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Classroom Management Issues for Teaching Assistants

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Abstract

For many graduate teaching assistants, the task of planning, organizing, motivating, and controlling classroom environments can be overwhelming. Empirical research pertaining to major classroom management problems experienced by TAs is scarce. This article is a report of a survey study regarding TA classroom management at a large, land-grant Research 1 University. The study provides specific information about TAs' perceptions of classroom management experiences and concerns based on TA type, gender, teaching experience, and academic discipline. The results of the study indicate that international and U.S. TAs experienced many common problems, but each of the two types of TAs also had unique problems. More U.S. TAs than international TAs reported experiencing classroom management problems. The years of TA teaching experience were significantly related to the number of classroom management problems and concerns TAs reported. Regression analysis revealed that TA type, teaching experience, and academic discipline, but not gender, were significant predictors of classroom problems and concerns. Discussion of the results, implications, and suggestions for further research are included.

Introduction

For the past 10 years, heavy reliance on graduate students for undergraduate instruction has dominated higher education. In many institutions, the proportion of undergraduate instruction undertaken by graduate students working as teaching assistants (TAs) has amounted to 25% to 38% (Nyquist, Abbott, Wulff, and Sprague, 1991). In some universities, such as Yale, the proportion of undergraduate instruction undertaken by TAs has even reached 53% (Rosati, 1995). Recognizing that TAs play a major role in undergraduate instruction (Allen and Rueter, 1990; Cano, Jones, and Chism, 1991; Pica, Barnes, and Finger, 1990), Jiali Luo, De-

partment of Educational Administration, Laurie Bellows, Teaching and Learning Center, and Marilyn Grady, Department of Educational Administration, all at the University of Nebraska-Lincoln. Address correspondence to: Jiali Luo, Department of Educational Administration, University of Nebraska-Lincoln, 513 Nebraska Hall, Lincoln, NE 68588-0558. many institutions have implemented training programs that prepare TAs for multiple roles including grading tests and papers, holding office hours, supervising laboratories, leading recitations, or assuming full responsibilities for a course (Lewis, 1993; Nyquist and Wulff, 1996; Pica, Barnes, and Finger, 1990). Unfortunately, the availability of such training does not ensure that all TAs participate actively in it. A study of graduate deans by Buerkel-Rothfuss and Gray (1991) suggested that half or fewer of the TAs at their institutions attended the training sessions. Since most TAs are not fully prepared to teach, they may have difficulty not only in assuming their roles but also in managing the responsibilities associated with teaching.

The task of planning, organizing, motivating, and controlling college classroom environments (Sherer, 1991) can be overwhelming for classroom instructors. This is especially true for graduate TAs for four reasons. First, the college student population is becoming increasingly diverse (Banks, 1991; Border and Chism, 1992; Solomon, 1991). Second, education for an information age calls for active inquiry, problem-solving strategies, and reflective learning. Third, many new graduate TAs usually arrive on campus "only a matter of days before beginning a college teaching assignment" (Jones, 1991, p. 135). With little or no training in teaching, conducting effective classroom management can be a great challenge to TAs new to their instructional roles. Fourth, undergraduate student behaviors can be irritating (Appleby, 1990). Students who skip class frequently, come to class unprepared, or monopolize the classroom discussion can test even the best and most experienced teachers.

Much has been written about classroom management issues at the precollegiate level (DiGiulio, 1995; Froyen, 1993; Jones and Jones, 1990; Levin and Nolan, 1996; Steere, 1988), and a number of strategies for preventing and handling disruptive behaviors have been proposed. However, empirical research pertaining to TAs and their perceptions of classroom management problems is scarce.

This study explores and identifies differences in classroom management problems experienced by TAs. The purpose for conducting this study was twofold. The first purpose was to gather information about TA perceptions of their classroom management experiences and concerns by identifying the classroom management problems that TAs experienced in their undergraduate instructional activities. The second purpose was to determine how TAs, in terms of TA type, gender, teaching experience, and academic discipline, were similar and different in their classroom management experiences. The following research questions guided this study:

1. To what extent do TAs know their teaching duties and responsibilities before beginning a teaching assignment?
2. What are the most common classroom management problems experienced by TAs?

3. What student classroom behaviors are of concern to TAs?
4. Do TAs' perceptions of classroom management problems differ significantly based on TA type, gender, teaching experience, or academic discipline?

For this study, a TA was defined as a graduate student employed as a teaching assistant. A USTA was defined as a graduate student who was born and previously educated in the United States. An ITA was defined as a graduate student who was born and previously educated in a country other than the United States. A TA developer was defined as a faculty member in charge of training and supervising graduate teaching assistants. Classroom management was defined as the task of planning, organizing, motivating, and controlling college classroom environments (Sherer, 1991).

Literature Review

Four characteristics of graduate teaching assistants were examined as variables in this study: (1) TA type, (2) gender, (3) teaching experience, and (4) academic discipline. TA type was used in a broad sense to refer to USTAs and ITAs. What follows is a description of the theoretical perspective on each of the four variables.

TA Type

Increasingly, universities are developing and implementing training programs designed to prepare TAs for their classroom responsibilities. Some of the more intensive training programs focus on the needs of international teaching assistants. The underlying assumptions behind these programs vary, but generally relate to educational and cultural differences, teaching style, and English proficiency. Many ITAs are educated in very different cultural environments and do not know specifics about U.S. educational settings and the interactive teaching approaches employed in the U.S. classroom (Bauer, 1996). ITAs also are more likely to view their instructional role as solely a conveyor of information and therefore approach teaching more formally and less interactively than USTAs (Bauer, 1996; Gillette, 1982; Torkelson, 1992; Twale, Shannon, and Moore, 1997). Finally, many ITAs confront two major obstacles related to undergraduate education: lack of oral English proficiency and differences in cultural expectations (Davis, 1991).

It is commonly assumed that international teaching assistants perceive and experience more problems related to classroom management than do USTAs. To test this assumption, Ronkowski (1987) focused on the similarities and differences between ITAs' and USTAs' teaching style, expectations of students, and views on the TA-student relationship. Contrary to popular beliefs, Ronkowski found evidence of strong similarities rather than differences be-

tween the two types of TAs. She concluded that differences in experiences and perceptions between ITAs and USTAs were of degree and not of kind. Twale, Shannon, and Moore (1997) investigated differences between TAs' self-ratings and students' ratings of native-speaking TAs and ITAs on nine teaching effectiveness factors. Results showed that international TAs' self-ratings were significantly higher than native TAs' self-ratings, but students' ratings of native graduate teaching assistants were significantly higher than their ratings of ITAs. The authors suggested that cultural differences and expectations for effective teaching might account for the different ratings.

In light of studies showing that cultural differences had impact on ITA instruction (Althen, 1991; Bailey, 1984; Bernhardt, 1987; Davis, 1991; Sadow and Maxwell, 1983; Sarkodie-Mensah, 1991), it is reasonable to conclude that cultural differences may influence ITAs' perceptions of classroom management.

Gender

As noted by Boggs and Wiemann (1994), gender has significant influence on patterns of classroom interaction. A study by Treichler and Kramarae (1983) found female instructors encouraged more student participation than did male instructors, and male instructors tended to be more direct in offering criticism to students. A more recent study showed similar results. Statham, Richardson, and Cook (1991) examined professors' perceptions of strategies for addressing four common classroom management problems: inattentiveness, overt disruption, challenge competence, and lack of interest. They found that female assistant professors tended to handle management problems by ignoring, approaching indirectly, and encouraging discussion. In contrast, male assistant professors were more likely to reprimand disruptive students directly and use public embarrassment as a negative sanction. In addition, female professors tended to give more partial positive and partial negative feedback than did male professors.

In their review of literature on gender differences, Boggs and Wiemann (1994) noted that student gender affected faculty-student interactions. The following research findings were cited in their review. Male graduate students spoke more frequently in class and for longer periods. They tended to interrupt female students and professors more frequently in classes taught by female instructors than in classes taught by male professors (Brooks, 1982). Female professors experienced frequent challenges to their authority and qualifications by male students in ways not experienced by their male colleagues (Sandler and Hall, 1986). Female students were more talkative in classes taught by female professors than in classes taught by male professors (Karp and Yoels, 1976; Pearson and West, 1991), and they communicated more with female professors (Sandler, 1991). In contrast, male students asked more questions in classes

taught by male professors than in classes taught by female professors (Pearson and West, 1991).

In terms of student ratings of instructors, studies showed that students tended to evaluate female and male instructors differently (Cooper, Stewart, and Gudykunst, 1982). In general, male instructors were rated more favorably than female instructors (Kierstead, D'Agostino, and Dill, 1988). In their study of college professors, Statham, Richardson, and Cook (1991) found male professors were judged more positively when they spent a large proportion of class time presenting material, and more negatively when the amount of input by students was high. In contrast, female professors were evaluated more positively when using an interactive teaching style and involving their personalities in the learning process. Female professors who encouraged direct student participation by allowing students to ask questions received poor evaluations. The authors suggested that students might have perceived female professors' interactive style as lacking competence in subject matter. Based on these findings, we expect that gender may play a role in TAs' classroom management experiences.

Teaching Experience

Research shows that TAs with more teaching experience reported higher levels of self-efficacy toward teaching (Prieto and Altmaier, 1994) and were rated as more effective by students (Briggs and Hofer, 1991; Davis, 1991; Shannon, Twale, and Moore, 1998). In their study of the impact of teaching experience on TA teaching effectiveness, Shannon, Twale, and Moore (1998) divided TAs' teaching experience into three types: (1) previous TA experience, (2) college teaching experience, and (3) K–12 teaching experience. Results showed that TAs with K–12 or college teaching experience were rated as more effective than those without such experience. Previous TA experience was found to have a negative impact on teacher effectiveness ratings. TAs with prior TA experience received lower ratings than TAs without this experience. The authors suggested that poor or nonexistent supervision might account for this finding.

TAs experience professional growth through actual classroom teaching experience (Nyquist and Wulff, 1996; Sprague and Nyquist, 1991; Sprague and Nyquist, 1989). According to Nyquist and Wulff (1996), the developmental model for teaching assistants includes three phases: (1) Senior Learner, (2) Colleague-in-Training, and (3) Junior Colleague. As senior learners, TAs are primarily concerned with survival issues. They wonder about what they should wear, whether students will like them, and whether they can fit the role of teacher. When they move to the second phase, TAs begin to wonder about what methods they should use to approach students. Reaching the last phase, TAs begin to be concerned about student learning and seek strategies for engaging students.

Based on this TA developmental model, we assume beginning TAs tend

to be bothered by unwelcome student behaviors. They are likely to feel disappointed when students are unprepared for class, miss class, fail to hand in homework, or do not participate in class. As they feel more comfortable and competent in their interactions with students, TAs are likely to withdraw from students and become more authoritarian and more objective in their approach. When they develop an understanding of interpersonal communication with students, TAs begin to value students and are interested in their learning. As their experience increases, TAs are likely to identify problems and respond accordingly. Hence we expect experienced TAs to report fewer classroom problems than inexperienced TAs.

Academic Discipline

Recent research has emphasized disciplinary differences in teaching and learning in higher education (Austin, 1996; Becher, 1994; Hativa, 1996; Hativa and Marincovich, 1995; Lattuca and Stark, 1995; Stark, 1998; VanderStoep, Pintrich, and Fagerlin, 1996). Faculty teach and conduct research in a cultural context of discipline and institution (Austin, 1996). Disciplinary cultures impose particular patterns in teaching as in other activities (Becher, 1994). Instructors in different disciplines were found to differ in attitudes, values and personal characteristics (Kuh and Whitt, 1988). Research using the Biglan model (Biglan, 1973) for the classification of subject matter shows that faculty in different disciplines (hard-soft, pure-applied, and life-nonlife) differed in their professional goals, tasks, and satisfaction (Creswell and Bean, 1981). In addition, faculty in different academic disciplines differed on the amount of time spent on teaching and the amount of importance associated with teaching (Roskens and Creswell, 1981). In light of these findings, we assume that academic discipline may influence how TAs perceive and respond to classroom management issues.

By examining TA classroom management issues in terms of TA type, gender, teaching experience, and academic discipline, this study aimed at a new perspective of the study of TAs. What follows is a description of the methods used for conducting this study.

Methods

The population selected for this study was graduate students working as teaching assistants at the University of Nebraska-Lincoln (UNL). To obtain the information needed to answer the research questions addressed in this study and to produce sufficient data for meaningful analysis, all international and U.S. TAs ($N = 749$) who were instructing undergraduate students during the spring semester of 1997 at UNL were surveyed.

Mailed survey questionnaires were used for data collection. The survey

questionnaires contained two parts. Part One included 12 self-assessment items such as knowledge of teaching duties and responsibilities, perceptions of instructional roles, style of teaching, preferred instructional strategies, and problems related to classroom instruction. This instrument was developed by the researchers. The items were identified through a review of scholarly and professional literature. Part Two contained 23 items related to student class-room behaviors and 6 open-ended questions. The student classroom behav-ior instrument was adapted with permission from an instrument developed by Civikly-Powell, Fagre, and VanDevender (1995). In this part, respondents were asked to indicate which student behaviors they had personally expe-rienced while teaching and the degree of their concern (high or low) about those behaviors.

In mid-February 1997, questionnaires were mailed to 579 U.S. TAs and 170 ITAs who were identified by the Office of the Graduate School as teaching as-sistants for the current semester at UNL. In order to maintain confidentiality of the information provided, a postcard with an identification number was sent to all subjects along with the surveys. The subjects were asked to return their com-pleted surveys in the provided envelopes and the postcards separately through campus mail. By keeping a record of the returned postcards a follow-up mailing could be made.

Two mailings yielded 350 returns. Of the 350 returned questionnaires, 40 were marked moved, not a teaching assistant, or no longer employed as a TA; 6 failed to provide the demographic information such as nationality and gen-der. As a result, the survey yielded 304 usable responses, generating a response rate of 41%. Respondents represented 45 academic disciplines in various fields. Of the 304 respondents, 248 were USTAs and 56 were ITAs. Of 248 USTAs, 117 (47%) were female, and 131 (53%) were male; of 56 ITAs, 22 (39%) were female, and 34 (61%) were male. Among the respondents to the survey, more ITAs (58%) than USTAs (40%) had no or just one year of teaching experience, whereas more USTAs (60%) than ITAs (42%) had two or more years of teaching experience.

Mailing wave analyses were conducted to determine whether the obtained sample was representative of the population of graduate teaching assistants. Nothing appeared to distinguish respondents from nonrespondents, in terms of TA type, gender, or academic discipline. Given the descriptive nature of the study, the number of the respondents provided adequate data for the purposes of the study. However, the less than 50% return rate made the researchers highly cautious about drawing inferences from the data.

Statistical Package for all the Social Sciences (SPSS) was used for data anal-ysis. Descriptive statistics, including mean and/or frequency were calculated. The Mann-Whitney *U*-test was used to determine whether there was any differ-ence between USTAs and ITAs on the extent to which they knew their teaching duties and responsibilities before beginning a teaching assignment. Chi-square

tests were used to determine TA differences on major survey items. The *t* test was used to determine TA differences on classroom management problems, and the Pearson correlation was used to determine TA differences on the relationship between the years of teaching experience and the number of classroom management problems TAs reported. To determine TA disciplinary differences, ANOVAs were conducted followed by Tukey HSD tests for post hoc pairwise comparisons. Finally, regression analysis was carried out in an attempt to explain variation in the variables of the study across TA type, gender, teaching experience, and academic discipline.

Results

This study explored TA classroom management problems and identified differences in TAs' perceptions of classroom management problems and concerns. The study generated a number of significant, positive results. In this section, results concerning TAs' responses to 23 student behaviors provided in the survey instrument are reported in the order of (1) comparisons between USTAs and ITAs, (2) gender differences, (3) teaching experience, and (4) disciplinary differences. Under the first heading, results concerning TAs' knowledge of their duties and responsibilities prior to beginning a teaching assignment and TAs' responses to some of the open-ended questions are also reported.

Comparisons between USTAs and ITAs

Knowledge of TA Duties and Responsibilities

Table 1 shows the extent to which TAs knew their teaching duties and responsibilities before beginning a teaching assignment. Approximately 39% of USTAs reported that they knew very little or a little about their teaching duties and responsibilities. In contrast, more than 76% of ITAs reported that they knew well or very well about their teaching duties and responsibilities before beginning a teaching assignment. The Mann-Whitney *U*-test was used to compare the two types of TAs. The results show that ITAs, taken as a group, were more aware of their teaching duties and responsibilities before beginning a teaching assignment.

This encouraging phenomenon concerning ITAs can, to a great extent, be explained by the efforts of the Institute for International Teaching Assistants that was established at UNL in the summer of 1988. The Institute is an intensive program offered during a three-week period in July and August and again in the fall as a semester-long course. This program prepares international graduate students for classroom responsibilities. Unfortunately, there is no such campus wide program for USTAs. At the time of this study, some of the USTAs received depart-

Table 1. TA Knowledge of Their Duties and Responsibilities Before Beginning a Teaching Assignment

	USTAs (N = 248)	ITAs (N = 56)
Not at all	1.5%	1.8%
Very little	11.7%	5.4%
A little	25.8%	16.1%
Well	42.3%	48.2%
Very well	18.5%	28.6%

On a Likert-type scale, with a 1 indicating *Not at all*, and a 5 indicating *Very well*, a Mann-Whitney *U*-test was used to compare the ranks for the $n = 248$ USTAs versus the $n = 56$ ITAs. The results indicate a significant difference between the two types of TAs, $U = 5609$, $p < .05$, with the sum of the ranks equal to 147.12 for USTAs and 176.84 for ITAs.

mental training, and others were put into a classroom of undergraduates with only a day of campus-wide orientation. As a result, a significant number of USTAs were not aware of their teaching duties and responsibilities before beginning a teaching assignment.

Classroom Problems

The top ten classroom management problems reported by all TAs are listed in Table 2. Also included in this table are the top ten classroom management problems experienced by USTAs and ITAs. Eight of the top ten classroom management problems experienced by USTAs were also experienced by ITAs. Each of the two types of TAs, however, experienced two differing student behaviors. USTAs reported problems with students who challenged their comments or lectures and with students who read the student newspaper or other nonclass materials while they were teaching. In contrast, ITAs reported problems with overly dependent students and with students who made offensive comments.

Classroom Concerns

As indicated by Table 2, seven of the top ten student behaviors most frequently reported by USTAs to be their high concerns were also the high concerns of ITAs. USTAs and ITAs reported three differing student behaviors to be their high concerns. For USTAs, those behaviors were: (1) Student arrives late for class; (2) Student socializes with another student while I am teaching/ speaking; and (3) Student packs up books before the class session is to end. For ITAs, the three student behaviors were: (1) Student challenges my comments or lecture; (2) Stu-

Table 2. Top Ten Classroom Management Problems that were Experienced by and were of High Concern to TAs

Problems	All TAs (N = 304)	USTAs (N = 248)	ITAs (N = 56)
Student comes to class unprepared.*+	81.6%	85.5%	64.3%
Student arrives late for class.*	73.7%	78.2%	53.6%
Student looks bored, disinterested, yawns while I teach.*+	69.7%	75.0%	46.4%
Only a few students respond to my questions or participate in class discussions.*+	66.8%	70.6%	50.0%
Student misses class frequently.*+	65.1%	69.8%	44.6%
Student is eating and/or drinking during class.	60.2%	63.7%	44.6%
Student socializes with another student while I am teaching/speaking.*	58.2%	63.3%	35.7%
Student challenges my comments or lecture.+	54.3%	58.9%	—
Student questions or contradicts me during class.+	50.3%	53.6%	37.5%
Student packs up books before the class session is to end.*	48.0%	—	—
Student reads *The Daily Nebraskan* or other non-class materials while I'm teaching.*+	—	50.8%	—
Student is overly dependent on me.*+	—	—	37.5%
Student makes comments that are offensive to me and/or peers in class.	—	—	35.7%
Student blames me for his/her poor work performance.*+	—	—	—
Student is belligerent (disrupts class, distracts others).+	—	—	—

The items listed with frequencies indicate the top ten classroom management problems reported by all TAs, USTAs, and ITAs respectively.

* These are the top ten classroom management problems that were of high concern to USTAs.

+ These are the top ten classroom management problems that were of high concern to ITAs.

dent questions or contradicts me during lecture; and (3) Student is belligerent (disrupts class, distracts others).

As for student behaviors that were of concern to all TAs, a significant difference between the two TA types was found on seven student behaviors (see Table 3). Significantly more ITAs reported the following three student behaviors to be of low concern, whereas more USTAs reported them as of high concern: (1) Student comes to class unprepared; (2) Student socializes with another student while I am teaching/speaking; and (3) Student makes comments that are offensive to me and/or peers in class. Significantly more USTAs reported the following four

Table 3. Comparison of Student Behaviors that were of Concern to TAs

Student Behaviors		TA Type			TA Gender		
		USTAs (N = 248)	ITAs (N = 56)	χ^2	M. USTAs (N = 131)	M. ITAs (N = 34)	χ^2
Student comes to class	L	32.9%	52.1%				
unprepared.	H	67.1%	47.9%	6.34*	—	—	—
Student challenges my	L	90.4%	67.6%		90.5%	69.6%	
comments or lecture[1]	H	9.6%	32.4%	12.47***	9.5%	30.4%	6.55*
Student is eating and/							
or drinking during	L	93.7%	80.5%		89.8%	72.0%	
class.	H	6.3%	19.5%	7.17**	10.2%	28.0%	5.60*
Student questions or							
contradicts me during	L	92.6%	63.3%		90.8%	55.0%	
lecture.	H	7.4%	36.7%	19.87***	9.2%	45.0%	14.60***
Student socializes							
with another student							
while I am teaching/	L	39.0%	69.7%		41.4%	75.0%	
speaking.	H	61.0%	30.3%	10.63**	58.6%	25.0%	7.53**
Student flirts with	L	90.8%	66.7%				
other students.[2]	H	9.2%	33.3%	6.70**	—	—	—
Student makes comments							
that are offensive							
to me and/or	L	44.6%	73.7%				
peers in class.	H	55.4%	26.3%	4.97*	—	—	—

L = Low Concern, H = High Concern. Female USTAs differed from female ITAs on the two student behaviors marked 1 and 2: 1) 90.2% of female USTAs and 63.6% female ITAs reported this student behavior to be of low concern, χ^2 (1, n = 93) = 6.11, $p < .05$; 2) 93% of female USTAs and 50% of female ITAs reported this student behavior to be of low concern, χ^2(1, n = 45) = 4.37, $p < .05$
*** $p < .001$; ** $p < .01$; * $p < .05$

student behaviors to be of low concern, whereas more ITAs considered them of high concern: (1) Student challenges my comments or lecture; (2) Student flirts with other students; (3) Student questions or contradicts me during lecture; and (4) Student is eating and/or drinking during class.

The significant differences that were found between USTAs and ITAs on student classroom behaviors may be based on TA educational backgrounds, previous experiences, personalities, or perspectives on students. They could also partly be explained by the differences between the U.S. and international cultures. Since the U.S. culture values discussion and divergent thinking (Althen, 1988; Ort-

mann, 1995), student behaviors such as "Student challenges my comments or lecture," and "Student questions or contradicts me during lecture" were of low concern to USTAs. As remarked by some USTAs after these survey questions, such student behaviors were what they hoped for in their instruction.

In contrast, some international cultures, and Asian culture in particular, value standard-based performance and formal relationships between teachers and students (Bauer, 1996; Gillette, 1982; Torkelson, 1992; Twale, Shannon, and Moore, 1997). Therefore many ITAs, especially those who came from Asia, preferred to be comfortable with the authority that came with the TA position. When students challenged their comments or lectures, when students questioned or contradicted them during lecture, they became highly concerned.

To explore how TA nationality impacted TA perceptions of classroom management issues, TAs were divided into five major groups according to geographic regions. The five groups were USTAs, Canadian TAs, South American TAs, European TAs, and Asian TAs. To determine the impact of TA regions on TA perceptions of classroom management issues, ANOVAs were conducted followed by Tukey HSD tests for post hoc pairwise comparisons.

The results of such examination support those of the initial comparative analysis. Significant differences were found between USTAs, South American TAs, and Asian TAs at the significance level of $p < .001$. Specifically, USTAs ($M = 10.65$, $SD = 5.22$) reported more classroom problems than either South American TAs ($M = 3.40$, $SD = 4.67$) or Asian TAs ($M = 5.69$, $SD = 5.68$).

Responses to Open-Ended Questions. In the survey there was an open-ended question asking TAs to describe what student behaviors they found most difficult to handle. The responses from USTAs and ITAs were similar. Of the top five student behaviors identified as most difficult to handle by each of the two types of TAs, four were alike: apathy (lack of interest in learning), expectations of reward without work, chattering during class, and poor attendance. In addition, USTAs reported that students were not responsive, and ITAs noted that students lacked the ability to take responsibility for their own learning.

TAs also were asked to report the most common students' complaints written on their evaluations. Of the top five student complaints identified, USTAs and ITAs had two in common—too much homework and overly critical grading. The other three common student complaints about USTAs were speaking too fast, exams too difficult, and poor class structure and organization. In contrast, the other three common student complaints about ITAs were poor language skills, not enough group work/discussion, and not explaining things well.

Finally, TAs were asked to identify ways that could improve their teaching experience. Both USTAs and ITAs identified that students should come to class prepared and willing to learn. In addition, USTAs asked for more time for preparation and more frequent faculty evaluations/critiques, whereas ITAs asked for improving spoken English and availability of multimedia classrooms.

From the above TA responses to open-ended questions, one notes that both USTAs and ITAs reported two common student complaints: too much homework and exams too difficult. These student complaints reflect the student behavior that was reported by TAs as hard to handle: expectations of reward without hard work. Moreover, there seems to be some relationship, though somewhat coincidental, between the problems TAs had and the ways TAs identified to improve their teaching experience. USTAs who failed to maintain a good class structure and organization asked for more time for preparation and more frequent faculty evaluation/critiques. ITAs who had communication barriers asked for the opportunity to improve their spoken English and for the availability of multimedia classrooms. By using multimedia classrooms, ITAs could provide a better explanation of things and enhance their communication skills.

Gender Differences

This study also examined differences between male TAs and female TAs. To explore the initial zero-order associations between USTAs and ITAs, gender was used as the control variable. Male USTAs were compared with male ITAs, and female USTAs were compared with female ITAs. A chi-square test was conducted to determine the differences between these gender groups. The significant differences indicated by the results are reported in the following section.

Classroom Problems

Table 4 presents the gender differences concerning classroom management problems. More female TAs than male TAs reported experiencing four student behaviors: (1) Student comes to class unprepared; (2) Student misses class frequently; (3) Student monopolizes class discussions; and (4) Student challenges my comments or lecture. More male USTAs than male ITAs reported experiencing twelve student behaviors. Briefly, these twelve behaviors were associated with students who came to class unprepared or late, were frequently absent from class, were inattentive in class, or who monopolized class discussion. More female USTAs than female ITAs reported experiencing eight student behaviors. These eight behaviors were associated with students who were unprepared, inattentive, or late for class, and with students who challenged female TAs' comments or lectures, or with students who blamed female TAs for their own poor work performance.

Classroom Concerns

Among the gender groups, male TAs differed from female TAs on the following student behavior: Student is eating and/or drinking during class, $\chi^2(1,$

Table 4. Comparison of Male USTAs vs Male ITAs and Female USTAs vs. Female ITAs on Student Behaviors

Student Behaviors	M. USTAs (N = 131)	M. ITAs (N = 34)	x^2	F. USTAs (N = 117)	F. ITAs (N = 22)	x^2
Student comes to class unprepared.[1]	81.7%	61.8%	6.15*	89.7%	68.2%	7.30**
Student arrives late for class.	76.3%	52.9%	7.25**	80.3%	54.5%	6.81**
Student looks bored, disinterested, yawns while I teach.	74.8%	50.0%	7.87**	75.2%	40.9%	10.33**
Only a few students respond to my questions or participate in class discussions.	73.3%	52.9%	5.23*	67.5%	45.5%	3.92*
Student socializes with another student while I am teaching/speaking.	67.2%	29.4%	15.96***	—	—	—
Student misses class frequently.[2]	64.1%	35.3%	9.22**	—	—	—
Student is eating and/or drinking during class.	61.1%	38.2%	5.72*	—	—	—
Student reads *The Daily Nebraskan* or other non-class materials while I'm teaching.	55.0%	20.6%	12.78***	—	—	—
Student monopolizes class discussions.[3]	33.6%	11.8%	6.23*	—	—	
Student flirts with other students.	19.1%	2.9%	5.30*	26.5%	0.0%	7.50**
Student flirts with me.	17.6%	2.9%	4.64*	—	—	—
Student promotes own political/social agendas each time he/she speaks.	16.0%	2.9%	4.00*	18.8%	0.0%	4.91*
Student challenges my comments or lecture.[4]	—	—	—	66.7%	31.8%	9.47**
Student blames me for his/her poor work performance.	—	—	—	53.8%	27.3%	5.23*

More female TAs than male TAs reported experiencing the four student behaviors marked 1, 2, 3, and 4:

1) 86.3% of female TAs and 77.6% of male TAs reported experiencing this student behavior, $x^2(1, n = 304) = 3.85, p < .05$;

2) 73.4% of female TAs and 58.2% of male TAs reported experiencing this student behavior, $x^2(1, n = 304) = 7.67, p < .05$;

3) 61.2% of female TAs and 48.5% of male TAs reported experiencing this student behavior, $x^2(1, n = 304) = 4.88, p < .05$;

4) 40.3% of female TAs and 29.1% of male TAs reported experiencing this student behavior, $x^2(1, n = 304) = 4.20, p < .05$

*** $p < .001$; ** $p < .01$; * $p < .05$

n = 215) = 8.36, p < .01. More female TAs considered this student behavior to be of low concern.

Male USTAs differed from male ITAs on four student behaviors: (1) Student challenges my comments or lecture; (2) Student is eating and/or drinking during class; (3) Student questions or contradicts me during lecture; and (4) Student socializes with another student while I am teaching/speaking. More male US-TAs considered the first three student behaviors to be of low concern. In contrast, more male ITAs considered the fourth student behavior to be of low concern (see Table 3).

Finally, female USTAs differed from female ITAs on two student behaviors: Student challenges my comments or lecture and Student flirts with other students. More female USTAs considered the two student behaviors to be of low concern (see Table 3).

Gender differences in student behaviors that were of concern to TAs reflect the findings of the zero-order comparisons between ITAs and USTAs. Of the above findings on gender differences, one stood out: Female TAs reported experiencing student challenges to their comments or lectures and receiving blame for students' poor performance. This finding supports other research that indicated female instructors experienced frequent student challenges to their authority and qualifications (Sandler and Hall, 1986).

Teaching Experience

Classroom Problems

The Pearson correlation was used to determine the relationship between the years of TA teaching experience and the number of classroom management problems that TAs reported. A correlation for the data revealed that the years of TA teaching experience at UNL and the number of problems reported by TAs were significantly related, r = +.27, p < .001, two-tailed. Furthermore, the total years of TA teaching experience and the number of problems reported by TAs were also significantly related, r = +.26, p < .001, two-tailed. Contrary to our expectation, these results indicate that the more teaching experience TAs had, the more problems they reported. The less teaching experience they had, the fewer problems they reported.

Classroom Concerns

Like classroom problems, the results of the Pearson correlation revealed that the years of TA teaching experience at UNL and the number of concerns reported by TAs were significantly related, r = +.18, p < .05, two-tailed. Furthermore, the total years of TA teaching experience and the number of concerns reported by

TAs were also significantly related, $r = +.18$, $p < .01$, two-tailed. These results also indicate that the more teaching experience TAs had, the more concerns they reported. The less teaching experience they had, the fewer concerns they reported.

A t test was conducted to determine TA differences on classroom management problems and concerns. The results revealed a significant difference between USTAs and ITAs on problems but not on concerns. Table 5 shows that US-TAs reported significantly more classroom management problems ($M = 10.38$, $SD = 5.35$) than ITAs ($M = 6.54$, $SD = 5.80$). Specifically, of 23 classroom management problems, significantly more USTAs than ITAs reported experiencing seventeen problems (see Table 6).

This finding is rather surprising. However, it can be explained to some extent by cultural differences and the years of teaching experience. As education and culture in the United States tend to instill the ideas of freedom and individualism into students, USTAs were raised and taught to be inquisitive and assertive and cherish their right to express themselves (Althen, 1988; Ortmann, 1995). Hence USTAs may have been more frank about the classroom management problems they experienced. In contrast, due to cultural differences or face issues (Church, 1982), ITAs may have been more reluctant or considered it inappropriate to report specific classroom problems.

Since more USTAs reported having two or more years of teaching experience, they may have reported their classroom management problems over time. As for ITAs, the majority had no or little teaching experience. As a result, they may have encountered fewer classroom management problems by the time they were surveyed.

Disciplinary Differences

This study also examined TA differences among academic disciplines. The forty-five academic disciplines represented by the sample were divided into

Table 5. Comparison of TA Differences on Classroom Management Problems

	TA Type		TA Gender Groups			
	USTAs	ITAs	Female USTAs	Female ITAs	Male USTAs	Male ITAs
N	248	56	117	22	131	34
M	10.38	6.45	10.82	6.73	9.99	6.26
SD	5.35	5.80	5.08	5.68	5.57	5.94

For all TAs, $t(302) = +4.90$, $p < .001$, two-tailed.
For female TAs, $t(137) = +3.40$, $p < .001$, two-tailed.
For male TAs, $t(163) = +3.43$, $p < .001$, two-tailed.

Table 6. Comparison of TA Differences on Seventeen Classroom Management Problems

Problems	USTAs (N = 248)	ITAs (N = 56)	χ^2
1. Student comes to class unprepared.	85.5%	64.3%	13.66***
2. Student arrives late for class.	78.2%	53.6%	14.32***
3. Student looks bored, disinterested, yawns while I teach.	75.0%	46.4%	17.67***
4. Only a few students respond to my questions or participate in class discussions.	70.6%	50.0%	8.71**
5. Student misses class frequently.	69.8%	44.6%	12.69***
6. Student is eating and/or drinking during class.	63.7%	44.6%	6.93**
7. Student socializes with another student while I am teaching/speaking.	63.3%	35.7%	14.30***
8. Student challenges my comments or lecture.	58.9%	33.9%	11.45***
9. Student questions or contradicts me during lecture.	53.6%	35.7%	5.86*
10. Student reads *The Daily Nebraskan* or other non-class materials while I'm teaching.	50.8%	28.6%	9.07**
11. Student packs up books before the class session is to end.	50.8%	35.7%	4.17*
12. Student blames me for his/her poor work performance.	48.4%	30.4%	6.00*
13. Student sleeps during class.	43.5%	28.6%	4.24*
14. Student monopolizes class discussions.	37.9%	17.9%	8.16**
15. Student flirts with other students.	22.6%	1.8%	12.97***
16. Student flirts with me.	18.1%	5.4%	5.62*
17. Student promotes own political/social agenda each time he/she speaks.	17.3%	1.8%	8.93**

*** $p < .001$; ** $p < .01$; * $p < .05$

four broad disciplinary areas according to the Biglan model (1973). The Biglan model was chosen because research has shown his model of disciplinary differences is of high validity (Creswell and Bean, 1981; Muffo and Langston, 1981; Smart and Elton, 1982), and it is an insightful guiding model for institutional research that addresses disciplinary differences (Hativa and Marincovich, 1995). The four broad TA disciplinary areas examined in this study were: (1) hard pure (that includes such disciplines as chemistry, geology, math, physics, microbiology, biological science, and animal science), (2) soft pure (that includes such disciplines as English, history, communication studies, classics, philos-

ophy, psychology, sociology, and political science), (3) hard applied (that includes such disciplines as mechanical engineering, civil engineering, industrial engineering, architecture, computer science, chemical engineering, and agronomy), and (4) soft applied (that includes such disciplines as economics, marketing, finance, management, accounting, special education, curriculum and instruction, performing arts, vocational and adult education, division of continuing studies, family and consumer science). To determine group differences, ANOVAs were conducted followed by Tukey HSD tests for post hoc pairwise comparisons.

Classroom Problems

Table 7 shows TA disciplinary differences in classroom problems. Compared with TAs in hard applied disciplines, significantly more TAs in soft pure disciplines reported six classroom problems: (1) Student comes to class unprepared; (2) Student monopolizes class discussions; (3) Student promotes own political/ social agenda each time he/she speaks; (4) Student misses class frequently; (5) Student packs up books before the class session is to end; and (6) Student makes comments that are offensive to me and/or peers in class. Furthermore, more TAs in soft applied disciplines than TAs in hard applied disciplines reported three classroom problems: (1) Student comes to class unprepared, (2) Student blames me for his/her poor work performance, and (3) Student misses class frequently. Moreover, more TAs in soft pure disciplines than TAs in soft applied disciplines reported one classroom problem: Student promotes own political/social agenda each time he/she speaks.

Significantly more TAs in soft pure disciplines than TAs in hard pure disciplines reported experiencing eight classroom problems. The eight classroom problems were: (1) Student challenges my comments or lecture; (2) Student is eating and/or drinking during class; (3) Student questions or contradicts me during lecture; (4) Student arrives late for class; (5) Student monopolizes class discussions; (6) Student promotes own political/social agenda each time he/she speaks; (7) Student misses class frequently; and (8) Student makes comments that are offensive to me and/or peers in class.

Classroom Concerns

Significantly more TAs in hard applied disciplines (M = 1.35, SD = 0.49, p < .05) than TAs in soft pure (M = 1.07, SD = 0.26) and hard pure disciplines (M = 1.12, SD = 0.33) reported one student behavior to be of high concern: Student challenges my comments or lecture. In addition, more TAs in hard applied disciplines (M = 1.33, SD = 0.49) than TAs in hard pure disciplines (M = 1.04, SD = 0.19) reported the following student behavior to be their high concern: Student flirts with other students.

Table 7. TA Disciplinary Differences on Classroom Management Problems

Problems	Hard Pure (N = 73)		Hard Applied (N = 29)		Soft Pure (N = 79)		Soft Applied (N = 33)		F-Ratio
	M	SD	M	SD	M	SD	M	SD	
Student comes to class unprepared.	0.90	0.30	0.66^{ab}	0.48	0.90^{a}	0.30	0.94^{b}	0.24	4.27**
Student challenges my comments or lecture.	0.42^{c}	0.50	0.48	0.51	0.67^{c}	0.47	0.55	0.51	3.34*
Student is eating and/or drinking during class.	0.51^{d}	0.50	0.45	0.51	0.71^{d}	0.46	0.72	0.45	4.00**
Student blames me for his/her poor work performance.	0.44	0.50	0.24^{e}	0.44	0.52	0.50	0.58^{e}	0.50	2.93*
Student questions or contradicts me during class.	0.38^{f}	0.49	0.38	0.49	0.65^{f}	0.48	0.55	0.51	4.38**
Student arrives late for class.	0.66^{g}	0.48	0.62	0.49	0.85^{g}	0.36	0.85	0.36	4.06**
Student monopolizes class discussions.	0.23^{h}	0.43	0.24^{i}	0.44	0.51^{hi}	0.50	0.42	0.50	5.17**
Student promotes own political/social agenda each time he/she speaks.	0.07^{j}	0.25	0.03^{k}	0.19	0.32^{jkl}	0.47	0.12^{l}	0.33	8.14***
Student misses class frequently.	0.55^{m}	0.50	0.31^{no}	0.47	0.86^{mn}	0.35	0.70^{o}	0.47	13.21***
Student packs up books before the class session is to end.	0.47	0.50	0.31^{p}	0.47	0.65^{p}	0.48	0.42	0.50	4.14**
Student makes comments that are offensive to me and/or peers in class.	0.10^{q}	0.30	0.07^{r}	0.26	0.32^{qr}	0.47	0.12	0.33	5.97***

Post hoc Tukey test results: a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, and r indicate the pairs of groups significantly different at $p < .05$.

*** $p < .001$; ** $p < .01$; * $p < .05$

Differences in disciplinary cultures may explain the above findings. Research shows that hard disciplines tend to emphasize learning of facts, principles, and concepts, whereas soft disciplines tend to favor development of critical thinking skills (Lattuca and Stark, 1995). Instructors in soft disciplines are inclined to adopt a more discursive approach when undertaking classroom instruction than do their counterparts in hard disciplines (Braxton, 1995; Gaff and Wilson, 1971). In addition, they are more likely to encourage students to debate divergent perspectives and discuss issues related to course topics. Instructors in soft disciplines stress knowledge application and integration (Smart and Ethington, 1995); they seek to enhance students' capability to critique other perspectives. In contrast, instructors in hard disciplines emphasize knowledge acquisition (Smart and Ethington, 1995); they try to cultivate students' intellectual growth by developing their capability to use an accepted scientific perspective (Lattuca and Stark, 1995). These differences in disciplinary cultures may explain why TAs in soft disciplines reported such problems as "Student monopolizes class discussions" and "Student promotes own political/social agenda each time he/ she speaks."

Discussion and Implication

In this study we examined four variables: TA type, gender, teaching experience, and academic discipline. The results of this study revealed that across gender, USTAs reported significantly more classroom management problems than ITAs (see Table 5). The level of TA teaching experience was positively correlated with the number of classroom problems and concerns TAs reported. The more teaching experience TAs had, the more problems and concerns they reported. Finally, TAs in soft pure disciplines reported more problems than TAs in hard pure and hard applied disciplines (see Table 8).

Table 8. Overall TA Disciplinary Differences on Classroom Problems and Concerns

Disciplinary Areas	Problems			Concerns		
	N	*M*	*SD*	*N*	*M*	*SD*
Hard Pure	73	8.90[a]	5.46	73	24.84[c]	11.87
Hard Applied	29	7.24[b]	6.22	29	24.86	11.87
Soft Pure	79	11.87[ab]	5.28	79	30.00[c]	12.04
Soft Applied	33	9.64	4.69	33	24.76	11.19

Post hoc Tukey test results: a, b, and c indicate the pairs of groups significantly different at $p < .05$.
For problems, $F(3, 210) = 6.73$, $p < .001$.
For concerns, $F(3, 210) = 2.98$, $p < .05$.

Regression analysis revealed that TA type, teaching experience, and academic discipline, but not gender, were significant predictors of classroom problems and concerns (see Table 9). Specifically, for variance in classroom management problems, 7% of the variance could be explained by TA type, about 8% by teaching experience, and 4% by academic discipline. For variance in classroom concerns, 2% of the variance could be explained by TA type, approximately 2% by teaching experience, and 2% by academic discipline.

The results of this study provide specific information about TA perceptions of classroom management problems and concerns. TA responses to some of the open-ended questions in the survey not only generated interesting findings, but also provided clues to some of the problems confronting TA training programs. Hence the results have implications for institutional leaders, graduate faculty, and TA developers.

Although "learning can take place in the absence of good teaching" (Welsh, 1992), good teaching plays a decisive role in the process of learning. One way to attain good teaching is to conduct effective classroom management to enhance classroom teaching efficiency. As the primary goal of classroom management is providing students with a favorable climate for learning (DiGiulio, 1995; Evertson and Emmer, 1982; Steere, 1988), all TAs are greatly challenged to stimulate students into an active involvement in learning tasks and to minimize disruptive and inappropriate behaviors.

Table 9. Regression Analysis for Classroom Management Problems and Concerns

Variables	Problems				Concerns			
	B	Beta	Constant	r^2	B	Beta	Constant	r^2
TA Type	3.94	−.27	6.45	.07***	4.15	.13	23.25	.02*
Gender	−.95	−.08	10.17	.007	.29	.01	26.47	.00
Teaching Experience								
UNL	−3.15	−.28	11.17	.08***	−3.64	−.15	28.38	.02**
Total	−3.09	−.27	10.84	.07***	−2.77	−.11	27.69	.01*
Academic Discipline	—	—	10.45	.04**	—	—	27.61	.02*

The regression equations used the following scaling scheme:
  TA Type: 1 = USTAs, 2 = ITAs;
  Gender: 1 = male, 2 = female;
  UNL teaching experience: 1 = low, 2 = high;
  Total teaching experience: 1 = low, 2 = high;
  Academic discipline: 1 = hard pure, 2 = hard applied, 3 = soft pure, 4 = soft applied.
Dummy variables were used in the analysis of variance. Effect codes were used in analyzing academic discipline. The B and Beta values for each disciplinary area are not presented in the table.
***$p < .001$; **$p < .01$; *$p < .05$

The results of this study indicate that TAs perceived significant classroom management problems. Studies show that classroom problems may result from teachers' lack of interest in and knowledge of their students (Popham and Baker, 1970), and that problems can also occur when teachers fail to convey to students a clear set of expectations about appropriate behavior (Evertson and Emmer, 1982). The best approach to classroom management is to anticipate what might occur and what solution might be used (DiGiulio, 1995; Jones and Jones, 1990; Popham and Baker, 1970). The ability to prevent problems from arising in the first place, not the special skills for handling problems once they occur, is of vital importance; this ability makes an effective classroom manager (Brophy, 1982). As indicated by the results of this study, helping TAs become effective classroom managers is of urgent necessity. No TA can be left on his or her own to sink or swim in the complex and changing demands of college teaching.

Based on the results found in this study, we propose that institutions using TAs develop effective TA training programs designed to help them develop the necessary skills for effective teaching. Specifically, we make the following recommendations:

We Should Provide Training for All Graduate Teaching Assistants. As previously noted, TAs play a significant role in most institutions of higher education. Without a large number of dedicated TAs, some universities could hardly accomplish their educational missions (Pica, Barnes, and Finger, 1990). Therefore, it is particularly vital to provide TAs with comprehensive training before they begin their classroom duties.

Effective TA training programs are indispensable for enhancing teaching. Such programs can help TAs become more competent in their teaching, more responsive to student needs, and build confidence related to classroom practices. Additionally, effective TA training programs can increase institutional commitment to teaching excellence in undergraduate education.

We believe TA training programs should be both intensive and discipline specific. Programs lasting a day or two are simply too short to address aspects of communication competence. The value of departmental training has been identified by TAs (Gray and Buerkel-Rothfuss, 1991). As each discipline embraces different teaching philosophies, formats, and methods, discipline-specific training can be an effective way to address the needs of a particular discipline (Black and Bonwell, 1991; Smock and Menges, 1985). Such training will help TAs to learn disciplinary norms and acquire pedagogical content knowledge needed for teaching.

Furthermore, TA training programs should include instruction in language skills, pedagogical skills, multicultural issues, and microteaching practice. Providing TAs with language skills enables them to communicate effectively. Helping TAs acquire pedagogical skills allows TAs to use different strategies to ad-

dress student needs. Addressing multicultural issues helps TAs understand and appreciate cultural differences. Providing microteaching practice affords TAs opportunities to gain valuable experience and feedback from faculty and peers (Shannon, Twale, and Moore, 1998).

In addition, we believe that all TAs should be "certified" for classroom duties, and that TA training programs include follow-up training throughout the first year of teaching. As most new TAs are concerned with self/survival issues (Nyquist and Wulff, 1996) during the first semester, thinking about ways to improve teaching is not always their primary concern. Providing TAs timely feedback, suggestions, and encouragement will help them explore various teaching strategies. Research indicates that sustained follow-up assistance in the form of observation and critical feedback on teaching can have a lasting impact on teacher behavior (Levinson-Rose and Menges, 1981).

TA developers, either through a centralized institutional support office or at the department level, must work with department chairpersons to develop discipline- specific TA training programs. College deans and department chairpersons can play a decisive role in conveying the message that TA training plays an important role in undergraduate instruction. Establishing a support base, such as a TA Supervisors' Advisory Council, is one way for TA training programs to become institutionalized.

We Should Provide ITAs with Extended Language Training. The results of the study indicate that one of the common student complaints was about ITAs' poor language skills. To help ITAs improve their English proficiency, TA developers may use telephone tapes to help ITAs acquire listening and imitation practice (Kozuh, 1993), or use language tutorials (Freisem and Lawrence, 1993). In addition, providing ITAs with ongoing language training for at least the first semester of teaching will help them improve their communication with students. Academic departments should support such training to make it effective.

We Should Help ITAs Understand the Classroom Culture. The results of this study show that most ITAs were highly concerned when students challenged their comments or lectures, when students questioned or contradicted them during lecture. This suggests that ITAs confront additional problems related to cultural differences. Therefore, ITA training should by no means be limited to language difficulties. Because of their particular cultural and educational backgrounds, ITAs need to understand U.S. institutions and the classroom culture as well as U.S. students. Going beyond ITA language difficulties to help ITAs acquire knowledge of U.S. educational philosophies and practices will enable ITAs to understand U.S. undergraduate students. As noted by Numrich (1993), the more ITAs know their students, the more effectively they communicate with their students, and the better instruction they provide.

TA developers should examine ITAs' knowledge about the U.S. higher education system, about the U.S. educational philosophy, and about the U.S. classroom culture. Furthermore, TA developers should examine ITAs' assumptions about good teaching, their attitude toward the value of interacting with students, and what ITAs expect of their students in terms of learning. Using the method proposed by Bernhardt (1987), TA developers should also provide ITAs opportunities to view and discuss U.S. classrooms and student classroom behaviors. Finally, TA developers should encourage U.S. students to share with ITAs their perceptions of good learning and their expectations of effective teaching. By doing so, TA developers can help ITAs identify the major differences between ITAs' assumptions about teaching and learning and those of the students.

We Should Help TAs Use Active Instructional Strategies. As shown by the results of the study, the classroom problems reported by TAs, such as "Student comes to class unprepared," "Student looks bored, disinterested, yawns while I teach," and "Only a few students respond to my questions or participate in class discussions," have a lot to do with the processes of teaching and learning.

Teaching is a communication process between the teacher and the student (Marsh, 1984; Nussbaum, 1992). Although students should be prepared and learn to be responsible for their learning, TAs should challenge and motivate students in the learning process. As noted by Jones (1982), effective instructional methods, together with effective instructional materials and a positive relationship, are keys to effective classroom management. Informing TAs of the most up-to-date theory and research on teaching and learning and providing TAs with effective instructional strategies will enable them to conduct quality instruction.

We Should Help TAs Be Reflective About Teaching. One of the important findings of this study was the presence of a positive correlation between years of teaching experience and classroom problems and concerns. This suggests that it is not simply experience that matters, but what TAs learn from experience. Research shows systematic reflection can help improve instruction (Chism, 1993; DiGiulio, 1995; Schön, 1987). As noted by Chism (1993), teachers who identify problems and respond systematically will discover solutions to problems and experience professional growth. An "instructor who has not learned to be deeply reflective about his or her practice has little to go on when making future decisions about teaching" (Nyquist and Wulff, 1996, p. 41). Helping TAs continuously reflect on teaching will enable them to identify what worked or did not work and why. Based on such reflection, TAs can make decisions concerning strategies for reducing classroom problems and promoting teaching efficiency.

We Should Help TAs Socialize to Their Roles and Responsibilities. When graduate students become TAs in a given university, they need to go through the process of socialization (Staton and Darling, 1989). The process of socialization allows TAs to acquire the values, attitudes, norms, knowledge, and skills needed to exist in a given department or institution. TA supervisors play an enormous role in helping TAs learn departmental norms. TA supervisors must help TAs develop a social support system that deals with their concerns, fears, triumphs, and challenges during graduate school (Staton and Darling, 1989). Experienced TAs can also help new ones adjust to their roles and responsibilities. Finally, TA supervisors should conduct TA meetings on a regular basis to exchange teaching ideas. TAs can present their problems for discussion, suggestions, or solutions. Such meetings will help TAs develop communication strategies and generate new ideas about teaching.

TAs are a potential source of the future professoriate. Adequately socializing TAs about the importance of teaching is an active and positive way to answer the "increased calls for colleges and universities to be more concerned about teaching and learning" (Tierney and Rhoads, 1994, p. 74). Unfortunately, graduate students often are inadequately prepared for the teaching duties they assume (Nyquist, Abbott, and Wulff, 1989). TA faculty mentors play a decisive role in helping TAs adopt a positive and serious attitude toward teaching (Tierney and Rhoads, 1994). TA faculty mentors who regularly talk about the importance of teaching will send a strong message to TAs that teaching is valued. We propose that institutions assign experienced and adequately prepared faculty as TA mentors. Such assignment will facilitate the process of TA socialization to their roles and responsibilities and help them assume their duties successfully.

Conclusion

This study is innovative because it represents the first investigation of TA classroom management problems in terms of TA type, gender, teaching experience, and academic discipline. The results of the study provide specific information for TA training programs that assist TAs in improving their teaching effectiveness. On a practical level, this study can benefit TA developers who are seeking information about TA classroom management problems. The classroom management problems TAs experienced when undertaking instruction and the strategies they identified to improve their teaching experience send practical messages to TA developers. TA developers can incorporate the findings into their training programs. They can provide new TAs—before they begin teaching—with information about what classroom management problems they are likely to experience. Provided with this information, TAs themselves can anticipate potential problems and identify successful strategies for averting such problems. Fi-

nally, the results of this study also send practical messages to institutional leaders that should strengthen their commitment to providing students with quality instruction.

The study has several limitations. First, with 579 USTAs and 170 ITAs as subjects of the survey, the study lacked an equal number of subjects for the two types of TAs. Second, the study did not examine the classroom management problems from the perspectives of the students taught by TAs. Third, this study examined TA classroom experiences in only one institution. As different institutions have different cultures, TA experiences in other institutions would likely be somewhat different. Fourth, since it was a descriptive study, the study did not examine the causal relationship between the variables.

To build an effective training model for TAs, future research should examine TA classroom management issues in depth and identify TA classroom management techniques that are best suited for effective college teaching. Future research might also examine the underlying assumptions teaching assistants have about teaching and learning and their role in facilitating the learning process. Identifying TAs' assumptions about students, about how students learn and what motivates them, should provide insight into the pedagogical strategies TAs use to plan, organize, and motivate student learning. Today's TAs are likely to become tomorrow's professoriate. An investment in helping TAs become effective classroom managers will benefit not only the students but also the entire academic world.

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