Zimbardo, the 2002 APA President. Sisson and Read were among two of three high school students recognized for submitting the top three winning papers for the APF/TOPSS Scholars Competition. In addition to scholarships of \$1,000 each, both students were awarded travel expenses to participate at the APA Convention in Chicago last August. Accompanied by their mothers, Sisson and Read attended numerous convention sessions and programs. One of their convention highlights was meeting with Dr. Zimbardo. Sisson is currently a freshman at Amherst College in Massachusetts, and Read is in his first year at Hofstra University in New York. (David Miller, a freshman at Duke University, was one of the 2002 APF/TOPSS Scholars but was unable to attend the APA Convention due to a mandatory orientation at Duke.)

Pictured above (left to right) are: Craig Gruber (2001 Chair, TOPSS Executive Committee); Deb Park (Chair-elect, TOPSS Executive Committee); Gretchen Sisson; Dr. Phil Zimbardo; Bryan Read; and Rob McEntarffer (Past-Chair, TOPSS Executive Committee).

Community College Teacher Affiliates Join APA

During its 2002 legislative year, APA's Council of Representatives approved a proposed bylaw amendment to create a new affiliate membership category for Two-Year College Teacher Affiliates. In December, APA members accepted the bylaw amendment with 11,643 votes to approve (87.64%).

According to Bylaw Article II, Membership, Section 15,

There shall be a class of Two-Year College Teacher Affiliates who are not Members of the Association and who shall not



represent themselves as such. They shall have such privileges as may be granted by Council, including

special rates for subscriptions and publications.

The new affiliate category takes effect in January 2003 and applications are available from the APA Membership Office (www.apa.org/membership). Please pass this information on to your community college faculty colleagues who may wish to take advantage of the opportunity to become Community College Teacher Affiliates. Visit the PT@CC Web site for further details: <http://www.ptatcc.org>.

Teaching Introductory Psychology Students to Think Critically About Internet Resources

Dr. Susan E. Becker and Janet K. Burris
Mesa State College, Grand Junction, Colorado

With the expansion of the Internet and individual connection with it, many changes have occurred in the way that college students acquire information for research papers. It has become a very popular tool for students seeking current, up to the minute information.

While there is an unlimited and widely varied amount of information available to students, these resources tend to be of very mixed quality, ranging from high quality on-line journals to poor quality advertising sites with plagiarized diagnostic criteria (Goldsborough, 1999).

Faculty have many concerns about students' reliance on the Internet, not the least of which is the students' inability to judge the quality of such Internet resources (Leckie, 1996). Although libraries offer links to academic resources, students often fail to recognize the difference between academic and other less reliable sources. This concern has prompted us to develop a set of criteria that we could present to students for use as a guide to selecting higher quality sources of information.

We used several sources to develop the set of criteria, including the APA Publication Manual (2001) and the "10 C's" website (Richmond, 2001). We decided on a list of 7 criteria that would increase the likelihood that students would select a more reliable source. These criteria would also increase the likelihood that students would select on-line journal articles over unsubstantiated websites. Some of these criteria seem quite obvious, but our experience with first year college students suggests that they are often not aware of the need for these criteria to be met. These criteria are:

- Name of author(s)
- Professional affiliation(s) of author(s)
- In-text citation of references
- A reference list or bibliography
- The original source of the article if it is published elsewhere, especially peer reviewed journals
- An organized method of presentation
- Collaborative studies with more than one author

The criteria were organized on a worksheet and included the question "Would you use this article as a source for a college paper, and why?" The students received this worksheet in freshman general psychology courses using several different methods.

We used this worksheet as a learning tool and class assignment by giving students an inferior internet article (on how women can avoid and prevent rape) and asked them to read and critique it. Following their informal critique we introduced the criteria, gave examples and reasons, and then asked them to reevaluate their judgement of the article. This assignment made an impression on the students and they seemed to remember the basic issues for the next exam. However, it was unclear whether students would be able to apply the criteria to their own searches for reliable information from the Internet.

Another version of this assignment results in more generalized learning for students, but also involves more

grading time on the part of the instructor. We presented the criteria to the students and gave an assignment to find their own Internet article using the criteria. The students evaluated the article they had selected and made a judgment about its use as a resource. We subsequently collected and assessed both the articles and the response sheets for the quality of students' choices. We found this method to be useful in helping students apply the criteria more directly to the search for sources for college assignments.

Students who received the evaluative criteria showed an increased awareness of the differences between the various types of resources available on the Internet. Though they didn't always make decisions we agreed with, they did make better choices after being presented with the criteria (Burris & Becker, 2002). We hoped that students could apply these criteria in future classes, and we have observed that they tend to make better choices of sources for subsequent papers.

This class assignment can be considered a learned evaluation skill. College freshmen may or may not have had experience with evaluation skills in secondary education, so it is important that such skills be presented in the introductory courses in higher education (VanFossen & Shiveley, 1999). Taking the time, both in class and for grading can be intimidating in larger introductory courses, but students seem to benefit greatly from the expanded assignment when they have to apply what they have learned outside of class. If time is taken at the beginning of college to assist students in making better choices in their search for paper resources, the end result will be improved research skills and students will hopefully, be less intimidated by the process.

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**TOPSS Programs
2003 APA Convention
Toronto, Ontario, Canada**

**TOPSS Preconvention Workshop
at the Ontario Science Centre
Wednesday, August 6, 2003**

Presenters:

Rob McEntarffer
Lincoln Southeast HS, Lincoln, NE
Jody Meerdink, PhD
Nebraska Wesleyan University, Lincoln, NE

TOPSS Invited Addresses

Friday, August 8, 2003

10:00 AM to 10:50 AM

**Coaching and Teaching
Positive Psychology**

Martin E.P. Seligman, PhD
Univ. of Pennsylvania, Philadelphia, PA

11:00 AM to 11:50 AM

**Strengths of Character:
Meaning and Measurement**

Christopher Peterson, PhD
University of Michigan, Ann Arbor, MI

12:00 PM to 12:50 PM

**Teaching Positive Psychology to
Ninth Graders: The Development
of a Positive Curriculum**

Karen Reivich, PhD
Univ. of Pennsylvania, Philadelphia, PA

Saturday, August 9, 2003

1:00 PM to 2:50 PM

**Making Hope Happen
in the Classroom**

Shane J. Lopez, PhD
University of Kansas, Lawrence, KS
C.R. Snyder, PhD
University of Kansas, Lawrence, KS

**For more information, please contact
Mayella Valero at mvalero@apa.org.**

**G. Stanley Hall /Harry Kirke Wolfe
Lectures**

**American Psychological Association
Convention**

Toronto, Ontario, Canada

August 7-10, 2003

G. Stanley Hall Lectures

Thursday, August 7

9:00-9:50 am

Tiffany M. Field, PhD
University of Miami School of Medicine
Touch Therapy Research

Chair: Ann Lynn, PhD, Ithaca College

10:00-10:50 am

C. R. Snyder, PhD
University of Kansas, Lawrence
*Questioning Hope and Finding Positive Psychology
Answers*

Chair: Peter Salovey, PhD, Yale University

Saturday, August 9

3:00-3:50 pm

Timothy D. Wilson, PhD
University of Virginia
Affective Forecasting and the Pleasures of Uncertainty
Chair: Dana Dunn, PhD, Moravian College

Harry Kirke Wolfe Lecture

Saturday, August 9

4:00-4:50 pm

Faye J. Crosby, PhD
University of California, Santa Cruz
Teaching About and Researching Affirmative Action
Chair: Norine L. Jalbert, PhD, Western Connecticut State

**Learn more about the 2003 G. Stanley Hall/Harry
Kirke Wolfe Lectures through the Web at
<http://www.ithaca.edu/beins/gsh/gsh.htm>.**



Plan your trip to the 111th Annual Meeting of the American Psychological Association, and enjoy the sights and sounds of Canada's magnificent city, Toronto, Ontario. If you are a current member and/or affiliate of APA, details and registration information on the 2003 APA Convention (August 7-10) will be published in the March issue of the *Monitor*. Information will also be available on the web at <http://www.apa.org/convention>.

Psychology Teachers at Community Colleges (PT@CC)

PT@CC is an acronym for Psychology Teachers at Community Colleges, a group of members and affiliates of the American Psychological Association that was established in 2001 and whose Executive Committee is elected to represent the interests of community college psychology teachers. Members of the PT@CC Executive Committee include Ann Ewing, PhD, Chair, Donna Duffy, PhD, Robert Johnson, PhD, Patricia Puccio, EdD, Tonja Ringgold, EdD, and Jerry Rudmann, PhD.

What Does PT@CC Do?

- PT@CC serves the professional needs of psychology teachers at community colleges;
- PT@CC provides a voice for community college teachers in the governance of APA;
- PT@CC supports sessions related to the teaching of psychology at national and regional conventions;
- PT@CC conducts surveys that identify the status of psychology in community colleges and needs of community college teachers;
- PT@CC encourages learning of psychology through an



annual "electronic poster" contest and certificates to recognize outstanding community college students of psychology;

- PT@CC develops partnership projects with Psi Beta (the National Honor Society in Psychology for Community and Junior Colleges) and STP (The Society for the Teaching of Psychology) for the encouragement of excellence in teaching and learning of psychology; and

▪ PT@CC encourages research in the teaching and learning of psychology

at community colleges.

APA encourages its Members, Associates, and Affiliates with an interest in psychology at community colleges to join the Psychology Teachers at Community Colleges (PT@CC). For further information on PT@CC or the new Community College Teacher Affiliate membership category, visit the PT@CC Web site at <http://www.ptatcc.org/> or contact Martha Boenau in the APA Education Directorate at MBoenau@apa.org (1-800-374-2721, ext. 6140).

PT@CC's Planned Events at the 2003 APA Convention

****Sessions will take place in Room 201D at the Metro Toronto Convention Centre****

Friday, August 8, 2003

10:00 – 10:50 AM

Innovative Community College Teaching Methods

Moderator: Tonja Ringgold, EdD, Baltimore City Community College, Baltimore, MD

L. William Cheney, Community College of Rhode Island
Incorporating Interactive Activities into a Career Planning Course

Beverly Burton, Piedmont Technical College
Groups in Cyberspace

12:00 – 12:50 PM

Hosting Conferences and Workshops for Community College Faculty and Students

Moderator: Donna Duffy, PhD, Middlesex Community College

Panelists:

Jerry Rudmann, PhD, Coastline Community College
Pat Puccio, EdD, College of DuPage

Saturday, August 9, 2003

11:00 – 11:50 AM

Using the New Student Outcome Standards in Psychology to Improve Student Learning

Moderator: Robert Johnson, PhD, Umpqua Community College

Panelists:

Jerry Rudmann, PhD, Coastline Community College
Donna Duffy, PhD, Middlesex Community College

1:00 – 1:50 PM

The Last Lecture

Moderator: Patricia Puccio, EdD, College of DuPage

Panelists:

Jane Halonen, PhD, James Madison University
Barney Beins, PhD, Ithaca College
David Murphy, EdD, Waubensee Community College

2:00 – 2:50 PM

PT@CC Invited Address

Moderator: Ann Ewing, PhD, Mesa Community College
Diane F. Halpern, PhD, Claremont McKenna College
What Inquiring Minds Want to Know: Can We Teach Thinking?

Other Convention Events

Saturday, August 9, 2003

12:00 noon – 12:50 pm

Reception for Diane Halpern

Date and Time Pending

Conversation Hour in the STP Hospitality Suite

Resources for Community College Teachers

Moderator: Jerry Rudmann, PhD

ACTIVITY**Perception: The Culture of Scent and Flavors**

Patrick Mattimore

Former Psychology Teacher at South San Francisco HS
South San Francisco, California**Concept**

This activity will allow students to recognize that some of our sense preferences are learned, and that not all cultures experience things the same way.

Materials

At least two packs of musk lifesavers that can be purchased from the Australian Catalogue Company (1-800-808-0938; <http://www.aussiecatalog.com>). Grind lifesavers into fine bits and store in a plastic bowl.

Instructions

Instruct your students that you are distributing a substance, and that they are to work individually in identifying the substance and in guessing how it is used. Ask your students to write their guesses on a piece of paper. (If you have stored the crushed lifesavers in a dish with a lid or cover, you should remove the lid or cover before passing it around.) It is important that you do not influence your students' observations, therefore refrain from making any comments that could help them in identifying the substance. After they have all made their guesses you might wish to allow them to compare notes in groups of two or more.

Discussion

Elicit from students what they think the substance is and how they reached that observation. Most common guesses are baby powder (based presumably on smell), Pepto Bismol (based presumably on appearance), and laundry soap (based on sight and smell). Most students would have based their observations through sight and smell. There is a probability that no one will have tasted the substance. If none of your students volunteered that they did not taste the substance ask why they did not use that form of inspection. (Perhaps someone might say that it is unwise to put a strange and unfamiliar substance in your mouth.)

Because this will be the first time your students have seen this novel stimulus, you might point out that the caution with which they have perceptually approached this substance might be generalized to other novel situations, such as meeting a new person or stepping into a mudbath. Someone may also ask if the substance is in its "normal" form and you may divulge that the substance is not in its normal structure. Discuss the importance of appearance with regard to perceptual recognition.

Before revealing the true identity of the substance, ask your students if they recognize the smell. Although some are familiar with the scent of musk, it is likely that they might not remember that it is musk. In Australia or New Zealand, natives would more likely identify the musk as a flavor.

Writing Component

Challenge students to think of other examples of ways in which culture might alter our perceptions. The examples might involve taste and smell, but could also involve how we perceive and judge sounds, the texture of foods or other substances, etc. Ask your students to think of other examples of perception that might be less affected by culture.

Funding Opportunities**APF Nationwide Psychology Program**

To support TOPSS in the development of grassroots efforts among psychology teachers, the American Psychological Foundation (APF) receives proposals and distributes modest grants each year through the Nationwide Psychology Program. These funds are made available for state-wide initiatives such as mailings, workshops, and institutes that support the formation of regional networks of psychology teachers. Send proposals to Mayella Valero, APA Education Directorate, 750 First Street, NE, Washington, DC 20002-4242 or by email to mvalero@apa.org. Be sure to include a justification/rationale for how a specific project would build local networks and enhance high school psychology on a local basis.

TOPSS Workshops at Regional Meetings

TOPSS is sponsoring the following mini-workshops for high school teachers at meetings of the Eastern Psychological Association (EPA), Southeastern Psychological Association (SEPA), and Rocky Mountain Psychological Association (RMPA). For more information on the programs listed below and future workshops, please visit the TOPSS website at <http://www.apa.org/ed/topsshomepage.html>. Or contact Mayella Valero at mvalero@apa.org (by phone at 1-800-374-2721 ext. 3013).

March 14, 2003 – EPA, Omni Hotel, Baltimore, MD**Building Collaborative Relationships Between High Schools and Community Colleges: The MATOP Model**

Craig Gruber, Walt Whitman HS, Bethesda, MD; Robin Hailstorks, PhD, Prince George's Community College, Largo, MD; and Tonja Ringgold, EdD, Baltimore City Community College, Baltimore, MD. (\$20 registration fee for high school teachers — includes access to all EPA sessions. For registration and program information, see <http://www.easternpsychological.org>.)

March 28, 2003 – SEPA, Radisson Hotel, New Orleans, LA**Introducing Students to Psychology: Making the Most Out of the High School Classroom**

Amy Fineburg, Homewood HS, Birmingham, AL; Marissa Sarabando, Memorial HS, McAllen, TX; and Elizabeth Y. Hammer, PhD, Loyola University, New Orleans, LA. (\$30 registration fee for high school teachers — includes access to all SEPA sessions. For registration and program information, see <http://www.cas.ucf.edu/sepa>.)

April 11, 2003 – RMPA, Sheraton Denver Tech Center, Denver, CO**Teaching Methodologically**

Charlie Blair-Broeker, Cedar Falls HS, Cedar Falls, IA; and Maureen McCarthy, PhD, APA, Washington, DC. (\$35 registration fee for high school teachers — includes RMPA membership and access to all RMPA sessions. For registration and program information, see <http://www.rockymountainpsych.org>.)

Scholarships and Awards for Students: Call for Submissions

Please encourage your students to submit entries for the 2003 APF/TOPSS Scholars Competition and the APF/TOPSS Excellence in High School Student Research Awards. For details, check the following TOPSS web pages:

<http://www.apa.org/ed/topsscholar.html>

http://www.apa.org/ed/apf_topss.html

Or contact Sherrill Jenkins at sjenkins@apa.org.

Psychology Teacher Network is published quarterly by the Education Directorate of the American Psychological Association (APA). Subscriptions are free to High School Teacher Affiliates of APA and APA Members, and \$15 a year for all others. Address editorial correspondence to *Psychology Teacher Network*, APA Education Directorate, 750 First St., NE, Washington, DC 20002-4242; (202) 572-3013. Address inquiries regarding membership or affiliation to the APA Membership Office, at the same address.

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(www.ptatcc.org) for details
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