INTRODUCTION

In the traditional approach to higher education, the burden of communicating course material resides primarily with the instructor. In student-centered instruction (SCI), some of this burden is shifted to the students. SCI is a broad approach that includes such techniques as substituting active learning experiences for lectures, holding students responsible for material that has not been explicitly discussed in class, assigning open-ended problems and problems requiring critical or creative thinking that cannot be solved by following text examples, involving students in simulations and role-plays, assigning a variety of unconventional writing exercises, and using self-paced and/or cooperative (team-based) learning. In traditional instruction, the teacher's primary functions are lecturing, designing assignments and tests, and grading; in SCI, the teacher still has these functions but also provides students with opportunities to learn independently and from one another and coaches them in the skills they need to do so effectively. In recent decades, the education literature has described a wide variety of student-centered instructional methods and offered countless demonstrations that properly implemented SCI leads to increased motivation to learn, greater retention of knowledge, deeper understanding, and more positive attitudes toward the subject being taught (Bonwell and Eisen 1991; Johnson Johnson and Smith 1991a,b; McKeachie 1986; Meyers and Jones 1993).

We use student-centered instruction extensively in our courses and discuss it in teaching workshops we present to faculty members and graduate teaching assistants. The workshop participants generally fall into two categories. On the one hand are the skeptics, who come up with all sorts of creative reasons why student-centered methods could not possibly work. On the other hand are the converts, who are sold on SCI and can't wait to try it. We know the fears teachers have about the instructional methods we advocate, having had most of them ourselves, and we can usually satisfy most of the skeptics that some of the problems they anticipate will not occur and the others are solvable. We worry more about the enthusiasts who leave the workshop ready to plunge right in, imagining that the spectacular results promised by the literature will show up immediately.

The enthusiasts may be in for a rude shock. It's not that SCI doesn't work when done correctly—it does, as both the literature and our personal experience in two strikingly different disciplines richly attest. The problem is that while the promised benefits are real, they are neither immediate nor automatic. The students, whose teachers have been telling them everything they needed to know from the first grade on, don't necessarily appreciate having this support suddenly withdrawn. Some students view the approach as a threat or as some kind of game, and a few may become sullen or hostile when they find they have no choice about playing. When confronted with a need to take more responsibility for their own learning, they may grouse that they are paying tuition—or their parents are paying taxes—to be taught, not to teach themselves. If cooperative learning is a feature of the instruction, they may gripe loudly and bitterly about other team members not pulling their weight or about having to waste time explaining everything to slower teammates. Good lecturers may feel awkward when they start using student-centered methods and their course-end
ratings may initially drop. It's tempting for instructors to give up in the face of all that, and many unfortunately do.

Giving up is a mistake. SCI may impose steep learning curves on both instructors and students, and the initial instructor awkwardness and student hostility are both common and natural. The key for the instructors is to understand how the process works, take some precautionary steps to smooth out the bumps, and wait out the inevitable setbacks until the payoffs start emerging.

**TRADITIONAL STUDENTS IN A NONTRADITIONAL CLASS: A PAINFUL ODYSSEY**

Woods (1994) observes that students forced to take major responsibility for their own learning go through some or all of the steps psychologists associate with trauma and grief:

1. **Shock**: "I don't believe it-we have to do homework in groups and she isn't going to lecture on the chapter before the problems are due?"

2. **Denial**: "She can't be serious about this-if I ignore it, it will go away."

3. **Strong emotion**: "I can't do it-I'd better drop the course and take it next semester" or "She can't do this to me-I'm going to complain to the department head!"

4. **Resistance and withdrawal**: "I'm not going to play her dumb games-I don't care if she fails me."

5. **Surrender and acceptance**: "OK, I think it's stupid but I'm stuck with it and I might as well give it a shot."

6. **Struggle and exploration**: "Everybody else seems to be getting this-maybe I need to try harder or do things differently to get it to work for me."

7. **Return of confidence**: "Hey, I may be able to pull this off after all-I think it's starting to work."

8. **Integration and success**: "YES! This stuff is all right-I don't understand why I had so much trouble with it before."

Just as some people have an easier time than others in getting through the grieving process, some students may immediately take to whichever SCI method you're using and short-circuit many of the eight steps, while others may have difficulty getting past the negativity of Steps 3 and 4. The point is to remember that the resistance you encounter from some students is a natural part of their journey from dependence to intellectual autonomy (see Kloss 1994). If you provide sufficient structure and guidance along the way, by the end of the course most of them will reach satisfactory levels of both performance and acceptance of responsibility for their own learning.

In the remainder of this paper, we list common faculty concerns about student-centered instructional methods and offer responses. Much of the discussion involves issues associated with cooperative learning, the method that in our experience occasions the most vehement student resistance.