Essays from E-xcellence in Teaching

Volume VIII

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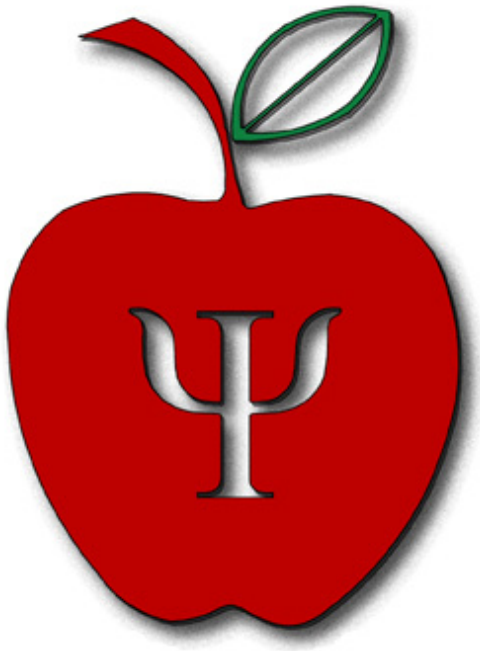

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Introduction

The Society for the Teaching of Psychology (STP, Division 2 of the American Psychological Association) launched its Internet electronic discussion list, PsychTeacher™, in late 1998. In the spring of 2000, *E-xcellence in Teaching*, a monthly column devoted to the teaching of psychology, joined the list. The column features monthly essays devoted to teaching at the high school, community college, and university levels in general, and to the teaching of psychology in particular. The essays take the form of lessons learned, advice and hints on particular aspects of teaching, lore regarding teaching, book reviews, and reflections on our roles as teachers of psychology. In general, though, the primary focus of the column is to provide a forum for the discussion and promotion of effective teaching practices.

This compilation of essays forms Volume VIII of *E-xcellence in Teaching*. We thank the authors of these essays for their valuable contributions to the column and to the literature on the teaching of psychology and the scholarship on teaching and learning.

In the first chapter, Mary Kite discusses how narratives can enliven lectures and encourage students to make connections between their personal experiences and psychological science. She describes how the principles of the persuasion literature can guide the selection of a narrative. She discusses the advantages of using narrative and offers strategies for deciding whether a narrative meets an instructor's objectives.

In the second chapter, Michelle Dunlap discusses several hindrances to effective community service-learning. She recommends strategies for encouraging a more fulfilling service-learning experience for both faculty and students. These strategies include providing better infrastructure support for faculty and students, greater validation of this pedagogy at tenure time, adequate preparation around risk-management issues, and steady and well-integrated opportunities for learning about diversity issues.

Lonnie Yandell and Peter Giordano review problem-based learning (PBL) in the third chapter, which is a pedagogical approach that is experiential, student centered, and requires students to grapple with real world problems in order to learn important curricular information. They describe five key suggestions for creating a PBL course and offer specific examples from classes they have taught using this teaching method.

The Society for the Teaching of Psychology embraces the scholarship of teaching and learning (SoTL) as a way for psychology to improve the classroom experience. And as psychologists, we can turn to our scientific training to shed light on how to be a better teacher. As Janie Wilson states in Chapter 4, our rigorous scientific history provokes two questions: (1) Is SoTL research truly valued as much as our more traditional scientific areas of study in psychology?, and (2) Does SoTL research adhere to the same standards that we set for non teaching-related research?

The *Scholarship of Teaching and Learning* (SoTL) can answer why a class goes awry, or why students fail to grasp the concepts we seek to share. In chapter 5, Regan Gurung provides a description of SoTL, demystifies the origins of the term and uncouples it from Scholarly Teaching, and provides key reasons why we should all be doing it. He also provides key resources to catalyze pedagogical research and comments on the state of SoTL in psychology today.

From a constructivist perspective, students act as "architects of knowledge" in actively and interactively formulating meaningful changes in understanding by integrating new information with their pre-existing knowledge. Drawing from his own classroom research and practice, Joseph Mayo overviews a range of constructivist pedagogical applications that highlight student-centered learning in Chapter 6. Among

the constructivist approaches that he discusses are autobiographical and biographical narration, case-based instruction, concept mapping, the repertory grid technique, dialogue, peer critique, and analogical reasoning.

As teacher-scholars we are uniquely qualified and indeed have a calling to teach others about the science of psychology. One way of realizing this is by contributing to online wikis. In Chapter 7, Marianne Miserandino explains what wikis are, describes current wikis in psychology, discusses the advantages of wikis in teaching, and suggests how to contribute to wikis and how to use wikis in teaching.

Classrooms that are enriched by creativity have the potential to more fully engage our students, encouraging them to flex their cognitive muscles and make richer connections among a broad array of ideas. Yet, all too often, creative ideas in the classroom are stifled in favor of "safer" teaching methods. In Chapter 8, Robert Smith proposes that infusing a little creativity into our teaching is well worth the risks, and makes us and our students better thinkers and learners.

Although discussions of pedagogy frequently center on the role of teaching in benefitting students' learning, teachers also benefit richly from this process. In Chapter 9, Bill Buskist describes 10 ways that teaching provides some form of personal enjoyment for professors: rising to the intellectual challenge, solving course design problems, improving communication skills, demonstrating passion for psychology, changing students' lives, passing the torch, delighting in self-discovery, having fun teaching, affiliating with other instructors, and enjoying being good teachers.

What can college and university faculty learn from high school teachers, what can high school teachers learn from college faculty, and how can this benefit our students? With a first-hand look at the teaching of psychology in high school and at the undergraduate level, Charles Ovando, Suzanne Baker, and Dana Dunn discuss skills, content, and context relevant to the transition from secondary education to college education in Chapter 10.

In chapter 11, Bill Addison examines the dimensions of effective teaching as determined through factor analyses of student evaluation instruments. The results of four different studies suggest that there are two key factors involved in effective teaching: skill and rapport. Among the implications of these findings is that the interpretation of student ratings should not be based on a single score, but rather should be done by examining the ratings in terms of these two dimensions.

In the final chapter, Keisha Paxton provides suggestions for how to incorporate writing into psychology courses and techniques that make grading these assignments more manageable for instructors. Although many psychology courses use multiple-choice exams, writing can effectively help students understand course material, increase their class participation, and improve their performance on exams. Beyond traditional term papers, writing assignments can take many different forms, so it is important for professors to consider how to incorporate writing into their curriculum relative to their instructional goals.

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Chapter 1

The Power of Narrative as a Teaching Tool

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Is Albus Dumbledore gay? In case your first reaction to this question is "Who is Albus Dumbledore?," let me bring you up-to-date. Dumbledore is the Headmaster of Hogwarts School of Wizardry and Witchcraft, that storied place that is central to the Harry Potter books. If you have read the books or seen the movies, you are aware that Dumbledore's sexual orientation is never hinted at, let alone discussed. Even so, at a recent reading at Carnegie Hall, J. K. Rowling, the series author, answered a question about the headmaster's love life by noting that, in her mind, Dumbledore is gay and in love with his predecessor, Gellert Grindelwald (see Weingarten & Tyre, 2007).

It is fair to wonder what the life of a fictional character has to do with the teaching of psychology. Let me address that concern by noting that the wonder of this story is in the responses to it. If you have not seen press coverage of this announcement, you might be as surprised as I was about the audience's reaction, described in *Newsweek* as "prolonged clapping and shouting from astonished fans" (Weingarten & Tyre, 2007, p. 1). Leonard Pitts, syndicated columnist for the Miami Herald, explored this response with two Harry Potter fans, one of whom noted "[Dumbledore's] sexuality is an extra detail…Not destiny, not definition, just detail" (quoted in Pitts, 2007). Pitts goes on to describe a similar reaction he personally had to the revelation that one of Marvel Comics' Fantastic Four, Ben Grimm, was Jewish. Pitts writes that, "apparently in the minds of the creators…he was always a Jew, but that was something they felt constrained to keep quiet back in 1961." Like his Harry Potter fan, Pitts (2007) noted "it didn't change my perception, but it was a detail I liked having."

Such stories, when carefully chosen, can be powerful teaching tools. A narrative can be nearly anything: a feature film, a documentary, excerpts from a novel, a personal story, a poem, and even a newspaper column about fictional characters. Some narratives come straight from the psychological literature, but (at least in my classroom) most of them do not. An effective teaching narrative should be chosen deliberately, which is a difficult and time consuming process, but worth the effort. A narrative is not just a "good story," but like any engaging tale, it can pique the students' interest and generate discussion. Most importantly, it can provide a platform for joining psychological research with the students' interests and experiences. I might use the "outings" of Dumbledore and Grimm to illustrate how prejudices can change over time. Data suggest, for example, that attitudes toward gays and lesbians are gradually but consistently becoming more positive (Yang, 1997). Do these documented changes explain people's positive reactions to the idea that Dumbledore is gay? Will he become a model that further changes attitudes? Similarly, I might discuss what historical events and social attitudes have changed so that Grimm's creators felt comfortable revealing that he is Jewish.

Purpose of a Teaching Narrative

The primary purpose of a teaching narrative is to connect students with the psychological literature. Therefore, instructors need to lay out in advance the pedagogical goals of including that narrative, and to decide what aspects of the psychological literature will be addressed through its use before a narrative is chosen. As a guide, it is helpful to think of a narrative as a persuasive communication and, as such, to apply social psychological principles of effective persuasion to the selection process (see Eagly & Chaiken, 1993, for a review). Specifically, the teacher as communicator should:

Consider the audience's characteristics

What do your students already know? What are their attitudes? Your teaching narrative needs to be crafted with those points in mind. Before beginning a discussion of Dumbledore's sexual orientation, I would think about my students' attitudes toward homosexuality. I also would consider what they know about the anti-gay prejudice literature and what parts of that literature I would address during the class period.

Think about the characteristics of the narrator you have chosen

Is he or she credible? Trustworthy? Is he or she attractive and likeable? If so, the communicator will be more persuasive. The popularity of the Harry Potter books and of J.K. Rowling herself increase the likelihood that students will be interested in the topic and find the narrative credible. Similarly, Leonard Pitts is a Pulitzer Prize-winning columnist and thus a respected source.

Think about the effectiveness of the communication

Messages that the students find personally relevant will be more effective than those that they do not. In addition, messages that arouse strong emotions are often more effective. It is a safe bet that discussions of sexual orientation will elicit emotional reactions and that students will see this topic as personally relevant.

As a cautionary note, the attitude change literature also points to factors that can derail a good narrative (see Eagly & Chaiken, 1993), including:

1. Selective avoidance. This occurs when the students do not want to consider the topic and direct their attention elsewhere. People generally see information that contradicts their beliefs as less valid.

2. The belief that the instructor has an ulterior motive. People are more resistant to new ideas in this case, in part because they create counterarguments in advance when they expect the speaker to take a particular perspective.

3. Reactance. If students believe they are being pushed, it can result in annoyance, resistance to the message, or even negative attitude change (i.e., adopting beliefs that are opposite to the message).

In response to the Dumbledore narrative, students with strong anti-gay prejudice may tune out, perhaps arguing that the sexual orientation of a fictional character, discussed in a question and answer session, is not particularly relevant. They also may be resistant to the idea of positive portrayals of gays (fictional or nonfictional) and may resent being asked to consider a positive character. Students might conclude the professor is gay and therefore has an ulterior motive for discussing the topic. Instructors should ponder in advance how they will handle potential student

resistance. It is also important to consider the possibility that students will interpret the narrative differently than intended. You should also be prepared to deal with strong emotional reactions that might come from the narrative.

Components of an Effective Teaching Narrative

A good narrative shares many components of qualitative research and, borrowing from this literature, I have adapted the questions Joseph Maxwell (1996) asks qualitative researchers to consider before conducting a study. Here are questions teachers should be able to answer about a chosen narrative: (a) What are the teaching goals for using the narrative?; (b) What theory or research finding does the narrative illuminate?; (c) How does it illustrate the theory or set of research findings you are addressing?; and (d) What, specifically, do you want your students to understand?

In selecting a narrative, there are other questions worth asking as well. These have to do with the way the narrative will be used during instruction. Specifically, how will you actually use the narrative? Will students read or view the material in or out of class? Will you explain directly the purpose of the narrative or will you lead your students to that point through discussion (or both)? Will the students follow up with out-of-class discussion, perhaps on Blackboard? Will you be part of that discussion?

The most important question an instructor faces is simply whether the class time spent on the narrative is justified. Again, adapting Maxwell's (1996) discussion of qualitative research, without adequate preparation, your narrative might suffer from "too many good intentions and too little focused thinking…[you might] painfully discover that [the narrative], though interesting, was not particularly relevant to the core category. [In short,] without a clear sense of the purpose behind your work, you are apt to lose your way or to spend your time and effort doing things that won't contribute to your goals" (p. 14). As with most teaching decisions, there are no easy, one-size-fits-all answers to the questions I have posed and, as with any classroom, the decision is highly personal. Different people approach topics from different vantage points and want their students to gain different things from a class session.

Bringing narratives into the classroom has another advantage: introducing another voice that allows students to discuss the experience "one removed" from the people present in the classroom. They can discuss another's experience (even that of a fictional character), for example, without the added worry of offending the person who wrote it. They can raise questions that they might not ask if talking directly to the author. If the author isn't present, students are freer to raise doubts and to talk freely about some of the things that may have happened in the narrative.

Making Connections Between Science and Personal Experience

There are, of course, good reasons why instructors resist using precious class time on narratives. Consider the experience Gary Olson (2007) recently described in the *Chronicle of Higher Education*. In response to a lecture on Michel Foucault, a student sneered: "Well, that's *his* opinion. I don't agree." To answer, the professor explained that, as new learners, the task at hand was not to agree or disagree, but to understand Foucault's arguments. As Olson put it, "Agreement or disagreement [is] a privilege earned only after having mastered and reflected on the material." The student replied, "Everyone is entitled to an opinion, and my opinion is that he is wrong."

Who among us hasn't faced this situation? One of the challenges of teaching psychology (as opposed to, say, Chemistry) is that students have first-hand, life-long experiences with human behavior and they have firmly held beliefs about how the

psychological world works. Sometimes dealing with this reality feels like swimming upstream. We are trying to teach students about the *science of psychology*. It is hard to get them to understand, let alone accept, that the scientific research about human behavior is valuable. It is equally hard to convey that we *are* experts who have studied this material. Bringing in the opinions and first-hand experiences of others can thus seem counterproductive. However, students are more likely to accept the results of psychological literature if it resonates with their real world experience. To be effective teachers of psychological science, we need to build a bridge between students' personal experiences and the more dispassionate presentation of research. Under the right conditions, a narrative provides a commanding way to connect the results of empirical research with our students' experiences.

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Chapter 2

Getting Faculty On Board with Service Learning: Issues of Infrastructure, Control, and Diversity

Michelle R. Dunlap
Connecticut College

Unlike a decade or two ago, the term "service-learning" is now a common academic, if not household, term. During this time, many psychology faculty have become increasingly aware of the basic tenets of service-learning such as reflection, reciprocity, and curricular ties. Today it is expected that service-learning not only connect with course curricula, but also involve learning on both the students' and community partners' part, include cognitive and emotional processing of the service-learning experience, and meet an actual need of the community (see National Service-Learning Clearinghouse, http://www.servicelearning.org for more information).

For the last decade, I've had the opportunity to travel to public and private colleges and universities across the country to meet and work with faculty and administrators who want to improve their service-learning programs. There are four issues that faculty and administrators articulate time and time again at many of the educational institutions I've visited. The first issue is a lack of infrastructure to support service-learning and other forms of civic engagement within some academic institutions. Second, faculty members are often concerned about the institutional prioritization of service-learning when they are evaluated for tenure and promotion. A third concern involves the issue of "control," or the difference in our ability to control what goes on outside of our classrooms compared to the events that occur inside of them. The final issue involves unrealistic or inappropriate expectations regarding multiculturalism and diversity. While these are all complex issues that cannot be easily remedied, I offer several reflections based on my own experiences and many conversations with faculty, administrators, and staff throughout the country. I hope that my suggestions will ultimately help to improve the service-learning process so that students will not only survive their community engagement, but also will thrive because of it.

Universities need to have an infrastructure to support faculty implementation of service-learning

As I travel and hear about others' experiences of trying to implement service-learning, I feel blessed to be a member of an institution that has a strong infrastructure in place for supporting college-community engagement. Our *Office of Volunteers for Community Service (OVCS)* has provided placement site assessment and monitoring, participant orientation, and logistical support to students and faculty for decades. I often am surprised to find that some faculty still are trying to figure out how to transport students from their academic institutions to service-learning sites.

With such logistical worries, there is greater reservation and anxiety about including service-learning in the curriculum, and less time for critical reflection and connecting the service-learning experience to the course material. The many benefits of community engagement for students, faculty, staff, and colleges in general have been well-documented. Therefore, improving the infrastructure for facilitating curriculum-based community engagement is an investment that will pay off. Without such an infrastructure, I would not have been able to include service-learning in every course that I have taught for the last 14 years; I would not have been able to produce more than a dozen service-learning articles and three books on the topic of community engagement; and I would not have been able to lay the groundwork for achieving tenure and promotion. Funding such infrastructure is a great challenge, but one that many institutions are overcoming through reorganizing budgeting priorities, collaborating with other institutions and community and educational organizations, as well as securing grants and other funding.

Universities need to value service-learning in their criteria for tenure and promotion

Another concern that many faculty members raise regards whether service-learning curricula and research will be institutionally rewarded during their tenure review. If community-based learning is not explicitly valued by an institution, tenure-track faculty will not want to go anywhere near it. Some faculty express a catch-22 of sorts: they feel a pressure from administrators to include community-based learning programs because it helps to improve town-gown relations, yet they may not receive the support that is needed in order to carry it through to tenure. Women and minorities may feel this catch-22 more than others because of our more collectivistic social orientation and our greater struggle, traditionally, for achieving milestones such as tenure and promotion. If universities adopt community engagement as an institutional priority, then they also need to make their evaluation criteria as equitably inclusive as possible for faculty and staff who use these pedagogies.

Risk management must be addressed to build greater confidence in the service-learning experience

A third issue that faculty and staff frequently mention concerning service-learning is their fear of not being able to control or manage what goes on outside of the classroom, especially in environments outside of the college itself. For example, I can recall the time that one of my students was mistaken for a prisoner and tackled by guards because of the color of clothes she wore that day. I also can recall times when my students saw and heard things at their sites that were overwhelming to them, and I wasn't sure whether a "mandatory reporting" call to Protective Services of the Department of Children and Families was in order. These are some of the many times that I have called upon our *OVCS* to help me figure out how to deal with an issue that I felt was outside of my control. Again, if there is a central university office that assists with finding and monitoring sites, then faculty will feel more comfortable about placing their students in the community. For example, our *OVCS* office keeps a running list of all of the sites available to students. They do pre- and post-assessments of each student's experience and offer student orientations and post-placement debriefing for both the undergraduates and the site personnel. In addition, they are the point of contact for faculty and student concerns or complaints about a site. In such cases, they either work more closely with the site, or remove that site as

an option until problems are remedied. Knowing that there is a central office that relates to the sites where my students are placed removes some of the burden of control from me personally, in that the college also is assuming responsibility for my students' experiences in the community. I would not have been as willing to integrate service-learning into all of my courses if I had that responsibility alone.

It is important for faculty, administration, staff, and students to continue to learn about diversity

The other issue that I frequently hear among faculty and staff as I travel throughout the country is their fear of not knowing everything that there is to know about other cultures and communities. Faculty, therefore, are sometimes reluctant to send their students into communities that they themselves do not know. Others seem to have an idea that if they have taken one or two diversity workshops, that alone should have prepared them for working in any community, and they are surprised when it hasn't. As a multi-racial woman, I have spent my entire life surrounded by diversity, and I have spent my adult life studying it. Yet, I will never know enough to feel totally secure about my knowledge and understanding of every environment, nor will I feel that I have all of the answers for my students regarding diversity issues. From my perspective, learning about diversity is best accomplished when we expect to study it, learn about it, and grow with respect to it, *every day* of our lives, no matter how experienced we are. If we are waiting on that one diversity class, or even that next diversity class in order to think that we have "arrived" with respect to multiculturalism, we are deluding ourselves. We *never arrive*! Learning about others and ourselves is a constant, life-long process that could last an eternity. So I encourage my students, my colleagues, and myself to study, listen, learn, experience, and grow every day.

Conclusion

As faculty and staff, we alone cannot facilitate (nor be rewarded for) the healthy service-learning process. Nor can we alone control everything that goes on inside or outside of the classroom. We also will never have a complete handle on diversity because our world is too large and it is changing too quickly. However, with appropriate support, we can help our students successfully engage in service-learning, we can be equitably evaluated and rewarded for it, we can deal with the related issues and changes as they arise, and we can grow with the diversity that surrounds us and our students. We can make it happen!

Recommended Readings

Campus Compact, http://www.campuscompact.org/

Dunlap, M. (2000). *Reaching out to children and families: Students model effective community service*. Lanham, MD: Rowman & Littlefield Publishers.

National Service-Learning Clearinghouse, http://www.servicelearning.org/

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Chapter 3

Exploring the Use of Problem-Based Learning in Psychology Courses

Lonnie R. Yandell and Peter J. Giordano
Belmont University

"My car will not start. I need to figure out what is wrong with it. Please help me." This seemingly simple problem has confronted most people of driving age at some time. Solving such problems requires us to think critically, assess our own knowledge, consult with others, seek new information, and actively seek a solution. This is the core idea behind problem-based learning (PBL). In PBL, students grapple with realistic problems, collaborate with each other to activate prior knowledge, identify what they don't know, construct new knowledge, and develop a plan for further study. The ultimate goal is to solve the problem and thereby learn a great deal along the way.

There are numerous definitions and instantiations of PBL. It is similar to other experiential learning, such as case-based learning (Eshach & Bitterman, 2003), in that it is student-centered and the teacher's role is a facilitator, rather than a knowledge provider. Problem-based learning began over 30 years ago in medical programs, and our university's PBL program has been heavily influenced by Southern Illinois University School of Medicine's problem-based learning initiative (see http://www.pbli.org)

Why Use Problem-Based Learning?

The primary advantage of PBL is motivational. When students know why they are learning new knowledge (i.e., to solve the problem), it gives them a context to store the information that facilitates later recall. If the problem is authentic, then it is easy to get students motivated to work together toward its solution.

One of the most important tasks when using PBL is to develop an effective problem. A good problem should be authentic and engaging, in addition to being oriented to a specified *curriculum*. The term curriculum in PBL refers to the body of knowledge that you wish students to acquire. A problem should be formulated only after you have decided on your curricular goals. A good problem should also allow multiple views and inquiry, and establish clear student roles that result in a product or performance.

Since the fall of 2005, we have applied PBL to two courses at Belmont University: Introduction to Psychological Science and Junior Cornerstone Seminar. The university faculty had just reconfigured our general education curriculum, and one change was to add a laboratory component to our introductory course. Our Junior Cornerstone Seminar is a general education requirement for all Belmont students classified as juniors. Students in this class are not psychology majors, as students are expected to enroll in a seminar outside of their academic discipline. It is typically taught as a topical seminar where a particular problem or issue is addressed. This

course is designed to include an experiential learning component and Belmont adopted PBL as the required pedagogy for this course.

Suggestions for Problem-Based Learning

From our experiences teaching these two psychology courses using PBL, we have five key suggestions.

1. *Determine curricular goals at the outset*

Decide on your learning or curricular goals before you start to design any other aspect of the course. Although PBL is a teaching *method*, it still must be directed toward curricular goals. The problems you develop should have clearly defined goals. What the students need to know should always be the overarching guide to the problem.

We reasoned that conducting the lab in our introductory course in a PBL format could help reach a number of curriculum goals, such as increased collaboration and improved critical thinking skills. We quickly realized that our curriculum for the labs was primarily research strategies and issues, not psychology content. We decided to emphasize the methods of doing psychological science rather than the content discussed in lecture. Over a summer, we started developing problems that could be used in this introductory psychology lab.

One problem focused on a campus film series, which are common at universities. We developed this problem to expose students to the strategies and issues of descriptive research. Students were told that parents had complained to the college President that "compared to when we were in high school and college, films today depict far more violence and sex, and we are afraid that our children will be adversely affected by viewing these films." The students' task was to investigate claims of the parents and determine if there was increased sex and violence in films today as compared to when their parents were college-age. The problem required students to sample two films of their choice, one from the 1970's and one from 2000-2006. They were to determine the amount of sex and violence in the films from both eras and make a meaningful comparison. They were to make a recommendation to the President as to whether the university should alter its current film policy. The assessed product was a written paper documenting their research and reporting their results.

We developed another problem to introduce concepts of relational research. We challenged student groups to develop a relational study in which groups would measure at least two behavioral variables and determine if they were associated. We informed students that they should also develop a reasonable rationale for why they expected the behaviors to be related. We provided a number of examples, but encouraged the groups to come up with their own behaviors. Some examples of the variables investigated by student groups included gender and exercise activities at the gym; gender and laptop brand; politics and alcohol groups on Facebook; and automobile stopping behavior, gender, and distractions.

2. *Create authentic problems*

Faculty should create authentic problems or those that students can own and find interesting. In other words, develop problems where the solution matters to students, not just a problem where their solution will please the teacher. Ideal problems do not

have a set answer, but can have many answers. Real-world problems are the easiest to transform into authentic problems. Think about why psychologists need to know something specific and how they would use that knowledge in the real world. Develop your problems to capture real world need. If students believe that this is your "made-up" problem, motivation may decline.

We attempted to set up authentic problems in our Junior Cornerstone classes. One example was entitled The Psychological Development of College Students. The course challenged students to use the tools of psychological science and a problem-based learning approach to explore issues and questions related to important dimensions of healthy psychological development in college students. Working together, students selected questions to investigate that were compelling, worth asking, and capable of being studied scientifically. The products of this course were three research posters based on three empirical studies conducted by the students in the class.

Another example we used in this course was entitled Psychological Inquiry. This course combined aspects of PBL and student empirical research. Small groups of students dealt with authentic problems using quantitative research techniques. Students collected and analyzed relevant data and used the findings to develop a final group paper and oral presentation at a public venue. The outcome of this class was a study on self-esteem and Facebook use, which was presented at Belmont's Undergraduate Research Symposium.

3. Assess everything that is important

Students must be accountable for their learning. When they are not, it is too easy to let it go and attend to all the other demands of life. Assessment is an integral part of any teaching-learning process, and it is essential in PBL. Assessment is just as important for teaching process skills (i.e., collaboration) as it is for teaching course content matter. If learning to work within groups is a learning goal, then it must be assessed to be effective. As teachers well know, if you do not assess it, students will not value it.

Student responsibility for learning can be supported by challenging them to both assess themselves and their peers. Student accountability within a group builds authentic working relationships or teamwork. Accountability helps students improve skills within the group. Students' praise and constructive criticism builds trust, respect, self-confidence, and community. We used two major types of assessment in this course, Peer Group Process Assessment and Group Product Assessment. The Peer Group Process Assessment consisted of students rating other group members' work. The evaluation read: "This will be your only opportunity to reward the members of your team who worked hard on your behalf. (Note: If you give everyone pretty much the same score you will be hurting those who did the most and helping those who did the least.)" Students assigned up to 10 points per group member and were required to give at least one score of 11 or higher and one score of 9 or lower. The evaluation criteria consisted of three areas: self-directed learning/knowledge, reasoning, and group/interpersonal skills.

Along with a group product assessment, which consisted of grading the group paper and presentation, we developed a peer/self assessment. This consisted of multiple sessions in which each student was given 30 seconds to assess orally an assigned member of the group and that member was given an opportunity to respond to the evaluation. There were three criteria: self-directed learning/knowledge, reasoning, and group/interpersonal skills. After the student responded to her

evaluation, the entire group was allowed to comment. These sessions greatly improved group cohesiveness because members were able to offer praise, constructive criticism, and improvement plans. The instructor also assessed students on their individual ability to evaluate their peers and themselves. In fact, the bulk of students' group participation grades were based on how thoroughly students assessed their peers, not on how their peers assessed them. The advantage of this type of assessment is that students concentrate on providing quality and constructive feedback and worry very little that their feedback might harm another student's grades. The criteria for the individual assessment throughout the course consisted of self-evaluation, peer evaluation, group evaluation sessions, and an instructor evaluation.

4. Be flexible and adaptable

As with any new method, unexpected problems arise. PBL often is a method that does not fit schedules well. Students may surprise you with how quickly and cleverly they attack a problem or how hesitantly and awkwardly they muddle through. As a facilitator, you should pay attention to the pace of the group and offer help on how to learn, if not always *what* to learn. We have found flexibility to be one of the chief advantages of the PBL approach. We also suggest that you mold and modify "pure" PBL to suit your needs and abilities as a teacher.

The second author learned this lesson in his first attempt at PBL in the Junior Cornerstone Seminar. The major downside to the course was that the students had no background in psychology, in the research methods of psychology, or in the ethics of human subjects research. These are issues that must be addressed and incorporated into the curriculum of the course. However, because the PBL format is flexible, you can shape students' understanding of a scientific approach to answering questions. You can also use the lack of background as THE biggest problem for the students to solve. Consistent with a PBL approach, it is important not merely to tell students what they need to know. Rather, as facilitator, part of the instructor's task is to help students identify *learning issues*, or topics for which students must seek out new information. This aspect of PBL is tricky, however, because you do not want to be perceived as the expert who is withholding information. It is appropriate at times to be a content resource for students, but you should do so judiciously (Allen, Watson, & White, 2007).

5. Be prepared: Students may not be happy with PBL at first

PBL is not a method with which most students or faculty are familiar with. Students are used to having their cups filled with knowledge, and although they may complain about being asked to "memorize what my teacher says and spit it back to her," it is what they are comfortable doing. Asking them to become active, collaborative learners is a difficult process. Students (and faculty) may have to be patient to see the value in learning to be a life-long learner.

Conclusion

Like any new pedagogy, there is a learning curve for you as you first teach in this format. As we have noted, you can adapt PBL to your own teaching style, and we encourage you to do so. We would not want to teach all of our classes in this format and it may not be appropriate to do so, but we have enjoyed the challenges and rewards of utilizing this approach. Once students become accustomed to the new

classroom environment, they too seem to enjoy it as they work together to take ownership of and find solutions for the problems they confront.

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Chapter 4

The Value and Ethics of the Scholarship of Teaching and Learning

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The Society for the Teaching of Psychology (STP) is at the forefront of a research-in-teaching movement called SoTL, or the Scholarship of Teaching and Learning. This exciting wave of activity embraces all research applied to how we teach and how students learn. Psychology is the perfect discipline to focus on research in teaching given our firm grounding in the scientific method. For the past several years, I have enjoyed conducting empirical research – even experiments – on teaching, both in my classrooms and in lab settings. I have had conversations with my department chair and my dean to clarify their positions on research in teaching to make sure it is valued in academe, and they have assured me that SoTL is firmly accepted as valid research at Georgia Southern University. I have even been fortunate to publish research on teaching in several teaching journals, including our own *Teaching of Psychology*. So it seems that all is well.

But as my teaching research has evolved over these past several years, I find myself with more questions than answers about the process of SoTL. My concerns revolve around one central question: *Is research in teaching truly analogous to scientific research in any other area?*

This leads me to two related questions:

First, is SoTL valued? Would most administrators truly see a list of publications in teaching journals as equal in value to a list of publications in more traditional research-oriented journals? For example, would a new psychology faculty member be given tenure or promotion based on teaching publications alone?

Second, is SoTL (always) ethical? Where does academic freedom end and the rights of students as participants in research begin?

Is SoTL Valued?

This first question is likely being addressed on campuses everywhere, with teaching institutions faring better than research institutions (yes, I recognize the irony in that sentence). And if a formal study has not yet been conducted, it seems a good question to address. Is research in teaching valued only as *additional* evidence of scholarship but not primary scholarship?

I find myself wanting to rise above such questions and argue that research on teaching and learning should be seen as equal in value to research in areas such as physiological, developmental, or cognitive psychology. But if I'm honest with myself, I have to admit that I would frown on a job candidate with a PhD in physiological psychology giving a job talk on teaching research. I suppose if the SoTL talk was also tied to physiological responses to learning, I could at least convince myself that the candidate indeed had an area of research emphasis besides teaching. Before you judge

me too harshly, consider that teaching should be an area of emphasis for all teachers, regardless of whether we conduct scientific research in the area. Even writing this, I completely understand that I have slipped into a gray area, and I cannot offer a strong, logical argument for why SoTL should not be a sufficient research area for a psychologist. I also worry that if someone as sympathetic to the SoTL cause as I am still has reservations about its true worth, what must administrators really be thinking?

Is SoTL (Always) Ethical?

Regardless of where research in teaching and learning falls on the value spectrum, we need to examine how we will continue this movement ethically. In my first empirical teaching study, I wanted to collect teaching evaluations in professors' classes across the campus. I had no intention of manipulating any variables; this was a simple survey study. Even so, I had no doubt in my mind that this would require Institutional Review Board (IRB) review of a full proposal. After all, I was asking to go into classes and have students report on their professors as well as write down their grades. I was granted IRB approval for a proposal that included informed consent from both the instructors and their students.

In my own classes that term, I asked students to complete the surveys after providing informed consent. I also asked students to complete the traditional end-of-semester instructor evaluations without informed consent. Portions of the two forms were identical; one required IRB approval, and one did not. So be it.

During the next few years, I attended workshops at conferences and at our own Center for Excellence in Teaching, where I learned to use strategies like the one-minute paper. On numerous occasions I learned a new technique and tried it on my students as soon as I had the opportunity. Sometimes I assessed the outcome with questions about how they liked it or whether they thought it helped them learn; I often quizzed them to see if they seemed to understand the material.

Every once in a while I even came up with something new, tried it out on my students, assessed it using the wealth of knowledge psychologists have about statistics, and lo and behold, found something interesting. Did I get IRB approval? Of course not! In fact, I would have argued vehemently against anyone trying to exert any control over my classroom. In addition, I wanted to share the discovery with my colleagues, so I submitted the demonstration to a conference and created either a poster or a talk so others could benefit from what I had learned. True SoTL.

However, we might need to reexamine our shortcuts if we elevate SoTL to the level of research equal to what we have traditionally accepted in our "primary" research areas. Does that mean seeking IRB approval for every demonstration we use in class? I hope not! If we do, then we might as well seek IRB approval to have a bad day or to see if being nice to students (if we generally are neutral) is okay to do. But we do have to evaluate where to draw the line, and that's the problem. Each of us will draw it in a different place, and many of us may claim that academic freedom protects our right in many instances to perform SoTL within the classroom. Even if we choose to conduct teaching research in our classrooms, what can we do with the data? Research can't be shared with the public without IRB approval. One option may include obtaining approval to share the data, which generally requires completing exempt-status paperwork and promising not to identify students.

Let me share with you one more example of conducting research in the classroom. During the past few years, Bill Buskist and others have pointed out the need to empirically assess our beliefs about teaching rather than teach by commonly accepted

practices. On one occasion, they discussed how to increase the effectiveness of the first day of class. I was intrigued, so I used their work about student likes and dislikes to create a study with two groups: One group would get a perfect first day as outlined by Henslee, Burgess, and Buskist (2006; and Perlman & McCann, 1999), and the other group would get a not-so-great day as defined by students (e.g., full use of class time and homework). I decided to randomly assign an incoming group of Introduction to Psychology students to these two conditions, and called my IRB for advice. I was told that what I did in my classes was my business. I then talked about my study to the chair of our department, and he asked me to contact the IRB again. I did, and they assured me that they were not interested in interfering with academic freedom.

I conducted the study and found that the perfect first day (according to students) resulted in higher motivation across the term than the not-so-great first day. In addition, there was some indication that grades were higher for the perfect first-day group by the end of the term. This took me by surprise; I had expected the groups to differ in their attitude toward me and maybe the course on the first day, then I fully expected classroom rapport to remove any differences quickly. I adjusted grades so students would not suffer for their participation, sent the information to the IRB, and asked for permission to share the results so my colleagues could start thinking about the potential impact of the first day of class. The IRB granted permission, and I first presented the research at a conference in the form of a talk.

When I finished the presentation, the first question was, "Did you get IRB approval for this study?" And of course, being the subtle person that I am, I replied, "No." What I really wanted to say was, "I tried, but no one wanted to touch teaching." Or, "No, and did you get IRB approval every time you tried something new with your students?"

What makes this study different? Is it the outcome? Surely the outcome of a study does not define the ethics of its method. Is it the random assignment to conditions? I assume a between-groups experiment isn't subject to more stringent ethical requirements than a pre-post design. Which classroom exercises or inquiries characterize *research*, with all of the compliance requirements inherent in that title? Conversely, which classroom experiences illustrate academic freedom to teach the best way we know how?

I don't know if I will seek IRB approval for every change I make in my classroom, even if I will be assessing the outcome (which is almost always the case). But certainly at this point more guidance is needed to help SoTL researchers make fair choices that respect our students, who are the *participants* in our studies. Maybe if we start treating SoTL like real research, it will become more respected.

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Chapter 5

Applying Method to (Seeming) Madness: Doing SoTL in Your Class

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The process of teaching a classroom full of large numbers of late-teenage denizens of the 21st century is something akin to madness. Many of our students can think of many other things they would rather be doing, and many of them are doing many of those things they would rather be doing while sitting waiting for you to begin and then after you have begun. Expecting a sizable chunk of them to learn is seemingly madness, too. But we do teach and our students do learn, and we are not mad. What may be closer to madness is not taking a methodological approach to teaching and learning. Puzzling over which elements of your teaching can be improved can be difficult. Perhaps the news that you are not alone will give you some solace. There is even better news. There are relatively easy ways to methodologically optimize your teaching and your students' learning. Enter the Scholarship of Teaching and Learning (SoTL). One way to truly know if our teaching is resulting in student learning is for us to conduct research in our classrooms. In this essay, I provide a primer on the Scholarship of Teaching and Learning (SoTL) and highlight why we should all be doing it.

Boyer (1990) first broadened the construct of scholarship to include activities that investigate pedagogy and student learning. His work led to the coining and more commonplace use of the term Scholarship of Teaching and Learning (SoTL), and Halpern et al. (1998) first established such a definition for the field of psychology. Examples of SoTL can be seen in any issue of the journal *Teaching of Psychology* (*ToP*) and a wide variety of other disciplinary and interdisciplinary pedagogical journals (e.g., *International Journal of the Scholarship of Teaching and Learning*). If you have implemented any of the methods and techniques suggested in *ToP* or have used any of the tips gleaned off listservs and from journals and colleagues, you are involved in Scholarly Teaching. SoTL involves you taking it up a notch.

If you want to optimize your teaching and your students' learning, you will want to do pedagogical research at some level. This can range from organized self-analysis and reflection about your teaching and its effects to a structured examination of how you design your class and assess your students' learning. Doing this research (and calling it "research") does not have to involve the use of complex statistical models or hours of interviewing or content analysis of student writing. You could do all that, but the method you use will depend on your question. Some instructors go beyond their gut reactions and the advice of friends and colleagues and instead conduct formal or informal studies of their teaching in terms of designing syllabi and courses, preparing lectures, or evaluating learning. These instructors often rely on the published literature on teaching and learning to modify their own practices and almost always use some rudiment of the scientific method. Essentially, they start by identifying a problem, then review the literature to see if and how the problem has been dealt with,

then modify what they do, and then measure student outcomes to see if the changes they have made have resulted in changes in student learning. This basic process, which is the core of the scientific method and hallmark of social science training, provides rigor and robustness for scholarship whether it involves the study of cognition, personality, development, or pedagogy. Instructors who are methodologically working to improve teaching and learning are "Scholarly Teachers" (Richlin, 2001, 2006).

This type of teacher may create a course portfolio to document their systematically collected observations for further reflection and course modification. This allows for the identification of problem areas. Unlike the teacher who may also informally analyze student problem areas, the scholarly teacher takes pains to venture into pedagogical publications in search of solutions. This use of an organized methodology is primarily done for the teachers' own benefit and to make their next class better. The results of these reflections and course modifications may be written up in a teaching portfolio (Seldin, 1997) and may be used to review the instructor for merit or promotion, but is not sent out for publication or even shared with peers.

Scholarly teachers catapult into SoTL when they conduct formal investigations of teaching and learning (regardless of method), place the results in the context of relevant published pedagogical literature, and then submit it for peer review and subsequent publication. Notably, it is the dissemination of one's own investigations using a peer-reviewed procedure (as compared to posting your work on your own website or emailing it to a listserv or colleagues) that entitles one to the SoTL stamp. (For a full discussion of competing definitions of SoTL, see Gurung & Schwartz, in press. For a review of the state of SoTL as recognized and celebrated in psychology, see Gurung, Ansburg, Alexander, Lawrence, & Johnson, in press.)

The discipline of conducting SoTL and being a scholarly teacher has many benefits. It is important to use the best methods possible to examine your own teaching and to optimize your students' learning. There is a wealth of resources if you are unfamiliar with the methods you need to test your specific questions, the sort of observations or evidence of learning you need to collect, or how to analyze the results (Gurung & Schwartz, in press; McKinney, 2007; Richlin, 2007; Savory, Burnett, & Goodburn, 2007).

By its very nature, SoTL directly impacts how effective your teaching is in terms of student learning. Engaging in pedagogical research will help you become a more effective teacher because you become increasingly aware of your classroom practices and make strides toward systematic change. You will learn to be mindful of your teaching practices and gear everything you do toward clearly assessable outcomes. Another benefit to thinking about how you teach and diving into the literature on teaching is that it will energize you for the classroom. Being energized to teach from reading the literature can also inspire you to do pedagogical research of your own. Pedagogical research is real, quantifiable, and rigorous research. More and more departments are counting SoTL publications toward decisions about tenure and promotion, though this is not yet universal (McKinney, 2007). Outcomes from pedagogical research also make natural components of teaching portfolios, which are often used in tenure and promotion decisions. Beyond these benefits, engaging in pedagogical research can be very satisfying. It allows you to solve the mysteries that may plague your non-conscious mind after both difficult classes (Why did it go that bad?) and particularly exceptional ones (Why did that go so well?). Most of us wonder about our techniques, our course designs, and how our students perform and behave, but not all of us take the time to investigate these issues in depth. Pedagogical research provides us with understanding of a myriad of issues and helps us gain

perspective on the complex interplay of factors that is education. SoTL may just help you stay sane, too.

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Chapter 6

Constructivist Pedagogical Applications: Student-Centered Learning Across the Undergraduate Curriculum

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Constructivist educational theory, a leading conceptual model in higher education for the past three decades, is a student-centered approach that views learners as "architects of knowledge" who formulate their own conceptual frameworks on the basis of their learning histories, life experiences, and potentialities for discovery (Mayo, 2001a). In a constructivist model, students internally hypothesize and investigate problems as they discover solutions for themselves (Perkins, 1999). From a sociocultural viewpoint, this model also views learners as social beings who co-construct knowledge in dialogue with others (Phillips, 1995).

Over the past decade, I have undertaken an active research program to examine the efficacy of constructivist-based pedagogy in various undergraduate psychology classes. I have systematically compared parallel classes (constructivist vs. conventional pedagogy), while attempting to establish controls and equivalency across conditions. Moreover, I have analyzed my findings through both quantitative and qualitative assessments. Overall, I have observed that constructivism compares favorably to more traditional approaches, including straight lecturing and assigning term papers.

In this essay, I provide an overview of a range of constructivist pedagogical applications that I have grouped into four broad, umbrella categories. Based on my own classroom research and practice, I have found that these teaching applications lead to more active and interactive learning and reflective thinking beyond the borders of the classroom environment (Mayo, in preparation).

1. Using personal narratives to gauge authentic learning

Authentic learning is a performance-based measure of learning that mimics real-life scenarios (Mueller, 2003). *Personal narratives* are useful tools for students in applying course principles to real-world settings.

In *autobiographical narration*, learners directly apply course content to personal experiences. As an example of a term-length autobiographical assignment, I use the *Life Analysis* (Mayo, 2001b) in teaching lifespan developmental psychology. In the Life Analysis, each student is asked to analyze his or her life over its historical and hypothetical span, relating developmental milestones to salient concepts in developmental psychology. For the developmental periods that have passed, I ask students to chronicle the events that have been significant in their development. For the stages in their development that have yet to arrive, I ask students to write about anticipated life successes and disappointments.

In *biographical narration*, students apply course principles to the lives of others, current events, and the printed and electronic media. For instance, I use the *Observational Diary* (Mayo, 2003) as a term-length, case-based, journal writing assignment in teaching introductory psychology. Students keep an ongoing log of the times that they observe basic psychology in action. Diary entries consist of the date, source (e.g., home, work, movie), case description, and psychological application. Each case description serves as a vignette, or brief portrayal of some life experience, that allows students the opportunity to exemplify, analyze, and apply psychological concepts.

Case-based instruction (CBI) is another personal narrative strategy that brings important course concepts to life. On the heels of a successful pilot study (Mayo, 2002a) in which I used class discussion of an instructor-created, fictional case narrative to help students to apply contemporary psychological perspectives (biological, psychodynamic, behavioral, humanistic, cognitive, and cross-cultural) in real-life scenarios, I went on to structure an entire psychology of adjustment class around CBI (Mayo, 2004a). During class, students apply course principles to actual biographical case narratives (e.g., the life of Ronald Reagan as it relates to developmental transitions over the life cycle). Afterward, students write a series of "mini-autobiographical narratives" in applying these same principles in their own lives.

2. Helping students organize information through graphic representations

Concept mapping is a learning device that allows students to organize and represent networks of concepts in a diagram resembling a hierarchical flow chart (Wandersee, 1990). In constructing a concept map, the most inclusive, general concept appears at the top and links to more specific, subordinate concepts are listed hierarchically below. The uni- or bi-directional links between subordinate concepts depict a learner's understanding of the interrelationships between domains of knowledge (Novak, 1991). I have co-designed a classroom training guide for my students to create concept maps as both objects of class discussion and organizational study tools (Mayo & Salata, 2002; Mayo, 2005). I often use CmapTools (Institute for Human and Machine Cognition, 2008) as a cost-free, downloadable, and user-friendly software toolkit that allows my students to construct, share, and critique their concept maps.

An innovative graphic representational strategy that I have found to be effective in my classes highlights basic meaning dimensions in line with Kelly's (1955) personal construct theory. Kelly defined personal constructs as bipolar meaning dimensions (e.g., easy-difficult) that each person employs to understand and interpret information. Drawing both from meaning dimensions embodied in the thematic content of textbooks and from my own self-generated bipolar constructs, I use personal construct theory to facilitate learning in both lifespan developmental psychology and history and systems of psychology classes. As an instrument for exploring the personal constructs of my students, I rely on the *repertory grid technique* (Mayo, 2004b, 2004c, in press). Although the repertory grid exists in various formats, one that I have found particularly useful involves a rating grid in which students rate each element (e.g., a prominent theorist such as Sigmund Freud) on a series of Likert-type scales anchored by two construct poles (e.g., nature-nurture, mind-body, objective-subjective). *WebGrid III* (Gaines & Shaw, 2005) is a cost-free, easy-to-use, online computer program for grid elicitation and interpretation that I use with my students. After creating repertory grids, *WebGrid III* allows users to generate

a comprehensive data matrix from which both cluster and principal-components analyses are possible.

3. Encouraging higher-order thinking, active participation, and cooperative learning

In the *dialogue method*, students are perceived as "meaning-makers" who reflect on the shaping powers of language as a heuristic tool (Sanzenbacher, 1997). Dialogue consists of position statements in the form of direct or translated quotations from original sources as well as paraphrased excerpts from secondary sources. In teaching history and systems of psychology (Mayo, 2002b), I select statements that represent the philosophical or theoretical views of leading contributors to the historical evolution of psychology. Both individually in writing and subsequently as a group during class discussions, I instruct students to identify the contributor(s) to psychology most closely associated with each position statement without telling them in advance the identity of any given contributor. Moreover, I require students to provide supporting rationale for each of their answers, pushing them to analyze and comment on the intellectual stance captured in each statement.

Peer critique is another classroom approach that stresses the cooperative nature of learning. As an example, I use the *Colleague Swap* (Mayo, 2006a) to improve the quality of student writing in my classes. In this technique, students earn grade-applicable credit by exchanging writing assignments with three to five of their classmates. Throughout this process, students evaluate, proofread, and critique one another's work before submitting the final product to the instructor for grading. General guidelines governing peer critique of student papers take into account the following questions: (a) Does the introduction properly launch a connecting thread of ideas?; (b) Does the summary effectively recap the main points?; (c) Do the second, third, and following sentences in each paragraph follow closely from the opening sentence?; (d) Are relevant ideas expressed accurately, completely, and coherently?; and (e) Are all grammatical, spelling, and other mechanical errors eliminated?

In addition to asking peer evaluators to incorporate their suggested revisions directly into the body of the writing assignment, I use a pre-printed *evaluation ticket*, which is a checklist of standard rhetorical, contextual, and bibliographic considerations, to help evaluators organize and present summative comments to their classmates. Points are assigned to each subheading on the checklist, and room is provided for writing constructive criticism related to that item. The contents of the evaluation ticket can be modified to conform to the idiosyncratic needs of the course and the nature of the writing assignment involved.

4. Using advance organizers to build on what students already know

Advance organizers bridge the gap between what learners already know and what they need to know (Ausubel, 1960). *Analogical reasoning* serves as an advance organizer for students who must first visualize and personalize concepts before internalizing and applying them (Ausubel, 1977).

In my own classroom research and practice (Mayo, 2001c), I have found that analogy-enhanced instruction engenders its most favorable learning outcomes in cases where students are actively co-constructing analogies, involving opportunities for peer critique and facilitating instructor feedback. Accordingly, I have developed the *GEM Model of Analogy Co-construction* (Mayo, 2004d) that asks students to: (a) *G*enerate original analogies for course principles; (b) *E*valuate these analogies in

accordance with constructive feedback from their classmates and instructor; and (c) *M*odify their initial self-generated analogies in light of others' appraisals. As recorded in a cumulative journal that I call an *Analogies Log* (Mayo, 2006b), students evidence "a continual refinement and synthesis of fragmented, incomplete knowledge" (Wong, 1993a, pp. 1259-1260).

I often attempt to draw my students into the dynamics of learning through the following analogy-based classroom activities (Mayo, 2004e), arranged in ascending order of complexity:

Filling in the blanks. Begin by offering a partial analogy to the class (e.g., "The human brain in like ... because ...."). Afterward, allow students the chance to fill in the blanks as part of class discussion.

Object association. Hold up an object in class (e.g., etch-a-sketch). Then, ask students to brainstorm the ways in which the object is similar and dissimilar to the concept being covered (e.g., *tabula rasa*). For example, you can write on an etch-a-sketch in the same way that life experiences compose the story of our developmental history. However, unlike the etch-a-sketch that can be shaken clean at will, the positive and negative effects of these life experiences are cumulative in determining the course of our development.

Personalizing an analogy. Using the name of a well-known person relevant to course content (e.g., B. F. Skinner), ask students to imagine that they actually *are* that person in the conduct of his or her work. Probe students on how they might feel being that person relative to his or her contributions to the field (e.g., "If I was B. F. Skinner, I would feel like ... because ....").

Free association. Submit a term (e.g., stream of consciousness) or a short list of terms (e.g., unconscious, modeling, free will, association, heredity, mental activities, reward, social interaction) to the class. Then, ask students to generate other words that they associate with the target expression(s). Require students to provide supporting justifications for their responses. In doing so, encourage other students to critique the responses of their classmates to clarify any tenuous connections.

Conclusion

Constructivist approaches to teaching and learning, such as personal narratives, concept mapping, and analogical reasoning, stimulate abstract reasoning about underlying learning principles that permits students "a rare opportunity to problem find, as opposed to simply problem solve" (Wong, 1993b, p. 377). Students hold the potential to construct and co-construct knowledge in conjunction with peer input and guidance from the instructor. Consequently, students should be encouraged to play an increasingly active and interactive role in learning as an ongoing generative process.

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Chapter 7

Teaching with Wikis

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The use of wikis in the classroom can benefit your students, yourself, and the field of psychology. You may have already wondered how you can use wikis to manage collaborative student projects or to design innovative assignments. But as a teacher, you can also join an online collaborative community of teachers by learning from and contributing to wikis on the teaching of psychology. As teacher-scholars, I believe that we are uniquely qualified and indeed have a calling to teach others about the science of psychology. One way of realizing this is by contributing to online wikis. The goal of this essay is to teach and inspire you to use wikis in your teaching and to contribute to professional wikis.

What is a Wiki?

According to Wikipedia, the online encyclopedia, a wiki is "a medium which can be edited by anyone with access to it...wikis are typically collaborative websites." (Retrieved March 24, 2008, from the World Wide Web: http://www.wikipedia.org). For example, if you visit Wikipedia and click on "English," you will see the homepage with a featured article and a summary of news events of the day. Now enter "Psychology" into the search bar and you will see an entire article about psychology, including tabs for discussion (to add your own thoughts), editing (to add to the collaborative body of knowledge on the topic), and history (to track changes that others have made on the page). This ability for readers to virtually join the discussion of a topic which collaboratively creates a changing, living, body of knowledge is the main advantage of wikis.

Wikis in Psychology

As of this writing, I know of only three psychology wikis publicly available on the internet: *The Psychology Portal* portion of Wikipedia (http://en.wikipedia.org/wiki/Portal:Psychology), *The Psychology Wiki* (http://psychology.wikia.com/wiki/Main_Page) and *PsychWiki* (http://www.psychwiki.com/wiki/Main_Page).

When it comes to teaching, there are just three wikis for the teaching of psychology: my own *Personality Pedagogy* (http://personalitypedagogy.arcadia.edu), which is a resource for the teaching of personality psychology at all levels; Hunter Gehlbach's *Social Psychology for Educators* (http://isites.harvard.edu/icb/icb.do?keyword=k12519&pageid=icb.page51140), which helps teachers K-12 incorporate ideas from social psychology into their teaching; and Amy Sweetman's *Intro Psychology Resources* (http://www.intropsychresources.com).

What Are the Advantages of a Wiki?

There are many advantages to wikis. The biggest advantage is that wikis are easy to use. The software required to create and maintain wikis is available for free and often requires merely a standard web browser. The sites themselves, being text-based, are easy to use without special knowledge of HTML or other programming languages. Wikis can be used on an intranet to share within a school or organization (e.g., Blackboard, WebCT) and wikis can also be used on the internet to share with the world. Wikis can foster and support collaboration among students, among teachers, and between students and teachers. In sum, a wiki can be a creative and effective way for teachers to manage their classes and to share information and strategies about teaching with their colleagues either within their organization or around the globe.

Given all these advantages, more teachers ought to be using wikis. However, speaking as a founder and moderator of a wiki on teaching, this is sadly not the case. From talking to teachers of psychology and from an online survey posted to *Personality Pedagogy*, people report the following reasons for why they do not contribute to a wiki: (a) not enough time to contribute, (b) lack of familiarity with wikis, (c) don't know how to contribute to a wiki, (d) never thought of contributing to a wiki, (e) feel they have nothing important to contribute, and (f) editing online makes people nervous. In sum, wikis are still a rather new technology and not fully utilized by psychology instructors, but respondents are confident this will change as people become more aware of the technology.

The Untapped Potential of Wikis in the Teaching of Psychology, or What Can I Do with a Wiki?

Andrew Collins at the University of New South Wales requires students in his immunology course to contribute to Wikipedia by writing articles and correcting errors. "I think a lot of science students feel overwhelmed by the amount of knowledge out there in the world and they don't realize that at the end of their undergraduate studies they're really quite experts and they should have confidence in their knowledge" (Moses, 2007, para. 11). He structured the assignment so that students must make consistent contributions over the 10-week course and can't just work on this assignment at the last minute. If professor Collins has inspired you to use wikis in your teaching, here are just a few ideas of the many very creative uses of wikis by psychology teachers and others:

Class assignments

Like Professor Collins, you can devise creative assignments for your students that use already established wikis or you can instruct them to create their own wikis. For example, instead of a traditional paper, you can require students to contribute to a standard wiki, design an original wiki, or create an online textbook, handbook, supplement, or study guide. Did you know that faculty and students at over 45 universities from around the world have already contributed articles to Wikipedia as a class assignment? Check out their work and find some inspiration for your own assignments here:
http://en.wikipedia.org/wiki/Wikipedia:School_and_university_projects.

Make your own wiki

Have you ever bookmarked a website only to forget what was so interesting there? Or, do you work on multiple computers and have troubling finding the sites you've bookmarked? One way to solve this problem is to make your own wiki. You can then store links or upload slides, videos, notes, graphics, audio clips, spreadsheets, and other electronic information. For example, I have a personal wiki (viewable by password only) in which I collect examples and links to web sites relevant to my courses (i.e., social psychology and personality psychology); my scholarship (e.g., motivation, teaching with technology); interesting places I would like to visit (e.g., Egypt, Vienna); hobbies (e.g., knitting, cooking); and humor (e.g., cartoons, stories, pictures, videos, jokes, etc.). I like being able to provide my own comments and descriptions for material I find on the web and having the convenience of my favorite websites in one online place accessible at home or from the office.

Starting your own wiki is surprisingly easy, as there are many free or low-cost wiki-hosting sites such as PB Wiki (http://pbwiki.com) and Google (http://sites.google.com). Both of these sites provide easy viewing and editing options so that you don't need to learn any fancy programming code. If you are more of a do-it-yourselfer and want to be able to program the exact look and function of your wiki, you can talk to the IT department at your school to find out about hosting a wiki on your school's own server. Either way, you may want to see Wikipedia for an overview and comparison of web-hosting options (http://en.wikipedia.org/wiki/List_of_wiki_farms).

Coordinate group projects

When it comes to group projects, students have two common complaints that are readily solved with a wiki. First, students report that they are unable to find a time to meet with their peers outside of class. Wikis can solve this by providing an online space for students to create, share, and edit their work at any time. They can even use a wiki to create to-do lists, assign tasks, or to give each other progress reports. You might even find this aspect of wikis valuable for your own collaborative projects with colleagues or to organize committee work at your school. Second, students resent the inevitable "social loafer" who doesn't pull his or her fair share of the work. Since most wiki software has a built-in tracking or history function, instructors can easily monitor individual students' contributions and ensure that their projects are progressing.

Write an online textbook or supplement

The open access of the Internet and of Wikipedia in particular has inspired others to create and freely disseminate their work. For example, the California Open Source Textbook Project (COSTP) aspires to develop textbooks for use in all K-12 classrooms at a lower cost than commercial textbooks (see http://en.wikibooks.org/wiki/COSTP_World_History_Project). COSTP, in cooperation with Wikipedia, began a World History pilot for 9th grade World History/Social Studies based on the California State Curriculum Standards. Another example is a renegade group of college students who hope to eliminate textbooks altogether by encouraging faculty to write their own content (see Textbook Revolution at http://textbookrevolution.org)! You need not be as radical as these folks. Because a major advantage of a online text is that it can provide the most up to date information

available on a topic, you can easily create an on-line supplement to your own courses which you can update as often as you like.

Share and disseminate lesson plans

A common problem, especially at small colleges, is that professors can feel isolated from other specialists who teach a given topic. A wiki is one way of connecting with other teachers through an online community where you can discuss ways of presenting material in class. For example, I know of two sites which welcome contributions specifically from teachers: Curriculum Wiki (http://www.curriki.org), specializing in lesson plans and materials for K-12 and some college courses (including social science, sociology and psychology); and Introductory Psychology Resources (http://www.intropsychresources.com), which specializes in activities, demonstrations, songs, quotes and the like for high school and college intro psych classes. Both of these sites are wikis, which makes it very easy for you to visit and share your own materials and ideas.

Establish a department wiki

How many times have you answered the question, "What else do I need to take for my major?" Your department can create an online handbook outlining departmental requirements, answering students' frequently asked questions, listing office hours, providing background and links for campus speakers, and posting important reminders and announcements. You can even encourage students to add helpful information based on their own experiences, such as applying APA format, using the library, finding research opportunities, getting into graduate school, and finding a job. An important advantage of using a wiki for this, rather than a traditional web page, is that information can be changed and updated immediately. The Canisius College Psychology Department (http://www.canisiuspsychology.net) established such a page for their majors. While outsiders can only access a few of the pages, you can see the potential of this medium for organizing announcements, research opportunities, graduate school information, requirements, and other information essential for psychology majors.

If the above six ideas are not enough inspiration for you, see PB Wiki for 25 additional suggestions and examples (http://yummy.pbwiki.com/Ideas+for+using+PBwiki).

Wikis as a Cure-all?

Please be warned, however, wikis and wiki assignments are only as good as the thought that goes into them. As with any assignment, instructors need to be clear about what they want students to learn, practice, master, or demonstrate. That is, objectives and goals for the assignment must be thought out ahead of time. Also, instructors will need to regularly monitor students' contributions in order to track the quality of their work and to see that students are regularly engaged in the project. This need not be as onerous as it sounds, as many wiki platforms have built in tracking features. Basically, there is nothing magical about wiki assignments, so they must be designed and assessed with as much care as traditional assignments.

Alas, wikis are not a cure-all for teachers and perhaps in a few years they may be replaced by other technologies. For now, they do provide a fun and easy way to foster

collaboration between you and your students, among students, and among teacher-scholars.

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Chapter 8

Creativity in the Classroom: Igniting the Fire

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Beware! What follows is a call for a radically new approach to how we engage our students in the classroom and assist them in the process of becoming lifelong learners and critical thinkers. It is my attempt to sway you to the importance of including a dangerous type of pedagogy that encourages students to think and learn in divergent ways, rather than neatly and uniformly as you and I were probably taught. What follows is a "call to arms," of sorts, to find ways of infusing a bit of creativity into our classrooms that may very well revolutionize the way we approach our teaching and our students.

Okay, perhaps this creativity thing isn't such a "radically" new approach to teaching or engaging our students, and it probably won't "revolutionize" the way most of us approach our classrooms. It is, however, an approach that I fear is too often avoided or minimized in many traditional classroom settings. One fact, though, simply cannot be overstated. Today's classrooms are some of the most diverse and challenging learning environments that higher education has known. Greater numbers of students are entering college than ever before, bringing with them an array of learning styles and backgrounds that may or may not respond well to the traditional lecture on which many of us cut our academic teeth. What's more, once these students leave the confines of our ivory towers, they will be moving into a world that has also become increasingly complex, diverse, and challenging, requiring that they possess a much more flexible and divergent set of cognitive skills than previous generations. Pedagogies that are enriched by creativity have the potential of offering us a way to reach this diverse array of students and fully engage them with the content- and knowledge-based skills that are the foundation of our field.

What Does it Mean to be Creative?

Although a comprehensive discussion about the nature of creativity is far beyond the scope of this essay, suffice it to say that the nature of creativity has been amply described as something that is both novel and that has value. Furthermore, to be creative requires personal resources in at least six domains including intelligence, knowledge, thinking styles, personality, motivation, and a supportive environment (Sternberg & Lubart, 1995). The problem with such a definition is that it may give the sense that in order to be creative or to benefit from creativity, one must be strong in all six domains and be capable of producing an end-product that meets strict definitional standards. Unfortunately, such an understanding of creativity can sometimes lead us to hastily assume that thinking and behaving creatively is somehow out of our reach or beyond the grasp of many of our students.

Enhancing Your Own Classroom Creativity

Although there are no step-by-step procedures that can ensure your creative success in the classroom, there are a few practices that are generally recognized as essential to becoming more creative, regardless of the context or your prior creative abilities. First and foremost is the commitment we must make to become more creative. Improving our creative abilities will not happen overnight and will likely require a great deal of patience and persistence in the face of possible flops and disappointments.

Another critical element to improving our creative abilities is practicing what Ramocki (2007) and others refer to as high-road transfers, or the application or abstraction of concepts or principles from one field or context to a completely different field or context. For instance, you might discuss Kohlberg's theory of moral development within a broader context of global politics and how each of the six stages described by Kohlberg are reflected in the charter of the United Nations. Maybe you then have students write their own charter in a way that reflects each of Kohlberg's six stages of moral development. Regardless of the topic or activity you choose, the point is that you are demonstrating for your students a moderately high-road transfer of a developmental psychology theory to a seemingly unrelated topic such as global politics.

We must also become more diligent about capturing our ideas as they emerge, regardless of how good or creative they might seem at first. Keep a pad of paper nearby in your desk or at home and be prepared to write down any ideas or words that come to you. Then, make it a point to revisit these ideas at least once a week, revising and pruning as new ideas emerge and old ideas evolve. Make a pledge to yourself to try one of these new ideas each week or every other week.

Make it a point to also try on new perspectives. For instance, try adopting the perspective of a colleague from a different discipline when you plan a lesson, particularly when considering controversial or ambiguous problems that might arise from the material. Imagine yourself teaching the material from this new perspective. How might your lectures and discussions be different? Better yet, try teaching from a new perspective in a new classroom with which you're unfamiliar. Making these shifts will force you out of your comfort zone and require that you also become more conscious of the prior assumptions that you embrace based on your own expertise or previous experience with the material. Quite often, adopting a new perspective like this can breathe fresh life into the topics on which we have become too focused or contented.

Finally, become comfortable with the idea of taking risks in the classroom. Don't be afraid to try out the new activities that emerge from the ideas you capture, regardless of your level of skill or that of your students. Be open to learning alongside your students (as much as from your students) during activities where your level of expertise might not be high. Be prepared to let go of the reins a little and allow your students some creative license in how your class time is structured. Challenge your students to come up with their own creative ways to present course material. Most importantly, be prepared at all times to reflect on your teaching and the learning that occurred, always looking for new ideas that emerge from what might be unexpected sources.

A Few Examples

I recently decided to take my general psychology class to our campus art gallery for the lesson on neuroscience, which is a topic that often intimidates a fair number of students. After discussing some of the basics and providing a quick review/overview of the brain, I simply asked each student to select a piece of artwork in the gallery and imagine him/herself as the "conductor" inside the artist's mind as that artist was creating the piece. What would they need to tell each structure to do in order to allow the artist to "create?" How would each structure contribute to the process? How might the artwork appear different if something went wrong with a particular structure? While my students were busy answering these questions, I was also completing the activity, sharing responses with my students as we went along. By anchoring our topic to one that students find less intimidating and even enjoyable, this activity helped my students approach a topic that they might have previously felt was unapproachable. This activity also allowed me to model the types of flexible thinking and interdisciplinary connections that I want my students to see for themselves.

As another example, I routinely make use of an assignment in which students in my general psychology course select terms from our textbook and create an analogy or metaphor using those terms. I urge students to choose ideas that they find confusing or are struggling with in some way. Students are told that the emphasis in grading this assignment will not be placed on the actual analogy or metaphor itself, but rather on their explanation that accompanies each. My goal with this assignment is to encourage students to exercise their divergent thinking skills and look for ways to meaningfully connect terms from our course to their own outside interests or backgrounds.

Finally, I've asked students in my abnormal psychology course to create an artistic representation of a psychological disorder of their choosing by adopting the perspective of someone who has that disorder. Once they feel they have adequately adopted the perspective of their subject, they then create something (anything!) from that person's perspective that conveys what the student believes to be the essence of their disorder. Again, the grading emphasis is not placed on the creative work, per se, but rather on the accompanying back-story in which students are asked to reflect on their experience of adopting the perspective they chose and the process by which they created their work. Student products have ranged from poems and monologues to portraits and three-dimensional models. One of the benefits of this assignment is that my students have engaged the material in a way that would not be possible through traditional lectures or discussions or by having students write a standard research paper on one of these illnesses. It also teaches them the importance and value of examining issues from multiple points of view.

The Challenges and Benefits of Incorporating Creativity in the Classroom

To be certain, introducing a pedagogy of creativity into our classrooms is not without its challenges. For starters, we must be able to overcome the false notion that creativity is akin to a sudden flash of insight or that it is some rare commodity possessed by only a few lucky individuals. In fact, creative ideas require work and have often undergone significant changes and revisions before eventually maturing into their final products. Likewise, what people often tend to lack is not creativity, per se, but rather the initiative or appropriate motivation to pursue an idea and see that idea through to its completion. To be creative in the classroom requires that we first set aside these all-or-nothing assumptions about creativity and recognize that

creativity is something that must be learned and developed over time. Being creative in the classroom also requires that we not be so quick to dismiss ideas, whether our own or our students'. Rather, we must be willing to work with these ideas for a while to see where they lead us.

We must also overcome our own fear of letting go of the reins, so to speak, and trust that the risks we take will be rewarded when our students are allowed a little creative license. There is no doubt that such acts of rebellion can sometimes be anxiety provoking, even for the best of educators. But like any risky venture, with success often comes a sense of exhilaration and renewal. Such risk taking (if sensible) in the face of uncertainty and ambiguity may also unwittingly model for our students those traits that will surely help them become better critical thinkers and more effective problem-solvers (Sternberg, 2003).

In addition to increasing students' critical thinking and problem-solving skills, we should expect to realize other benefits, too. When we teach more creatively, we encourage our students to become active rather than passive learners and to adopt a more intrinsic motivation for this learning to occur, both within and across disciplines (Conti, Amabile, & Pollak, 1995). In fact, Dowds (1998) argued that by facilitating student creativity in our classrooms, we help students reduce the tendency to compartmentalize discipline-specific knowledge and make broader connections between disciplines.

Some Concluding Thoughts

Despite my premise at the beginning of this essay, infusing creativity into our teaching does not have to require a radical shift in how we approach the classroom. While it may require us to set aside certain preconceptions about our own creativity or that of our students, the minor risks involved in doing so can sometimes yield the greatest benefits to our students, as well as ourselves. Infusing creativity into our teaching fosters not only the critical thinking and problem-solving skills that we seek to build within our students, but can also increase their intrinsic motivation for learning, thus leading to greater long-term retention of content knowledge. Finally, when we teach creatively, we encourage our students to look beyond the content in search of broader and more meaningful connections, and foster a greater sense of engagement with not only the material itself, but also the world around them. Perhaps William Butler Yeats said it best when he wrote, "Education is not the filling of a pail, but the lighting of a fire." Is creativity not the perfect match with which to light that fire?

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Note

This essay is based on a presentation given at the 20th Southeastern Teaching of Psychology Conference held in Atlanta, GA (2008).

Chapter 9

Teaching: What's In It For Me?

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Just over 20 years ago, when I was a greenhorn assistant professor, I sat in a committee meeting to discuss the design of three courses that would eventually become the general education core curriculum requirement in the College of Liberal Arts at Auburn University. During the meeting, a former professor in the Political Science Department issued a serious complaint about the pedestrian nature of the courses and their lack of intellectual rigor. He then noted that for him to teach in the core curriculum, he needed to get something from the course. "There's got to be some benefit for me in the courses if I am to teach in the core," he said. At the time I thought to myself, "What a selfish, arrogant *!@%#. Teaching is about students—it's not about us." Now, with considerably more experience under my belt, I understand the point he was making and just how important those personal benefits are that compel teachers to teach.

In addition to the satisfaction that facilitating student learning brings, there are other rewards for teachers—10 of which I describe below. I am sure that there are other benefits, but these seem to stand out as being particularly meaningful and relevant in motivating teachers to teach or for students to seek a career in the professoriate.

Enjoying the Intellectual Challenge

Teaching is through and through an intellectual endeavor, especially if it is to be done well. Teachers rate knowledge of the field as being the top characteristic of excellent teachers and students rate it as number two (Buskist, Sikorski, Buckley, & Saville, 2002; Keeley, Smith, & Buskist, 2006). It involves studying and understanding a distinct body of knowledge and how it interconnects with a wide range of other bodies of knowledge, including, for example, the biological and other social sciences. Teaching psychology well, regardless of the course, requires that teachers remain students of their field. As psychology continues to blend with other disciplines, the challenge to keep pace with new developments in these areas becomes especially daunting. This challenge gives new meaning to the phrase "life-long learning" and for those teachers who truly love learning, the task is one that brings continual joy.

Enjoying Solving "Engineering Problems"

Knowing content is one thing; engineering the optimum learning environment in which students learn that knowledge, or at least strands of it, is something entirely different. What topics should I teach? How much detail should I provide? What texts, journals, electronic media, or their combination will best serve as the basis for student learning? What teaching techniques are best suited to teaching the subject matter?

What extracurricular activities might best help students learn the material? How should I assess student learning? How will I develop rapport with my students so that they are maximally receptive to my teaching? These questions represent course design issues that must be addressed and solved prior to the beginning of the academic term and then tweaked or otherwise modified during the term as classroom dynamics emerge and change. The good news for teachers who enjoy this challenge is that no two courses, even on the same topic, are ever the same. Those teachers take what they learn about course design one term and use that new knowledge to create a better-engineered iteration of the course the following term.

Acquiring and Refining Communication Skills

Teaching well is as much about communicating knowledge as it is acquiring knowledge in the first place. A person with a brain full of knowledge is not a teacher in any sense of that word until he or she can convey that knowledge to another person. Acquiring useful communication skills, both verbal and nonverbal, is essential to effective teaching. Teachers who take their charge seriously work hard at developing these skills, and the benefits of this toil are many. In addition to explaining the subject matter more effectively to students, these teachers also are likely to perform better in other public speaking venues ranging from departmental and college meetings to conference talks and workshops. Developing effective communication skills also can have monetary benefits—sometimes delivering a good conference talk results in being asked to deliver talks or workshops for honoraria.

Sharing Our Passion

One reason that many teachers teach is because they truly love their discipline and enjoy sharing their passion for it with others. In fact, this sort of passion is a key ingredient in becoming an effective teacher (Brewer, 2002). Teaching provides a platform from which to convey our enthusiasm for psychology to our students, a benefit that teachers wittingly or unwittingly often parlay into enhancing students' perception of the quality of their teaching.

Making a Difference in Students' Lives

Master teacher Charles Brewer (2002) tells us that the real reason for teaching is to make a difference. Although psychology teachers find psychology an inherently fascinating subject matter, teaching just the facts and figures of the discipline is not likely to make the sort of difference in students' lives that Brewer advocates. In fact, students will confirm this point. I asked a small group of psychology students ($N = 20$) what it meant to have teachers make a difference in their lives and not one of them responded "learning psychology." But what they did say related directly to how psychology teachers teach psychology—70% indicated that teachers made a difference in their lives by helping them "discover their academic and personal strengths," "become more confident in themselves as students," and "develop values that applied to everyday life." Thus, making a difference in students' lives transcends the nuts and bolts of the subject matter by impacting students' perspectives on themselves and life.

We don't always know when we've had such an effect on students, although some students will chat with us after class, write us a note, or stop by the office to let us know just what a significant impact we've had their lives. They will say things such as "I changed my major to psychology because of this class," or "you really influenced

how I see things" or more to the point, "you really changed my life." These sorts of comments penetrate the deepest regions of a teacher's heart, leaving us with an unrivaled sense of satisfaction that few other aspects of our jobs bring. Once teachers receive these sorts of accolades, their quest to become an even better teacher becomes almost insatiable.

Recruiting the Next Generation of Psychologists

Without psychology teachers, there would be no next generation of psychological researchers, practitioners, and teachers. In effect, we are the conduit linking generations of psychologists, ensuring that the flow of psychological information, values, applications, and truths remains steady and sure over time. Those teachers who inspire students to go to graduate school in psychology know well the special satisfaction that accompanies moving the next generation of psychologists forward. In a very real sense, watching our students succeed in this way validates our work as teachers and inspires us to continue it.

Delighting in Self-Discovery

Teaching teaches us important lessons about ourselves, especially if we take time to reflect on what we do as teachers (Brookfield, 1995; Palmer, 1998). Certainly, we learn much about our discipline and the craft of teaching in preparing for and teaching our classes. But we learn much more in this process. We learn about our personal strengths and weakness and our likes and dislikes. We explore and learn about our personal values. We face challenges and overcome fears. We change personally as a result. Teaching, especially reflective teaching, can be a powerful catalyst for our personal development as human beings. Reflecting over our careers as teachers — especially if we have been in the trenches for a while — can provide a palpable sense of awe when we compare ourselves to the kind of persons we are now to the type of persons we once were.

Enjoying the Fun that Teaching Is

Many psychology teachers, like teachers in other disciplines, have fun teaching. This sort of fun is not necessarily the "ha-ha" type, although certainly many teachers make a point to use humor in their classrooms (Pollio, 2002). Instead, it is like the fun that we experience when we take a calculated risk — putting ourselves on the line when the outcome of our actions is uncertain. After all, teaching occurs in real time, and despite all of our class preparation, anything could happen, and often does: a demonstration fails, a class discussion or activity takes an unexpected twist, a new lecture goes especially well, and so on. Personally, I still get a tad nervous before each class, although I am now in my 28th year of college teaching. The opponent process of relief, and sometimes exhilaration, which I experience when class is over is the same kind of feeling I get when kayak down a river that has tricky rapids and big waves. I can only describe that feeling as "fun."

Enjoying Good Company of Other Teachers

Teachers who truly love teaching are attracted to others who feel the same way. Within our home departments, our closest colleagues are often those who also love to teach. Some teachers become addicted to teaching conferences where large numbers

of kindred spirits gather to celebrate the teaching life and trade their best teaching tips. In between teaching conferences they exchange e-mails to keep their friendships with other addicts alive and well until they can meet again. I think Bill Hill (2005, p. 156) expressed it best when he wrote: "I think the friendships and experiences around teaching and colleagues are the best part of an academic life, or for that matter, any line of work."

Enjoying Being a Good Teacher

Finally, there can be no doubt that teachers take pride in doing their jobs well. There is no limit as to the when or where feelings of satisfaction may occur. It could be in the classroom during a lecture that is going well or during office hours while helping a student solve a particular problem or while answering a student's question via e-mail, or simply while reflecting on things that have gone well in the classroom on the drive home from school. Although these sorts of rewards are frequent and intangible, other rewards are less frequent but much more tangible. I am speaking of course, of teaching awards, which student groups, departments, teaching organizations, and institutions bestow on teachers whom they judge to be particularly outstanding. Such awards are signified by certificates and plaques, and sometimes money. Anyone who has earned a teaching award knows first-hand the special kind of joy that comes from one's work being appreciated by others.

Final Thoughts

The primary goal of teaching is to facilitate student learning, but focusing only on this goal in discussions of teaching ignores the other reasons that teachers teach. Indeed, the personal rewards that teachers enjoy from their work seem likely to be powerful motivators for teachers to work so hard at their jobs. Thus, student-centered teaching may not be as student-centered as one might surmise. This conclusion has particularly important implications for faculty who train the next generation of the psychology professoriate. As one of those faculty, I know that many graduate students weigh the benefits of a teaching career against the benefits of other career choices while working their way toward the PhD. If we wish attract these students to the professoriate, we would do well to let them in on our secret—that along the way to helping undergraduates achieve the learning goals that we set for them, we, too, receive abundant, rich, and deeply meaningful rewards. And that's the answer to the question that began this essay—Teaching: What's in it for me?

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Chapter 10

Building Bridges: Why College Faculty Should Go Back to High School

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The transition from high school to the undergraduate world can be both exciting and anxiety-provoking for students. For the college-level faculty who welcome first-time students to their new environment, frustration is often felt when assumptions about what students should have learned prior to their arrival is not reflected in how they perform. A better understanding of the high school academic cultural environment promises to benefit both parties, as teachers of incoming college freshmen can more effectively help students make the academic transition to undergraduate education.

The teaching of psychology presents a unique opportunity for increased dialogue between high school teachers and college professors. The recent tremendous growth of psychology courses in secondary education has vastly increased the number of high school psychology teachers as well as the number of high school graduates with an exposure to the field (for a summary of this growth, see APA Education Directorate, 2008; Brandt, 2007). The interaction between these teachers and undergraduate faculty also continues to grow with blended membership in professional organizations (e.g., Society for the Teaching of Psychology) and mutual participation in areas of common interest, such as the College Board's Advanced Placement (AP) Psychology exam. Our goal is to contribute to the dialogue between high school and college-level teachers of psychology, by discussing how a better understanding of the high school and college environments can help us do a better job of teaching our students. We begin by taking a "macrocosm"-level look at some national data on entering freshmen students. Next, we focus on important differences in high school and college environments by bringing in examples from our own institutions.

The Macrocosm: Profiling First Year Students' Preparedness for Psychology

As psychologists, we are often (ruefully) reminded that the best predictor of future behavior is past behavior. To our chagrin, many first year students rely exclusively on strategies developed in their K thru 12 years during the first year of college. Some may adopt new ones, but we know from personal experience, anecdote, and articles

appearing in the Chronicle of Higher Education, among other sources, that many students struggle in their first year to deal with the freedom being away from home allows. This freedom, coupled with varying degrees of preparation for college-level work, poses challenges for students in and outside the psychology classroom.

A good way to understand the entering freshmen mindset is by consulting the Cooperative Institutional Research Program (CIRP) Freshmen survey, which is conducted by the Higher Education Research Institute (HERI) at the University of California at Los Angeles. Administered annually since 1966, the most recent data from 2007 are based on the weighted response of 272,036 first-time full-time students who matriculated in 356 of America's colleges and universities (HERI adjusts their responses to reflect those of the 1.4 million first-time freshmen who enrolled in college in fall 2007; see Pryor, Hurtado, Sharkness, & Korn, 2007).

Space constraints preclude detailed review of the HERI data here, however, we note some highlights (consult Pryor et al., 2007 for more information). We urge readers to consider how these data might impact the teaching of psychology to students in their first two years of college (most undergraduates take introductory psychology, doing so in the freshmen or sophomore year).

The good news

Many students arrive with positive learning habits: 58% reported supporting their opinions with logical arguments and 54% said they asked questions in their classes. Just under 47% revise their written work, however, only 20% accept failure as part of the learning process (for other "habits of mind," see Pryor et al., 2007). Almost 72% of respondents report doing volunteer work. Many foresee pursuing a Masters degree after their BA or BS, but less than 5% of these freshmen identified psychology as a probable major. Interestingly, only 0.5 % see college teaching as a worthy career option compared to elementary and secondary teaching. Of course, these are students' forecasts, not guarantees of what they will actually do in the future.

Some (possibly) bad news

Some students felt that they will need special tutoring or remedial work in English (9%), reading (5%), math (24%), science (11%), and writing (11%). Not surprisingly, Internet use is rife: 76% use it for doing research and homework. The modal time spent doing homework *per week* was only 3 to 5 hours. In contrast, considerable time was spent watching television, playing video/computer games, and using online social networks (e.g., Facebook, MySpace). As in past surveys, most students see themselves as "above average" where academic abilities, achievement drive, leadership, and intellectual and social confidence are concerned.

Microcosm I: Learning about Psychology in the High School Classroom

An easy assumption to make is that top academic performers also exhibit the best study habits. The first author teaches AP Psychology at York Community High School, a fairly large (2,500+ students) and successful suburban high school located in an affluent school district. Brigitte (not her real name) was a top academic performer at York last year. A National Merit Scholar, Brigitte ranked in the top 4% of her class and earned a 4.6 GPA on a 4.0 scale (the result of weighted honors and AP courses). She had six academic classes in her schedule (five AP) and was heavily involved in extracurricular activities. A prototype of a top high school student,

Brigitte challenges the assumption raised earlier; in a typical week, she studied only 6 to 10 hours out of class and reported skimming (rather than *reading)* all her reading assignments except for English.

Is Brigitte's profile typical of high school students nationwide? Probably not, but with a few exceptions, it *is* typical of AP Psychology students at York. The emerging irony of college-prep education is that top performing high school students who enjoy ideal secondary education settings seem to also develop study habits that are incongruous with the undergraduate expectations they will soon encounter. The same factors that lead to high school success also seem likely to beget first-year college students who will experience academic culture shock upon arrival on campus. A closer look at the AP Psychology classroom at York will further clarify the high school academic setting.

Across two AP Psychology sections with 47 students last year, six academic classes per semester was the norm. On average per week, students reported 9.4 hours of extracurricular involvement and only 10.7 hours of studying or doing homework out of class! Given that AP courses are designed to be curricular equivalents of college introductory level courses, it is disconcerting that students in AP classes are dedicating so little time to studying out of class. High school scheduling and course structure help explain why. In a traditional 7-hour school day, students spend 35 hours a week in school. With 50-minute class periods, York's AP Psychology students spend 25 hours a week attending their six academic classes. By adding in the time spent in extracurricular activities and studying out of class, the average AP Psychology student logs 55 school-related hours a week.

In comparison to undergraduate scheduling, the high school schedule reverses the independent studying to class time ratio. For every hour spent studying out of class, York's AP Psychology students spent 2.5 hours in class. This reversal mirrors the difference where learning occurs in the high school vs. the college setting. In an enlightening study of the cultural differences between high school and college, Appleby (2006) reported that college freshmen adjust to the reality that most of their learning will now take place out of the classroom. In contrast, 78% of York's AP Psychology students reported that most of their learning occurred in the classroom. This may be due simply to how much time is spent in class. York's AP Psychology classes meet daily for two 18-week semesters, racking up 144 student contact hours. In contrast, a typical undergraduate introductory psychology course registers 37.5 student contact hours. The large amount of time available in high school courses allows for increased opportunities to discuss material in great detail with students, the frequent checking for understanding, and the allocation of class time for independent studying and homework completion. As much as high school is said to prepare students for college, its academic framework allows for high dependency on learning in the classroom.

Microcosm II: The Reality of Teaching First Year Students in Introductory Psychology

High school students must navigate several major cultural changes when they enter college. Beginning students face a new social environment, one where they must learn to interact with a new group of peers. They also must learn to navigate a new physical environment; simply learning how to get from Point A to Point B in a new place takes time and effort, and can be cognitively tiring. They must learn "the ropes" at a new institution, with its own way of operating. On top of this, they must also adjust to changes in the academic environment in which they find themselves. First-

year students are thus faced with a tremendous variety of challenges all at once. As instructors, how does this impact what we do in our classes? What are the best ways to assist our students with this transition?

One way to begin is by educating ourselves about our beginning students. As college-level faculty, we often have little contact with the high schools from which our students come, and we may have little understanding of their previous academic experiences. However, many universities do have relevant information. For example, at James Madison University, the Division of Student Affairs and the Office of University Planning collect data from incoming students. During the 2007-08 academic year, 87% of these students reported that their overall average grades were B+ or better. Twenty-nine percent were in the top 10% of their high school class, and 75% reported that they intended to continue their education beyond the bachelor's degree. Numbers like these help us understand the academic mindset of our beginning students, and their level of expectation for their performance in college. These students have clearly been pursuing successful strategies in high school. From the student's perspective, there is no obvious reason to shift from academic strategies that have been working very well. And yet, many of them will need to learn new strategies; it is obviously not possible for all these incoming students to continue to perform at the same level they did in high school. Understanding the prior academic experiences of our students can help us as instructors be better prepared to deal with these students' behaviors, skill levels, and expectations.

As instructors of psychology, we can take advantage of our discipline to reach beginning students in meaningful ways. Topics and content covered in the introductory psychology class are readily applicable to the changes many of our first-year students are experiencing. Potential topics include material from biopsychology (sleep schedules and the effects of sleep deprivation on performance); memory and cognition (study strategies, critical thinking); social psychology (attribution, group behavior, attitude formation); health psychology (stress, resilience); diversity and individual differences; and developmental psychology, among other fields. In our experience, first-year students can easily bring up relevant examples from their current daily experiences as they adjust to their new culture.

Final Thoughts

We have one basic recommendation for teachers of first-year psychology students. Go back to high school. Or rather, get better acquainted with your students' high school experiences and with high school teachers of psychology. We have suggested seeking out information at your institution. If these data are not available, collect data on your own students' experiences – data you can use to adjust your course in ways that recognize the context from which the students approach your class. Reaching out to high school teachers of psychology and finding ways to coordinate resources between the two institutional levels will have a profound impact by improving the teaching of psychology in both environments. Guest lectures, shared poster sessions, and shared library access are small but meaningful gestures that can form the basis for further dialogue and mutual learning between teachers in both institutions. High school teachers will welcome the wealth of expertise and resources that college faculty can provide, and college faculty stand to gain invaluable insight into the academic culture their first-year students are emerging from.

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Chapter 11

Key Dimensions of Effective Teaching: What We Can Learn from Studies of Student Evaluations

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Effective teaching is obviously a function of multiple factors, a fact that is supported by both empirical research and anecdotal evidence. Like anyone who has taught for a significant period of time, I have had a number of students over the years share their unsolicited views about their instructors that support the multidimensionality of effective teaching. For example, a student might say something like, "My professor really knows the material, but her presentation seems very disorganized." Or, "He's a really nice person who seems to care about students, but he just doesn't do a good job explaining the material."

Similarly, findings from numerous studies of student evaluations of teaching (SETs) are consistent with the notion that students tend to distinguish among different aspects of effective teaching. For example, in a study I conducted with my colleague John Best about the influence of the "perceived warmth" of the instructor on student ratings (Best & Addison, 2000), we found that higher levels of perceived warmth were associated with higher ratings on items related to class climate (e.g., "Encourages the class to ask questions and share viewpoints"), but were not associated with "skills-related" items (e.g., "Presents the material clearly"). These and many other findings suggest that students do in fact make distinctions among different dimensions of teaching effectiveness. Thus, it is not surprising that well-designed instruments used to assess students' opinions of teacher effectiveness are multidimensional.

Herbert Marsh, the major figure in the study of student ratings over the last 30 years, has suggested that it is important to consider the purposes of student evaluations when examining the multiple dimensions of SETs. According to Marsh (1991), SETs can provide (a) formative feedback to faculty about their teaching, (b) a summative measure of teaching effectiveness for personnel decisions, (c) information for students to use in selecting courses/instructors, and (d) outcomes that can be used for research on teaching. Most of us are primarily interested in the first two purposes, although as the fourth purpose suggests, SETs have provided a fertile ground for research. In fact, dating back to the 1920s, literally hundreds of studies have been conducted on SETs.

Among the many studies on SETs, a number have employed factor analysis in attempts to distill the various elements of effective teaching into a small number of dimensions. For the purpose of this chapter, I selected four of these studies on the basis of admittedly subjective criteria of historical and substantive importance. I will also admit that I chose these particular studies because the findings tend to be consistent with my own views on the subject.

One of the earliest studies involving factor analysis of student evaluations was published in 1943 by Hermann Remmers and his colleague N. T. Smalzried

(Smalzried & Remmers, 1943). Remmers was a professor of education and psychology at Purdue University beginning in 1923, and he was one of the pioneers in the use and study of student ratings of teaching effectiveness. He designed the Purdue Rating Scale for Instructors, a version of which is still in use at my institution. The current version of the scale is actually a "cafeteria list" that includes 190 items from which instructors can select a subset to form an appropriate evaluation instrument.

In their study, Smalzried and Remmers used an early version of the Purdue scale with just 10 items, each of which was scored on a graphic rating scale. The 10 "traits" that comprised the scale included such obvious qualities as presentation of the subject matter and fairness in grading. They also included some less obvious ones, such as personal appearance and, one of my favorites, "personal peculiarities."

Although they conducted their study on ratings of high school teachers, their analysis yielded some interesting results that I believe are applicable to all psychology teachers. The analysis resulted in the identification of two factors, which Smalzried and Remmers called the "Empathy Trait" and the "Professional Maturity Trait." According to the authors, the Empathy Trait can be viewed as "the ability and willingness to wear each student's sensorial and emotional shoes" (p. 366), and includes such qualities as fairness in grading and sympathetic attitude toward students. The Professional Maturity Trait includes items related to "the tools of the trade" (e.g., presentation of the subject matter).

About 20 years later, Robert Isaacson and his colleagues, including Wilbert McKeachie, conducted a study at the University of Michigan on the dimensions of student evaluations (Isaacson et al., 1964). They collected their data from about 300 introductory psychology students using an instrument that included 145 items, in contrast to the 10-item scale used by Smalzried and Remmers (1943). Their analysis yielded 6 factors: (a) Overload (e.g., assigning a large amount of work); (b) Skill (e.g., explaining material clearly, stimulating intellectual curiosity); (c) Structure (e.g., following the syllabus, planning daily activities); (d) Feedback (e.g., providing comments, pro and con, on students' work); (e) Group Interaction (e.g., encouraging student participation); and (f) Rapport (e.g., listening attentively to students, providing reasons for criticism). With the possible exception of Overload, most of these factors seem strikingly consistent with one or the other of the two factors identified by Smalzried and Remmers. Specifically, Skill, Structure, and Feedback could probably be subsumed under Professional Maturity, and Group Interaction and Rapport could reasonably be included under Empathy.

Another factor analysis comes from Peter Frey's 1978 study conducted at Northwestern University. Frey collected data from more than 26,000 student rating "cards" mailed to undergraduate students. Each card included 7 statements on which students indicated their level of agreement. Examples of these statements are "The student had to work hard in this course," "Class discussion was welcome in this course," and "The student was able to get personal help in this course."

Frey's analysis revealed two factors that he called "Pedagogical Skill" and "Rapport," which are virtually identical to the Professional Maturity and Empathy traits identified by Smalzried and Remmers (1943). When Frey combined the results from this study with research he conducted earlier, he found that ratings on the "skill" factor were positively related to student learning, but were unrelated to class size and grade. That is, students who performed better on a common final exam rated their instructor more favorably on the skill dimension. Additionally, he found that ratings of "rapport" were positively related to grades and negatively related to class size. Instructors in classes where the average grade was high were rated more favorably on

the rapport dimension, and, not surprisingly, instructors of larger classes were rated lower on rapport.

Given Herbert Marsh's extensive work on SETs, it is appropriate to include one of his studies in this discussion. Marsh (1991) examined data from more than 2000 evaluations, using the 35-item Student Evaluations of Educational Quality (SEEQ) instrument that he designed. After conducting several different factor analyses, Marsh concluded that SEEQ responses could *not* be distilled into one, two, three, or even four factors. This conclusion is not surprising given that previous factor analyses on larger samples had consistently supported a 9-factor structure for the SEEQ (e.g., see Marsh, 1984; Marsh & Hocevar, 1984). These factors are: (a) Breadth of Coverage (e.g., discussed current developments); (b) Organization/Clarity (e.g., objectives stated and pursued); (c) Learning/Value (e.g., course is challenging, stimulating); (d) Examinations/Grading (e.g., exams were fair); (e) Enthusiasm (e.g., dynamic and energetic); (f) Rapport (e.g., interested in individual students); (g) Group Interaction (e.g., encouraged class discussion); (h) Assignments/Readings (e.g., readings were valuable); and (i) Workload/Difficulty (e.g., course workload was light/heavy).

Although clearly less sophisticated than the factor analyses that Marsh used, an informal, "eyeball" analysis of the 9 factors suggests that most of them could be included under the "skill" and "rapport" dimensions seen in the earlier studies. Specifically, Breadth of Coverage, Organization/Clarity, Learning/Value, and Examinations/Grading appear to be skills-related; and Enthusiasm, Rapport, and Group Interaction would seem to be associated with rapport/empathy. I would suggest that the remaining 2 factors, Assignments/Readings and Workload/Difficulty, are more a function of the *course* than the instructor. This admittedly subjective reframing of Marsh's factors supports, to some degree, the notion that there may be two key factors involved in effective teaching: skill and rapport.

Any implications of these studies must be qualified by the limitations of factor analysis, the most salient of which is that the results of these analyses are dependent on the nature of the instrument used, the number of responses, etc. For example, the scale used by Frey (1978) at Northwestern had 7 items, whereas the scale that Isaacson et al. (1964) used at Michigan had 145 items; obviously analyses on these instruments are likely to yield different factor structures.

With the limitations of factor analyses in mind, the overall results from these studies suggest that teachers who are skillful in their presentation of material and who establish and maintain rapport with their students are likely to be viewed by students as effective teachers. Additionally, in light of evidence that students tend to emphasize the rapport dimension over the skill dimension (see Feldman, 1976), teachers who are looking to improve their student ratings should attend to the relationship-building element of teaching in addition to such "nuts and bolts" aspects as knowledge of material, organization of the course, and presentation of the material. As a number of recognized authorities on teaching have reminded us, teaching that includes such qualities as respect for students, availability and helpfulness, and openness to questions is not only good practice because it is the right thing to do, but also because students will respond positively to such behaviors, likely resulting in an increased motivation for learning (e.g., Buskist, Sikorski, Buckley, & Saville, 2002; Lowman, 1995; McKeachie & Svinicki, 2005).

From the evaluator's view, an important implication of these findings is that any interpretation of student ratings based on a single score is likely to be misleading, whether the score is on a "global" item or an average across all items. Similarly, the reliance on single scores will probably yield inconsistent assessments of teaching, a notion that probably helps explain the discrepancies in results from various studies of

SETs. Additionally, the assessment of teaching effectiveness based on a single score may underestimate teaching skill in large classes, and in classes taught by "hard" graders. The reliance on single scores from SETs is obviously a significant issue because such scores are frequently used by administrators and others in making decisions on promotion and tenure.

Ultimately, meaningful assessment of SETs should be done by evaluating the ratings in terms of at least two dimensions. Specifically, ratings could be examined by considering a mean for "skills" items as well as a mean for "rapport" items. This approach would not only provide more useful information for instructors interested in improving their teaching, but it would also yield a more accurate assessment of the instructor's effectiveness.

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Chapter 12

Enhancing Students' Learning of Psychology through Writing

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Grading papers often does not make the list of college faculty members' favorite things to do. Although many instructors would like to provide opportunities for students to complete writing assignments, the reality is that they are inundated with the myriad responsibilities that accompany a faculty position. In this chapter, I discuss the benefits of including multiple writing assignments in psychology courses that are traditionally evaluated via objective tests. Furthermore, I explain how to use writing assignments to enhance student learning and increase critical thinking. I conclude with techniques for making writing assignments manageable for instructors.

Before considering adding writing assignments, we must reconsider how we conceptualize writing. For this chapter, I use the term "writing assignments" rather than *paper* or *term paper*. A writing assignment is merely an assignment that requires that students use writing to demonstrate comprehension of a topic or to elucidate or apply a topic. It does not have to be a *paper*. Brief writing assignments or short essays can achieve benefits for both instructors and students.

Benefits of Writing Assignments

There are a number of benefits associated with writing assignments. Writing assignments require students to comprehend course material, apply it, and utilize critical thinking skills to synthesize and evaluate concepts (Pascarella & Terenzini, 2005). They can improve performance on exams (Davis & Hult, 1977) by requiring students to actively engage with course material rather than passively listening to lectures or reading textbooks. Thus, writing assignments provide an active learning mechanism. Ideally, writing assignments can help students gain an appreciation of course material (Cabe, Walker, & Williams, 1999) by providing a "hands-on" approach to the course concepts. Requiring students to address course material via writing can have the benefit of providing students with feedback on their understanding (or misunderstanding) of course material (Pascarelli & Terenzini, 2005).

Although most of the benefits appear to favor the students, instructors also reap rewards from assigning writing. Instructors can use writing assignments to enhance their lectures. These can be brief, in-class exercises in which students apply concepts in real-time and can promote class discussion. Additionally, writing tasks can provide instructors with a break from lecturing.

Prior to developing an assignment, instructors must first ask, "What is the purpose of this writing task?" This simple question helps guide a number of important decisions, including what type of task to assign, the length of the assignment, and its format.

There are a number of positive outcomes that students can achieve from completing writing assignments. Writing can lead to increased comprehension and application of course concepts. Using writing to explain a course topic can result in increased comfort with verbal expression of psychological concepts. Depending on the type of assignment, students can gain experience developing and supporting arguments. Other assignments can require that they evaluate a course concept and form an opinion about it. Many courses present information, however students are not encouraged to consider their opinion about the various topics; writing can help students become more active participants in their learning.

On a more practical level, in-class writing assignments can be used to assess attendance and can decrease absences and improve student participation. Writing about a topic can increase the likelihood that a student completes the course readings on schedule, can increase their confidence to contribute to class discussions, and can reduce "cramming" for exams. Writing can also improve exam performance, as it has the potential to teach students how to study in a manner that helps them absorb the material.

Instructors' Concerns

While many instructors acknowledge the benefits of writing, they may be reluctant to assign these tasks. One obvious concern that many have about assigning writing is the increased workload that accompanies them. Giving students writing assignments requires careful consideration and planning, detailed grading, and providing feedback. In some psychology courses, instructors may be concerned that writing assignments may not fit well with the topic area. Courses such as introduction to psychology and abnormal psychology may fit in this category because they are often evaluated solely by multiple-choice exams. The timing of writing assignments is a concern, particularly for instructors teaching in a quarter system. The short time frame can preclude introducing, completing, and grading a writing assignment. On a more personal level, some instructors do not assign writing because they lack confidence in their own writing abilities. If they are uncomfortable with writing, then it is likely that they would be uncomfortable developing and grading writing assignments. However, the most likely fear that instructors have is *reading* their students' writing.

Writing Assignments Made Easy

Several writing tasks are options in lieu of a lengthy research or term paper. "Minute papers" are in-class assignments in which the instructor assigns a short essay question related to the lecture. These brief papers can be used as effective lecture launchers, priming students on a topic prior to lecture and are useful to check students' comprehension. A variation of this technique is paired writing assignments, in which the instructor asks students to team up and create a short, written answer to a question about the course material. This requires students to use the lexicon of the course to discuss and analyze the topic. Additionally, a scaffolding approach to learning occurs as students teach one another. These techniques require little grading, as instructors can review the papers to see where students are unclear and address these areas as a class rather than providing individual, written feedback.

Concept application papers are short essays, usually no more than three pages in length. Instructors can use these to ask for responses to questions that allow students to expound on information in lecture and/or the text. Another useful writing

assignment is to have students write a paper explaining a course concept to a layperson. This requires them to put course concepts in vernacular language. These types of assignments are also useful in reducing material covered during class time, as instructors can use these papers to address topics rather than lecturing.

Ways to Ease Instructor Burden

There are several ways to ease the burden of grading writing assignments. In particular, careful planning can help. First, it is important to be selective about which classes include writing assignments. Upper division classes may have more advanced writers, so the quality of the work may be easier to grade than for lower division courses. If an instructor has four courses in one term, he/she may not wish to have writing assignments in all courses.

Second, instructors should stagger these assignments so there is not a barrage of papers to grade at one time. The best way to get quality writing assignments from students is to spend time developing a detailed writing prompt that leaves little to interpretation.

Third, instructors can provide students with a specific format to facilitate grading. For example, faculty can direct students to organize their papers into sections corresponding with the particular domains to be addressed. This allows instructors to easily read each paper and grade the content in an orderly manner without searching through the document to ensure that each was addressed.

Fourth, it is important to have specific learning objectives for each writing assignment that fit with the learning objectives for the course. Instructors can also engage students in a discussion about what they would like to get out of writing assignments and incorporate this feedback into the assignment.

Fifth, using a detailed rubric also eases grading and promotes uniform review. Providing rubrics to students in advance of the assignment also helps them prepare better writing assignments. On certain types of assignments, students can benefit from receiving formal or informal feedback from their classmates prior to submitting the final draft for credit. This increases the likelihood that the final draft meets the instructor's standards.

Finally, an obvious suggestion is to have a teaching assistant (TA) to handle writing assignments. If funding for a TA is not available, an alternative is to use independent study courses to train students on teaching in the discipline. This can include teaching students how to effectively develop and grade writing assignments.

In sum, writing assignments can be an effective teaching and evaluation tool. There are a number of alternatives to traditional term papers that allow students to use writing to play an active role in elucidating course concepts. Furthermore, there are ways that an instructor can use writing to cover course material more deeply than through lecture. Although assigning writing requires more effort on the instructor's part, there are ways to reduce instructor burden to make assigning writing tasks worthwhile for both instructors and students.

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