THE GENERALIST'S CORNER

Fifty-Plus Years As a Student-Centered Teacher: An Interview With Wilbert J. McKeachie

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Wilbert J. McKeachie is a Professor in the Department of Psychology and a Research Scientist at the Center for Research on Learning and Teaching at the University of Michigan, Ann Arbor. His long academic career is distinguished by 7 honorary degrees, 27 regional or national honors, membership in 14 professional societies, 32 books, 117 book chapters, 84 research or scholarly articles, and 105 other articles. Additionally, he is the composer of 6 musical compositions and has sung (with his wife) in the First Baptist Church Choir since 1948. During his fast-pitch softball career (from 1933 to 1989), McKeachie pitched 35 no-hitters (in 1976 his pitching record was 22–0), with a winning pitching record of .750 and a lifetime batting average above .300. His book, Teaching Tips: Strategies, Research, and Theory for College and University Teachers *is in its 10th edition and has become a cherished resource by new and seasoned academics alike.*

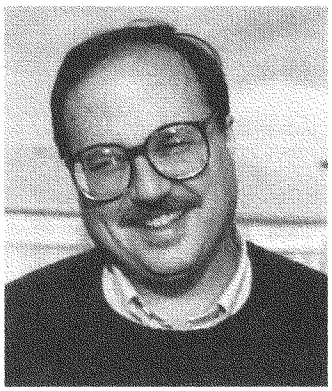
Landrum: In a previous interview (Halonen, 1992), you mentioned that your father was your teacher in a one room schoolhouse for your first 8 years of education. What kind of impact did that experience have on the type of teacher you have become?

McKeachie: My father was a model in a number of ways—sense of responsibility, good organization, commitment to student learning. And it may have influenced my interest in teaching as well as my enthusiastic receptivity to research showing that school size and class size make a difference. Generally smaller is better than large for learning.

Landrum: Some in the field see a slight and gradual shift from institution-centered learning to student-centered learning. In your words, what is student-centered learning?

McKeachie: In 1946–48, when we carried out our first studies of student-centered teaching and learning we meant by it such characteristics as the following:

1. Creating students' trust that they could express opinions and questions openly without endangering their relationships with other students and the teacher.
2. Emphasis upon discussion, with much student-to-student discussion rather than lecture or question-answer participation.
3. Concern about getting deeper learning rather than simple memorization of facts and definitions.
4. More emphasis upon student choice and intrinsic motivation for learning; less on test/grade-driven learning.
5. More emphasis on student goals for learning and relating teaching to those goals.
6. More emphasis upon attitudinal and affective outcomes.
7. Concern about student misconceptions and getting those cleared up.



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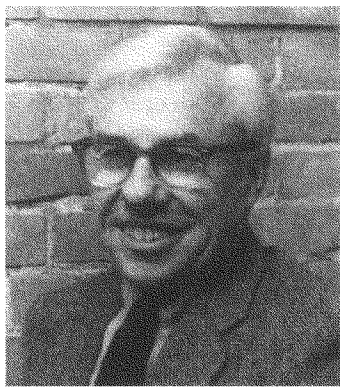

Wilbert J. McKeachie

I think the current "learner-centered" or "active-learning" approaches have a good deal in common with what we called "student-centered." Probably the big difference is that we now have a better understanding of student cognition and motivation. Thus, we are more aware of the need for reflection and the importance of what is going on in the students' heads. What we called "gut learning" would now be called "deep processing."

Landrum: What types of changes can faculty make in their instructional practices that most benefit students?

McKeachie: Clearly peer learning and teaching are powerful tools, whether in learning cells, team approaches, peer tutoring, student-led discussions, or other forms of cooperative and collaborative learning. They are not panaceas and you can have ineffective uses of peer learning just as you can have ineffective lectures, technology, or anything else, but on the average greater use of cooperative learning is likely to result in better learning.

Breaking up lectures to get students writing, talking to one another, working in buzz groups, asking/answering questions, or offering examples or comments are also likely to be effective.

Landrum: You were fortunate in your early days at Michigan to receive instruction concerning instruction. The study of pedagogy today seems like a lost practice in the day-to-day activities of some faculty. What role should the interaction of teaching theory and teaching practice take in a professor's day-to-day workload?

McKeachie: One needs to have a repertoire of skills and strategies that one can call upon in the momentarily changing dynamics of the classroom and in preparing the out-of-class activities expected for student learning.

I think it helps if the teacher has some theoretical and research base for the choice of strategies; in fact, theory can be heuristic in planning optimal teaching conditions. But I don't think that theory is necessary nor sufficient. Some excellent teachers never think about theory, although one may be able to infer some implicit theory by observing and interviewing them.

Landrum: By teaching theory, what do you mean? Could you describe a few of the more successful teaching theories that you have observed over the years?

McKeachie: By theory I simply mean some conceptual basis for developing course plans and facilitating student learning.

Student-centered/group-centered teaching based upon Rogerian and Lewinian theories was a successful theory. Fred Keller's application of behaviorist theory went beyond programmed learning to the more successful Personalized System of Instruction. In the 1970s, cognitive theory became dominant, exemplified by Don Norman's chapter, "What Goes on in the Mind of the Learner." It's now called constructivism and has had a good impact.

These are all derived from basic theories of personality, cognition, or social psychology. Successful theories can be derived from the philosophy of education, from research on teaching, from a set of values and goals, or from conceptions of what students are like, such as developmental theory. Theories based on conceptions of learning styles are sometimes helpful, although they sometimes tend to attract advocates who take them too seriously—as in the right-brained/left-brained dichotomy, which had little basis in fact, but nonetheless had the good effect of stimulating some teachers to pay more attention to differences among students. Currently Howard Gardner's multiple intelligences theory is having a similar effect.

Landrum: Can you recommend some resources for those teachers who desire to improve their teaching effectiveness?

McKeachie: When I wrote *Teaching Tips* it was probably the only book dealing with practical tips as well as theory and research on college teaching. To some extent it still is unique in that respect, but there are now a lot of good books, including books by Joe Lowman; Stan Erickson; Tony Grasha; Jim Hartley; Graham Gibbs; Diane Laurillard; Barbara Davis; Diane Halpern; Paul Ramsden; Marton, Hounsel, and Entwistle; George Brown; Lambert, Tice, and Featherstone; Linc Fisch's *Chalk Dust Collection*; Steven Brookfield; Prichard and Sawyer; and a host of others dealing with specific aspects of teaching, such as teaching thinking, using the case method, problem-based learning, guided design, lecturing, writing, cooperative learning, technology, curriculum, evaluation, and so on. I'm impressed by all of these. Each makes some unique contributions.

In addition there are resources like the "New Directions in Teaching and Learning" series, periodicals like the *National Teaching Learning Forum* and *The Teaching Professor* as well as disciplinary journals like *Teaching of Psychology*. Conferences like the annual International Conference on Improving University Teaching to be held in Brisbane next summer and in Germany in 2000 and the national and regional teaching conferences are important resources.

Nonetheless, probably the most important resources are one's own colleagues. I have spoken and given workshops at hundreds of colleges, and no matter how small the college, I have never visited one that did not have some very good, creative teachers, and invariably they are glad to talk about teaching and to share their ideas so that I keep on learning.

Landrum: You have a comprehensive understanding of the teaching of psychology, evidenced by 50 years in the discipline, the success of *Teaching Tips*, and other indicators. What avenues of student learning are still poorly understood?

McKeachie: We know a lot more about classroom learning than we did 50 years ago, and Ted Newcomb and others did important work on out-of-class learning. We also had a number of good studies of independent study in the late 1950s and 1960s, but we still don't really understand a lot about what is conducive to educational growth in students' lives outside the classroom—both for conventional residential students as well as for commuters and adult learners.

Landrum: What topics do current researchers need to be addressing?

McKeachie: My research group discussed that Tuesday in connection with our own planning. Among the topics that we identified were the following:

- Student epistemologies, their impact, and relevance to teaching
- Intrinsic motivation for learning and how to increase it
- Self-regulation of learning, motivation, and volition
- Conditional knowledge
- Differing kinds and effects of anxiety about tests and achievement
- Strategies used by students to avoid failure or to avoid damage to their self-concept (as well as positive strategies)

Landrum: What topics do you think are particularly well understood?

McKeachie: We've made progress, but as Herb Simon once said, "research is like a circle enclosing what we know." Every time you increase knowledge, the circle expands, and the circumference with the problems still to be solved becomes larger.

Landrum: You have a long history with distance education since your instructional television debut in the 1950s. As professors struggle to get on the technology bandwagon, what questions are important for us to be asking as we implement new technological approaches?

McKeachie: Are we doing this because the technology permits it or because it will actually improve learning? Is the technology actually cost-effective in terms of long-term educational outcomes when compared with other means of education?

Landrum: How can we measure improvement of learning over and beyond our current pedagogy? Could you describe a hypothetical study and its outcomes that would be convincing to those that are skeptical about the effect of technology on learning?

McKeachie: I think the measures we use need not be different from those used in the past in research. We probably should not expect big differences in final examinations because most exams largely measure factual and conceptual knowledge that can be obtained from studying a textbook if the teacher or technology are inadequate. A couple of hypotheses I have about the impact of new technology on learning include:

1. Using e-mail or computer communication will increase communication and thinking for some students who are otherwise quiet and withdrawn in class discussions.

   As measures I would like some tally of communications in-class and out-of-class to see if the phenomenon does indeed occur, and as measures of the effect I'd want such things as amount of nonrequired reading in the subject during and after the course, election of more courses in the discipline, a Likert scale question on interest in further learning, and some measure of psychological thinking after the course is over (or perhaps toward the end of the course).
2. Carrying out research on a simulation or set of data on the computer will increase thinking like a psychologist and motivation for further learning.

   For this I'd like the dependent measures mentioned previously as well as presenting some *Psychology Today*, *Newsweek* (or similar) articles or other popularized accounts (the *APA Monitor* and *Chronicle of Higher Education* have also reported some fairly dubious research) and asking for student reactions. You hope that students who have had this kind of experience will not only be more likely to ask "What is the evidence?" but also be able to point more specifically to some of the points on which the research might be improved.

Landrum: Based on your understanding of the newest technologies (e.g., Web-based courses, CD–ROM instructional materials), what are the key issues as far as students are concerned?

McKeachie: Access, the ability to find what is most helpful when there is a plethora of information, and the ability to discriminate the good from the not so good.

Landrum: How can we maximize the student learning benefits from the use of these tools?

McKeachie: By explicit attention to these issues; that is, being clear about the purpose for which the technology is being used and open to suggestions and feedback from the students.

Landrum: Over your years of experience as a teacher, as an instructor of teachers, and as a department chair, what are the common pitfalls of faculty who have problems in the classroom?

McKeachie: Sarcasm (not very common) but related to the more common perception of students that the teacher doesn't really care about them, which often is derived from the teacher's feeling that the students don't like his or her teaching. I think early experiences in teaching have a big impact on teacher attitudes, and when the teacher lacks some of the basic skills needed to at least get a decent start, a vicious circle of increasing alienation may be the result.

Landrum: Have you come across any remedies that allow faculty to make significant improvements in their teaching?

McKeachie: Lots of them. Some report that *Teaching Tips* was a lifesaver. Workshops on basic skills help. Feedback from student evaluations discussed with a peer or consultant helps. Lunches and conversations with other colleagues help. Faculty retreats help. All of these can offer faculty new insights into their teaching.

Landrum: This interview is for a section of *Teaching of Psychology* called "The Generalist's Corner." Looking back over your career, would you call yourself a generalist?

McKeachie: At our departmental faculty meeting today, we all introduced ourselves and our area of specialization. This is not a small task since we have 150 faculty members and a number of new hires this year, so very few people know everyone. In that meeting I said that I am a general psychologist.

Landrum: (I often debate this question with a colleague of mine.) Do you think it is possible to be a world-class teacher and a world-class researcher at the same time?

McKeachie: Sure. I've known quite a few. But that doesn't mean that quality of teaching and of research are highly correlated. Some great researchers are not good teachers, and some great teachers are not great researchers. In a department like ours, which has more world-class researchers than any other psychology department, we honor those who are world class in both, but as a department chair I felt that not everyone could achieve that level and that we would be stronger if we not only hired and promoted people who were superb in both but also hired and promoted people who were superb in one or the other, rather than attempting to get people who would be equally good in both research and teaching but not at the top level in either.

Landrum: Do you know of any individuals that you think would qualify for this dual distinction?

McKeachie: Jim Olds. Art Melton. Jack Atkinson. We have several younger faculty members who, if not yet known as world class, are approaching that distinction and are already excellent teachers (I've avoided naming friends or colleagues who are still active because I'm sure I'd overlook someone who should be included.)

Landrum: I admire the connections you built with your fellow faculty at the University of Michigan. It seems that sports played an integral role in bringing your faculty together. Today's faculty are as busy and over-committed as our students. How do we build that collegiality in today's psychology departments?

McKeachie: Everyone needs some recreation. We still have sports, noon card game, and so forth, but we at Michigan are fortunate in having a climate where collegiality is the norm. There is much interaction across areas of specialization. We try to recruit individuals with cross-disciplinary interests. Our department chairs and department executive committee have provided models. We have had a series of department chairs who were supportive of faculty and took their responsibilities seriously rather than as a temporary burden.

We have a very democratic form of governance, with a good deal of decentralization. Key policies are recommended to the faculty by an elected executive committee. The members of the committee are elected because their colleagues trust them. Junior faculty members participate as fully as senior professors do. In fact, salaries and promotions are determined by members of the committee who are not of the same rank as those being evaluated. Thus, full professors' merit increases are decided by the assistant and associate professors on the committee, which includes at least two nontenured (usually assistant professors, but lecturers are also eligible) and two of each of the tenured ranks. This often seems inappropriate to other departments where the full professors are the only ones involved in such decisions, but I think it helps build a sense of collegiality.

Landrum: When a student enters the higher education system for the first time, context is so important. You have spoken about how, after the war, you would have enjoyed studying almost any subject matter. How is the context of student life in the 1990s affecting our students' entry into higher education?

McKeachie: Students are more concerned about job possibilities, and this is realistic, although psychology PhDs are, according to recent statistics, in the best or one of the best positions with respect to employment.

Landrum: You are well-known in the United States as one of the leading figures in teaching practices and undergraduate instruction. I know of some of your recent efforts on a variety of international fronts to improve university instruction worldwide. Can you talk a bit about those efforts, where you have traveled, and the type of reception you've had?

McKeachie: This summer I was invited to speak at the International Conference on Applying Psychology to Teaching and Learning at the University of Hong Kong. When the other Hong Kong universities learned that I was coming, they all wanted me to visit them as well. So I gave talks or workshops at five universities and to the Hong Kong branch of the Higher Education Research and Development Society of Australasia. I also spoke at the International Conference on Improving University Teaching in Dublin.

What impresses me is that we all have similar problems and that every country and university has very good people doing teaching and research. I've learned a great deal from speaking in other countries, some about things we take for granted that are quite different elsewhere and some things about teaching and learning that seem to be pretty generic. For example, we teach our students that simple repetition or rehearsal is not a very effective method of learning for long-term retention and use. Yet Asian students use repetition a good deal and it works for them. The difference seems to be that they think more about the meaning while rehearsing.

Student ratings of teaching are now coming into use in many other countries and encounter the same resistances that are found here; so I present the data on validity and stress the importance of sensible, rather than mindless, use.

Landrum: If you could give teachers one piece of advice to improve undergraduate instruction, what would that advice be?

McKeachie: Have fun!

Resources

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