

# *Peer Observation: Learning From One Another*

*By Matthew O. Richardson*

Recently, I was asked to explore methods and means of improving teaching in my department. I was told the assignment came my way due to my “interest in excellence in teaching.” But, as a junior faculty member, I was somewhat daunted by the task.

My first impulse when given the assignment was to read books, study journals, and attend symposia in hopes of discovering a better understanding of collegiate instruction to share with my colleagues. This approach is typical. But while the search was valuable, my most significant discovery came quite unexpectedly.

In surveying the literature on improving teaching in higher education, I was intrigued by a statement by Keig and Waggoner:

In short, college teaching will improve when faculty support each other with expertise that is uniquely theirs, apart from what students, teaching consultants, and academic administrators can

contribute to instructional improvement.<sup>1</sup>

Many scholars support this idea that peer involvement is a key to improving college teaching.<sup>2</sup> Unfortunately, most educators, like myself, hastily look to students, teaching consultants, pedagogues, journals, and academic administrators for help and ignore the untapped resource of our peers.

Emboldened by Kieg and Waggoner, rather than reading further about teaching, attending workshops that outline teaching, or talking with students about what they thought teaching should be, I was determined to *see* teaching—for better or for worse.

But I didn’t want to see just any teaching. I wanted to see what was happening in my own college. I wanted to see my peers work their work, fashion their craft, do whatever it was that warranted them a paycheck. Thus, my first project in fulfilling my assignment of

---

**Matthew O. Richardson** currently holds the Teaching for Excellence Fellowship at Brigham Young University, where he directs faculty development and instructional improvement. He is an assistant professor of religious education at BYU and holds a doctorate in educational leadership and curriculum. He writes on educational theory and practice as well as religious issues.

***Most teachers are uneasy when  
anyone besides their own students  
watch them teach.***

---

improving my department's teaching was to visit my colleagues' classrooms.

As I approached the faculty—both senior and junior members—with the request to visit their classroom, the range of response I received surprised me, and, after talking with others who have been bold enough to try a similar experiment, I believe my experience was not exceptional.

The typical responses I received were the flat-out rejections, the uninviting hums and haws followed by excuses, the skeptical cocked eyebrows, or the plastic reception smiles, a bold attempt at diplomacy.

There were also the warm welcomes, "sure, anytime" responses and sincere attempts to accommodate. I imagine that, at any given university, reactions of faculty would be the same.

Regardless of the response, however, there was a strained air to the whole conversation, as if we were breaching professorial etiquette, or as if someone else was listening in. I feared I was overstepping my junior faculty boundaries.

According to DeZure, faculty want to see other faculty teach, they want to watch their peers negotiate the content matter, interact with students, and observe how they handle the classroom terrain.<sup>3</sup>

Based on this knowledge, I thought professors would welcome

peers into their classrooms. But this was not the case. It may be true that professors want to watch other teachers teach, but, conversely, they don't want others to watch them teach. For most professors, there is something unnerving about having a colleague in the classroom.

Most teachers are uneasy when anyone besides their own students watch them teach. Teachers take their teaching personally. They view teaching as a very real extension of themselves. Parker Palmer describes the act of teaching as emerging from "one's inwardness, for better or for worse."<sup>4</sup> Thus, having someone watch you teach is almost like a stranger standing in your dressing room watching you dress—it feels like an invasion of privacy.

**Y**et teaching is, and always has been, a public profession, and teachers understand that. Teaching has never been done privately. Teachers stand before others and put on a personal exhibition every time they lecture, lead a discussion, or guide a role-play.

Teachers also reveal much about themselves when they design a course outline, evaluate a paper, author an article, or even walk on campus. All of these activities—even those done behind closed doors—are public displays of self.

***The educational profession views  
observing teaching synonymously  
with evaluating teaching.***

Teachers understand this public aspect of their very personal craft.

It's interesting that professors rarely exhibit the same anxiety when students are seated in their classroom as they do when they find a colleague or administrator sitting on the back row.

Obviously something other than the feeling of having one's personal space cramped by an occasional classroom visit is behind the uneasiness caused by peer observation

Edgerton, Hutchings, and Quinlan have written that often the uneasiness underlying observation of teaching stems from a "more troubling circumstance: the lack of clarity about why faculty should be observers of one another's teaching."<sup>5</sup>

A review of educational literature finds that nearly the entire bulk of research, writing, and other material on classroom observations deals strictly with evaluation.

In short, the educational profession views observing teaching synonymously with evaluating teaching. It seems it's not so much a matter of being watched that causes the uneasiness about peer observation, but the fear of being evaluated.

Keig and Waggoner conclude that, in higher education, "faculty evaluation is carried out primarily for decisions regarding reappoint-

ment, promotion, tenure, and compensation and only secondarily, if at all, for improving performance."<sup>6</sup>

To have a stranger in your dressing room watching you dress is bad enough, but it is far more unnerving to have that stranger taking copious notes, filling out forms, and drawing diagrams to evaluate you as well.

**S**ome argue that if evaluations were more formative—designed to help improve instruction—rather than summative—designed to make decisions about the teacher being observed—evaluations would be less intimidating and more productive.

This may be true, and there is evidence that efforts are being made to increase the use of formative evaluations.<sup>7</sup> But whether summative or formative, informal or formal, the purpose for peer observation would still be strictly to evaluate performance. As a result, the perceived association between peer observations and evaluations is deeply entrenched in the entire educational community.

Students, for example, almost always react the same way when they notice a "visitor" in their classroom. They immediately believe that "someone is checking the teacher out." It never occurs to them that the visitor may actually be "checking them out," or, even

***I was embarrassed that this professor might think I thought I could improve his teaching.***

---

more importantly, there to learn from a colleague.

Professors, whether conscientiously or not, demonstrate similar attitudes about peer observation and evaluation. Besides exhibiting uneasiness when visitors observe their teaching, professors tend to act differently in the classroom, fearing they might not measure up to some standard. For example, Ward, Clark, and Harrison have found that professors are much more likely to involve students in their classroom instruction when they know observers are present.<sup>8</sup>

**W**henever an observation occurs, some professors expect an evaluation in return. They might expect a note, a list of suggestions, a prefabricated form with scratchy notations, a score sheet, or perhaps a phone call just “to report in.”

Many feel cheated when all they receive is a telephone call or memo stating: “Thanks for the experience.” These perceptions make it difficult for both students and faculty to consider peer observation as anything other than evaluation.

Long before I formally decided to start visiting my colleagues’ classes, I assembled a list of professors “to visit” in my head. My first visit was to a senior faculty member, a noted author with many noteworthy books and articles to his

credit, who was respected by his peers and esteemed by his students as an excellent teacher.

This professor was aware of my new assignment. When I sought permission to visit his classroom, he warmly invited me in and said something like, “We all have room to improve!”

I distinctly recall sitting in his classroom feeling very out of place. It wasn’t anything that my colleague had done or was doing in his teaching that caused my uneasiness. But his comment about having room to improve and linking me with facilitating that process disturbed me greatly.

I couldn’t shake the thought: “Who am I to evaluate a professor of this stature?” He outpaced me in experience, knowledge, and skill. I was embarrassed that he might think I thought I could improve his teaching. As a result, I felt as if I was wilting with every passing moment in his presence. I wanted to escape.

Fortunately, I noticed the students around me and found they weren’t wilting but seemed to be engaged. I turned my attention to what my colleague was doing and quickly found myself equally engaged.

I was drawn into the student’s world—a world that has become foreign to most professors. It had been a long time since I had sat in a

***Learning, then, it would seem, almost naturally happens through peer observation.***

---

desk for an entire class period. But when my perspective turned from trying to help this professor improve his teaching to seeing how I can be a better teacher through him, I discovered an important aspect of improving teaching.

When an observer assumes the stance of a student of teaching, rather than an evaluator of teaching, great discoveries are possible.

Perhaps this significant shift in my perspective should have come from common sense instead of discovery. For instance, we know language is learned mostly through observation and exposure. Students learn another language most easily when they're immersed in the experience of the language.

**A**rtists, we know, observe other artists while learning their craft. They study each other's work to see how differing hues, application, and interpretation are used. The whole process seems so natural and doesn't require a pedagogue to orchestrate the outcome.

Learning, then, it would seem, almost naturally happens through peer observation. The unique benefit of observation is that it provides a forum for learning through exposure, contemplation, and, often, imitation.

I was skiing once at a popular resort and found that the reigning

world slalom champion was only a few chairs ahead of me on the lift. To my delight, he was still at the top of the mountain signing autographs when I arrived.

Rather than getting an autograph, I stood to the side and waited for him to leave. I wanted to see him ski. As he started to ski down the mountain, I followed behind him and observed his every move.

As the reigning world champion, I believed he must be doing something right, and I wanted to discover what it was. I carefully noted his technique, how he shifted his weight, attacked the terrain, and used the fall line to his advantage. It was a great lesson.

We never spoke to each other, this champion and I. But I followed him around until he went to lunch. Then, for the remainder of the day, I tried to imitate some of his techniques. It was a powerful lesson of the value of linking observation with imitation.

The power of peer observation can be subtle. Richard Dawkins tells of a memorable experience he once had with a student that caused him to reconsider the purpose and power of observation.

When he would ask this particular student a question that required thought, she would "screw her eyes tight shut, jerk her head down to her chest and then freeze for up to a half a minute before

***Notice that when one is learning a language via observation, the lingual observer is not evaluating the linguist.***

---

looking up, opening her eyes, and answering the question with fluency and intelligence.”

At a faculty dinner, he told some of his colleges about this experience. Among the guests was a distinguished Oxford philosopher. As soon as he saw Dawkins perform the ritual, he said: “That’s Wittgenstein!” Is the student’s surname \_\_\_\_\_ by chance?”

When Dawkins responded that it was, the philosopher explained: “Both her parents are professional philosophers and devoted followers of Wittgenstein.”<sup>9</sup>

We often find expressions, characteristic traits, and methods passed from one generation to the next, from friend to friend, or from teacher to student, whether we are aware of it or not.

This natural process does have its boundaries if it is to be effective. The role of the observer, for example, is distinctly that of a learner. This is not to say that an observer can never be a teacher. But the moment the observer assumes this role, the experience and outcome are altered.

When the observer is the student, expectations are different. Notice that when one is learning a language via observation, the lingual observer is not providing feedback nor evaluating the linguist. At this particular juncture, at least, the student observes to learn,

not to evaluate.

We cannot forgo making judgments or personal evaluation even while we are students, but the intent of an evaluation is to glean from the teacher, to discern relevancy, and applicability. The judgment is made for the benefit of the learner.

For the language student, the sole purpose of immersed observation is to witness the language being used. To hear voice inflection and the use—or even misuse—of words, context, slang, grammar, and other language conventions.

**A**s I continued to observe my peers, intending to learn from their teaching, I made the following observations.

*1. Peer observation allows teachers to glean from a wide variety of sources.*

Hutchings tells of a favorite quote by Oliver Goldsmith that goes something like: “It’s hard to improve, when you have no other model than yourself to copy after.” Hutchings felt Goldsmith’s observation was “particularly apt when it comes to teaching, where a major obstacle to improvement is our dearth of alternative visions.”<sup>10</sup>

If teachers would periodically observe their peers, they could learn from a wide variety of teaching

***Teachers can take away from the observation what they consider fruitful and discard what they deem distracting.***

---

models. Obviously, not all of the teaching observed should be model teaching, but this approach is not “monkey see, monkey do.” Peer observation allows professors the freedom to “glean” from each other.

Gleaning is a process where one scours a field in hopes of finding a kernel or stalk of grain that was missed in the initial harvest. The root of the word glean, *glennare*, means to make a collection. There is significance when one considers both meanings.

For example, professors who have a wealth of experience might think they have mastered teaching and have little left to learn. But even the harvested field yields grain if one is willing to glean. It is amazing what treasures might be found in those harvested teaching fields if one is willing to look and gather.

Master teachers may discover a kernel of truth while watching a colleague use a unique approach that they never even considered before. A junior faculty member might visit colleagues in hopes of making a collection of ideas, methods, or valuable insights to subject matter.

While one colleague is collecting every word, method, or application as noteworthy and the other is selectively picking through the experience, maybe only taking one new thought or idea from the class, both

are gleaners and both are edified.

The beauty of gleaning is the opportunity observers have to choose relevancy. They may see something they consider exceptional and decide to imitate such a trait in their own teaching. At other times, they might observe teaching that is dismal (at least, in their estimation). Obviously they will not want to add this approach to their own teaching portfolio.

**T**he likelihood of faculty members working to improve their teaching increases greatly when they are allowed to choose the methods they perceive as relevant.<sup>11</sup>

In peer observation, teachers have the freedom to observe and take away from the observation anything they consider fruitful and discard what they deem distracting. Teachers tend to take working on improving instruction more seriously when they are allowed to determine the proper course of action rather than having it dictated to them.<sup>12</sup>

*2. Peer observation fosters a sense of career-long learning.*

It is unfortunate that many professors feel that learning through observation is only helpful in the early stages of a collegiate career. This attitude is subtly reinforced by the structure of career development in most universities.

***Peer observation provides a way for every faculty member to learn from peers through observation.***

---

It is not uncommon, for instance, for a new faculty member to be assigned a mentor, typically a senior faculty member of significant experience. Mentoring is considered an effective method of helping new faculty become successful teachers in the collegiate ranks.<sup>13</sup>

Unfortunately, with rank and tenure, most professors move from their early role of student to that of mentor. This reflects the notion that mentoring makes most sense at the beginning of a career or at a crucial turning point in a professional life.<sup>14</sup>

Any learning activity beyond what's needed to establish an academic career is considered good but unnecessary. This leaves an impression that work to improve teaching is most appropriate for new faculty members. But it's clear that all teachers have room for improvement.<sup>15</sup>

Daloz reminds us that mentors "lead us along the journey of our lives"<sup>16</sup> that is only developed over time.<sup>17</sup> Since excellent teachers engage in continual learning,<sup>18</sup> it makes sense that mentoring is healthy for a professor's long-term career.

Peer observation provides a way for every faculty member—regardless of rank, tenure, or experience—to continue to learn from peers, both senior and junior,

through observation.

Weimer stresses that faculty need to visit each other's classrooms routinely and frequently to remain fresh, develop a sense of self-assessment, and "make obvious the complexities of the teaching-learning phenomenon."<sup>19</sup>

*3. Peer observation demonstrates to students that learning is an essential part of what professors do.*

While waiting for a class to start during one of my visits, I could feel a student sitting next to me "sizing me up."

He finally said something like, "So you're here to check out Dr. Smith and see if he's up to par." I told the student that I had heard Dr. Smith was an excellent teacher and that I, as a teacher, wanted to watch and learn from him.

The student didn't know how to react and spent the rest of class trying to make sense of what I'd said.

Observation without evaluation was so foreign to him that he was dumfounded. At the conclusion of class he asked me, "Really, why are you here?"

"Just to learn," I said, "just to learn," and I walked out of the classroom.

"The presence of faculty observers," DeZure writes, "demonstrates to students the concern

***When I refused to become evaluative, a change took place in the conversation. We began to talk about teaching.***

---

among their instructors for teaching and learning and suggests a model of professional collaboration that students rarely get to see.”<sup>20</sup>

This message that teachers are interested in teaching and are trying to improve is important. This fosters not only a teaching community, but also a genuine sense of collegiality between students and teachers, and teachers and teachers.

***4. Peer observation promotes a forum to talk about good teaching.***

Studolsky argues that direct observation provides useful occasions for dialogue with colleagues.<sup>24</sup> This was the most unexpected outcome of my experience with peer observation.

I found that the professors whose classes I observed were interested in my thoughts about teaching—not just their teaching. I realize that initially most of these experiences were still motivated by the evaluation mentality, but when I refused to become evaluative, an interesting change took place in the conversation. We began to talk about teaching.

In the typically isolated world of higher education, where professionals tend to do their work as individuals,<sup>22</sup> it was a grand experience to talk about teaching with my peers. Their ideas were rich, their concerns real, and their approach

to solutions sincere.

Our conversations have not been relegated to a single “follow up visit” either. We have continued to “bounce ideas off each other” on any number of topics. Even passing in the hallway has given us opportunities for improving our approach to teaching.

If nothing else has come from this style of peer observation, the community established with my colleagues in trying to be better teachers has made the experiment worthwhile. The conversations between colleagues have been more fruitful than I ever imagined.

**T**here is amazing power in a faculty. When faculties draw upon their own resources, instructional improvement can be realized. Peer observation, without the stigma of evaluation, can help those seeking teaching excellence see their colleagues in a different light. Serving as mentors, teachers have opportunity for career-long improvement. As we observe our peers teach, we can selectively glean from all that a colleague has to offer.

Perhaps peer observations should be given the same consideration as peer review. With a growing interest in scholarly approaches to understanding and improving teaching, a more comprehensive approach to faculty development

might be more beneficial. Most professors are required to be evaluated, but it might prove just as helpful to have professors observe their peers as well.

If the desired outcome is improving instruction, faculty members who observe their peers on a routine and consistent basis will have greater opportunity to improve their own teaching.

Exposure to various teaching styles can breathe new life into a faculty.

These experiences will impact collegiality, student perceptions, and instructional improvement. Peer observation fosters personal contemplation, imitation or avoidance, and an enhanced cooperation between faculty members. ■

### Notes

- <sup>1</sup> Larry Keig and Michael D. Waggoner, *Collaborative Peer Review: The Role of Faculty in Improving College Teaching* (Washington, D.C. The George Washington University, 1994), 15.
- <sup>2</sup> E.E. Batista, "The Place of Colleague Evaluation in the Appraisal of College Teaching: A Review of the Literature," *Research in Higher Education* 4 (1976): 257-71; J.A. Centra, "Colleagues as Raters of Classroom Instruction," *Journal of Higher Education* 46 (1975): 327-37; P.A. Cohen and W.J. McKeachie, "The Role of Colleagues in the Evaluation of College Teaching," *Improving College and University Teaching* 28 (1980): 147-54; P. Seldin, *Changing Practices in Faculty Evaluation* (San Francisco: Jossey-Bass, 1984).
- <sup>3</sup> Deborah DeZure, "Opening the Classroom Door," *Academe* 79, no.5 (September/October 1993): 27-28.
- <sup>4</sup> Parker Palmer, *The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life* (San Francisco: Jossey-Bass, 1998): 2.
- <sup>5</sup> Russell Edgerton, Pat Hutchings, and K. Quinlan, *The Teaching Portfolio: Capturing the Scholarship of Teaching* (Washington, D.C.: American Association for Higher Education, 1991) 5.
- <sup>6</sup> Larry Keig and Michael D. Waggoner, *Collaborative Peer Review*, 11.
- <sup>7</sup> Deborah DeZure, "Opening the Classroom Door," 27-28.
- <sup>8</sup> M.D. Ward, D.C. Clark, and G.V. Harrison, *The Observation Effect in Classroom Visitation* (Macomb: Western Illinois University, 1981).
- <sup>9</sup> Richard Dawkins, foreword to *The Meme Machine*, by Susan Blackmore (New York: Oxford University Press, 1999): vii.
- <sup>10</sup> Pat Hutchings, *Making Teaching Community Property: A Menu for Peer Collaboration and Peer Review*, (Washington, D.C: American Association for Higher Education, 1996): 17.
- <sup>11</sup> Maryellen Weimer, *Improving College Teaching: Strategies for Developing Instructional Effectiveness*, (San Francisco: Jossey-Bass, 1990).
- <sup>12</sup> Ibid.
- <sup>13</sup> Pat Hutchings, *Making Teaching Community Property*; S.S. Merriam, "Mentors and Proteges: A Critical Review of the Literature," *Adult Education Quarterly* (Spring 1983): 161-173; J.J. Speizer, "Role Models, Mentors, and Sponsors: The Elusive concepts," *Signs: Journal of Women in Culture and Society* 6 (1981): 4.
- <sup>14</sup> Laurent A. Daloz, *Effective Teaching and Mentoring*, (San Francisco: Jossey-Bass, 1986):20; D.J. Levinson, *The Seasons of a Man's Life*, (New York: Knopf, 1978).
- <sup>15</sup> Maryellen Weimer, *Improving College Teaching*.
- <sup>16</sup> Laurent A. Daloz, *Effective Teaching and Mentoring*, 17.
- <sup>17</sup> Larry Keig and Michael D. Waggoner, *Collaborative Peer Review*.
- <sup>18</sup> Lee Shulman, "Knowledge and Teaching: Foundations of the New Reforms," *Harvard Educational Review* 57, no.1 (1987): 1-22.
- <sup>19</sup> Maryellen Weimer, *Improving College Teaching*, 122.

<sup>20</sup>Deborah DeZure, "Opening the Classroom Door," 28.

<sup>21</sup>S.S. Stodolsky, "Teacher Evaluation: The Limits of Looking," *Educational Researcher* 13 (November 1984): 11-18.

<sup>22</sup>W.D. Copeland and R. Jamgochian, "Colleague Training and Peer Review," *Improving college and University Teaching* 28 (March/April 1985): 18-21.

## Bibliography

Aleamoni, L.M. *Standards for Evaluation of Instruction*, in Larry Keig and Michael D. Waggoner, Collaborative Peer Review.

Arden, E. "Who Should Judge the Faculty?" *The College Board Review* (Summer 1989): 37-39. Centra, J.A. *Reflective Faculty Evaluation: Enhancing Teaching and Determining Faculty Effectiveness*, (San Francisco: Jossey-Bass, 1993).

Batista, E.E. "The Place of Colleague Evaluation in the Appraisal of College Teaching: A Review of the Literature," *Research in Higher Education* 4 (1976): 257-71.

Beidler, Peter G. "What Makes a Good Teacher?" *Inspiring Teaching: Carnegie Professors of the Year Speak* ed. John K. Roth (Bolton, MA: Anker, 1997), 3.

Centra, J.A. "Colleagues as Raters of Classroom Instruction," *Journal of Higher Education* 46 (1975): 327-37.

Cohen, P.A. and W.J. McKeachie, "The Role of Colleagues in the Evaluation of College Teaching," *Improving College and University Teaching* 28 (1980): 147-54

Copeland, W.D. and R. Jamgochian, "Colleague Training and Peer Review," *Improving College and University Teaching* 28 (March/April 1985): 18-21.

Daloz, Laurent A. *Effective Teaching and Mentoring*, (San Francisco: Jossey-Bass, 1986): 20. Levinson, D.J. *The Seasons of a Man's Life*, (New York: Knopf, 1978).

Dawkins, Richard. foreword to *The Meme Machine*, by Susan Blackmore (New York: Oxford University Press, 1999): vii.

DeZure, Deborah. "Opening the Classroom Door," *Academe* 79, no.5 (September/October 1993): 27-28.

Dressel, P.L. *Handbook of Academic Eval-*

*uation*, (San Francisco: Jossey-Bass, 1976): 338.

Duckworth, Eleanor, ed., *Teacher to Teacher: Learning from Each Other* (New York: Teachers College Press, 1997):1-2.

Edgerton, Russell, P. Hutchings, and K. Quinlan, *The Teaching Portfolio: Capturing the Scholarship of Teaching* (Washington, D.C.: American Association for Higher Education, 1991) 5.

Hart, F.R. "Teachers Observing Teachers," *Teaching at an Urban University*, ed. J.H. Broderick, (Boston: University of Massachusetts at Boston, 1987): 15.

Hutchings, Pat. *Making Teaching Community Property: A Menu for Peer Collaboration and Peer Review*, (Washington, D.C.: American Association for Higher Education, 1996): 17.

Keig, Larry and M.D. Waggoner, *Collaborative Peer Review: The Role of Faculty in Improving College Teaching* (Washington, D.C.: The George Washington University, School of Education and Development, 1994), 15.

Merriam, S.S. "Mentors and Proteges: A Critical Review of the Literature," *Adult Education Quarterly* (Spring 1983): 161-173.

Millis, Barbara J. and Barbara B. Kaplan, "Enhancing Teaching Through Peer Classroom Observations," *Improving College Teaching*, ed. Peter Seldin (Bolton, MA: Anker Publishing, 1995): 137-149.

Palmer, Parker. *The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life* (San Francisco: Jossey-Bass, 1998): 2.

Seldin, Peter, *Changing Practices in Faculty Evaluation* (San Francisco: Jossey-Bass, 1984).

Soderberg, L.O. "A Credible Model: Evaluating Classroom Teaching in Higher Education," *Instructional Evaluation* 8 (March 1986): 13-27.

- Sheehy, Gail. *Passages: Predictable Crises of Adult Life*, (New York: E.P. Dutton, 1976).
- Shulman, L.S. "Knowledge and Teaching: Foundations of the New Reforms," *Harvard Educational Review* 57, no.1: 1-22.
- Shulman, Lee. "Knowledge and Teaching: Foundations of the New Reforms," *Harvard Educational Review* 57, no.1 (1987): 1-22.
- Speizer, J.J. "Role Models, Mentors, and Sponsors: The Elusive Concepts," *Signs: Journal of Women in Culture and Society* 6 (1981): 4.
- Stodolsky, S.S. "Teacher Evaluation: The Limits of Looking," *Educational Researcher* 13 (November 1984): 11-18.
- Tobias, Sheila. "Peer Perspectives on Physics," *The Physics Teacher* 26, no.2 (February 1988): 77-80.
- Ward, M.D., D.C. Clark, and G.V. Harrison, *The Observation Effect in Classroom Visitation* (Macomb: Western Illinois University, 1981).
- Weimer, Maryellen. *Improving College Teaching: Strategies for Developing Instructional Effectiveness*, (San Francisco: Jossey-Bass, 1990).