

## **Systematic Mentoring for New Faculty Teachers and Graduate Teaching Assistants**

**Peg Boyle and Bob Boice**

*ABSTRACT:* This study reports on the development and assessment of two mentoring programs, one for new faculty and one for new graduate teaching assistants. The first program was an externally funded, elaborate program; and it suggested the centrality of factors such as sustained, involving relationships for best outcomes with protégés. The second project, with newcomers to graduate study, demonstrated that a simpler program focusing on involvement within the pair and group meetings produces promising results. From both these projects, we developed a replicable model of systematic mentoring; and we obtained a clear picture of the styles and skills of exemplary mentors.

Clearly, newcomers to the professoriate arrive unprepared and uncertain as teachers (Boice, 1992b; Sorcinelli, 1994). Earlier still in their career paths, as graduate teaching assistants (GTAs), novice teachers exemplify the basic difficulties that continue into first professorial appointments. They worry about not knowing enough, about gaining student respect, and about balancing teaching with other time-consuming demands (Svinicki, 1994). They sometimes feel they get too little guidance (Diamond & Gray, 1987). And, whether they know it or not, beginning teachers quickly form lasting styles and attitudes (Boice, 1996; McKeachie, 1994).

What, then, do we offer new faculty and GTAs during this critical period? The answer is generally encouraging. More and more new teachers have access to faculty development programs and teacher assistant (TA) training services (Zahorski, 1991). Impressive procedures for enhancing initial teaching experiences are becoming visible (Nyquist & Wulff, 1986; Sorcinelli, 1994) and show beneficial outcomes (Prieto & Altmaier, 1994). Still, two elements are missing in our support and training for newcomers. First, too few campuses assess the outcomes of their projects. Second, we have too few data

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about what program elements augment new faculty success and graduate student performance (Boice, 1997; Carroll, 1980).

A turning point in help for beginning teachers may require adopting a new perspective, perhaps one with an established basis in theory and analysis of what facilitates other kinds of academic progress. The field of student development, a better developed cousin of faculty development, identifies one factor as more important than any other in distinguishing undergraduates who thrive—"involvement" (Astin, 1985). Those who evidence the most progress interact frequently with peers and teachers, especially outside the usual confines of the classroom (Astin, 1993; Pascarella & Terenzini, 1991). The hint from student development is that the same factor, involvement, should be as basic to success at teaching as at learning. A counterpart of the close interpersonal coaching that seems so crucial to undergraduate success is mentoring.

Advantages of mentoring have been demonstrated in a variety of settings and suggest real gains for newcomers. Protégés, contrasted with unmentored newcomers, show significant career advantages (Cameron & Blackburn, 1981; Fagenson, 1989); they demonstrate improvements in risk-taking, political savvy, and specialized professional skills (Bova & Phillips, 1984; Freudenthal & DiGiorgio, 1989). In research settings, graduate students and new faculty who experience intense professional interactions with mentors evidence greater research productivity and career advancement compared with their peers (Corcoran & Clark, 1984; Girves & Wemmerus, 1988).

In TA training and faculty development, where we know far less about mentoring than in other domains of professional development, new teachers conclude that they benefit more from personal guidance (including mentoring) than from a program of tutelage in teaching skills (Boehrer & Sarkisian, 1985). Graduate teaching assistants (GTAs) rate mentoring as the most effective form of training when compared to campus-wide seminars or departmental training programs (Jones, 1993); they appreciate modeling much more than discussion (Gordon & Hoddinott, 1994). In mentoring relationships, both mentors and protégés have increased opportunities for interaction and feel a greater sense of involvement and benefit. Involvement, the very thing identified as an important factor in student development likewise seems to aid teaching development.

## HINDRANCES TO MENTORING NEW TEACHERS

Why, then, isn't mentoring more often reported for new teachers? Some entrenched myths discourage its systematic use for teachers:

### *Assumptions About Natural, Spontaneous Mentoring*

Tradition holds that the best mentoring occurs spontaneously, without intervention by faculty developers and other meddling sorts (Weimer, 1990). We might even suppose that less demanding forms of support, simple advocacy for example, suffice for beginners (Kram & Isabella, 1985). These optimistic expectations, unfortunately, overlook the fact that "natural mentoring" occurs for only about a third of new teachers (Boice, 1992b). Moreover, natural mentoring of new teachers tends to be irregular and short-lived as newcomers caught up in busyness put off meetings with mentors (Boice, 1990; Diehl & Simpson, 1989). This laissez-faire approach to mentoring has three unfavorable results. First, many graduate students go unmentored, even those who want mentoring (Cronan-Hillix, Gensheimer, Cronan-Hillix, & Davidson, 1986; Knox & McGovern, 1988). Second, mentoring becomes even less likely after graduate school, as senior faculty apparently assume that new faculty need less help than before (Sands, Parson, & Duane, 1991). Third, the newcomers least likely to find spontaneous supports like mentoring are women and minorities (Boice, 1993; Bova, 1995; Johnsrud & Atwater, 1993; Turner & Thompson, 1993). The single biggest advantage of natural mentoring in the professoriate goes almost exclusively to white males already in the old-boy network (Boice, 1993).

### *Reservations by Novice Teachers*

Other beliefs inhibit mentoring programs from serving those who could most benefit. Seasoned and new faculty tacitly view faculty development programs as "remedial" (Gaff & Simpson, 1994). Unfortunately, newcomers least likely to find spontaneous supports, such as women and minorities, are more likely to view involvement in programs labeled remedial as harmful, rather than helpful, to career progress. Ironically, viewing teaching development programs as remedial overlooks the fact that most new faculty obtained prestigious

academic positions by focusing on their research and writing, at the expense of developing comfort as teachers.

Another hindrance, busyness, deters new teachers from enrolling in a teaching development program that requires a regular, sustained time commitment. Yet new faculty and GTAs routinely report experiencing busyness (Heppner, 1994; Sorcinelli, 1988; Whitt, 1991). Even GTAs who excelled in our own mentoring program were reluctant to continue. Why? They wanted to return to their research, a reflection of the fact they were already time-pressured and well socialized by the doctoral granting university (Gordon & Hoddinott, 1994).

A final reservation by novice teachers is the fear that mentoring may be used for evaluative purposes. Particularly if mentors are from the same departments, new faculty may resist showing weaknesses to colleagues who may be involved in retention, tenure, and promotion decisions (Diehl & Simpson, 1988). Together, these reservations predict that novice teachers avoid the very programs meant to assist them.

### *We Know Too Little About Mentoring to Feel Confident in Prescribing It*

The literature on mentoring new teachers is scattered, little-known, and largely conjectural. Its glib enthusiasm and lack of verification disposes some of our leaders to dismiss programmatic efforts as a fad (Weimer, 1990). So, when campuses set up new programs, some of the most useful empirical findings about mentoring are overlooked. Examples: a) Mentoring depends far less on the personality matches of mentors and protégés and more on what they do together (Alleman, Cochran, Doverspike, & Newman, 1984). Thus, mentoring for new teachers works as well (if not better) between strangers and members of different departments as with traditional pairings, so long as pairs carry out structured activities (Boice, 1990). b) The earlier the mentoring, as early as recruitment of newcomers, the more beneficial and enduring the outcome (Boice, 1992b). c) Protégés are clear about what they appreciate from mentors: interest and support, humor and empathy, knowledge and competence (e.g., Cronan-Hillix, et al., 1986; Knox & McGovern, 1988). In some instances, however, mentees are wrong about which person would be the best mentor for them. Close friends work together nicely until the mentoring context calls for differences in interpersonal status (e.g., evaluation of

the protégé's teaching). This conflict often causes resentment in protégés who view the change in roles as a violation of friendship. Pairings, and friendships, may dissolve more often in this circumstance than in any other mentoring arrangement (Boice, 1990). d) Mentoring, if it is to be done optimally, must persist until pairs meet habitually and feel bonded, probably for at least several months of regular interactions (Boice, 1992a). And, e) mentoring programs, if they are to be successful, appear to require the services of a program coordinator (Wunsch, 1994). The coordinator can provide incentives for mentoring pairs to meet (Boice, 1992a) and minimize the delays in meeting that otherwise characterize programs for busy faculty (Diehl & Simpson, 1989).

So in actuality, more may be known about implementing and assessing mentoring programs than is generally believed.

## **MENTORING PROGRAMS FOR TEACHERS**

We report here on two similar mentoring programs for new teachers: one program on mentoring new faculty at a comprehensive university, the second on mentoring new GTAs at a Research I university. The two groups prove to be surprisingly similar in the ways they cope as teachers and thrive as protégés. The probable reason may be surprising: Less than a quarter of new faculty had actually taught their own classes as graduate students; more had held research assistantships or fellowships that kept them away from all experiences at teaching (and, evidently, enhanced their chances of employment at a large, public university). Less than ten percent had been in TA training programs; fewer still could specify benefits of such participation. None had been in formal mentoring programs that involved help with teaching. So while new faculty faced some different pressures than new GTAs, their teaching experiences were far more similar than different.

With both groups of newcomers, we wanted to develop programs that would foster involvement and make a proven difference for new teachers. Furthermore, we needed to shape a mentoring format that would require only a modicum of our time as practitioners, even less of campus money. Thus we proceeded flexibly, concentrating on methods that could be exported to settings where too much experimental precision would be impractical.

## METHODS

All participants were volunteers. Some protégés were not spontaneous volunteers; they were cajoled to participate during visits from experimenters to their offices. Information about protégés who dropped out, who were unreliable participants, or who excelled was kept from colleagues or administrators. About half of the protégés chose to make their participation public and about half preserved their anonymity.

### *New Faculty: First Campus (Comprehensive)*

Some details of the mentoring project at the first campus (a large, public, comprehensive university) appear in a preliminary report (Boice, 1990). Here we present new analyses and insights. Briefly, this was its design:

*Participants.* Twenty-five pairs completed the year-long program over the course of two consecutive years. Mentors were paid a small summer stipend after completing the year; the Fund for Improving Post-Secondary Education (FIPSE), the agency funding the initial project, supposed protégés would be more eager to participate than would mentors and should expect or deserve no pay (actually the opposite pattern occurred). Mentees and mentors were selected from lists of recommended participants submitted by their chairpersons and deans. Here, as with the GTA study, mentors were far easier to enlist than were mentees.

A complication arose in pairing mentors and protégés; this was one of the first instances where flexibility replaced ideals. Many of the departments had not hired new, tenure-track faculty in a decade or two; all of the new tenure-track faculty were expected to publish. And many of the chairpersons wanted none of their senior faculty to serve as mentors. The difficulty in pairing new with senior faculty in the same department forced us into two deviations from tradition that proved serendipitous. We recruited mentors where we could: about half came from other departments and colleges on campus; about half came from the ranks of already successful junior faculty.

*Pilot study.* Program pairings began in a pilot project and focused on setting up and recording mentoring interactions. That preliminary project was preceded by another. Both the campus and the funding agency initially doubted that new teachers were insufficiently mentored. To document the need for help with teaching, we tracked the

experiences of newcomers before instituting our mentoring program. Those longitudinal contacts indicated a surprisingly strong justification for systematic mentoring. The results were alluded to earlier: less than a quarter of new faculty found mentors on their own; few of those pairs persisted; most were restricted to white males.

*Control group.* Each mentee in the project had a matched control who could, initially at least, specify a natural mentor on campus (i.e., they had found a mentor spontaneously). The matched controls came from the same cohort of new teachers on campus and were identified during the pilot study that preceded the formal program. Controls participated only in submitting to periodic phone calls where they reported recent meetings with their mentors, checklisted things done, rated the value of those meetings, and reported on their classes.

*Pair obligations.* All formal pairs agreed to participate for at least an academic year. They also contracted for specific obligations, which we hoped would foster involvement and offer opportunities to collect data. These obligations were: a) To meet weekly, usually briefly (perhaps no more than 10-minutes on some occasions; by phone once in a while); b) to attend monthly meetings of all mentoring pairs (because such interactions were opportunities to learn alternative ways of mentoring and because these meetings provided a valued sense of involvement in the program). The monthly meetings lasted about an hour and typically included some brief didactics (e.g., a review of the literature on mentoring), progress reports from pairs, and problem-solving; c) participants agreed to submit to weekly phone calls or visits from project experimenters during which data were collected about pair experiences; and, d) to rate, at least weekly in notebooks, the frequency, content, and compatibility of mentoring interactions.

*Mentoring index.* No known rating system for mentoring pairs existed. So we developed our own from an analysis of the literature on mentoring and tested it during the pilot projects (Lavery, Boice, Thompson, & Turner, 1988). In the formal project, we developed a mentoring index (MI) to make weekly ratings, using 10-point scales, on 10 dimensions of mentoring that are listed in Table 1. Criterion-based judgments for each dimension were indexed so that an averaged score of 6.5 represented an adequate level of mentoring. When other observers, such as experienced chairpersons with campus reputations for effective mentoring of their new faculty, reviewed accounts of the mentoring behaviors they unanimously ruled levels below this as unacceptable.

**Table 1**  
**Dimensions of the Mentoring Index for Both New Faculty  
and New GTA Studies**

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New faculty MI dimensions:

1. pair meets regularly, persistently, in substantial fashion.
2. pair evidences enthusiasm and motivation for mentoring.
3. pair reports compatibility.
4. pair reports helpful, supportive interactions.
5. pair shows reciprocity and similar perceptions of mentoring interactions.
6. mentor arranges collegial contacts for mentee and mentee follows through on them.
7. pair interacts to improve teaching of mentee.
8. pair interacts to improve scholarship of mentee.
9. mentee eventually shows interest and competence, for example, mentoring another new faculty member.
10. mentor evidences own benefits from mentoring.

GTA MI dimensions

1. pair meets regularly.
  2. pair shows reciprocity in mentoring conversations, for example, they reported similar topic areas of discussion.
  3. pair complies with the mentoring program expectations, for example, they filled out reports from meetings and attended group meetings.
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*New Graduate Teaching Assistants: Second Campus (Research I)*

For new GTAs, the program resembled that previously developed with the new faculty, though the setting was a large, public Research I university. Here, the most effective procedures from the prior program were tested in a pilot project, then utilized in the formal mentoring program. Along with the previously tested elements, we added one we hoped would prove useful: investigating predictors of program involvement. Akin to the new faculty program, GTA mentoring pairs were required to meet regularly, briefly, and keep notebooks on their weekly meetings. Experimenters contacted one member of each pair weekly, and participants were expected to attend monthly group meetings. Upon completion of the project, mentors and protégés received stipends provided by the university graduate school. Given

our customarily limited resources, we kept the sample size small and omitted the control group we would have liked to include.

Recruitment for mentors began with personal contacts of graduate students involved in GTA programs on campus (i.e., volunteers for the annual GTA orientation); recruitment for protégés began at the GTA orientation. Graduate directors were solicited to nominate outstanding and award-winning graduate student teachers as mentors, graduate students teaching their first courses or laboratory sections as protégés. As with the other program, mentors were easier to recruit than protégés. Overall, 18 graduate students participated, ten in the pilot project, eight more joined for the semester-long formal mentoring program.

Based on the program with new faculty, we purposely paired mentors with mentees from different departments. We broke this rule in two instances: one where a naturally occurring mentoring pair was starting, the other when we released a protégé and a same-department protégé was the most expedient replacement.

## RESULTS

### *New Faculty: Campus I (Comprehensive)*

*Involvement.* Participation was remarkably strong and reliable. In the first formal project, 26 new faculty (14 in year 1) volunteered to participate (from the total of 48 new hires who had not been teachers before). Of those 26, 25 completed the minimal stay of one year in the program. The inexperienced new hires who did not volunteer were judged by their chairpersons as no more in need of mentoring than were participating new teachers.

Four of the original mentees, because they excelled in year 1, became mentors in year 2. Six of the original mentors excelled in year 1 and continued into the second year, with new protégés. Of the 25 pairs who completed the program, only 3 missed more than three weekly meetings (typically because one pair member was off campus). And, only 5 of the 50 total participants missed more than two monthly meetings.

Every participant was quick to identify the three most important factors in ensuring this low rate of absenteeism and high level of involvement. The first, and most important, was the program practice of weekly calls to mentees and mentors for the ostensible purpose

of collecting data about their ongoing experiences. Many participants expressed the good-humored suspicion that these contacts were also intended to help ensure the regular involvement of pairs with each other ("When I'm tempted to not meet or fill out my things, I realize it would be easier to do them than to have to explain to you why I didn't when you call"). They were right. The second factor that facilitated involvement came once pairs met unthinkingly, automatically. That juncture, typically about two to three months into the program, was marked by what participants described as bonding. It happened when they realized they had grown to like and appreciate the strengths of their partners and reported looking forward to weekly mentoring meetings. The third commonly reported factor that enhanced involvement was the group meeting format. By second semesters, usually, individuals would note that they felt a real part of the campus for the first time (even for senior mentors).

There were also factors that discouraged participants. One was the overwhelming feeling of busyness amongst new faculty. At various times, newcomers decided they had too little time for mentoring; only the program structure, apparently, kept mentors from giving into pleas to put off meetings. The second inhibition to participation was most unexpected. Mentors started out with strong reservations about the seeming presumptuousness of answering to their titles ("I'm not even sure what a good mentor does"; "I feel sheepish about claiming to be the great expert"). Several things helped assuage these concerns. Protégés reacted to these worries as comical ("He doesn't realize how much I have to learn"); they perceived no conceit in the label of mentor. Mentors felt more confident about what they should do after group meetings, during which the mentoring literature was reviewed and other mentors disclosed alternative styles of mentoring. Most important, once pairs gained momentum, they focused more on problems and opportunities, less on self-conscious issues.

At the end of each project year, participants were unanimous in expressing only one regret about their involvement: pairs wished they had spent more time together. Mentors valued making a new friend and the occasion to review and redirect their own careers. Protégés reported realizing that mentoring saved more time than it cost; busyness was no longer an excuse for not meeting.

*Personality.* FIPSE had encouraged us to compare participants on a personality measure, the Myers-Briggs Type Indicator (MBTI; Myers, 1962). Five of the 25 pairs had similar profiles (i.e., matches on three of four dimensions), but those pairs proved no more compatible

(self-ratings) or successful (experimenter ratings). Nor did MBTI profiles predict success of mentors or mentees.

*Styles of mentoring.* We began the program feeling reluctant to prescribe best ways of mentoring (beyond advocating regular pair meetings). Our cautiousness was reinforced in the discovery that pairs interacted in a variety of ways and settled into adaptive patterns, many of which we had not foreseen. Six pairs started out focusing on single professional issues such as preparing dossiers for retention committees. By semester 2, those pairs had broadened their scopes about four-fold. The 12 pairs that had begun with deliberately wide interests narrowed them to the same moderate range by semester 2. Stimuli for change reportedly came in monthly group meetings. Pairs heard other pairs describe activities that stimulated emulation (e.g., having protégés sit in on mentors' classes). Furthermore, as pairs noticed the commonality of new faculty problems (e.g., understanding departmental politics), they knew better what to make priorities.

Unexpectedly, after about 5-10 weekly meetings, eight pairs decided they had finished meeting. In each case, the pair had seemingly addressed all of the protégé's concerns and could think of no more topics of conversation. The solution became apparent in group meetings. Other pairs emphasized the rare skill, amongst academics, of making small talk as an essential one in developing mentoring relationships that grow beyond the mechanics of problem-solving to friendship, modeling, and advocacy. They contended that small talk, at the least, served to sustain involvement until times when new problems or needs arose. Pairs on the brink of quitting tried this curative and resumed what invariably became deeper, more fulfilling relationships.

Two of the perils of mentoring mentioned in the literature, sexual harassment by mentors (Feinstein, 1988) and dependency by mentees (Busch, 1985), were apparently absent here. Program elements may have discouraged them: specific cautions in initial orientations about possibilities of each problem and their warning signs, weekly inquiries with individuals about ongoing experiences including discomforts, occasional observations of mentoring pairs in action.

*Content of mentoring.* Our first impression of what happened in pairs was one of idiosyncrasy. Over time, as we became better observers and as pairs changed styles to be more like the group, commonalities dominated. In our analyses of participants' weekly notebook entries about their mentoring interactions, we used frequency counts to determine the most common topics of conversation.

In rank order they were: 1) research/publishing/scholarship; 2) teaching; 3) retention/tenure; 4) collegial relations and politics.

*Pair ratings (mentoring index).* Overall, these external ratings (10-point scales and 10 items) produced a mean of 70.8 over the year-long projects. This level closely matches the one set in initial criterion training of observers/raters (where 7 of 10 on each scale represented a reasonably effective effort). A combined score of over 70, then, represents a balanced pattern of success. Only two pairs got overall scores lower than 50.

While we considered the MI a tentative measure, it distinguished mentoring pairs in promising ways. Examples: Pairs with each member from a different department rated slightly higher ( $\bar{M} = 73.9$ ) than pairs from within departments ( $\bar{M} = 68.7$ ). Senior mentors' pairs accumulated more (but not significantly so) points ( $\bar{M} = 74.3$ ) than did junior mentors' pairs ( $\bar{M} = 67.4$ ). Curiously, twosomes with junior mentors who had been protégés in the first year of the project (and who had then been selected as mentors because of their successes as protégés) rated somewhat lower than did their counterparts with three to five years on campus. While these newcomer-mentors performed reasonably well, they (and the experimenters) concluded that more experience on campus would have aided their mentoring efforts. One put it this way: "I worried during our meetings that it was the blind leading the blind."

Other comparisons, because of their small sample sizes, are suggestive of promising areas for additional study. The four pairs with mixed ethnicity were essentially identical ( $\bar{M} = 70.1$ ) to pairs with the same, Caucasian, ethnicity ( $\bar{M} = 69.8$ ). The few campus administrators (department chairs, center directors) who participated rated somewhat higher ( $\bar{M} = 73.8$ ) than the overall mean. Even though administrator-mentors spent less time with protégés than did other mentors, they apparently made good use of it. Mentees rated them as especially supportive and wise about campus politics. Campuses might do well to enlist its leaders into such roles; most administrators we contacted said they missed such contacts but, as a rule, they were "out of the pipeline" that provided such opportunities.

Some categories within the MI provided suggestions about the value of mentoring activities. The most highly-rated mentors fared best, in the view of experimenters who observed and rated them weekly, at ensuring regular meetings with protégés, at enthusiastically building compatibility and reciprocity (whether in pairs that started as strangers or not), at arranging collegial connections for

mentees, and in finding their own benefits in mentoring. Unexpectedly, helping the protégé with teaching or with scholarship did not correspond with good mentoring. That lack of relationship, however, may say little about the importance of providing support and direction in those domains. Mentors were quick to admit deficiencies in assisting with either teaching or writing, primarily because they could not specify, in useful ways, how they had learned either set of skills. What Weimer (1990) calls a lack of teaching awareness characterized mentors here (so too, a lack of writing awareness).

By year's end, curiously, mentors rated the mentoring as more valuable than did protégés. Mentees uniformly attributed their lower ratings to disappointments in how well mentors could model successful habits of writing and publishing. By the end of each project year, participants showed strong agreement about the essence of mentoring: Support and guidance in socializing new faculty.

*Pairs' success compared to control (spontaneous) pairs.* Matched controls, because newcomers with natural mentors were uncommon at this comprehensive campus, took longer to find and assess. These were new faculty who did not participate in our formal program and whose claims of having arranged mentoring could be validated. The control group consisted of the first 25 new faculty so identified. These comparison subjects provide a compelling picture of what happens when mentoring occurs spontaneously for busy newcomers. Of the 25 natural mentees, six persisted (albeit somewhat irregularly) in meeting with mentors throughout their first year on campus. Ten met so infrequently (never more than twice a semester) that they rated the benefits of mentoring to that point as inconsequential. And the other nine natural mentees effectively stopped meetings once the busyness of the first semester set in ("I'm too busy getting organized with my classes for this now"). Of those six who met most regularly, four had begun collaborating with mentors on funded research projects prior to arrival on campus. These new faculty were white males and they benefited most amongst the natural mentees included in the control group. Still, their pair-ratings (carried out more subjectively than in experimental pairs) suggested a mean MI of about 58. So by our estimates, even the best-treated of natural mentees fared less well than most counterparts in the formal program.

*Analysis of group meetings.* These were the most highly favored parts of project years, particularly toward the end. Meeting notes revealed some expected outcomes: mentors talked more than mentees, at a ratio of 3:1; mentors were more likely to complain about

the campus, to give advice to anyone in the group, and to report their partners' progress. Mentees more often complimented their partners and reported on their own progress. Criticisms of partners in group meetings were rare. When pairs did show signs of distress or conflict, the group almost always moved quickly with humor, advice, sympathy, and support for both pair members. What may have helped most to diffuse these moments of tension was the ability of other group members to cite similar conflicts in their interactions and their methods of resolution. For example, some mentors' initial advice to seek out departmental colleagues for advice about teaching students at that campus struck mentees as potentially imposing; but when mentors patiently asked mentees to consider the possibility that senior colleagues often felt isolated and would welcome such inquiries as a sign of their expertise, mentees reluctantly agreed to take the risk at least once.

*New Graduate Teaching Assistants: Campus 2 (Research I)*

*Involvement.* Involvement proved to be strong for the GTA mentoring project, much as for the new faculty project at the comprehensive campus. Experimenter ratings of involvement were quite high ( $\underline{M} = 7.39$  out of a possible 10). The majority of the pairs (7 of 9) kept to regular meetings throughout the formal program. All of the participants (18 of 18) submitted to weekly experimenter interviews. This sustained involvement was reflected in participants' evaluation of the program. The participants rated the mentoring project highly halfway through the program ( $\underline{M} = 8.28$  out of a possible 10); at the conclusion, the participants rated the mentoring project even more positively ( $\underline{M} = 8.69$ ).

When asked to explain these high ratings, mentors and protégés expressed appreciation about being able to discuss and get support regarding their teaching. Perhaps because of the general lack of support for teaching, the participants particularly valued the group meetings. Such opportunities to discuss and reflect on teaching, they stated, were rare at this heavily research-oriented campus:

*[Mentor]* This program provided an incentive to talk about teaching and advice giving, more than without this program.

*[Mentee]* It's nice to have someone to talk to and get input and comparisons about teaching.

While overall involvement was high, two pairs fell substantially below the level of involvement of the other pairs. The two failed pairs received involvement ratings ( $\underline{M} = 4.5$ ) lower than those of the rest ( $\underline{M} = 8.2$ ).

*Content of mentoring interactions.* More so than with the new faculty, these GTAs focused on teaching issues during their weekly meetings. Discussions about their undergraduate students dominated the mentoring meetings. Next, in rank order, mentoring pairs discussed: 2) teaching styles 3) teaching-related goals 4) grading issues and, 5) course preparation.

That the graduate students focused on teaching initially surprised us, especially since new faculty at a comprehensive campus, where teaching was more highly valued than at this research campus, discussed scholarship-related issues first, and teaching second. The GTAs provided an explanation for this paradox. At the completion of this program, we asked graduate students whether they thought a teaching or a dissertation-writing program would be more useful. Most favored a teaching program (60%) or a combined teaching and writing program (20%); a minority would have preferred structured help with dissertations (20%). Participants provided these explanations for favoring a teaching program:

*[Mentor]* I don't have input as a teacher, I do as a dissertation writer.

*[Mentee]* I prefer teaching because our department doesn't offer any formal [teacher] training for graduate students.

*Mentoring index ratings.* In this second rendition, we abbreviated the MI. The mentoring pairs were rated on the three factors listed in Table 1. This MI was based on the 16 occasions for experimenter ratings and had a maximum of 30 points. Similar to the new faculty project, mentors who evidenced high levels of socialization (for faculty mentors – administrators and senior faculty; for GTA mentors – scheduled completion of Ph.D. requirements within five years), were in mentoring pairs with higher MI ratings ( $\underline{M} = 23.66$  versus  $\underline{M} = 18.66$ ). Unlike the prior project, within-department pairs ( $\underline{M} = 26.5$ ) performed better than pairs formed across departments ( $\underline{M} = 20.7$ ).

The grand mean of 22 out of a possible 30 for this MI implied generally strong, supportive, and caring relationships. However, the ratings of two pairs again fell substantially below the rest ( $\underline{M} = 14.5$  vs.  $\underline{M} = 24.1$ ). Given the notable discrepancy, we wanted to determine whether factors displayed early in the program could predict the ab-

errant behaviors of these two pairs. So in this second implementation of the program, while we cut other aspects of the previous program, we added the following: predictors of MI ratings.

*Predictors of mentoring index ratings.* Two factors experienced early on seemed to correspond with later MI ratings. These two factors were expectations and compliance with program structure.

At the onset of the program, we collected data on participant expectations for the mentoring program. Most protégés (8 of 9) expected to learn more about teaching or to gain more confidence as teachers. All mentors (9 of 9) expected to learn more about teaching and to have the opportunity to reflect on their own teaching experiences. Below are typical expectations of the graduate students:

*[Mentees]* To learn how to get information across and how to deal better with students.

*[Mentors]* I hope to think more critically about teaching. And to think about ways to improve my own teaching.

In the two failed pairs, however, protégé expectations differed. They foresaw using the pair meetings to voice dissatisfaction with their departments' teaching practices. One of these two protégés expressed a desire to learn tips which would improve her teaching. But, she also stated an atypical expectation: "I expect to use the mentoring to express frustrations (about teaching in her department)". The protégé from the second failed pair verbalized a similar prospect: "I expect to get an outside opinion about teaching and not the political bull from the department."

The mismatched expectations of the protégés to the goals of the program were related to compliance with program structure. These protégés made it difficult for the mentors to maintain brief, weekly mentoring pair meetings. One protégé regularly missed scheduled meetings. The other refused to commit to regular meetings sought by the mentor. Below is a comment from the latter protégé's mentor, charting the progression from early noncompliance with program structure to later uninvolvedness:

*[Mentor - early in the program]* How is mentoring going? Okay, sort of a mess. We don't have weekly meetings set up yet.

*[Mentor - later in the program]* How is mentoring going? Well, I've been uninvolved lately because of other deadlines.

In sum, attitudes and behaviors formed early influenced later program involvement. Failed mentoring pairs included a mentee with

mismatched expectations to program goals and demonstrated early noncompliance with program structure.

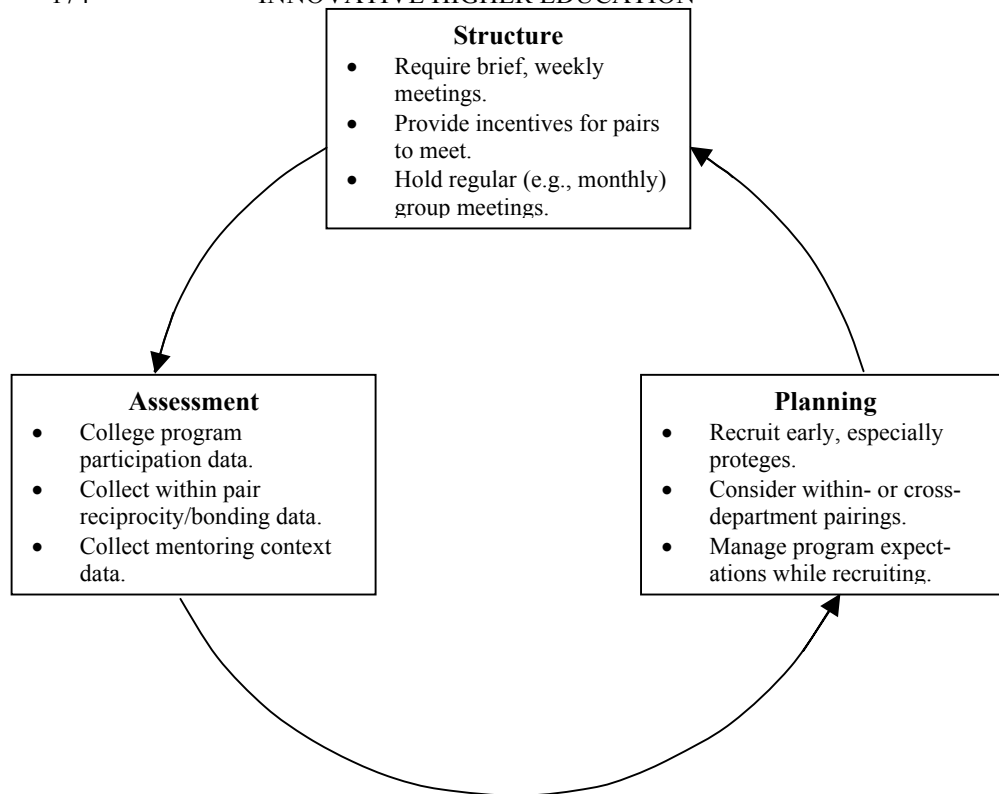
## DISCUSSION

Why go to the trouble to set up a mentoring program? Because the systematic mentoring that we have depicted here works better than spontaneous, natural mentoring. The mentoring pairs met more regularly than the naturally occurring pairs. In addition, they met over a longer period of time and experienced greater program (and even campus) involvement. Most important, perhaps, these structured programs were far more likely to involve both mentors and protégés who are usually left out of the mentoring process. Something else made the programs worthwhile: here, mentors learned more about mentoring from each other, and consequently, took on broader roles as coaches and models. Without the structure and interactive learning of programs like these, mentors tend to carry out their roles more narrowly and less confidently.

### *Process for Systematic Mentoring: A Model*

The kinds of programs we described here were successful for their simple structure. The beauty of these programs is that three underlying process elements were attended to: Planning, Structure, and Assessment. Figure 1 illustrates this model for systematic mentoring.

*Planning.* Adequate planning facilitated the high involvement reported in these programs. First, we recruited participants early in the semesters. This way, pair meetings became an established part of the participants' routines. As busyness set in, the participants scheduled other events around, and regularly reported looking forward to, their pre-set mentoring meetings. In contrast, most naturally occurring pairs waited to meet until the protégés felt settled and caught up; this rarely happened. Second, pair assignments contributed to the success of these programs. For new faculty, cross-departmental pairings seemed to work best. Why? Because new faculty could feel free to express concerns, reveal weaknesses, and question suggestions without fear that these actions may prove detrimental to retention, tenure, and promotion decisions (also see Diehl & Simpson, 1989). In contrast to the new faculty, within-departmental pairings for GTAs seemed to work better than cross-departmental



**FIGURE 1**  
**Model of Systematic Mentoring**

pairings (also see Gordon & Hoddinott, 1994). Why? Here fears of revealing weaknesses to mentors did not hold the same threat of later career consequences for within department mentoring pairs. In addition, an unexpected benefit boosted the experiences of these within department pairs: Advanced GTAs were uniquely able to educate novices about departmental politics and customs. Third and finally, planning allows for early and clear communication of the mentoring program goals. This allows for expectation management to occur early on and prevents a mismatch between participant expectation and program mission.

*Structure.* Following the planning phase, three elements of structure proved effective for sustaining systematic mentoring. First, participants were required to meet weekly, briefly, throughout the length of the programs. Second, regular follow-up with participants provided incentives for pairs to meet, even when they were tempted to cancel because of other demands. Regular follow-up with individual participants (cf. mentors and protégés together) deterred instances of sexual harassment and dependency from occurring. This regular follow-up would have allowed us to identify early any inappropriate within pair

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relationships and intervene early. To expedite the follow-up, we found that regularly scheduled times for stopping by participants' offices, such as office hours, saved us considerable effort in tracking our participants. And while we employed phone and face-to-face interviews, experimenter contacts via phone calls and electronic mail may suffice and be more expedient for busy faculty developers and TA trainers. The third form of structure, the group meetings, fostered a sense of involvement with the full program. The meetings also provided venues for both mentors and protégés to share experiences, garner advice and support, and learn alternative processes of mentoring. An important component of the group meetings was their regular scheduling (e.g., the first Friday of each month proved to be easily remembered).

*Assessment.* Regular follow-up with participants allowed us to gather valuable data about the progress and benefits of the mentoring programs. For institutions considering such programs, assessment data proves most beneficial for keeping current programs on track and to aid in the planning of future mentoring programs.

We found benefit in collecting three levels of data. First, we collected program involvement data. By keeping track of whether experimental pairs met regularly (they did) and whether mentoring program participants attended group meetings (again, they did), we were able to determine that the types of systematic mentoring reported here surpassed that of spontaneous mentoring. Collecting such data provides empirical evidence that teaching and learning professionals can use to quantify the benefits of mentoring programs to skeptical administrators managing shrinking budgets. Second, we collected reciprocity or bonding data using the MIs. The MIs provided information regarding the compatibility and bonding of mentoring pairs and allowed for within program comparisons. From these comparisons, we were able to identify the exemplary mentors (reported below) that could serve as models for future mentoring programs. Third, and finally, we collected mentoring context data using the participants' records of their mentoring meetings. These data allowed us to conduct content analysis of the within-pair mentoring meetings. From this data, we learned the issues important to new faculty teachers (e.g., research/publishing/scholarship) and to novice GTAs (e.g., interactions with students in their classes). Such information can aid in addressing the needs of new teachers and influence future programs.

These assessment tools focused on compliance with program requirements and involvement in systematic mentoring. Our goals were to identify aspects of the mentoring programs that proved successful and to modify future programs accordingly. The next step in assessment would require a longer-term follow-up with the participants of a structured program, thus allowing for the long-term benefits of mentoring programs to be prospectively assessed.

#### *What Seemed To Be The Best Part: Group Meetings*

One aspect of the aforementioned model of systematic mentoring merits additional attention. Both new faculty and graduate student participants listed the group meetings as the most beneficial aspect of the programs. Group meetings provided the participants with a sense of campus involvement they did not find in their own departments, especially around the topic of teaching. The meetings fostered an openness in sharing experiences, even some which were embarrassing, and in providing possible solutions to problems. Also, it allowed mentors to observe (and subsequently attempt) alternative styles of mentoring. Thus, they broadened their roles as coaches and models.

#### *Qualities of Exemplary Mentors for Novice Teachers*

During the analysis of the mentoring programs, we noticed the mentors in the highest rated mentoring pairs exhibited similarities. Much as core competencies for faculty have been identified (Smith & Simpson, 1995), we identified core competencies of exemplary mentors. The exemplary mentors had:

- 1) [For mentors of new faculty]: Three to five years of experience on campus (or else administrators involved in the tenuring process).
- 2) [For mentors of new GTAs]: Successful experiences as teaching assistant and the clear prospect of completing their doctoral degrees in five years or less.

Also, exemplary mentors were:

- 3) Quick to schedule times with protégés, often during the first meeting with their protégés.

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- 4) Likely to add structure of their own to those of the formal program (e.g., they arranged regularly scheduled meetings at interesting places around campus).
- 5) Not given to extensive complaining and pessimism about their campus and department.
- 6) Amenable to being prodded to stay on schedule for meetings by program directors.
- 7) Open and generous in sharing early experiences, so that the mentor moved beyond the role of advice-giver and expert to a more personal and compassionate level of interaction.

Johnsrud (1991) adds another quality likely to distinguish the most effective mentors over the longer run: A readiness, even an encouragement, of gradual independence on the part of the mentee

In the end, there are few surprises in these findings. Similar benefits of mentoring (and skills of effective mentors) have been demonstrated in other professions, including student development. Put simply, the programs behind all of them amount to helping develop more collegial and compassionate departments. Effective mentoring, so far as we can tell, begins with institution-wide programs that coach departments in ways to systematically immerse their newcomers in support programs and provide them with a sense of connectiveness. These programs succeed, apparently, when they make novices feel they are welcome and valued, that the initiation rituals are fair and openly present, and that beginners can, with an honest effort, succeed (Boyle, 1996).

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