

Mentoring and the faculty–TA relationship: faculty perceptions and practices

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The current investigation was designed to examine faculty perceptions and practices of mentoring in the faculty–TA (teaching assistant) relationship. A survey of faculty members at a large Midwestern research institution revealed that most faculty members considered themselves to be, or wished to be, mentors to their teaching assistants. The faculty members' actions as 'mentors', however, often were not congruent with the practices of effective mentorship. The survey indicated a great need for faculty guidance in how to forge and maintain mutually beneficial mentoring relationships with their teaching assistants. An examination of faculty and TA handbooks and departmental guidelines from large research institutions further underscored this point; while handbooks directed to TAs abound on this subject—generally placing the burden of maintaining an effective faculty–TA relationship on the TA—very few faculty manuals even mention TAs. These findings are interpreted through Nyquist and Wulff's model of TA development and faculty interaction.

Faculty members have long been expected to socialize and guide their doctoral students into the research community (Dedrick & Watson, 2002). They are generally not expected, however, to guide their graduate teaching assistants (TAs) through the process of teaching, except in a very rudimentary way (Nyquist & Wulff, 1996). Nyquist & Wulff (1996) have suggested that most faculty supervisors treat their teaching assistants (TAs) as they were once treated, relying on their 'personal, but often limited, experience as their only guide in the area of graduate student supervision' (p. 5). Moreover, handbooks for graduate students often imply that the onus of maintaining an effective mentoring relationship should fall to the TAs, rather than to the faculty members (Johnson & Huwe, 2003; University of Michigan, 2001, 2002).

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Not surprisingly, little has been written about either how faculty members can mentor their TAs, or how the positive professional relationship between faculty members and TAs can improve the teaching and mentoring practices of the faculty members (some exceptions include Mueller, *et al.*, 1997; Hiemstra & Brockett, 1998; Enerson, 2001; von Hoene & Mintz, 2002).

As academicians began to borrow training techniques from the corporate world, the idea of mentoring became popular in higher education in the 1970s and 1980s. The image was initially very much a one-way, downward transmission of knowledge from the expert who guides and socializes the novice through the thorny turns of the professional world. As in the business model, mentors themselves were considered to benefit only through the satisfaction they might feel when their protégés were successful (Busch, 1985; Jacobi, 1991) and the status increase they could enjoy as protégés discussed their joint work with colleagues (Cronan-Hillix *et al.*, 1986). The scholarly community began to take note of the benefits of mentoring, particularly the value of the protégé 'learning the ropes' (both formally and informally), of bolstering the protégé's self-confidence, and of promoting the standards of performance and ethical behavior expected in the profession (Kram, 1985; Cronan-Hillix, *et al.*, 1986). Faculty mentors were found to have positive effects on protégés' careers (Eastman & Williams, 1993) and academic performance (Campbell & Campbell, 1997). In the academic context, much of the early literature on mentoring focused on the definition of mentor (Jacobi, 1991), but soon expanded to include the importance of the mentor-protégé relationship in adult development (Daloz, 1999) and the role of the mentor in gender-related and minority student contexts (Cronan-Hillix, *et al.*, 1986; Daloz, 1986; Smith & Davidson, 1992; Campbell & Campbell, 1997; Ragins & Cotton, 1999; Dedrick & Watson, 2002).

Much of the initial push for formal mentoring programs at institutions of higher education seems to have stemmed from the desire to help minority students and junior faculty members succeed (Juarez, 1991; Campbell & Campbell, 1997). Gradually, the idea that mentors should be a part of every student's academic experience became widespread (Johnson & Huwe, 2003), and mentoring programs consequently became more inclusive (Galbraith & Cohen, 1995; Boyle & Boice, 1998).

TA development and mentorship

The idea that the TA is a student in need of faculty mentorship was raised by Nyquist and Wulff (1996), who proposed a model for TA development (adapted from Sprague & Nyquist's model). This model sought to help faculty members work more effectively with, and even mentor, their graduate teaching assistants. In this model, the TA goes through the stages of being a senior learner, a colleague-in-training, or a junior colleague. Senior learners are 'pre-socialized', meaning that they are not yet fluent with the course material and thus are highly dependent on their supervisors. Colleagues-in-training show more independence as learners and teachers, contemplating how to lecture and employ the more complex technical language of the discipline. Junior colleagues are more experienced in their teaching and are able to engage

their students in learning and to work collaboratively with students and faculty members (Nyquist & Wulff, 1996).

In Nyquist and Wulff's (1996) model, the faculty member's role is not fixed but fluid, adapting as the TAs' perceived developmental level changes, so that the faculty member will serve as a manager, an educational model, or as a mentor accordingly. When TAs are in the senior learner stage, faculty members serve as managers, closely monitoring the TAs' work. When TAs become colleagues-in-training, faculty members serve as educational models, exemplifying good teaching practices. In this role, faculty members include their TAs as much as possible in planning lectures and creating course materials. When TAs become junior colleagues, at the highest level of their development, faculty members might serve as mentors. At this stage, faculty members are advised to 'be collaborative', to 'view the TAs as decision-makers', and to 'provide ample opportunities for dialogue' (Nyquist & Wulff, 1996, pp. 13–15). This model is somewhat limited, in that it suggests that faculty members will not take on the role of mentor until late in the TAs' development. Further, although the model suggests, and quite rightly, that professors should be observant of their TAs' developmental levels, many professors may not possess such awareness.

More problematically, the TA developmental model envisioned by Nyquist and Wulff (1996) also assumes a universal and homogeneous perspective that ignores the impact of cultural and ethnic differences in the faculty–TA mentoring relationship. For instance, in a study of cultural and linguistic miscues between faculty and TAs, Jenkins (2000) found that faculty members in a mathematics department believed that their Chinese international teaching assistants (ITAs) deliberately distanced themselves from other students and faculty members and did not take seriously their teaching duties. Yet, upon discussing the matter with the Chinese students, Jenkins found that they held beliefs based on cultural norms that inhibited their interactions with their professors, particularly in asking for much-needed help.

In comparison, Luo *et al.* (2000) found that, based on cultural differences, ITAs were more likely to view their role in the classroom as conveyors of information and were less interactive with the undergraduates than were those TAs who were educated in the US system. ITAs often possessed a higher sense of self-efficacy in teaching and classroom management, and believed that they did not need as much guidance as TAs in the USA (Luo, *et al.*, 2000). These studies suggest, first, that Nyquist and Wulff's (1996) model should be updated to take cultural variables into account, and second, that cultural and linguistic miscues between faculty and students with different cultural backgrounds may inhibit a strong mentoring relationship from developing, ultimately putting ITAs at a disadvantage.

The mentor idealized

In recent years, researchers have attempted to catalogue the qualities and characteristics of an ideal faculty mentor. In their study of formal and informal mentoring relationships between clinical psychology graduate students and faculty members, Clark, *et al.* (2000) found that the most frequently mentioned personality

characteristics for a mentor included being supportive, intelligent, knowledgeable, and ethical. Anderson and Shannon (1988) found that the five most important functions of a mentor were teaching, sponsoring, encouraging, counseling and befriending.

Similarly, Boyle and Boice (1998) identified several core competencies of exemplary mentors in their study of formal mentoring programs for new faculty and novice TAs, which included senior faculty members who mentored junior faculty, and more experienced TAs who mentored new TAs. An exemplary mentor was identified as somebody who had several years of experience at the campus and, in the case of the TA mentors, was a successful teaching assistant who would complete his or her doctoral program within five years, thereby signifying an understanding of the campus culture and degree expectations. Exemplary mentors also scheduled regular meetings with their protégés, complained little about their school or department, and shared early experiences with their protégés, enabling them to interact at a more personal level and with more compassion (Boyle & Boice, 1998). Yet, it should be noted that most mentor models, including Rose's (2003) *Ideal mentor scale*—a measure designed to help graduate students consider the qualities they would most value in a potential mentor—are not necessarily applicable to the faculty–TA relationship. For example, TAs are generally not in the position to choose the faculty members whom they will assist in a course (Bowen & Rudenstine, 1992; Johnson & Huwe, 2003), and thereby cannot choose an 'ideal' mentor.

Moreover, an effective mentoring relationship between faculty members and teaching assistants, let alone an idealized relationship, can be difficult to achieve and sustain in practice. Since many higher education institutions emphasize research over teaching, faculty members, particularly those who are not tenured, often do not have the time, experience, or incentive to work with their teaching assistants beyond a simple supervisory role (Boyer, 1991; Clark *et al.*, 2000; Mullen & Forbes, 2000). Although many faculty members realize the importance of guiding their TAs, the challenges of teaching, keeping up with scholarly research, and maintaining a collegial presence in the department leave little time or energy for mentoring (Boice, 1992). Despite the importance of preparing the next generation of faculty to teach, and of socializing graduate students into the professoriate, many faculty members are still unprepared to assist in this process (Austin, 2002; Johnson & Huwe, 2003), possibly because so many faculty members need guidance themselves (Boyer, 1991; Mullen & Forbes, 2000). Nevertheless, many faculty members do encourage their TAs to seek out training and professional development—indeed, a number of studies suggest that faculty recognize the importance of TA training (Andrews, 1985; Jennings, 1987; Boyer, 1991; Mueller, *et al.*, 1997; Chism, *et al.*, 1987), even if they feel unprepared to serve as teaching mentors.

Mentorship transformed

The current literature seems to be signaling that the mentoring relationship can profoundly affect how the faculty mentor, not just the graduate mentee, teaches and learns. The ideal mentor, while no doubt embracing many of the qualities and

characteristics listed above, might also reflect upon the mentoring relationship and, ultimately, improve upon his or her teaching and learning practices. As Enerson (2001) has pointed out, there has been a shift in the common usage from *mentor* as a noun to *mentor* as a verb, so that what the teacher *does* is emphasized over what the teacher *is*. Building on the work of Jarvis, Kolb, Friere, Schön and others, Garvey and Alred (2000) have stressed the idea that reflection is vital for learning, and as such, the educator cannot simply transmit knowledge from a power position to learners. Rather, an educator must seek to design and structure a learning environment that is conducive both to student learning and to the educator's reflection on his or her teaching and learning practices (Light & Cox, 2001). The same might be said of a mentor. For instance, von Hoene and Mintz (2002) found that some faculty members who served as mentors to graduate teaching assistants reported that their own views of teaching had been 'enlightened' during the dynamic process of working with and learning from their graduate students (von Hoene & Mintz, 2002).

As it stands, the literature suggests that even though faculty members can play an important role in TA development, there has been little discussion concerning faculty expectations towards their TAs or what faculty members can do to be effective mentors (von Hoene & Mintz, 2002). As such, it is important to ask whether faculty members' actions in guiding their TAs are congruent with the ideology of effective mentorship. The current investigation was designed to examine these and other relevant aspects of the faculty-TA relationship from the perspective of the faculty member.

Methodology

Survey participants

In this study, we surveyed 232 full-time faculty members (tenured, tenure-track, and non-tenure-track) at a large research institution in the US Midwest about their attitudes toward teaching assistants (TAs). These faculty members had been identified by their departments as having worked with TAs at some point in their academic careers. Surveyed faculty represented 29 departments across six schools within the university (i.e. Arts and Sciences, Communications, Education and Social Policy, Engineering and Applied Science, Management, and Music).

Seventy-five faculty members from 22 different departments in all six schools responded to the survey. Twenty of the responses were email communications indicating that the faculty member either did not believe the survey was applicable (e.g. no longer worked with TAs), did not have time to complete the survey, or would be away for an extended period of time (e.g. on sabbatical). Of the 55 faculty members who returned viable surveys, 54% were tenured professors, 23% were on the tenure track, and 23% were neither tenured nor on the tenure track; males comprised 61% of the respondents (see Table 1 for further demographic information regarding age group and school affiliation). The response rate of 26% [$55/(232-20)$] is consistent with past research on survey response patterns, which report that mail surveys typically yield response rates of 20% to 30% (e.g. Nederhof, 1985; Erdogan & Tagg,

Table 1. Demographic information for age group and school affiliation: 2004

| | Percentage of respondents (%) | <i>N</i> |
|---------------------------|-------------------------------|----------|
| Age group | | |
| 25–34 | 17 | 9 |
| 35–44 | 36 | 19 |
| 45–54 | 19 | 10 |
| 55–64 | 25 | 14 |
| 65 and over | 3 | 2 |
| School affiliation | | |
| Arts & Sciences | 61 | 33 |
| Communications | 6 | 3 |
| Education & Social Policy | 6 | 3 |
| Engineering & Applied | 22 | 12 |
| Science | | |
| Management | 2 | 1 |
| Music | 4 | 2 |

2003); the current rate is also congruent with prior survey response rates at this particular institution.

Materials and procedure

Recipients of the survey were informed that the survey would take approximately 15 to 20 minutes to complete. The survey consisted of a series of 23 open- and closed-ended questions across four sections: (1) the faculty member's own experience as a teaching assistant (if applicable); (2) the faculty member's understanding of teaching assistant responsibilities; (3) the faculty member's perceptions of the faculty–TA relationship; and (4) brief demographic information. In the section on teaching assistant experience, the respondents were asked to indicate which (if any) teaching preparation activities (e.g. teaching workshops; new-TA orientation; see Table 2 for complete list) they participated in as graduate students and what they had learned from those activities. The faculty members were also asked to describe whether they had felt prepared for their teaching responsibilities as TAs and then as new faculty members. These questions were designed to provide insight into the social and cultural factors that helped shape a professor's attitudes toward his or her TA.

In the second section of the survey, the faculty respondents were asked to rate the importance of various TA responsibilities (e.g. hold office hours; prepare exams; see Table 3), using a five-point Likert-style attitudinal scale (1 = very unimportant; 5 = very important). The respondents were also asked who (the professor or the TA, or either) should handle a number of course-related issues such as a student experiencing problems with lecture material, a student experiencing problems with readings, and a student caught cheating on an exam (see Table 4). This section was designed

to help gauge the professor's expectations of what a TA should or should not do, thus appraising the professor's conception of the role that a TA should play in the course.

In the third section, the respondents were asked about how much time they spend discussing certain course-related material with his or her TA, using a five-point Likert-style attitudinal scale (1 = very little time; 5 = very much time). The respondent was also asked to rate a number of statements about the faculty-TA relationship; the purpose here was to discover what role (e.g. supervisor, mentor, colleague; see Table 5) the faculty member believes he or she should play in the TA's professional relationship (1 = strongly disagree; 5 = strongly agree). In addition, a series of open-ended questions asked participants to describe the most difficult and most rewarding aspects of working with a TA, as well as how they regarded and interacted with their TAs.

The fourth section consisted of basic demographic questions. This section was designed to determine if there was a difference in responses between men and women, between tenured and non-tenured faculty members, between older and younger faculty members, and among departments. This section also asked the respondents whether they were allowed to choose their own TAs and whether this decision made a difference in their interactions with TAs.

In addition to the surveys, we collected certain artefacts, including faculty and TA handbooks and departmental guidelines from large research institutions, from university websites and teaching and learning centers (TLCs). We examined the handbooks and manuals for protocols, regulations, and requirements surrounding the faculty-TA relationship, to find: (1) the university's official attitudes toward the faculty-TA professional relationship and expectations concerning TAs; (2) relevant guidelines for faculty in the faculty-TA relationship; (3) characterizations of the faculty-TA relationship; (4) the roles, responsibilities, and expectations for TAs in the faculty-TA relationship; and (5) relevant omissions and other assumptions about the faculty-TA relationship.

Similarly, we examined ten handbooks designed for TA use at large research institutions across the country that were either available online or requested from university TLCs. Several came from individual departments; others had been developed for all TAs at a given institution. These handbooks were examined for: (1) the institution's or department's official attitude towards, and role in, TA development; (2) the roles, responsibilities, and expectations for TAs in the faculty-TA relationship; (3) the roles, responsibilities, and expectations for faculty in the faculty-TA relationship; (4) the characterization of the faculty-TA relationship; and (5) relevant omissions and other assumptions about the faculty-TA relationship.

Thematic analysis

The current investigation indicates that several factors helped shape faculty attitudes toward the roles and expectations concerning their TAs (and their own perceptions of themselves as mentors to their TAs), including: (1) the faculty member's previous experiences as a TA or as a protégé (or lack thereof), (2) the faculty member's perception of the TA's development level, experience, and initiative, (3) the faculty

member's perceptions of the faculty-TA relationship, and (4) certain cultural and gender variables.

Regardless of how the faculty members interacted with or viewed their TAs, this study further revealed that no faculty member had received any training about how to work with his or her TAs effectively—let alone how to mentor them well—and few faculty members had received or solicited any advice on this subject. While handbooks directed to TAs abound on this subject—generally placing the burden of maintaining an effective faculty-TA relationship on the TA—very few faculty manuals mention TAs beyond warning faculty members to avoid improper unions with students. Although the current study was small, the results indicated that faculty members could be better guided in forging mutually beneficial mentoring relationships with their teaching assistants.

Prior TA and protégé experiences

The faculty member's prior experience as TAs (or the lack thereof) and the experience of being mentored contributed to faculty expectations towards their TAs and their perception of themselves as mentors. As Nyquist and Wulff (1996) suggested, faculty members often treat their TAs as they were treated once themselves, drawing on their own experiences and recollections as TAs—whether negative or positive—to create their expectations. In this study, 30% of the faculty respondents reported that they treat TAs as they were once treated. Of these respondents, 20% indicated that their experiences had been problematic, citing poor relationships with their faculty supervisors and poor training. Eighteen respondents indicated that they had received little or no formal training and consequently felt under- or unprepared for their teaching assistant responsibilities. Nearly 40% of the participants echoed the response of one English professor, who wrote that he had 'not particularly' been prepared for his TA duties: there was 'no institutional framework, no peer advising, no meetings with professor'. To another professor of music education, the TA experience was much like a 'trial by fire'. Other professors indicated that they had simply been 'trained on the job', or 'thrown in without instruction'. The lack of any formal training or mentoring was disconcerting to some—e.g. a foreign language professor stated:

I felt utterly unprepared. The university provided no instruction about how to teach, no seminars or meetings for first-time TAs, nothing

while liberating to others—e.g. a chemistry professor stated:

No instruction was given on how to teach. It was up to the TA to do what he or she thought was best.

Further, an engineering professor remarked:

[The] TA orientation was quite general; not relevant to experiences in a small graduate-level class. [The] faculty member allowed me to prepare and lecture on supplemental material. He was supportive, but not particularly specific in his feedback. I lectured many times due to [the] instructor's travel. This gave me a significant exposure to and appreciation for classroom teaching.

On the other hand, just over half of the faculty members (51%) indicated that their experiences as a TA had been constructive. These faculty members typically attributed their positive feelings to collegial relationships with their faculty supervisors and peers and to helpful teacher preparation activities. Table 2 displays the percentages of faculty members who participated in various teaching activities (e.g. workshops, orientations, peer observations, etc.) as graduate students. Informal exchange about teaching was the activity cited most commonly, followed by TA orientation. Although these activities were most common, they occurred for only 32% to 36% of these respondents. Other activities, such as workshops and peer observation, were considerably less common.

When faculty members were asked what they had gained from their teaching preparation activities in graduate school, most were able to identify the following: making clear gains, such as improving their ability to explain ideas to students, acquiring practical tips for teaching, developing teaching methods, and learning by discussing teaching-related issues with fellow TAs. For many, the positive experiences they had as TAs in graduate school helped them feel prepared for their teaching responsibilities as faculty members. As one professor of theatre commented:

I was very conscious of what my effective teachers had done—what tools, attitudes, goals, manner had worked for me. I also wanted to teach, and knew I would have to learn slowly, on the job. I knew I didn't have all the answers, knew I would often fail. I wasn't afraid to change or improvise.

Similarly, another faculty member explained:

I felt that we left the orientation with a clear set of goals, an understanding of the chosen approach or method and support from the mentoring faculty member.

Moreover, almost all the faculty respondents claimed that they had learned intuitively from their prior experience as TAs how they would (or would not) treat their own TAs and what responsibilities and duties were appropriate for a TA to handle.

The relationship between the respondent and his or her faculty supervisor thus created a powerful model for faculty-TA relations, which the faculty member chose later to emulate or modify. While most respondents recalled having been treated with courtesy and respect, and a few identified their professors as 'mentors', to many the

Table 2. Participation as graduate students in teaching preparation activities: 2004

| Teaching preparation activity | Percentage of 'yes' responses (%) | N |
|-----------------------------------|-----------------------------------|----|
| Workshops/seminars | 22 | 41 |
| New TA orientation | 32 | 40 |
| Mentoring | 28 | 41 |
| Faculty feedback | 27 | 41 |
| Peer observation | 15 | 41 |
| Informal exchanges about teaching | 36 | 41 |
| Occasional lecture | 27 | 41 |

professor was a distant figure—civil and respectful to the TAs, but often imposing and aloof. It is not surprising that both faculty members who had been treated well and faculty members who had felt ignored or shabbily treated wished to treat their own TAs with respect and collegiality, a point that will be addressed more fully below.

The TA through faculty eyes

Viewing the data through Nyquist and Wulff's (1996) model raises an even more compelling interpretation of faculty–TA interactions when considering the relationship from a faculty perspective. Nyquist and Wulff suggested that faculty members take on a supervisory role (manager, educational model, or mentor) that corresponded to each of the three stages of TA development (senior learner, colleague-in-training, junior colleague). As noted earlier, the model is somewhat limited, suggesting, for example, that if professors consider their TAs to be senior learners, they will take on the role of manager—the lowest level of supervisor—rather than of educational model or mentor. Nevertheless, this model provides a useful framework for examining the data in this study. Most of the faculty members surveyed considered their TAs senior learners or colleagues-in-training, rather than junior colleagues, and assumed the role of manager or educational model, rather than mentor. Thus, although many faculty members (74%) claimed that they were mentors to their TAs, they failed to provide their TAs with the responsibilities or authority beyond what is expected for the lowest levels of TA development.

When asked to rate the importance of a number of common TA responsibilities, most of the faculty surveyed responded that holding office hours, leading labs and discussion sections, and grading exams and homework were among the most important duties that TAs perform (see Table 3). Moreover, the faculty reported that, on average, TAs were responsible for 75% of the grading for the course. Developing the

Table 3. Teaching assistant responsibilities: 2004 (percentages)

| | Unimportant | Neutral | Important | <i>N</i> |
|------------------------|-------------|---------|-----------|----------|
| Attend class | 32 | 17 | 51 | 47 |
| Hold office hours | 15 | 9 | 75 | 53 |
| Prepare exams | 66 | 15 | 20 | 41 |
| Grade exams | 17 | 9 | 64 | 46 |
| Create homework | 68 | 12 | 20 | 40 |
| Grade homework | 18 | 11 | 61 | 45 |
| Lead discussion | 17 | 15 | 69 | 48 |
| Lead labs | 26 | 4 | 70 | 27 |
| Lecture | 40 | 19 | 41 | 47 |
| Conduct study sessions | 19 | 28 | 53 | 54 |
| Develop syllabus | 77 | 10 | 13 | 39 |
| Develop curriculum | 80 | 8 | 12 | 40 |

syllabus, developing the curriculum, and creating exams and homework were considered to be among the least important duties for TAs. Clearly, TAs were often excluded from the crucial design and development stages of the courses, which is contrary to the expected roles of both an educational model and a mentor in the Nyquist and Wulff (1996) model.

Similarly, as indicated in Table 4, while most of the respondents agreed that either the professor or teaching assistant could handle course-related issues, such as problems with the lecture, the readings, homework, or exams, most professors also believed that it is primarily their own responsibility to handle grade disputes, missed exams and homework, and issues of academic dishonesty. More than half agreed that it was primarily their own responsibility to help a student develop a plan of action to improve his or her grade in the course. Faculty members also indicated overwhelmingly that cheating and plagiarism are the most vital issues to be handled by the professor and not by the TA.

Forty percent of the respondents agreed that all of the course-related issues listed in Table 4 represented matters meriting discussion with their TAs. In particular, most respondents felt that there was a great need to discuss issues of academic integrity. One professor explained:

The TAs need to know the policies concerning academic integrity. I think it is Important to discuss problems that arise and how the TA plans to deal with them.

Other respondents indicated that they enjoyed discussing course-related issues with their TAs to improve their courses and to help their TAs think about pedagogy. One art historian noted:

I get a lot of feedback from the TAs about the assignments, the section material and exams. However, I write up all the assignments and exams myself and provide the TAs with keys. I also choose the topics for sections and often will suggest slides, and then let the TAs devise the script.

Similarly, a theatre professor stated:

My TAs not only assist in my course but in learning about handling all these issues as part of their professional development.

Table 4. Responsibility for course-related issues: 2004 (percentages)

| Course-Related Issue | Professor | TA | Either | N |
|-----------------------|-----------|----|--------|----|
| Problem with lecture | 30 | 4 | 66 | 54 |
| Problem with reading | 12 | 4 | 84 | 52 |
| Problem with homework | 2 | 25 | 73 | 53 |
| Problem with essays | 18 | 7 | 75 | 44 |
| Grade dispute | 82 | – | 18 | 55 |
| Missed exam/homework | 78 | 2 | 20 | 54 |
| Cheating | 96 | – | 4 | 55 |
| Plagiarism | 96 | – | 4 | 50 |
| Improve grade | 49 | 2 | 49 | 55 |

Another professor from the School of Communications indicated that all the stated course-related issues were important:

Discussion and debate make one a more thorough and creative thinker, and some of these tasks supply information important to understanding and evaluating some of the students' experiences.

In addition to the perceived developmental level and experience of the TAs, the perception of a TA's initiative also affected the extent to which faculty members interacted with their TAs and perceived themselves as mentors. The greater the interest that the TAs demonstrated in the course material and their TA duties, the more likely the faculty members were to reward them with greater interpersonal contact or specialized tasks. A professor in the life sciences noted:

As I get to know the TAs better ... some of them respond more readily, providing me with suggestions, developing the course. Others seem to have no interest beyond their direct responsibilities.

Similarly, if a TA was pursuing a teaching career and wished to acquire more responsibilities in the course, the faculty member would work with the TA more closely. For example, a professor of theater asks her TAs at the beginning of the quarter what he or she was hoping to get from the experience:

I ask them what their specialties are, and I ask them if they want to teach, if they're interested in teaching, and what their experiences teaching are, and what their goals are in being a TA in the class. If they are actually engaged in learning to teach, if there is a pedagogical goal that they have, I am able to accommodate them.

Under such circumstances, the faculty member will offer the TA more responsibilities, an increased visibility in the classroom (i.e. lecture), and more input into the course content.

On rare occasions, a TA who shows too much initiative can be problematic as well, as one economics professor commented:

But [a TA's initiative] can be a problem, it's one of the plusses and minuses of having multiple TAs. If some TA wants to take a lot of initiative, that sort of makes the other TAs look bad, and they have their own classes, their own work. I want to head off an arms race as it were, even though it would benefit the students. But when there's only one TA, whatever the TA feels like doing, that's fantastic. I try to work out so that this can happen.

Again, several professors noted that if a TA is clearly preoccupied with other activities, generally research activities, they do not push the TA to take on much more responsibility. One professor commented:

Some TAs would rather be somewhere else doing research, etc. I don't spend as much time with them; or rather they don't spend time with me. Others are very interested and will offer suggestions and how to make improvements.

Thus, the perceived developmental level, experience, and initiative of the TAs affected how faculty members interacted with their TAs. Most faculty members seem to classify their TAs as senior learners or colleagues-in-training, rather than as junior colleagues, even if they professed otherwise.

Faculty perceptions of the faculty-TA relationship

The extent to which faculty members mentor their TAs further depends on how they characterize their relationship with their TAs, how they perceive their roles in teaching assistant training, and what they view as the benefits and detriments to working with their TAs. As indicated in Table 5, most respondents regard their TAs as liaisons to their students, future professionals, and junior colleagues, and regard themselves as mentors to their TAs. More than half view their TAs as teaching partners, and 69% agree that they learn from TAs. Although most respondents (74%) reported high regard for their TAs, it seems that this regard does not always manifest itself in the faculty-TA relationship. For instance, although only 20% of faculty members reported viewing their TAs primarily as graders, grading was rated as one of the most important TA duties, and faculty members expected that TAs would complete the great majority of grading (74%).

Moreover, the respondents believe that the responsibility for training their TAs is half (54%) their own responsibility, and half the responsibility of their department (31%) or an outside source such as the graduate school or the university teaching and learning center (13%). As one economics professor mused:

It's sort of the classic economics externality question ... there's only so much time I can put into a TA who I might never work with again ... I mean it seems like it should fall on the department to have the resources to do that. To some extent, what the TAs do reflects on the whole university; it's the sort of thing that's done at all three levels: my level, the department, and the school.

Faculty members who had been TAs in graduate school were almost evenly split on whether they treated their TAs similarly to or differently from how they had been treated by faculty members themselves. Generally speaking, if they had been treated well as graduate students, they similarly claimed to treat their TAs well. As one respondent explained:

I believe I treat my TA similarly to the way I was treated—with respect and collegiality.

Table 5. Faculty perceptions of faculty-TA relationship: 2004 (percentages)

| | Disagree | Neutral | Agree | N |
|---------------------------|----------|---------|-------|----|
| Mentor | 15 | 11 | 74 | 55 |
| Supervisor | 28 | 36 | 36 | 55 |
| Junior colleague | 15 | 27 | 58 | 55 |
| Future professional | 4 | 13 | 83 | 54 |
| Grader | 57 | 22 | 20 | 54 |
| Attend teaching workshops | 54 | 20 | 26 | 54 |
| Ask for TA suggestions | 20 | 26 | 55 | 55 |
| Learn from TA | 9 | 22 | 69 | 55 |
| Teaching partner | 11 | 24 | 65 | 54 |
| Student liaison | 6 | 9 | 86 | 55 |

Many mentioned that they wanted to mentor their TAs as they had been mentored or that they desired feedback as their professors had requested comments from them. Several echoed the positive sentiment of a linguistics professor, who stated:

I see them as co-instructors, and so want their feedback before, during, and after the course.

Alternatively, a small proportion of respondents (7%) indicated that they treated their TAs similarly by employing the same 'hands-off manner' and minimal instruction as a TA that they had received as graduate students. One professor who had claimed that he had no responsibility to train his TAs asserted:

I give little training and assume they will comprehend the course material.

Almost half of the respondents reported that they tried to treat their TAs better than they themselves had been treated when in graduate school. As one professor noted:

I treat my TAs much better than I was treated. When I was a TA, I was responsible for all the course material. Along with my cohort, I was expected to do everything except write the lectures. I put together readers, wrote up exams from scratch, wrote sections from scratch, and graded up to 70 midterms, 70 papers, and 70 finals in a given quarter, running three sections a week.

Others were even more succinct. An education professor stated:

My own approach is more hands-on

while an English faculty member said:

I see it as my role to train them how to teach.

When asked to describe the positive aspects of working with TAs, the faculty respondents identified seven key rewards, which we categorized as three domains: perceived rewards for the student (gaining maturity and insight, gaining knowledge of good teaching practices); perceived rewards for themselves (learning from their TAs; gaining insight or feedback on their teaching from the TA; enjoyment of their TAs; workload reduction); and perceived mutually beneficial rewards (positive mentoring relationship; collaboration with their TAs). Mentoring a TA was a frequently mentioned reward, as a communications professor indicated:

The satisfaction of providing a role model; of connecting aspects of my own experience as a TA; the value of their insights into students and teaching.

Other faculty members expressed a sense of reward from the enjoyment and pride they experienced in seeing their TAs mature professionally and pedagogically. As one foreign language professor noted:

It has been great to observe TAs develop into confident classroom teachers, who have really all the skills necessary to plan and present a good language program. I think our TAs are ready for the job market when they leave [the university].

Similarly, an English professor stated:

They're brilliant. They teach me a great deal about my lectures and presentations, about the material; they keep me sharp pedagogically and critically.

An economics professor added:

Many of them are interesting people. I like to encourage them to think of us as working as a team.

A chemistry professor recalled that:

I had one TA who went to all of my lab lectures and he would say, 'Oh, you should have told them this'—feedback on my lectures—which was really nice.

Furthermore, a professor in the School of Communications offered a similar perspective:

They teach me new methods, approaches, and exercises, and offer points of view on the material and methods that they can articulate, where students are unequipped to do so.

Only two respondents reported feeling that the benefit of having TAs was the reduction in their own course load. Three respondents indicated that there were minimal to no rewards in working with TAs. Along these lines, a chemical engineering professor explained:

Our 'standard' TA arrangement [basic office hours and grading] doesn't lead itself much to rewards. When a course allows for greater interaction, I enjoy seeing students develop excitement about the teaching process.

Similarly, a civil engineering professor noted:

It is really only *rewarding* when things go well; it is quite difficult to turn a problem TA around when they are responsible for six labs (only real responsibility in my class).

Lastly, a professor of materials science engineering stated:

I don't recall being 'rewarded', but it's good to work with someone who is conscientious and competent and enthusiastic.

The respondents also indicated a whole host of factors that impeded their ability to work with their TAs effectively when they first began teaching. One of the main difficulties cited lay in ensuring that the TA knew how to grade and work with students properly. 'Getting the TA on the same page' was a frequently used expression throughout the survey responses. Many respondents indicated grading concerns as the primary difficulty they had had and continue to have. Other difficulties included the ineffective use of the TA, poor communication with students, language problems, lack of interest, and gender-related problems.

Cultural and gender variables

Even though ethnicity and gender may shape faculty-TA relations (however subconsciously), it is interesting to note that very few professors specifically cited cultural (7%) or gender variables (4%) as causes or explanations for treating their TAs differently or for choosing to mentor one TA over another. Yet, when faculty members were asked to identify the greatest difficulties they have faced with their TAs, several

raised both gender and cultural factors as a problem. Indeed, one female physics professor commented on both issues, and explained:

I am a woman teaching physics. Male TAs from certain other countries do not like taking direction from a woman. TAs from other countries need too much direction and need encouragement to take initiative.

Although several faculty members in the Chemistry, Engineering, and Economics departments—all schools which employ great numbers of international TAs—cited communication difficulties between the TAs and the undergraduates in their sections, the faculty did not report having experienced any such communication problems with their TAs themselves. Only one professor from the School of Music said she found it easier to work with American TAs because:

they are easier to relate to as a group, I try to be flexible.

The lack of any reported communication difficulties between faculty and international TAs is a notable omission, given Jenkins's (2000) study of cultural and linguistic miscues between faculty and Chinese TAs. In that study, Jenkins found that faculty members believed that their international TAs had lacked initiative, when, in reality, the TAs were acting in accordance with a firm cultural norm that inhibited their ability to ask professors for help or guidance. Initiative seems to be a culturally constructed concept that differs widely across cultures.

Gender was another category of difference that was not alluded to very frequently by women and not discussed at all by men. Only two female professors acknowledged explicitly that gender played a direct role in their interactions with their TAs, noting a feeling that certain male TAs did not seem to respect them. As a female engineering professor explained:

Male TAs did not treat me with much respect when I started as the only young woman in my department. I'm department chair now.

Furthermore, there were no qualitative or quantitative differences in how male and female faculty members regarded their TAs or in their perceptions of TA responsibilities.

Expectations for TAs in university handbooks

Our review of faculty and teaching assistant handbooks from research universities across the USA revealed that few faculty handbooks address how faculty members can mentor or even work effectively with their TAs, whereas TA manuals abound with advice, tips, and hints for helping them work effectively with their faculty supervisors. Faculty handbooks (generally created by the provost's office, the board of trustees, or the university regents) rarely address either the teaching assistant duties and responsibilities or the faculty member's singular responsibility to their TAs (other than very general ethical guidelines concerning consensual relationships), suggesting that such arrangements are to be left to the faculty member or the department. TA manuals, on the other hand, are generally created and distributed by the universities'

teaching and learning centers or by specific departments, and explicitly state TA roles, responsibilities, and obligations.

Of the 10 faculty handbooks surveyed, six made no mention of teaching assistants in any capacity. Four faculty handbooks (from Duke University, Northwestern University, the University of California, and the University of Michigan) discussed faculty roles in the faculty-teaching assistant relationship with varying degrees of detail. For example, Duke University (2003) simply stated that faculty members must consult with the department chair or the dean to determine the duties of their graduate teaching assistants. Similarly, faculty members at Northwestern University (2001) were informed that they are responsible for work carried out by their graduate students and, as such, must familiarize themselves with relevant departmental guidelines concerning hearings and appeals, academic dishonesty, and sexual harassment. In neither case are faculty members referred to TA manuals and handbooks or otherwise given guidelines for an effective faculty-TA relationship. By comparison, the faculty handbook of the University of Michigan (2001) contained the most comprehensive discussion of expectations regarding the relationship. The manual explicitly stated that TAs cannot do all of the grading for the course, can only lecture on occasion, and cannot replace faculty office hours.

In contrast to the relative silence surrounding the faculty-TA relationship found in official faculty manuals, TA manuals and handbooks commonly list the explicit roles and responsibilities expected for TAs and cover issues concerning the faculty-TA relationship far more extensively. The TA manuals repeatedly urge TAs to learn the expectations of the professors by asking the faculty members strings of questions about teaching assistant duties. In a study of TA manuals (*not* faculty handbooks), Lowman and Mathie (1993) found that most manuals focused on the mechanics of good teaching (e.g. grading, lecturing, leading discussions, involving students, holding office hours, learning student names, etc.). Pedagogical theory, understanding the role of the TA, and understanding how the TA should work with faculty were not considered critical topics for inclusion in the ideal TA manual.

On the other hand, several manuals do suggest that faculty members should take a larger role in forging and maintaining an effective faculty-TA relationship. For example, the manual from the University of Minnesota (2003) offers a worksheet that faculty members can fill out to help them conceive and convey their expectations for their TAs (e.g. frequency of meetings, course responsibilities, assessment rubrics, etc.). This assumption of faculty involvement is rare, however, since TA manuals generally seem to assume that TAs will bear the burden of responsibility in the faculty-TA relationship.

General discussion

Toward a new mentoring model

It is encouraging that so many faculty participants in the study described their interactions with their TAs in a favorable light. None of the responses could be consid-

ered Draconian or heartless, though a smattering of comments revealed a disinterest in TA development on the part of the faculty member. Although the sample was too small to be widely generalizable, several trends in the responses are suggestive. First, many professors deliberately sought to have a better relationship with their TAs than what they had experienced as TAs in graduate school. Similarly, many respondents identified themselves as mentors and viewed their interactions with their TAs optimistically.

On the other hand, the responses also indicated that many of the respondents seemed to connect with the traditional, perhaps stale, vision of mentorship, in which the mentor teaches and imparts knowledge in a downward transmission of ideas from the expert to the novice (Cronan-Hillix, *et al.*, 1986). Most of the faculty members in this study who identified themselves as mentors did not report having learned either from their TAs or from being a mentor. Few participants who identified themselves as mentors seemed to embrace the richer, and perhaps more challenging, form of mentoring, in which faculty members reflect seriously on their own teaching and learning practices through their interactions with their TAs. Yet, the data analysis did reveal that nearly half of the survey respondents indicated that they would participate in a workshop on faculty-TA interactions if they had the time. Certainly, this study has shown a very real need for workshops and manuals designed to help faculty members forge a more effective relationship with their teaching assistants. Instead of keeping the burden of maintaining an effective faculty-TA relationship on their TAs, faculty members can do more to utilize (and, we hope, to mentor) their TAs in a mutually beneficial and professional manner. Such interventions would help faculty members become more reflective about their teaching and mentoring practices, and may even challenge their conceptions about teaching and learning.

The results from this exploration suggest a need to update and build upon Nyquist and Wulff's (1996) phases of TA development for supervision. This revised model would differ from Nyquist and Wulff's (1996) model in three crucial ways. First, the model would focus primarily on the development of the faculty member as a mentor, rather than on the developmental levels of the TA. Second, the revised model would assume that the faculty member takes on the role of mentor (as opposed to the role of manager or educational model), even when interacting with TAs at lower levels of development (e.g. the senior learner or the colleague-in-training). Third, and most importantly, in the revised model, mentor would be divided into two categories: mentor-teacher and mentor-learner. In this model, the mentor-learner would be considered at the highest level of faculty development because he or she would accept the experiential and reflection models of Kolb (1984) and Jarvis, *et al.* (1998). Mentor-learners would not simply be the experts guiding novices through the professional world, but would reflect upon their own interactions with their TAs and seek to improve their own teaching, learning, and research practices. While this new mentoring model may not be easily implemented, it presents a goal at universities where TAs are abundant and faculty members often struggle to work effectively with their TAs.

The reflective mentor in practice

In light of the current results, the reflective mentor ideally would be guided by three main principles in every-day practice. First, professors must make their expectations for the TA (e.g. duties, tasks, responsibilities, etc.) clear at the outset of the course, so the potential for misunderstanding and frustration is minimized, and give formative feedback about the TA's performance (with the assessment criteria clearly established) in a timely and regular manner, so that TAs can improve their practice. Second, professors could be encouraged to contemplate the cultural, ethnic, racial, and gender backgrounds of their TAs, while exploring their own possible cultural biases, when making assumptions about the TA's level of interest in the course or level of initiative. Third, professors should regard their TAs as partners in the teaching enterprise and seek to learn from and even collaborate with their TAs, no matter the TAs' developmental levels or amount of experience. As mentor-teachers, faculty members would guide the novice TAs through the brambles of the classroom, by explaining, evaluating, listening, and offering advice. As the mentor-learner, faculty members would learn from the process of mentoring by contemplating their methods of explanation and guidance. Accordingly, mentor-learners would become increasingly reflective of their own teaching and learning in the process (Garvey & Alred, 2000; Light & Cox, 2001; von Hoene & Mintz, 2002).

Colleges and universities can do much to assist their faculty members' development as reflective mentors to their TAs. Positive mentoring practices can be reinforced at the institutional level through official faculty manuals and at the divisional level through guidelines affirmed by the dean of the school or chair of the department. Moreover, institutions can offer workshops on how faculty members can serve as effective and reflective mentors to their TAs, facilitated by departments, or other sources such as university teaching and learning centers.

Conclusion and future directions

The current investigation represents an important foray into the relatively unexplored area of faculty mentorship of teaching assistants. The study revealed that although most faculty members considered themselves to be (or wished to be) mentors to their teaching assistants, for many their actions as 'mentors' were not congruent with the practices of effective mentorship. This incongruence between perception and practice likely stems from a number of factors including: (1) the lack of faculty guidance or training in how to forge and maintain mutually beneficial professional mentoring relationships with their teaching assistants, (2) the faculty members' previous experience (or lack thereof) as a TA or protégé, (3) the faculty members' perception of the developmental level, experience, and initiative of their TAs, (4) faculty members' perceptions of the faculty-TA relationship, and (5) certain cultural and gender variables. We advocate a model of reflective mentorship as a form of professional development in order to strengthen the teaching, learning, and research practices of both TAs and mentors.

An important next step in the study of the faculty–TA mentoring relationship would be to establish a mentoring program to gauge what effects, if any, the relationship has on the faculty member’s teaching, learning, and research practices. More too could be done to determine how gender and cultural differences affect faculty–TA professional relationships. Such research is likely to yield important results and may help foster a promising new model for faculty–TA relationships, in which faculty members serve as active and reflective mentors for their TAs.

References

- Anderson, E. M. & Shannon, A. L. (1988) Towards a conceptualization of mentoring, *Journal of Teacher Education*, 39(1), 38–42.
- Andrews, J. D. W. (1985) *Strengthening the teaching assistant faculty* (San Francisco, CA, Jossey-Bass).
- Austin, A. E. (2002) Preparing the next generation of faculty: graduate school as socialization to the academic career, *Journal of Higher Education*, 73(1), 94–122.
- Boice, R. (1992) *The new faculty member: supporting and fostering professional development* (San Francisco, CA, Jossey-Bass).
- Bowen, W. G. & Rudenstine, N. L. (1992) *In pursuit of the PhD* (Princeton, NJ, Princeton University Press).
- Boyer, E. (1991) Preparing tomorrow’s professoriate, in: J. D. Nyquist, R. D. Abbott, D. H. Wulff & J. Sprague (Eds) *Preparing the professoriate of tomorrow to teach* (Dubuque, IA, Kendall-Hunt), 3–11.
- Boyle, P. & Boice, B. (1998) Systematic mentoring for new faculty teachers and graduate teaching assistants, *Innovative Higher Education*, 22(3), 157–179.
- Busch, J. W. (1985) Mentoring in graduate schools of education: mentors’ perceptions, *American Educational Research Journal*, 22(2), 257–265.
- Campbell, T. A. & Campbell, D. E. (1997) Faculty/student mentor program: effects on academic performance and retention, *Research in Higher Education*, 38(6), 727–742.
- Chism, N. & Warner, S. B. (1987) *Institutional responsibilities and responses in the employment and education of teaching assistants* (Columbus, OH, Ohio State University).
- Clark, R. A., Harden, S. L. & Johnson, W. B. (2000) Mentor relationships in clinical psychology doctoral training: results of a national survey, *Teaching of Psychology*, 27(4), 262–268.
- Cronan-Hillix, T., Gensheimer, L. K., Cronan-Hillix, W. A. & Davidson, W. S. (1986) Students’ views of mentors in psychology graduate training, *Teaching of Psychology*, 13(3), 123–127.
- Daloz, L. A. (1986) *Effective teaching and mentoring* (San Francisco, CA, Jossey-Bass).
- Daloz, L. A. (1999) *Mentor: guiding the journey of adult learners* (San Francisco, CA, Jossey-Bass).
- Dedrick, R. F. & Watson, F. (2002) Mentoring needs of female, minority, and international graduate students: a content analysis of academic research guides and related print material, *Mentoring & Tutoring*, 10(3), 275–289.
- Duke University (2003) *Faculty handbook*. Available online at: <http://www.provost.duke.edu/fhb.htm> (accessed 22 April 2004).
- Eastman, K. & Williams, D. L. (1993) Relationship between mentoring and career development of agricultural education faculty, *Journal of Agricultural Education*, 34(2), 71–76.
- Enerson, D. M. (2001) Mentoring as metaphor: an opportunity for innovation and renewal, in: A. G. Reinartz & E. R. White (Eds) *Beyond teaching to mentoring. New directions for teaching and learning*, 85 (San Francisco, CA, Jossey-Bass), 7–13.
- Erdogan, B. & Tagg, S. (2003) The advertising agency manager’s response patterns to a mail survey and follow-ups, *Marketing Intelligence and Planning*, 21(6), 392–399.
- Galbraith, M. W. & Cohen, N. H. (Eds) (1995) *Mentoring: new strategies and challenges. New directions for adult and continuing education*, No. 66 (San Francisco, CA, Jossey-Bass).

- Garvey, B. & Alred, G. (2000) Educating mentors, *Mentoring & Tutoring*, 8(2), 113–126.
- Hiemstra, R. & Brockett, R. G. (1998) *New directions for adult and continuing education*, No. 79 (San Francisco, CA, Jossey-Bass).
- von Hoene, L. & Mintz, J. (2002) Research on faculty as teaching mentors: lessons learned from a study of participants in UC Berkeley's seminar for faculty who teach with graduate student instructors, in: D. Lieberman & C. Wehlburg (Eds) *To improve the academy: resources for faculty, instructional, and organizational development*, 20 (Boston, MA, Anker).
- Jacobi, M. (1991) Mentoring and undergraduate success: a literature review, *Review of Educational Research*, 61(4), 505–532.
- Jarvis, P., Holford, J. & Graffin, C. (1998) *The theory and practice of learning* (London, Kogan Page).
- Jenkins, S. (2000) Cultural and linguistic miscues: a case study of international teaching assistant and academic faculty miscommunication, *International Journal of Intercultural Relations*, 24(4), 477–501.
- Jennings, E. H. (1987) The central role of the teaching assistant in higher education, in: N. Chism & S. B. Warner (Eds) *Institutional responsibilities and responses in the employment and education of teaching assistants* (Columbus, OH, Ohio State University), 4–6.
- Johnson, W. B. & Huwe, J. M. (2003) *Getting mentored in graduate school* (Washington, DC, American Psychological Association).
- Juarez, C. E. (1991) Recruiting minority students for academic careers: the role of graduate student and faculty mentors, *PS: Political Science and Politics*, 24(3), 539–540.
- Kolb, D. A. (1984) *Experiential learning: experience as the source of learning and development* (Englewood Cliffs, NJ, Prentice-Hall).
- Kram, K. E. (1985) *Mentoring at work: developmental relationships in organizational life*. (Glenview, IL, Scott, Foresman).
- Light, G. & Cox, R. (2001) *Learning and teaching in higher education: the reflective professional* (London, Sage).
- Lowman, J. & Mathie, V. A. (1993) What should graduate teaching assistants know about teaching? *Teaching of Psychology*, 20(2), 84–88.
- Luo, J., Bellows, L. & Grady, M. (2000) Classroom management issues for teaching assistants, *Research in Higher Education*, 41(3), 353–383.
- Mullen, C. A. & Forbes, S. A. (2000) Untenured faculty: issues of transition, adjustment and mentorship, *Mentoring & Tutoring*, 8(1), 31–45.
- Mueller, A., Perlman, B., McCann, L. & McFadden, S. H. (1997) A faculty perspective on teaching assistant training, *Teaching of Psychology*, 24(3), 167–171.
- Nederhof, A. J. (1985) A comparison of European and North American response patterns in mail surveys, *Journal of the Market Research Society*, 27(1), 55–63.
- Northwestern University (2001) *Faculty handbook*. Available online at: <http://www.northwestern.edu/provost/faculty/handbook.pdf> (accessed 22 April 2004).
- Nyquist, J. D. & Wulff, D. H. (1996) *Working effectively with graduate student assistants* (Thousand Oaks, CA, Sage).
- Ragins, B. R. & Cotton, J. L. (1999) Mentor functions and outcomes: a comparison of men and women in formal and informal mentoring relationships, *Journal of Applied Psychology*, 84(4), 529–550.
- Rose, G. L. (2003) Enhancement of mentor selection using the ideal mentor scale, *Research in Higher Education*, 44(4), 473–494.
- Smith, E. P. & Davidson, W. S. (1992) Mentoring and the development of African-American graduate students, *Journal of College Student Development*, 31(6), 531–539.
- Sprague, J. & Nyquist, J. D. (1991) A developmental perspective on the TA role, in: J. D. Nyquist, R. D. Abbott, D. H. Wulff & J. Sprague (Eds) *Preparing the professoriate of tomorrow to teach: selected readings in TA training* (Dubuque, IA, Kendall/Hunt).
- University of Michigan (2001) *Faculty handbook*. Available online at: <http://www.provost.umich.edu/faculty/handbook/> (accessed 22 April 2004).

University of Michigan (2002) *How to get the mentoring you want: a guide for graduate students at a diverse university*. Available online at: <http://www.rackham.umich.edu/StudentInfo/Publications/> (accessed 22 April 2004).

University of Minnesota (2003) *Faculty and TA handbook*. Available online at: <http://www1.umn.edu/ohr/teachlearn/> (accessed 22 April 2004).