Mathematics Faculty Attend Workshops on TA Development Using Case Studies

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Department of Mathematics and Statistics faculty members Dr. Elvan Akın–Bohner, Dr. Martin Bohner, Mrs. Kimberly Kinder, and Mr. David Leach recently attended regional meetings of the American Mathematical Society (AMS) at Northwestern University in Evanston, Illinois (October 23–24, 2004) and University of Pittsburgh, Pennsylvania (November 6–7, 2004). Along with the presentations of recent developments in mathematical research, the meetings offered a workshop entitled “TA Development Using Case Studies: A Workshop for Faculty”. Workshop participants were guided in the effective use of the case studies method as a tool in preparing teaching assistants for their important role as classroom instructors. The faculty edition of the publication Teaching Mathematics in Colleges and Universities: Case Studies for Today’s Classroom [1], from the CBMS series Issues in
Mathematics Education, was provided to workshop participants at no charge, compliments of the AMS. The AMS (and CERTI as well as the department and the dean) also contributed to the travel expenses of the four participants as the department indicated its serious intent to use the case studies materials in their TA training and development program. Other participants in the workshops included faculty from the University of Chicago, the University of Missouri–Columbia, the University of Nebraska–Lincoln, the University of Pittsburgh, and Purdue University.

The workshops were coordinated and presented by Professor Diane Herrmann (University of Chicago) and Professor Solomon Friedberg (Boston College), with the goal of presenting effective techniques for improving the quality of teaching provided by graduate teaching assistants. The centerpiece of the workshops was a series of case studies [1] which present “real-world” situations that can arise in the classroom setting. Each case study offers a combination of complex issues and problems, where there may or may not be a clear-cut answer, or the answer may be a function of the personal characteristics of the respondent. Workshop participants were given the opportunity to lead a discussion on selected case studies with their peers, modeling how the case studies are intended to be used in the training and education of graduate teaching assistants.

Reaction from workshop participants was favorable. Many noted that this technique could be useful not only for graduate teaching assistants, but also for regular faculty. In discussing particular cases, participants shared their views with the group and how they would respond to particular scenarios.
While in some cases there was consensus on the appropriate response for a given situation, there were other cases, where there was a great deal of variability in response among the participants. The latter situation exemplified the value of the workshops and this particular method. The method provides a vehicle by which topics important for effective teaching, that normally do not come up in the course of standard training or departmental meetings, can be explored.

The Department of Mathematics and Statistics at UMR is implementing this training for its graduate teaching assistants as part of a weekly graduate student seminar, which is held each Monday from 4:00 pm to 5:00 pm in G4 of the Rolla Building. Organized by Dr. Akın–Bohner, this seminar provides graduate teaching assistant training as well as a forum in which graduate students may report their research progress to their peers, members of the mathematics and statistics faculty, and the university community at-large. The first case study will be done on Monday, February 7.

References