

THE ROLE OF COLLEGE FACULTY IN PROMOTING STUDENT RETENTION INSTRUCTIONAL STRATEGIES FOR REDUCING STUDENT ATTRITION

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Contemporary Importance of the Student Retention Issue

In American higher education, beginning college students are more likely to leave their initial institution than stay and complete their degree. In 1986, approximately 2.8 million students began college for the first time. An estimated 1.6 million of these students will leave their first institution without receiving a degree, and approximately 75% of these students leaving their initial institution will leave higher education altogether, without ever completing a degree program (two-year or four-year). In short, about 40 of every 100 college entrants will depart the higher educational system without earning any type of college degree (Tinto, 1987). Moreover, there is evidence that student retention rates at 2-year and 4-year colleges have been progressively declining since the mid-1960's for all students--regardless of gender, ethnicity, and social class (Astin, Korn, & Green, 1987; Eagle & Arnold, April 1990).

The substantial impact an institution can have on student retention is supported by research indicating that the majority of students who leave college are not "forced" out by bad grades nor do they "drop" out because of personal problems--i.e., it is a myth that most students leave college because of academic deficiencies (Willingham, 1985) or financial problems (Noel, 1985). The relevance of these findings for black students is underscored by a large-scale, longitudinal study conducted from 1981 to 1986 on more than 2000 black students and 8,000 white students attending an urban, commuter university. This study revealed that blacks with similar ACT composite scores as whites and similar college GPAs, ranging between 3.0 and 3.24, tended to drop out at a rate twice as high as white students; and blacks with similar ACT scores as whites and GPAs exceeding 3.25 dropped out at a rate three times higher than white students with GPAs greater than 3.25 (Lichtmann, Bass, & Ager, 1989). These findings are reinforced by a more recent, six-year study of African American students which indicates that black students who scored at the 75th percentile (top 25%) on college-entry tests actually had lower graduation rates than black students who scored between the 25th and 74th percentile (National Institute of Independent Colleges, 1990).

The confluence of all these findings strongly suggests that students--in general, and minority students--in particular, are most likely to leave college because of dissatisfying experiences with the institution and not because of personal problems or academic failure. As Tinto (1987) articulates it,

Though the intentions and commitments with which individuals enter college matter, what goes on after entry

matters more. It is the daily interaction of the person with other members of the college in both the formal and informal academic and social domains of the college and the person's perception or evaluation of the character of those interactions that in large measure determine decisions as to staying or leaving. It is in this sense that most departures are voluntary Student retention is at least as much a function of institutional behavior as it is of student behavior (pp. 127, 177).

The Influence of Faculty on Student Retention

It is my contention that there is one major form of institutional behavior affecting student retention, which heretofore has not received sufficient attention--the behavior of college faculty. Most college instructors probably do not realize how much impact they can have on student retention, nor are most aware of what specific things they can do inside and outside the classroom to reduce student attrition. Many faculty may still be under the impression that students drop out of college for personal reasons or academic deficiencies, and that instructors have little or no influence on student departures. However, the influence of college faculty on student retention should be dramatic when one considers the following arguments:

1. Professors usually have more frequent and continuous contact with students than any other institutional representative. Faculty influence should be even more dramatic for commuter and part-time students who may have little or no time for out-of-class interactions with other college personnel. In addition, college instructors most heavily influence and structure students' out-of-class activities with respect to the college (e.g., reading assignments, library research, utilization of campus resources) and thereby influence their contact with other institutional representatives and support personnel.
2. Faculty are also responsible for evaluating students--a sensitive task with major implications for retention because of its impact on students' motivation and self-esteem (especially if one considers that students may be inordinately affected by faculty judgments of their intellectual worth because of the multi-degreed professor's scholarly credentials and lofty status).
3. Instructors are in a good position to observe specific student behavior which can serve as "red flags" for potential attrition (e.g., poor midterm grades, flagrant absenteeism, failure to complete assignments, in-class boredom and passivity). Thus, faculty can play a pivotal role in identifying attritional signs and encouraging or referring students to the support service they may need (e.g., learning center; career center).

Given these considerations, a logical case can be made for the

importance of faculty influence on student retention. These conceptual arguments are supported by a growing body of empirical research. The crucial role of teaching faculty with respect to student retention is underscored by the following key research findings:

(1) Beal and Noel (1980) surveyed 947 colleges and universities, asking administrative officials involved with student retention: "What makes students stay?". Ranking first in response to this question was "caring faculty and staff"; ranking a close second was "high-quality teaching". (Ironically, the same survey revealed that only 18% of these institutions involved faculty in any significant fashion in their retention-improvement programs and "faculty instructional development" ranked a lowly twelfth among their institutional efforts to reduce student attrition.)

(2) Noel, Levitz, & Kaufmann (1982) surveyed campus personnel who were actively involved in successful retention efforts and asked for the key advice they would give to those just beginning a retention project. The advice most often given was: "Do what is necessary to get faculty support, that is the number one key."

(3) Easton & Guskey (1983) found that instructors had the greatest impact on the percentage of students completing college courses, more so than any other factor they investigated (e.g., more than the college which the student was attending, the department within which the course was offered, or the course's subject matter).

(4) Forrest (1982) conducted a comprehensive longitudinal study for ACT, involving 44 colleges/universities of all types, and 3318 students. He found that students who learned most (i.e., showed highest academic gain scores while in college) were most likely to be retained (i.e., were most likely to persist to graduation). This study provides empirical support for the long-held belief that student learning and student retention are related, "Successful retention is nothing more than successful education" (Tinto, June 1987). Moreover, well-controlled research performed by Sullivan & Skanes (1974) and Centra (1977) on large samples of students and teachers, revealed that college instructors who teach most effectively (as measured by student evaluations) have students who learn most (as measured by a common post-course exam). Cohen (1981, 1986) performed two meta-analyses on all well-controlled studies investigating the relationship between perceived teaching effectiveness (as measured by students' course evaluations) and actual student achievement on standardized final exams. He also found a significant association between effective college teaching and student learning.

Taken together, the results of these four large-scale studies provide strong documentation for the link between effective college teaching, student learning and student retention. College faculty appear to play a crucial role--in promoting both student learning and student persistence.

(5) During the 1980's, several national commissions have

issued scathing reports on the condition of American higher education (e.g., National Institute of Education, 1984; National Endowment for the Humanities, 1984; Association of American Colleges, 1985; Carnegie Foundation for the Advancement of Teaching, 1984-5). Each of these reports strongly recommended that greater attention be paid to the issue of effective college teaching, particularly at the undergraduate level. For instance, the National Institute of Education (NIE) recommended in its report, "College officials directly responsible for faculty personnel decisions should increase the weight given to teaching in the process of hiring and determining retention, tenure, promotion, and compensation, and should improve means of assessing teaching effectiveness" (1984, p. 59). The National Endowment for the Humanities (NEH) concluded that,

Many graduate schools have become so preoccupied with training narrow research specialists that they no longer address adequately the more pressing need of higher education for good teachers, broadly versed in their fields, inspired by the power of their subjects, and committed to making their subjects speak to the undergraduate. Unless graduate schools re-examine their priorities, much of our teaching will remain mediocre and our students indifferent (1984, p. 19).

The Association of American Colleges (AAC) reported a "decline and devaluation of undergraduate education [and a] transformation of professors from teachers concerned with the characters and minds of their students to professional scholars with Ph.D. degrees with an allegiance to academic disciplines stronger than their commitment to teaching" (1985, p. 6).

More recently, this issue of effective college teaching, and its impact on student achievement/retention, became the annual themes of two recent national conferences held by the American Association of Higher Education: "Taking Teaching Seriously" (1987) and "The Highest Calling--Teaching to Rebuild a Nation" (1988).

Instructional Strategies for Promoting Student Retention

Given the mounting documentation supporting the link between effective college teaching and student retention, plus the fact that most college instructors receive little or no graduate training in retention-enhancing teaching and advising practices, the remainder of this manuscript will be devoted to enumerating instructional strategies designed to promote student retention. These recommended pedagogical practices will be organized around four critical characteristics of the college experience which research on retention has revealed to be strongly associated with student persistence to graduation; namely: (1) student involvement in the educational process, (2) student-faculty contact outside the classroom, (3) academic relevance, and (4) a caring faculty.

The following instructional strategies are offered with the understanding that some faculty have already successfully implemented a number of the proposed practices; also, they are offered with the realization that some of the to-be-recommended strategies may not be viable in certain classroom contexts (e.g., very large classes). It is my hope that individual faculty members will find at least some of the following instructional suggestions to be relevant, adaptable, and effective for promoting student retention on their campus.

ACTIVE STUDENT INVOLVEMENT

Tinto (1975) synthesized a large body of retention research and concluded that the greater the degree of students' involvement in their college learning experience, the more likely they were to be retained. Astin (1985) also concluded, on the basis of research over a 10-year period, that student involvement (academically and socially) in the college experience was the "cornerstone" of persistence and achievement. Research further suggests that active involvement in the learning experience would be especially critical for "withdrawal-prone" students (e.g., disadvantaged minority students) who have been found to be particularly "passive" in traditional academic settings (Astin, et al., 1971).

The following instructional practices are recommended to college faculty for the purpose of promoting active student involvement:

1. When constructing your course outline or syllabus, explicitly include a written statement indicating that you value student involvement (e.g., their input, questions, and ideas). On the first day of class, review the syllabus and reinforce this printed statement by verbalizing it to the class. Such a verbal statement should serve to translate the formal policy into a personal invitation for student involvement. Also, assuming that first impressions are very influential, the fact that you are delivering this statement on the very first day of class could serve to set a tone of the remainder of the semester.

The need for college teachers to explicitly express their desire for student involvement is highlighted by research conducted by Centra (1973) who discovered large discrepancies between college professors' self-perceptions of their degree of "interaction" and "openness" with students compared with student perceptions of their professors (i.e., teachers tended to perceive themselves as much more open and interactive than their students perceived them to be).

2. On the first day of class, request students to submit to you a sheet of paper or index card listing their names and some information about themselves (e.g., their personal interests and professional aspirations, course topics of interest to them). Use

this information in subsequent class sessions to actively involve students in the course (e.g., solicit a student's input on a course topic which she expressed an interest in or which relates to the student's career pursuits).

Research on the college level by Murray (1985) indicates that "addressing students by name" is a classroom teaching behavior that correlates positively and significantly with students' overall evaluation of the instructor. At the precollege level, Berliner and Tekunoff (1976, 1977) found that teachers who were more effective in producing higher levels of student achievement were more likely to call their students by name.

3. During lectures, periodically interject thought-provoking questions designed to stimulate student involvement with the course material and student interaction with the teacher. Andrews (1980) found that instructors who had classes with the most active student participation were more likely to pose "higher-order" questions--i.e., questions requesting levels of student thinking higher than rote memory (e.g., analysis, synthesis, evaluation) and "divergent" questions--i.e., questions which allowed for a diverse number of correct responses (as opposed to "convergent" questions which ask for one, and only one correct answer). Merlino (1977) also found that teachers who used such higher-order, divergent questions had students who displayed greater comprehension of the concepts being taught and greater satisfaction with their learning experience.

I would further recommend that such divergent questions be phrased in a tentative fashion (e.g., "What 'might be'" "What 'could be'" "What 'may be'") Such conditional phrasing underscores the diversity of acceptable answers and further minimizes the student's fear of not providing "the" correct answer which the teacher is "looking for" (a very realistic fear if the instructor conveys this message because of the odds against being right, i.e., only one correct answer and a virtual limitless number of incorrect answers). The importance of phrasing or framing questions in a way that increases the probability of student response is underscored by research reported by Barnes (1980) in which she found that college teachers' questions elicited a student response only about 50% of the time! Her subsequent findings indicating that 63% of all teacher-posed questions involved rote memory and less than 5% were "divergent" (Barnes, 1983), strongly suggest that low student response rates may be due to the nature and form of the instructors' questions, rather than to student apathy or reticence.

4. After posing questions designed to elicit student involvement:

(a) Pause long enough to allow sufficient time for students to generate a response. Failure to pause long enough may be a signal to students that your question is merely rhetorical, or that you

are more concerned about moving on and covering material than you are with encouraging student participation. There may be a natural tendency for teachers to perceive silence as a waste of class time, depriving them of the opportunity to cover more course material. Consistent with this contention are the research results reported by Pollio (1989), who observed 550 hours of classroom instruction and found that the average post-question pause time for college instructors was only 1.5 seconds!

Longer post-question silence may be necessary to allow students the "incubation" time requisite for higher-order thinking. For instance, Rowe (1974-a, 1974-b) discovered that instructors who waited at least three seconds after posing a question were more likely to receive a greater number of higher-order student responses. Brophy and Good (1986) reviewed an extensive amount of research at the precollege level and reported that a "wait time" of at least three seconds following teacher-posed questions was correlated with higher levels of student achievement.

Another advantage of pausing several seconds after posing a question is that the extra time may result in a larger pool of students who decide to raise their hands. A sensitive teacher could use this opportunity to select--from the array of students who have raised their hands, a previously quiet or passive student who may now have his hand raised for the first time.

(b) After posing the question, make eye contact with students who have been reticent to participate. Such eye contact may provide a subtle nonverbal cue or personal invitation to encourage the previously passive student to become more actively involved.

(c) Rephrase the question or provide a clue, if the original question fails to elicit any student response. Perhaps the original lack of student response was not due to disinterest but to the nature of the question (e.g., an ambiguously phrased question, or a question which did not provide enough background information for students to feel comfortable about risking a response). Empirical support for the effectiveness of rephrasing an unanswered question and/or giving clues is provided by Clark, et al. (1979).

(d) Acknowledge the name of the student who volunteers a response. This serves to acknowledge the student's individuality and shows the student you "know" him/her. Moreover, continual use of students' names serves to reinforce the instructor's memory for these names and increases the probability that students will learn the names of their classmates--thereby increasing the sense of "community" within the classroom and, perhaps, increasing the likelihood that students will engage in collaborative learning with their peers.

(e) If the student's response to the question is not accurate,

try to praise some aspect of the response (e.g., its creativity). If nothing about the student's response can be praised without appearing patronizing, then at least praise the effort (e.g., "Thanks for taking a stab at it."). This serves to reinforce the student's attempt, increasing the probability that s/he will respond again. The importance of responding positively, not condescendingly to student input is underscored by the research of Mazzuca and Feldhusen (1978), who reported that the most common student description of their "least liked" college classes were those in which teachers were "demeaning" and "ridiculing" toward student questions and ideas.

5. Occasionally break up large classes into small discussion groups. This procedure should serve to increase the degree to which students become actively involved with the course content (academic involvement) and with each other (social involvement). Kulik and Kulik (1979) conducted a comprehensive review of the research literature on college teaching strategies and concluded that use of discussion groups promoted students' problem solving abilities and resulted in more positive student attitudes toward the subject matter of the course. Smith (1977, 1980) observed college classes in different disciplines and also found that student-student interaction was positively related to critical-thinking outcomes and higher-level studying.

Further empirical support for the cognitive benefits of student-student interaction comes from college-level research on cooperative learning (i.e., learning in small heterogeneous groups of 4-6 students which require students to work as a team on a common academic task). Dansereau (1983) conducted research on a sample of over 200 college students and found that such cooperative learning arrangements were consistently more effective than individual learning for promoting retention of course information. Frierson (1986) found that black nursing students scored higher on a state board exam when they were instructed to engage in cooperative learning/studying, relative to a comparable group of students who were not instructed to engage in such interdependent learning.

Empirical support for the beneficial impact of small-group interaction on reducing student attrition is provided by Wales and Sager (1978) who collected data at the University of West Virginia. Their data indicate that students exposed to the "guided design" approach to learning, in which students work on open-ended problems in small groups (4-7 students per group), were more likely to display lower rates of attrition, as well as higher levels of achievement and greater course satisfaction.

More recently, Treisman (1985) studied the effect of cooperative learning on black students at Berkeley who entered college as math or science majors. He found that black students participating in his cooperatively taught tutorial sessions received a mean grade-point average of 2.6 in freshman calculus, whereas a comparable groups of blacks not attending the sessions

received a mean grade-point average of 1.5. Five-year retention rates at Berkeley for black students attending cooperative learning workshops was 65%, while for black non-attendees it was 41% (the all-college average was 66%). The percentage of workshop attendees graduating in mathematics-based majors was 44% -- compared to only 10% for a control groups of black students who were not involved in the cooperative learning sessions.

6. Increase students' involvement in the course by soliciting their course perceptions (subjective feelings of course satisfaction) while the class is still in progress. For example, consider administering course evaluations early in the term, establishing an anonymous "suggestion box," or creating a "quality circle"--a small group of students who periodically meet with the instructor to channel input from the class to the teacher and vice versa. Such early feedback mechanisms allow the instructor to make course improvements before the class is finished, and also enable the instructor to rectify student misperceptions before such misunderstandings eventuate in resentful compliance or student passivity.

7. Increase student involvement by providing students with some decision-making opportunities with respect to the course. For instance, consider allowing student options for selecting a term-paper topic, or allowing students to express their preferences regarding certain course topics and, if possible, attempt to accommodate these preferences. Grasha (1972) has found that increasing college students' decision-making opportunities results in more positive attitudes toward the subject matter and more peer interaction. Richter and Tjosvold (1980) also found that increasing student input concerning class decisions served to increase students' positive attitudes toward the subject matter, promoted more positive interactions among students, and resulted in students working more consistently without instructor supervision. Zuckerman, et al. (1978) report experimental data which indicate that increasing individuals' decision-making opportunities serves to increase their intrinsic motivation toward the task being performed. Thompson (1981) also reports findings indicating that, when individuals who are allowed to exert some control over a task, they tend to experience less anxiety/stress while performing that task.

8. Try to avoid student evaluation procedures which force students to compete against each other for grades (e.g., grading "on a curve"). Such grading schemes may reduce the likelihood of cooperative student relationships, thus interfering with the retention-enhancing process of student interaction/involvement with other students.

Class-curve grading does not foster good interpersonal relations; rather, having to 'bump' others and being 'bumped' foster ill will. Grading on a class curve does not

encourage group study or cooperative learning; instead, it encourages isolation and exclusion. Class-curve grading does not motivate students to help one another to learn; on the contrary, self-interest would be 'best' served by interfering with the learning of one's fellows. (Hanna & Cashin, 1988, p. 3).

Illustrative cases of such interpersonal "interference" stemming from competitive grading schemes were observed during on-site college visits by Boyer (1987),

To improve their chances of good grades, pre-med majors were known to sabotage each other's experiments in chemistry labs. Students in political science, expecting to compete for entrance to law school, tore pages from reserved books on assigned reading lists so others would not have access to information (p. 273).

In contrast, research by Haines and McKeachie (1967) suggests that non-competitive grading results in greater cooperation among college students, improved class morale, and less student anxiety than competitive grading procedures. Johnson, et al. (1981) performed a meta-analysis on a large number of studies and found that students engaged in cooperative learning experiences also display higher levels of achievement than those who work individually or competitively. This finding held true for all age levels of students included in their analysis--elementary, high school, and college students (both traditionally aged students and adult learners).

9. Encourage student involvement with other students by emphasizing the value of peer study groups. One way an instructor can encourage such student-student interaction is by offering to publish the phone numbers of students who are interested in working with other students or forming study groups. A mathematics colleague of mine attempts to implement this strategy by circulating a sheet of paper 2-3 weeks into the semester and asks for any students who are willing to be called by other students for help regarding homework assignments or exam preparation. She prefaces this request by pointing out the value of peer learning, not only for the peer learner, but for the peer teacher (tutor) as well. In fact, she insists that the student seek help from other students before calling her for assistance; if an individual student contacts her for help, she asks that student for the name of the peer s/he contacted and confirms that such peer interaction occurred before she provides individual assistance during office hours. This mathematics instructor anecdotally reports that her procedure has increased the amount of student interaction with other students; for example, she has observed that students are more likely to form study groups and make office-hour visits in groups rather than individually (Herro, May 1987).

Empirical evidence underscoring the educational effectiveness and efficiency of peer tutoring was reported by Levin, Glass, and Meister (1984). They reviewed the literature, comparing the cost-effectiveness of four academic support strategies for developing mathematical and reading skills: peer tutoring, computer-assisted instruction, lengthened instructional time, and class size. They found peer tutoring to be the most cost-effective support strategy (e.g., it was more than twice as cost-effective as computer-assisted instruction).

10. Be supportive of student involvement in extracurricular/co-curricular campus activities when scheduling course requirements

Germane to this point is the previously cited research indicating that student involvement with campus life is a key retention-promoting variable. Attempt to encourage your students' participation in campus events by taking a few seconds of class time to announce them or to remind students of their occurrence; and, if possible, try to integrate the students' learning experiences in your course with the campus event. For instance, if "Women's Week" or "Black History Week" is being celebrated on campus, attempt to make some connections between your course content and the week's activities. (Perhaps allow an extra-credit option for students who attend and write reports on a campus speaker whose address happens to dovetail with one of your course objectives.) Also, faculty attendance at appropriate campus events could serve to model the importance of active involvement with campus life and may increase the likelihood that students will follow suit and become more involved.

STUDENT-FACULTY CONTACT OUTSIDE THE CLASSROOM

Tinto's (1975) comprehensive review of retention research revealed that informal student-faculty informal contact had the most significant impact on the persistence of students who were "withdrawal prone" (e.g., minority students with low high school grades and SAT scores, first-generation college students, and low-income students). Astin (1977) gathered longitudinal data on 200,000 students in 300 institutions of all types and concluded,

Student-faculty interaction has a stronger relationship to student satisfaction with the college experience than any other variable . . . [and] any student characteristic or institutional characteristic. Students who interact frequently with faculty are more satisfied with all aspects of their institutional experience, including student friendships, variety of courses, intellectual environment, and even administration of the institution" (pp. 223 & 233).

Rossman (1967), Spady (1971), Terenzini & Pascarella (1977, 1978), Pascarella & Terenzini (1979), Pascarella (1980), and Bean (1981) all report that informal student-faculty contact correlates positively with increased student retention. Tinto

(1985) concluded, "The occurrence of largely informal contacts outside of the classroom appears as a consistent factor distinguishing those who stay from those who voluntarily withdraw" (p. 371).

Astin & Panos (1969) conducted a longitudinal study of approximately 36,000 students at 246 colleges and universities and discovered a significant correlation between teacher-student contact and students' levels of educational aspiration. Centra & Rock (1970), Phelan (1979), and Pascarella (1980) also found that such contact was associated with increased likelihood of students pursuing advanced degrees.

Astin & Panos (1969), Centra & Rock (1970), and Pascarella (1980) also found that student-faculty contact correlated positively with higher levels of academic achievement (e.g., as measured by standardized tests). Additionally, Lacy (1978), Pascarella & Terenzini (1978), Weidman (1979), and Endo & Harpel (1982) all report positive correlations between amount of student-faculty contact and higher scores on measures of students' personal and intellectual development. Volkwein, King and Terenzini (1986) report similarly positive correlations between frequency of student-faculty contact and cognitive growth of transfer students.

After critically reviewing and synthesizing a large number of studies investigating the relationship between student-faculty contact and educational outcomes, Pascarella (1980) concludes,

The significant associations between student-faculty informal contact and educational outcomes are not merely the result of covariation with individual differences in student entering characteristics or with college experiences in other areas, such as the peer culture. Rather, various facets and quality of student informal contact with faculty may make a unique contribution to college impact. In turn, this suggests the possibility that colleges and universities may be able to positively influence the extent and quality of student-faculty contact, and thereby faculty impact on students, in ways other than the kinds of students they enroll (pp. 564-565).

The following practices are recommended to college faculty for the purpose of improving the quantity and quality of student-faculty contact outside the classroom:

1. On the first day of class, verbally review your syllabus, emphasize your availability outside of class, and encourage student visitation. Call attention to your office hours and office phone number, and suggest that individual appointments can be arranged if listed office hours conflict with a student's out-of-class responsibilities (e.g., work; child care). Also, it would be nice to inform students of your home phone number and assure them that they can call you at home if a need arises. (It is my experience that students rarely abuse this privilege.)

Taking time during the very first class session to state that you welcome interaction with students outside of class may serve as an explicit signal to them that you genuinely value such interactions (as opposed to perfunctorily listing office hours on the syllabus to fulfill an institutional or departmental requirement). Perhaps it would also be worthwhile to point out to your students on the first day of class that a large body of research supports the value of student-faculty, out-of-class contact for improving students' prospects of educational and personal success.

2. During office hours, keep your office door open and your desk facing the open door. This should serve as a signal to students that you are "open" and eager to accommodate visitors. Dutifully being in your office during office hours still may not be perceived as accessibility, if the office door is fully or partially closed. This may be interpreted by a potential student visitor (particularly a passive or diffident student) as a subtle signal that you are busy and prefer not to be disturbed.

3. If, during your scheduled office hours, you have to leave your office for some reason (e.g., to attend a meeting), be sure to post a note indicating when you expect to return. Perhaps nothing could be more discouraging for a student seeking out-of-class contact with faculty than to be greeted by a closed door and a missing professor during scheduled office hours. Consider tacking a permanent note pad on your door for students to leave messages in case they missed you in person. It would also be useful to post your class schedule on your office door, including information on when and where your classes meet during the week. This would enable students to make at least brief contact with you before or after class if urgency dictates that they cannot wait until your next "official" office hour.

4. Try to arrange your work schedule so that you do not have to "bolt out" of class as soon as it ends. Availability to students immediately after class might be a critical time for student-faculty interaction because it comes after the students' interest, curiosity, or confusion has been sparked by course material which has just been presented during the class session. It is at this time that students are often likely to seek clarification on concepts presented during lecture or to engage in extended discussion of some provocative issue raised in class.

Empirical support for this contention is provided by Terenzini (1986) who reports research indicating that not only quantity of student-faculty contact is important for retention, but the "quality" of contact is also critical. Regarding such quality contact, he concludes that, "Those interactions involving discussion of intellectual and course-related matters appear to be among the most powerful influences" (p. 12). Course-related, student-faculty interaction immediately after class may also lead to greater willingness of the student to seek further contact

with the faculty member in other contexts (e.g., office visitation).

5. Invite students to help you research answers to questions they raised in class or after class. This practice would serve to increase the quantity of out-of-class student contact, and the quality of such contact, because it would involve interaction on substantive course-related issues.

6. Try to schedule a personal meeting or conference with individual students sometime during the early stages of the course. The personal meeting could serve some academic function (e.g., to discuss selection of a term paper topic or research project) but could also serve as an early "ice breaker," enabling students to feel more comfortable about approaching you outside of class for future discussions. (If anything, requiring this initial conference at least assures that the student will discover where your office is actually located!)

7. Before exams, remind students that you are available to help them outside of class and encourage them to come by and see you. Though your office hours may have appeared in print on the course syllabus, a timely verbal reminder should serve to underscore the sincerity of your commitment to helping students outside of class.

8. Attempt to increase office hours prior to major exams. Though I am unaware of any formal research supporting this suggestion, it is my experience that students' willingness to interact with faculty outside of class appears to increase dramatically as test time becomes imminent! Increasing your availability at this time may serve to encourage students who, as a result of positive interaction with you for the utilitarian purpose of improving their test grade, may decide to seek future contact with you for less utilitarian purposes.

9. Consider scheduling review sessions in some informal, out-of-class setting (e.g., instructor's home; lounge or study room in students' dormitory). The prospect of improving one's course grade via a pre-exam review should serve as a strong incentive for students to attend this out-of-class interaction with the faculty member.

Perhaps it would also be a good idea to have students suggest what topics/concepts will be reviewed prior to this review session. This would give students some sense of "control" or "ownership" of the session which, in turn, could increase their motivation to attend. Additionally, this practice would allow students some decision-making opportunity regarding their learning experience, which is one way to increase their level of "academic involvement" (a factor found to be empirically associated with improved student retention).

10. Occasionally make yourself available to students "on their turf" (e.g., have coffee or lunch in the student union or lounge). This sends a message to them that you do not consider it "beneath" you to associate with students, and signals that you may actually enjoy such associations because you are electing to spend some of your "free" or "leisure" time with them.

11. Participate in extracurricular/co-curricular activities with students (e.g., intramural sports, student elections, campus pep rallies). This enables students to see their instructors in a different light--one in which prestigious professors and subordinate students are now on equal terms. Perhaps by participating with faculty in such informal, non-threatening activities which allow them to see their professors as "regular guys," students may become less intimidated by faculty's lofty professorial status and may become more willing to interact with faculty on academic or career-related issues.

RELEVANCE OF THE ACADEMIC EXPERIENCE

Astin (1975) discovered that,

The reason students give most frequently for leaving college: boredom with courses. Both men and women cite this reason more often than poor grades That it is a factor in dropping out is consistent with other evidence which reveals lack of involvement as a critical element in the decision to leave college. In these circumstances, institutions would be well advised to undertake studies of reasons for student boredom, including poor teaching, uninteresting courses, (and) superfluous requirements (pp. 148-149).

Noel (1985) reports that the average GPA of college dropouts is no lower than the average GPA of persisters and that financial factors do not play an important role in causing students to drop out. He estimates that over 85% of college dropouts are voluntary, i.e., they elect to discontinue their education--frequently because they do not perceive its relevance for their personal and professional goals.

As the bottom line, we find that students re-enroll when they are having an exciting, substantive learning and personal growth experience that they can relate to their future development and success. We need to be more specific in interpreting for our students . . . how the outcomes of education, the competencies they will develop with us will be useful in adult roles beyond the classroom Faculty need to identify rather specifically what it is they have to offer the students in their classes and how this information is going to be useful to them (Noel, 1985, pp. 2, 10).

The following instructional practices are suggested to college faculty for increasing the likelihood that students will perceive the relevance of their academic experience.

1. When constructing your syllabus, include course goals which are relevant to students' personal lives outside of the classroom, their general (liberal) education, and their future careers. Be sensitive to phrasing course goals or learning objectives in a way that articulates how the course will (a) improve the students' quality of life, (b) have cross-disciplinary significance or transferability to other aspects of their college education, and (c) contribute significantly to their career preparation. As Boyer (1987) articulates it,

Integrating the liberal and useful arts depends every bit as much on people as on programs. Courses alone do not bring coherence. Faculty must provide the enlightening and integrative foundation so essential to a successful undergraduate experience. They should not only be devoted to their disciplines but also embody and exemplify in the classroom the spirit of liberal education (p. 115).

A similar point was well expressed by Hiley (1983),

In the classroom and through academic advising faculty can assist liberal arts students in exploring the purposes of their education, in seeing the connection between education and work, in beginning to set personal goals, and in planning intelligently for the future. A common recommendation for improving career services is to involve those who have the greatest influence on students--the faculty Faculty are usually primarily concerned with the content of their classes, forgetting that in the course of studying history, or designing a physics experiment, or reading philosophy or literature they are developing work-related abilities (pp. 26-27, 29).

It should also be kept in mind that the majority of students taking general education or introductory level courses in our discipline are not going to major in that discipline and, even among those students who are majors, the majority will not go on to graduate school or become practicing professionals in our field. Thus, it seems somewhat unrealistic to expect that our students will have the same intrinsic interest in our academic area as we do; we may need to explicitly articulate the practical payoffs that will accrue from learning the academic content of our courses.

2. On the first day of class, verbally review your syllabus and make a special note of how the course material will benefit your students, personally and professionally. This practice serves to

highlight the relevance of the forthcoming learning experience, especially for those students who have a tendency to skim over the syllabus (or fail to read anything on it except the required assignments and exams).

3. Take some time to explain the rationale behind your course requirements, Justify your assignments by explicitly indicating their value for students' personal, educational, and/or professional development--thereby reducing the likelihood that your assignments will be misperceived as irrelevant "busy work." It would also be a good practice to seek anonymous student feedback on the usefulness of your assignments. This would help the instructor identify and correct common student perceptions (or misperceptions) of irrelevance, and would also increase student input/involvement in their learning experience. As previously indicated, such involvement has been linked empirically to improved student retention.

4. During class presentations, incorporate current developments in your field. This may serve to underscore the contemporary relevance of the course material.

5. Use current events reported in the popular media (e.g., newspapers) to illustrate course concepts and principles. This serves to show students that the course content is "newsworthy" and relevant to the "real world." Empirical support for this suggestion is provided by Wilson (1975) whose large-scale, multi-institutional study of college teaching effectiveness revealed that professors rated as "outstanding" by both students and colleagues were more likely to "relate course content to current social events--indicative of an effort to enliven course content, to make it connect with events and realities outside the class, and thereby to stimulate students intellectually" (p. 146).

6. Use varied examples drawn from different real-life settings to illustrate academic concepts. This practice should increase the likelihood that students will perceive the concept's relevance by demonstrating its breadth of application, and also should increase the probability that individual students with varied backgrounds and interests will see the concept applied to a situation that has personal significance for them. Eble (1976) eloquently articulated this point,

The diversity of students in undergraduate courses argues for the teacher who can provide most in the way of relevant contexts (With) the increasing pluralism and decreasing professionalism of colleges and universities in the next decades, the master teacher is likely to be the one who can provide contexts for many kinds of students (p. 146).

Empirical support for this notion is provided by Bjork (1979)

whose experimental research indicates that the same concept presented in different settings/contexts is better retained than if presented in a single context. Rosenshine and Stevens (1986) report that instructional use of multiple, varied examples results in higher levels of achievement among precollege students.

7. Pose questions which place the students in a personal setting or situation that invites them to actively apply the concept being presented. For example, students in a psychology class could be asked the following question: "Suppose you were a psychiatrist and a patient came to you with the following symptoms, how would you diagnose and treat this patient's condition?" This practice serves to demonstrate the concept's relevance by having the class actively apply it in a real-life simulation. Thus, two retention-enhancing principles are implemented simultaneously by this practice: (a) academic relevance, and (b) active student involvement. Eble (1976) effectively captures the student-involvement promoting quality of this practice: "Problems and ideas set in personal contexts are probably better ways of getting a discussion started than are broad questions and definitions. "'Do you consider yourself a romantic' is better than 'What is romanticism'?" (p. 62).

8. Plan field trips or use videotapes (take the field trip to class) so that students come in direct contact with real-life illustrations/applications of concepts discussed in the course. These practices should serve as effective avenues for showcasing the relevance of the course's academic content.

9. When constructing examinations, try to include test questions which refer to current events reported in your field and/or current events reported in the popular media. This serves to highlight the contemporary relevance of the course concepts and increases the perceived relevance of your exams. "The only instructional sin greater than teaching obsolete or trivial information is to test and grade students about such knowledge" (Ericksen, 1984, p. 14).

10. When constructing exams, include test questions simulating real-life situations which students are likely to have experienced (e.g., as part of college life) or which they will likely experience in the future (e.g., as part of their personal or professional lives after college). Including test questions which may impact on students' lives should underscore the relevance of the tested concepts and enhance students' motivation to prepare for course exams. If carefully constructed, a classroom test can be more than a mere measure of student performance; it can also serve as a vehicle for promoting student interest and motivation to learn. "A good deal of research on student learning indicates that major motivating forces for study are the assignments and examinations rather than what is said in

lectures" (Knapper, 1987, p. 10).

CARING FACULTY

Beal and Noel (1980) conducted a large-scale survey of 947 colleges and universities, both two-year and four-year, asking retention officials on these campuses: "What makes students stay?" Ranking first in response to this question was "a caring faculty and staff." Faculty concern and commitment to student welfare appears to be especially important for the "withdrawal-prone" student--e.g., economically disadvantaged minority youth (Tinto, 1975). Tinto (June, 1987) reported interview results obtained from withdrawal-prone students who persisted to graduation. These students were asked if there was any one thing about their college experience which accounted for their staying and completing their degree. The most common response, by far, was that some member of the faculty or staff at the institution took a personal interest in him/her, i.e., someone was genuinely concerned about the individual student's welfare and progress. Tinto (1987) eloquently expressed the upshot of this finding,

Students are more likely to become committed to the institution and, therefore stay, when they come to understand that the institution is committed to them. There is no ready programmatic substitute for this sort of commitment. Programs cannot replace the absence of high quality, caring and concerned faculty and staff" (p. 176).

Noel (1985) also concluded that, among the "critical factors" associated with student retention,

First, enrollment is dependent upon satisfied students and alumni; they are, after all, an institution's best recruiters. This satisfaction is manufactured in classrooms by competent, caring faculty who believe that their mission is to reach individual students and have a positive impact on their lives" (p. 15).

The potential influence of faculty on student satisfaction with college courses is highlighted by findings indicating that, more than any other single factor, satisfaction with the instructor has the most impact on whether a student will recommend a course to another student (Bruton & Crull, 1982). The powerful effect of faculty on student satisfaction with the overall college experience is underscored by research indicating that satisfaction with faculty-student relations is less dependent on entering student characteristics than any other measure of college satisfaction (Astin, 1977).

The following practices are recommended to college faculty as specific actions that manifest a caring attitude toward students, i.e., they represent concrete behaviors which explicitly communicate to students that we are genuinely concerned about

their educational and personal welfare. Many of these recommendations may be perceived as basic and obvious "human relations" skills. However intuitively obvious they may seem, their actual and consistent use by college faculty may be another matter. As Noel (January 1989) contends,

Many of the suggestions to improve [student] satisfaction appear very elementary--and I suppose they are. They represent common-sense avenues to achieving important results. But their simplicity doesn't change the fact that they are effective and they are too often neglected--in part because of their simplicity (p. 6).

It is with this caveat in mind that the following recommendations are offered.

1. Learn your students' names and something about them. For example, on the first day of class, collect information about each student's major, personal and professional interests, etc.). As previously mentioned, this may be an effective strategy for increasing active student involvement--because faculty could use their knowledge of individual students and their interests to solicit their input in class. In addition, knowing your students and something about them is a very concrete way of demonstrating that you care about them as individuals. Carl Rogers, renowned humanistic psychologist, artfully expressed the value of knowing students and encouraging their input,

I think of it as prizing the learner, prizing his feelings, his opinions, his person. It is a caring for the learner It is an acceptance of this other individual as a separate person, a respect for him as having worth in his own right (Rogers, 1975, p. 107).

Consistent with this suggestion are the results of a recent Carnegie Foundation survey indicating that 48% of college students agreed with the statement that, "most college students are treated like numbers in a book," and only 39% reported that, "there are professors who they could turn to for advice on personal matters"--14% lower than in 1976 (Boyer, 1987). Such feelings of anonymity and personal distance could be substantially reduced if professors would make an effort to know who their students are and learn something about them. "Is not knowing who you're talking to as bad as not knowing what you're talking about?" (De Mott, 1988, p. 54).

2. Be personable when interacting with students. For instance, greet students when you enter class and when you see them on campus; acknowledge the emotions expressed by students in class (e.g., "You seem excited about this topic." "You seem bored . . ."); tell them you hope they do well on a forthcoming exam; express concern to students who are not doing well or who've been

excessively absent (e.g., "Everything okay?" "Anything I can do to help?").

Empirical support for this recommendation is provided by Weber (1981) who found that freshman-to-sophomore year retention rates increased significantly when faculty members made a personal telephone call to students who missed consecutive classes--not for the purpose of playing "truant officer", but to express concern about the student's welfare and course progress. At the precollege level, Berliner and Tekunoff (1976, 1977) found that teachers who attended carefully to students' stated feelings, and acknowledged them, were more likely to have classes displaying higher levels of academic achievement. Van Love (1983), reflecting on his forty years of successful college teaching, succinctly summarizes the educational value of being personable, "Understanding, charity, goodwill . . . are the lubricants on which the subject matter slides more easily into student minds" (p. 7).

3. Be personal--share a little of yourself, i.e., your feelings and experiences. Occasional use of personal anecdotes to illustrate an academic point may not only serve to clarify an abstract concept with a concrete, real-life experience, but may also show students that the prestigious professor is human--a person with whom they can identify. Such sharing also shows students that the instructor trusts them well enough to disclose something personal. If students perceive their teacher as someone who is open and who relates course concepts to his/her own life, then students are more likely to do the same--increasing the likelihood that they will become actively involved in the course by sharing their own personal thoughts/experiences (in and out of class) and also increasing the likelihood that students will perceive the course content as relevant to their personal lives. Eble (1976) trenchantly expressed the instructional value of using personal anecdotes,

The personal anecdote that illuminates an idea or clarifies a concept is neither ego-indulgence nor mere wandering from truth. The personal is a way of gaining the kind of interest absolutely necessary to learning. Moreover, an anecdotal account of how some aspect of the subject matter itself came to have value for the teacher exerts a powerful force upon the student to grant that subject matter personal worth (p. 13).

Empirical support for this recommendation is provided by Wilson (1975) who conducted a four-year longitudinal study involving eight different types of higher educational institutions, 4815 students and 1472 faculty. He discovered that one in-class teaching behavior of "outstanding" teachers (as nominated by both students and faculty colleagues) was that they were more likely to share examples from their own experience than teachers who were not highly rated. Mc Keachie, et al. (1978) found that

instructors classified as "facilitator-person" were more effective than instructors classified as "expert" or "authority" in terms of promoting student motivation--as measured by students' willingness to take additional courses in the field. The authors concluded from their research results that the role of teacher as "model" is enhanced if the instructor is perceived as a person, rather than as someone who is only a content-matter expert or academic authority.

4. Be careful not to damage students' self-esteem when you must criticize their work or performance. Having to point out weaknesses or deficiencies in students' academic performance is an uncomfortable yet essential task for college instructors. Care must be taken to deliver negative feedback in a constructive manner--providing discipline without discouragement, and providing a challenge to improve without threatening the student's self-worth. If criticism is delivered in an insensitive fashion, the student's academic self-concept may suffer and, in turn, so may the student's desire to persist in college. The following strategies are suggested for delivering criticism without damaging students' self-esteem:

(a) Focus your criticism on the student's specific behavior(s), not the student as a person. For example, if you were to criticize a student's essay answer by stating: "You're not organized," the focus of the criticism is on the student (i.e., you are not organized). However, if you were to say: "Your answer to this question is not organized," then the focus of the criticism is on a specific behavior (i.e., the student's written answer to the question). Such specific, behavior-focused criticism takes the onus off the student's general personality, thus reducing feelings of defensiveness (since his general character isn't under attack) and may increase the student's motivation to improve (since it's easier to change specific behavior than it is to change a general personality or character trait).

(b) Criticize in terms of a scale (degrees on a continuum), not in absolute (extreme) terms. For instance, to say: "Your answer was disorganized" or "Your answer is not organized" both imply that the student's answer totally lacks any semblance of organization (an extremely unlikely event). Instead, to say, "Your answer needs more organization" implies that it contained some degree of organization but needs improvement (i.e., needs a higher degree or level of organization). This criticizing statement avoids the use of any extreme or absolute words (e.g., "disorganized") which, in turn, should result in less threat to the student's self-esteem, a less defensive student reaction, and a greater likelihood that the criticism will be accepted as the teacher intended it--as a constructive suggestion for self-improvement.

(c) Finish your criticism on a warm, encouraging note (e.g., "I'm hopeful that these suggestions will improve your performance

and grade on the next exam."). Concluding a criticism in such a positive fashion serves as a final reminder that your intention is to help the student improve and underscores your positive expectations about the student's future success. Research indicates that high expectation for student success is an important element associated with college achievement (National Institute of Education, 1984).

(d) Be sure to praise the positive aspects of the student's performance. Try to avoid the "criticism trap" of only focusing on, and responding to student mistakes or errors. There may be a natural tendency for teachers to focus only on student shortcomings because we are often very concerned with justifying to students (and ourselves) why we have deducted points or why we did not award a higher grade--perhaps to guard ourselves against the possibility of a student grievance. Such preoccupation with grade justification may result in our forgetting to acknowledge and reinforce the positive aspects of student performance (e.g., ways in which the student has improved over the course of the semester). Relevant to this point is the research-literature review on the socio-emotional aspects of instruction in higher education conducted by Dunkin and Barnes (1986), who concluded, "The most consistent finding was that instructor praise, encouragement, and acceptance accounted for less than 5% of total class time" (p. 766).

Rosenshine and Stevens (1986) reviewed research at the precollege level and found that specific teacher praise of student performance correlated significantly with student achievement. Brophy and Good (1986) also conducted a large-scale literature review at the precollege level and reported that teacher encouragement and praise were associated with student success, especially for students of low socioeconomic status. At the college level, Murray (1985) found that instructors who received higher ratings on teaching effectiveness (as measured by student evaluations) were more likely to praise students for good ideas (as measured by in-class behavioral observations of instructors).

All these findings lend empirical support to the long-held recommendation that positive feedback/reinforcement enhances student self-esteem and motivation to learn. Since self-esteem and motivation are patently important elements in student persistence, it would appear that this recommendation to attend to and acknowledge positive aspects of student performance should effectively promote retention.

CONCLUSION

A review of the numerous behaviors recommended to college faculty in this manuscript suggests that the faculty's role in promoting student retention is a very demanding one--requiring significant amounts of time and effort. Realistically, if faculty are expected to engage in all the in-class and out-of-class behaviors that would contribute to student persistence, they need

to be better recognized and rewarded for their efforts than they are now. Studies consistently indicate that faculty prestige, income, promotion and tenure are more closely tied to research productivity than to student development activities--e.g., teaching and advising (Kasten, 1984; Seldin, 1984; Crockett and Levitz, 1984). Moreover, Marshall and Dillon (1980) discovered that teaching activities were negatively correlated with both amount of base salary and supplemental income; in fact, "Base salary was more negatively correlated with hours spent teaching than it was positively correlated to numbers of books published" (p. 551). This finding is consistent with earlier results reported by Mc Laughlin, Montgomery, and Mahan (1979), who also discovered a negative correlation between faculty salaries and amount of time spent teaching. Further research reveals that pressure to publish is presently on the rise, even for faculty not working at "research" institutions (Boyer, 1987; Marshall and Perucci, 1982; Willie and Stecklein, 1982). Many faculty now report that the demand for research productivity competes with, rather than enhances their teaching of undergraduates (Clark, et al., 1987). Despite the prevalence of these faculty reports most college administrators have not taken the initiative to redress the problem. The sentiments expressed by the following administrator may not be atypical,

If someone (faculty member) says he doesn't have the time to do good research along with his teaching, the university will have something to say about that, because he's only working at partial capacity The faculty member who doesn't publish is under no stress--he teaches his class, sits down in his office with his feet on the desk and has a nice chat with his students (Boyer, 1987, p. 124).

Faculty have only a finite amount of time available to perform their various responsibilities. As long as the present reward system remains in operation, it can be expected that the quality of faculty efforts in the areas of student development and retention will be severely compromised by competing priorities. Given that student retention is a vital issue in higher education today, and the role of faculty in student retention is as important as the research indicates, then college administrators must begin to reward faculty in a manner that reflects its importance.

References

- Andrews, J. D. (1980). The verbal structure of teacher questions: Its impact on class discussion. POD Quarterly, 2, 130-163.
- Association of American Colleges (1985). Integrity in the college curriculum: A report to the academic community. Project on Redefining the Meaning and Purpose of Baccalaureate Degrees. Washington, D.C.
- Astin, A. W. (1977). Four critical years: Effects of college on beliefs, attitudes, and knowledge. San Francisco: Jossey-Bass.
- Astin, A. W. (1985). Involvement: The cornerstone of excellence. Change, July/August, pp. 25-39.
- Astin, A. W., Korn, W., & Green, K. (1987). Retaining and satisfying students. Educational Record, 68 (1), 36-42.
- Astin, A., & Panos, R. (1969). The educational and vocational development of college students. Washington, DC: American Council on Education.
- Astin, H. S., Astin, A. W., Bisconti, A., & Frankel, H. (1971). Higher education and the disadvantaged student. Washington, D.C.: Human Services Press.
- Barnes, C. P. (1980). Questioning: The untapped resource. Paper presented at the annual meeting of the American Educational Research Association, Boston.
- Barnes, C. P. (1983). Questioning in the college classroom. In C. L. Ellner and C. P. Barnes (Eds.), Studies in college teaching. Lexington, MA: Lexington Books, pp. 61-81.
- Beal, P. & Noel, L. (1980). What works in student retention. The American College Testing Program and the National Center for Higher Education Management Systems. (ED 197 635)
- Bean, J. P. (1981). The synthesis of a theoretical model of student attrition. Paper presented at the 1981 meeting of the American Educational Research Association. Los Angeles, California.
- Berliner, D., & Tekunoff, W. (1976). The California beginning teacher evaluation study: An overview of the ethnographic study. Journal of Teacher Education, 27 (1), 24-30.
- Bjork, R. A. (1979). Information processing analysis of college teaching. Educational Psychologist, 14, 15-23.

- Berliner, D., & Tekunoff, W. (1977). Ethnography in the classroom. In G. Borich and K. Fenton (Eds.), The appraisal of teaching: Concepts and processes. Reading, MA: Addison-Wesley.
- Boyer, E. L. (1987). College: The undergraduate experience in America. New York: Harper and Row.
- Brophy, J., & Good, T. L. (1986). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), Handbook of research on teaching. New York: Macmillan, pp. 328-375.
- Bruton, B., & Crull, S. (1982). Causes and consequences of student evaluation of instruction. Research in Higher Education, 17, 191-206.
- Carnegie Foundation for the Advancement of Teaching (1984-85). College Visits.
- Centra, J. A. (1973). Self-ratings of college teachers: A comparison with student ratings. Journal of Educational Measurement, 10(4), 287-295.
- Centra, J. A. (1977). Student ratings of instruction and their relationship to student learning. American Educational Research Journal, 14 (1), 17-24.
- Centra, J. A., & Rock, D. (1970). College environment and student academic achievement. Research bulletin, Educational Testing Service. Princeton, New Jersey. (ED 053 205)
- Clark, C., et al. (1979). A factorial experiment on teacher structuring, soliciting, and reacting. Journal of Educational Psychology, 71, 534-552.
- Cohen, P. A. (1981). Student rating of instruction and student achievement: A meta-analysis of multisection validity studies. Review of Educational Research, 51, 281-309.
- Cohen, P. A. (1986). An updated and expanded meta-analysis of multi-section student rating validity studies. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, California.
- Crockett, D., & Levitz, R. (1984). Current advising practices in colleges and universities. In R.B. Winston, Jr., et al. (Eds.), Developmental academic advising: Addressing students' educational, career, and personal needs. San Francisco: Jossey-Bass.
- Dansereau, D. F. (1983). Cooperative learning: Impact on

- acquisition of knowledge and skills. Technical Report 586. (ED 243 088)
- De Mott, B. (1988). Do we teach students or subjects? Change, 20 (1), p. 54.
- Dunkin, M. J., & Barnes, J. (1986). Research on teaching in higher education. In M.C. Wittrock (Ed.), Handbook of research on teaching. New York: Macmillan, pp. 754-777.
- Eagle, E. & Arnold, C. (1990, April). Trends in postsecondary persistence revisited: Decreasing persistence or changing educational goals? Paper presented at the American Educational Research Association, Boston.
- Easton, J. Q., & Guskey, T. R. (1983). Estimating the effects of college, department, course, and teacher on earned credit rates. Journal of Higher Education, 19(2), 153-158.
- Eble, K. E. (1976). The craft of teaching. San Francisco: Jossey-Bass.
- Endo, J., & Harpel, R. (1982). The effects of student-faculty interaction on students' educational outcomes. Research in Higher Education, 16, 115-138.
- Ericksen, S. C. (1984). The essence of good teaching. San Francisco: Jossey-Bass.
- Forrest, A. (1982). Increasing student competence and persistence. National Center for the Advancement of Educational Practice. Iowa City, Iowa.
- Frierson, H. T. (1986). Two intervention methods: Effects on groups of predominantly black nursing students' board scores. Journal of Research and Development in Education, 19, 18-23.
- Grasha, A. F. (1972). Observations on relating teaching goals to student response styles and classroom methods. American Psychologist, 27, 144-147.
- Haines, D. B., & Mc Keachie, W. J. (1967). Cooperative versus competitive methods in teaching introductory psychology. Journal of Educational Psychology, 58, 386-390.
- Hanna, G. S., & Cashin, W. E. (January 1988). Improving college grading. IDEA Paper No. 19. Kansas State University: Center for Faculty Evaluation and Development.
- Herro, J. (1987, May). Personal communication.
- Hiley, D. R. (1983). Career advising for liberal arts students. In M. F. Rehnke, et al., (Eds.), Liberal learning and career

- preparation. Washington, D.C.: American Association of Higher Education.
- Johnson, D. W., Marujama, G., Johnson, R. Nelson, D., & Spon, L. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. Psychological Bulletin, 89, 47-62.
- Kasten, K. (1984). Tenure and merit pay as rewards for research, teaching, and service at a research university. Journal of Higher Education, 55(4), 500-514.
- Knapper, C. (1987). Large classes and learning. In M.G. Weiner (Ed.), Teaching large classes well. San Francisco: Jossey-Bass, pp. 5-15.
- Kulik, J. A., & Kulik, C-L. C. (1979). College teaching. In P. L. Peterson & H. J. Walberg (Eds.), Research on teaching: Concepts, findings, and implications. Berkeley, California: Mc Cutcheon.
- Lacy, W. (1978). Interpersonal relationships as mediators of structural effects: College student socialization in a traditional and an experimental university environment. Sociology of Education, 51, 201-211.
- Levin, H., Glass, G., & Meister, G. (1984). Cost-effectiveness of educational interventions. Stanford, California: Institute for Research on Educational Finance and Governance.
- Lichtmann, C. M. Bass, A. R., & Ager, J. W. (1989). Difference between black and white students in attrition patterns from an urban commuter university. Journal of College Student Development, 30(January), 4-10.
- Marsh, H. W., & Dillon, K. E. (1980). Academic productivity and faculty supplemental income. Journal of Higher Education, 51, 546-555.
- Marshall, H. & Perrucci, R. (1982). The structure of academic fields and rewards in academia. Sociology and Social Research, 66 (2), 127-146.
- Mazzuca, S. A. & Feldhusen, J. F. (1978). Effective college instruction: How students see it. College Student Journal Monograph, 12, 1-12.
- Mc Keachie, W. J., Lin, Y-G., Moffett, M. & Daugherty, M. (1978). Effective teaching: facilitative versus directive style. Teaching of Psychology, 5, 193-194.
- Mc Laughlin, G. W., Montgomery, J. R., & Mahan, B. T. (1979).

Pay, rank, and growing old with more of each. Research in Higher Education, 11(1), 23-35.

Merlino, A. (1977). A comparison of the effectiveness of three levels of teacher questioning on the outcome of instruction in a college biology course. (Doctoral dissertation, New York University, 1976). Dissertation Abstracts International, 37, 5551-A.

Murray, H. G. (1985). Classroom teaching behaviors related to college teaching effectiveness. In J. G. Donald and A. M. Sullivan (Eds.), Using research to improve teaching. San Francisco: Jossey-Bass, pp. 21-34.

National Endowment for the Humanities (1984). To reclaim a legacy. Study Group on the State of Learning in the Humanities in Higher Education. Washington DC: Author.

National Institute of Education (1984). Involvement in Learning. Study group on the conditions of excellence in higher education. Washington, DC: Author.

National Institute of Independent Colleges and Universities (1990). Undergraduate completion and persistence at four-year colleges and universities. Washington DC: Author.

Noel, L. (1985). Increasing student retention: New challenges and potential. In L. Noel, et al. (Eds.), Increasing student retention. San Francisco: Jossey-Bass, pp. 1-27.

Noel, L. (1989, January). Taking customer satisfaction into the classroom. In L. Noel & R. Levitz (Eds.), Recruitment and Retention in Higher Education, 3(1), pp. 6-7.

Noel, L., Levitz, R. & Kaufmann, J. (1982). Organizing the campus for retention. Iowa City, Iowa: American College Testing Program, National Center for Academic Advancement of Educational Practices.

Pascarella, E. T. (1980). Student-faculty informal contact and college outcomes. Review of Educational Research, 50, 545-595.

Pascarella, E. & Terenzini, P. (1979). Interaction effects in Spady's and Tinto's conceptual models of college drop out. Sociology of Education, 52, 197-210.

Pascarella, E. T., & Terenzini, P. (1977). Patterns of student-faculty informal interaction beyond the classroom and voluntary freshman attrition. Journal of Higher Education, 48, 540-542.

- Pascarella, E. & Terenzini, P. (1978). Student-faculty informal relationships and freshman-year educational outcomes. Journal of Educational Research, 71, 183-189.
- Phelan, W. (1979). Undergraduate orientations toward scientific and scholarly careers. American Educational Research Journal, 16, 411-422.
- Pollio, H. R. (1989). Any questions please? Teaching-Learning Issues, No. 66. Knoxville, Tennessee: The Learning Research Center, The University of Tennessee.
- Richter, F. D., & Tjosvold, D. (1980). Effects of student participation in classroom decision making on attitudes, peer interaction, and learning. Journal of Applied Psychology, 65, 74-80.
- Rogers, C. R. (1975). Can learning encompass both ideas and feelings? Education, 95, 103-106.
- Rosenshine, B., & Stevens, R. (1986). Teaching functions. In M. C. Wittrock (Ed.), Handbook of research on teaching (3rd ed.). New York: Macmillan, pp. 376-391.
- Rossman, J. (1967). An experimental study of faculty advising. Personnel and Guidance Journal, 46, 160-164.
- Rowe, M. B. (1974-a). Pausing phenomena: Influence on the quality of instruction. Journal of Psycholinguistic Research, 3, 203-224.
- Rowe, M. B. (1974-b). Wait-time and rewards as instructional variables, their influence on the quality of instruction. Journal of Research in Science Teaching, 11, 81-94.
- Seldin, P. (1984). Changing practices in faculty evaluation. San Francisco: Jossey-Bass.
- Smith, D. G. (1977). College classroom interactions and critical thinking. Journal of Educational Psychology, 69, 180-190.
- Smith, D. G. (1980). Instruction and outcomes in an undergraduate setting. Paper presented at the annual meeting of the American Educational Research Association. Boston, MA.
- Spady, W. (1971). Dropouts from higher education: Toward an empirical model. Interchange, 2, 38-62.
- Sullivan, A. M. & Skanes, G. R. (1974). Validity of student evaluation of teaching and the characteristics of successful teachers. Journal of Educational Psychology, 66, 584-590.

- Terenzini, P. T. (1986). Retention research: Academic and social fit. Paper presented at the meeting of the Southern Regional Office of the College of Entrance Examination Board, New Orleans.
- Terenzini, P., & Pascarella, E. (1977). Voluntary freshman attrition and patterns of social and academic integration in a university: A test of a conceptual model. Research in Higher Education, 6, 25-44.
- Thompson, S. C. (1981). Will it hurt less if I control it? A complex answer to a simple question. Psychological Bulletin, 90, 89-101.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. Review of Educational Research, 45(1), 89-125.
- Tinto, V. (1985). Dropping out and other forms of withdrawal from college. In L. Noel, et al. (Eds.), Increasing student retention, pp. 28-43. San Francisco: Jossey-Bass.
- Tinto, V. (1987). Leaving college: Rethinking the causes and cures for student attrition. Chicago: University of Chicago Press.
- Tinto, V. (June 1987). Address delivered at the California State University Conference on Student Retention. Long Beach, California.
- Treisman, P. U. (1985). A study of the mathematics performance of Black students at the University of California, Berkeley. (Doctoral dissertation, University of California, Berkeley, 1986). Dissertation Abstracts International, 47, 1641-A.
- Van Love, T. (1983). In honor of college teaching: Reflecting on forty years as a college professor. Change, 15(6), 7-10.
- Volkwein, J., King, M. C., & Terenzini, P. T. (1986). Student-faculty relationships and intellectual growth among transfer students. Journal of Higher Education, 57, 413-430.
- Wales, C. E., & Sager, R. (1978). The guided design approach. Englewood Cliffs, New Jersey: Educational Technology Publications.
- Weber, J. (1981). Bringing them back--by phone. Innovative Abstracts, 3(10).
- Weidman, J. (1979). Nonintellective undergraduate socialization in academic departments. Journal of Higher Education, 50, 48-

62.

Willie, R., & Stecklein, J. E. (1982). A three-decade comparison of college faculty characteristics, satisfactions, activities, and attitudes. Research in Higher Education, 16, 81-93.

Willingham, W. W. (1985). Success in college: The role of personal qualities and academic ability. New York: College Entrance Examination Board.

Wilson, R. C. (1975). College professors and their impact on students. New York: Wiley and Sons.

Zuckerman, M., Porac, J., Lathin, D., Smith, R., & Deci, E. L. (1978). On the importance of self-determination for intrinsically motivated behavior. Personality and Social Psychology Bulletin, 4, 443-446.

FACULTY-STUDENT CONTACT *OUTSIDE THE CLASSROOM*: SUPPORTING EVIDENCE & PROMOTING PRACTICES

Joe Cuseo

Introduction

This document first provides a review of the research literature is provided on the relationship between student-faculty contact outside the classroom and various educational outcomes. The document concludes with a series of two-dozen practices that serve to promote meaningful faculty-student contact outside the classroom.

Review of the Research

In short, research indicates that faculty-student contact outside the classroom is empirically associated with multiple, positive outcomes, such as:

- (1) *retention/persistence to graduation*
- (2) *academic achievement/performance*
- (3) *critical thinking*
- (4) *personal and intellectual development*
- (5) *educational aspirations*
- (6) *satisfaction with faculty*
- (7) *college satisfaction*
- (8) *perceptions of college quality.*

Positive outcomes associated with faculty-student contact outside the classroom have been reported for students of all types, including *transfer students*, *female students*, *African-American students*, and “*at-risk*” students (e.g., economically disadvantaged, first-generation college students). Furthermore, the positive effects of student contact with faculty outside of class has been found to have a *direct* effect on educational outcomes that is *independent* of other college experiences and student characteristics. Thus, its association with positive outcomes cannot be simply dismissed as being caused by the tendency of already high-achieving students to engage in more frequent out-of-class contact with faculty.

The research evidence supporting faculty-student contact outside the classroom is formidable and the positive outcomes empirically associated with it are multiple. One would be hard-pressed to find any other college-experience variable with as much empirical support for as many positive educational outcomes.

Perhaps the first and most impressive set of research findings pointing to the positive impact of student-faculty contact outside the classroom were reported by Wilson et al. (1975), who conducted an 8-institutional study over a 4-year span that included survey and interview data gathered from 4,815 students and 1,472 faculty. This study revealed that faculty who were consistently nominated by students and professional colleagues as “most outstanding,” as having the “most impact” on students, and as playing a role in students’ “choice of major” were those who interacted most frequently with students outside the classroom. In addition, those students who showed the most gains in intellectual achievement and reported the most satisfaction with

the academic and nonacademic aspects of their college experience were students who reported more contact with faculty, particularly contacts that occurred outside the classroom. The authors of this comprehensive research report reached the following conclusion: “The relationships that faculty and students develop outside the classroom may well be the part of teaching which has the greatest impact on students” (p. 107).

Several years later, George Kuh reviewed the scholarly literature on college quality and concluded: “The empirical evidence seems unequivocal: Faculty-student interaction is an important part of a quality undergraduate experience” (1981, p. 21). In a more recent, national report on indices of college quality, the Education Commission of the States included out-of-class contact with faculty as one of its 12 essential attributes of good practice, stating that: “Through such contact, students are able to see faculty members less as experts than as role models for ongoing learning” (1995, p. 8).

A host of specific research findings underscore the importance of faculty-student interaction outside the classroom. For instance, Astin (1993) completed a longitudinal study over a 25-year period, which included a national sample of approximately 500,000 students and 1300 institutions of all types. He found that student-faculty interaction was significantly correlated with *every* academic achievement outcome examined, namely: college GPA, degree attainment, graduating with honors, and enrollment in graduate or professional school. Levine & Cureton (1998) infer from Astin’s findings that, “Despite the wide variation in the cultures of our nation’s academic institutions, the value of human connection remains important” (p. 131).

In addition, Astin has found that student-faculty contact outside the classroom correlates more strongly with *college satisfaction* than any other single variable. Drawing on longitudinal data gathered from 200,000 students in 300 institutions of all types, Astin reports that:

Student-faculty interaction has a stronger relationship to student satisfaction with the college experience than any other variable [and] any student characteristic or institutional characteristic. Students who interact frequently with faculty are more satisfied with all aspects of their institutional experience, including student friendships, variety of courses, intellectual environment, and even administration of the institution (1977, pp. 223 & 233).

Other studies have demonstrated that student-faculty contact outside the classroom correlates positively with undergraduate students’ (a) *academic achievement* (Astin & Panos, 1969; Centra & Rock, 1970; Pascarella, 1980) (b) *personal and intellectual development* (Endo & Harpel, 1982; Lacy, 1978; Pascarella & Terenzini, 1978), (c) *critical thinking* (Wilson, 1975), (d) *satisfaction with faculty* (Astin, 1993), (e) *perceptions of college quality* (Theophilides & Terenzini, 1981), and (f) *educational aspirations* (Astin & Panos, 1969), such as their decision to pursue advanced (graduate) degrees (Kocher & Pascarella, 1987; Pascarella, 1980; Stoecker, Pascarella & Wolfle, 1988). In particular, student-faculty contact outside the classroom that involves the following topics has been found to be most strongly associated with positive academic outcomes: (a) intellectual issues, (b) literary or artistic interests, (c) values, and (d) future career plans (Pascarella, 1980).

Furthermore, there is abundant evidence that informal student-faculty contact outside the classroom correlates positively with *student retention* (Bean, 1981; Pascarella 1980; Pascarella & Terenzini 1979, Terenzini & Pascarella, 1977, 1978). On the basis of his extensive consulting

experiences with colleges interested in promoting student retention, Lee Noel (1978) offers the following observation:

It is increasingly apparent that the most important features of a “staying” environment relate to the instructional faculty. Students make judgments about their academic experience on the basis of such factors as quality of instruction, freedom to contact faculty for consultation, availability of faculty for consultation, and faculty involvement outside the classroom (pp. 96-97).

In a comprehensive review of the research literature, Vince Tinto (1987) reached a similar conclusion: “Institutions with low rates of student retention are those in which students generally report low rates of student-faculty contact. Conversely, institutions with high rates of retention are most frequently those which are marked by relatively high rates of such interactions” (p. 66).

Moreover, informal out-of-class contact between faculty and students has been found to be particularly beneficial in promoting the persistence of students who are “*withdrawal prone*,” such as low-income, first-generation college students (Tinto, 1975). Pascarella and Terenzini (1979) found that frequency of non-classroom contact between students and faculty, which involved discussion of academic issues, had its most positive influence on the persistence of students with low initial commitment to college and students whose parents had relatively low levels of formal education. Consistent with these quantitative findings is the qualitative research reported by Vince Tinto, stemming from interviews he conducted with especially high-risk students who beat the odds and succeeded in college. He discovered that, “*In every case*, the students cited one or two events, when someone on the faculty or—less commonly—the staff had made personal contact with them outside the classroom. That’s what made the difference” (Levitz, 1990).

This observation is supported by an analysis of student narratives written 30 years after graduating from Rollins College, in response to a letter asking for stories about their most effective professors. Many of the memories reported in the student narratives about their most effective instructors related to their informal, out—of-class contact with them (Carson, 2000). One student wrote that a conversation at a professor’s home made it easier to “see [my professor] as a person rather than a lecturer and also [made me] feel like she appreciated my opinions and insights.” Another alum wrote about her professor’s accessibility and her own classroom performance, remembering that, “It motivated me to perform well in his classes.”

The importance of *early* contacts with faculty, in particular, for promoting student retention is supported by the first comprehensive review of student retention research, conducted by Pantages and Creedon (1978). On the basis of their review of 25 years of research, they concluded that one potentially potent approach to *reducing student attrition* was for colleges to find ways to maximize faculty-student interaction during the first year, including greater faculty involvement in new-student orientation.

The value of student-faculty contact during *orientation* for promoting *academic achievement* is supported by research conducted by Pascarella, Terenzini, and Hibel (1978), who examined different types of faculty contact on the academic achievement of approximately 500 students. The results of this study led the authors to conclude that, “the first few informal interactions with

faculty appear to be the most important” (p. 457). This finding is consistent with reported evidence indicating that orientation programs in which faculty participate have a favorable impact on the intellectual development of students (Moore, Peterson & Wirag, 1984).

Faculty-student contact outside the classroom has also been associated with positive outcomes for different student *subpopulations*. For instance, positive correlations between frequency of student-faculty contact and cognitive growth have been reported for *transfer students* (Volkwein, King and Terenzini, 1986). Also, student-faculty interaction outside the classroom has been found to relate positively to the intellectual self-image and career aspirations of *female* students (Komarovsky, 1985). Such interaction also correlates positively with the intellectual self-image and persistence of *African-American* students’ (Gurin & Epps, 1975; Lewis, 1987). As Davis (1991) notes, “Black students on white campuses who have good relations with faculty have never seriously considered dropping out of school and have greater satisfaction with their campus lives” (p. 154).

Moreover, Tinto (1993) points out that student contact with faculty, especially outside of class, is an *independent* predictor of learning gain or growth, i.e., its association with intellectual development remains significant even after one takes account of differences in students’ ability, prior levels of development, and prior educational experience. Tinto’s observation is reinforced by an extensive literature review of more than 2500 studies conducted by Pascarella and Terenzini (1991), who report findings indicating that out-of-class contact with faculty has a “statistically significant *direct effect* on various dimensions of career interest and career choice above and beyond the influence of selection factors” (p. 479, italics added). These results are consistent with the conclusion reached by Pascarella (1980), following his critical review and synthesis of a large number of studies that were specifically designed to investigate the relationship between student-faculty contact and educational outcomes:

The significant associations between student-faculty informal contact and educational outcomes are not merely the result of covariation with individual differences in student entering characteristics or with college experiences in other areas. Rather, various facets and quality of student informal contact with faculty may make a unique contribution to college impact. In turn, this suggests the possibility that colleges and universities may be able to positively influence the extent and quality of student-faculty contact, and thereby faculty impact on students, in ways other than the kinds of students they enroll. If such interaction has a significant, positive influence on student development, then it becomes important to determine the extent to which it might be influenced by purposeful institutional policies (pp. 564-566).

While there is a substantial amount of empirical research indicating that faculty-student contact outside the classroom is powerful, there has been comparatively little discussion of *why* this experience has proven to be so powerful. Listed below are some hypotheses about why faculty-student contact outside the classroom has such high impact:

- (1) It occurs in a less formal context than the classroom, so a student may feel less threatened or intimidated about discussing his or her ideas.
- (2) The faculty member is more likely to be seen as a real “person” who can be emulated, instead of a professorial pedagogue (or demigod) who should be revered.

- (3) Faculty verbal interaction with students outside the classroom is likely to be more conversational or dialogic and less didactic or prescriptive than it is inside the classroom.
- (4) It is an individualized person-to-person interaction, where the faculty/student ratio is 1:1—an idea social context for learning.
- (5) The student is able gain some control of the agenda and the topics discussed, in contrast to the classroom where the instructor dominates the agenda and the flow of conversation.
- (6) Ideas are exchanged for reasons that are non-evaluative and more intrinsically motivated, in contrast to ideas exchanged in the classroom where the student is responsible for remembering those ideas, because s/he will be evaluated (graded) for comprehension of them.

The contemporary significance of all the positive outcomes associated with informal out-of-class contact between students and faculty is magnified further by reports indicating that the frequency of such contact is *decreasing*. Kuh, Schuh, & Whitt (1991) report that faculty are now spending more of their non-teaching time in the pursuit of research and publication, leaving out-of-class contact with undergraduates to student affairs' staff. In a more recent, large-scale study conducted by Milem, Berger, and Day (cited in Braxton, 2000), it was found that faculty members in virtually all types of postsecondary institutions (e.g., research universities, comprehensive institutions, and liberal arts colleges) are spending more time engaged in classroom teaching and research, and less time interacting with students outside the classroom.

This shift in faculty priorities and reward systems suggests that contemporary undergraduates are losing a valuable source of influence that has the capacity to exert multiple, positive effects on their collegiate and post-collegiate success. Unless postsecondary institutions engage in institutional practices that are intentionally or purposely designed to promote faculty-student contact outside the classroom, prevailing faculty interests and reward systems make it unlikely that such contact will occur either systematically or serendipitously.

Practices for Promoting Meaningful Student-Faculty Contact Outside the Classroom

Listed below is a sample of institutional practices that may be intentionally or purposely designed and implemented to increase faculty-student contact outside the classroom.

- Faculty participate in *new-student orientation* by leading small-group discussions relating to summer reading or short reading given during orientation.
- Faculty interact with students at a reception following *new-student convocation*.
- Faculty serve as *mentors* to undergraduates, and periodically meet with them in out-of-class contexts for the purpose of promoting their collegiate success.
- The college explicitly designates a specific number of *student clubs and organizations* for faculty sponsorship or moderation.
- The college expects academic departments to sponsor *departmental clubs* for students majoring in their field, which include faculty sponsors.

- Faculty members visit *student residences* to conduct small-group discussions, conduct tutoring sessions, or advise students.
- *Faculty-in-residence* program is developed, whereby a teaching faculty member lives in a student residence and provides out-of-class instruction, advising, or mentoring assistance to residential students who co-occupy the same unit.
- The college provides specific *faculty incentives* for becoming involved with students outside the classroom (e.g., stipends for taking students to lunch/dinner or cultural/athletic events; release time; merit pay; credit toward promotion and tenure; student-service awards to publicly recognize outstanding faculty contributions to students outside the classroom; incentive grants for faculty who involve students as partners in teaching or research).
- The importance of faculty-student contact outside the classroom is explicitly highlighted in *new-faculty orientation* and promoted via *faculty development* activities.
- The college adopts a formal *policy* about the minimum number of weekly *office hours* that faculty are expected to be available to undergraduates.
- College faculty are *trained, evaluated, and rewarded* for providing *academic advising* to first-year students on a one-to-one basis outside the classroom.
- Faculty are encouraged to *schedule office visits/conferences* with individual students or small groups of students enrolled in their classes.
- *Students interview faculty* as a required or optional course assignment (e.g., As a first-year seminar assignment, students interview a faculty member in their major or a potential field of interest.)
- Faculty are encouraged to sponsor out-of-class educational activities that promote personal contact with students, such as: *independent studies, field work, internships, or service-learning* experiences.
- College *committees* are intentionally structured to include both student and faculty representation.
- Faculty-student *research teams* are sponsored, whereby a faculty member involves undergraduate students in his or her field of research, for which students gain experience as research assistants and a potential product for use as a senior honors thesis, joint conference presentation with a faculty member, or professional publication co-authored with a faculty member.
- *Undergraduate student fellows* receive stipends for working 10-20 hours per week with faculty mentors on collaborative research projects or creative productions.

- Faculty-student *teaching teams* are encouraged, whereby a faculty member co-teaches a course with an undergraduate. (For example, a faculty member and a sophomore or upper-division student team-teach a freshman seminar.)

- Undergraduate *teaching assistant* opportunities are offered, in which upper-division students work closely with faculty mentors to gain insight into the teaching role and gain direct teaching experience. Students receive academic credit for their work as undergraduate teaching assistants and for their participation in a preparatory seminar covering course planning, classroom instruction, and student evaluation.

- *Student management teams* are developed by course instructors, in which a team of 4-6 students is selected by their instructor to serve as "student managers" for the course, and assume responsibility for promoting the quality teaching and learning. The role of this student management team is to solicit comments from other students and meet with the instructor outside of class to dialogue about possible course improvements. Student managers may participate in a training program to prepare them for this role.

- Opportunities for faculty-student *collaborative course development* are available, whereby faculty members design new courses relating to contemporary issues or emerging areas of interest by collaborating with a selected group of undergraduates, who assist in course planning and syllabus development.

- Faculty-student technological *support service teams* are developed whereby student assistants who are technologically advanced work with faculty, staff, and other students in the area of information technology. The institution benefits by capitalizing on student expertise to help combat support-service shortages on campus. In the process, students benefit from out-of-class interaction with faculty, and acquire technical and human service skills that prepare them for higher-paying, part-time work in information industries while they are still in college, and for entry-level technology positions after college.

- The college offers a *federated learning community*, a learning community model in which a faculty member takes the same courses as a cohort of students and serves as a "master learner." The faculty member meets regularly with these students outside the classroom to help them master and integrate concepts taught in the different courses.

- The college offers *ESL-linked transitional courses*, in which an English as a Second Language (ESL) faculty member participates as a learner in an academic discipline-based course (e.g., History) that contains a group of ESL students. The ESL instructor meets regularly with these students outside the classroom to help them master the course material.

Conclusion

The range of potential strategies in the foregoing list suggests that intentional promotion of faculty-student contact outside the classroom is a multi-dimensional phenomenon, which is best

addressed with a comprehensive, coordinated approach that involves diverse divisions or units of the college. A truly comprehensive, institution-wide response would embrace the following elements: (a) student development services, (b) office of academic affairs, (c), academic departments, (d) college committee structures, (e) the curriculum, (f) the co-curriculum, (g) faculty orientation/development, and (h) faculty evaluation/rewards.

Given the multiple positive outcomes that are empirically associated with faculty-student interaction outside the classroom, an integrated college-wide approach to stimulate such interaction may be expected to promote systemic and synergistic effects on student development.

References

- Astin, A. W. (1977). *Four critical years: Effect of college on beliefs, attitudes, and knowledge*. San Francisco: Jossey-Bass.
- Astin, A. W. (1993). *What matters in college*. San Francisco: Jossey-Bass.
- Astin, A., & Panos, R. (1969). *The educational and vocational development of college students*. Washington, D.C.: American Council on Education.
- Bean, J. P. (1981). *The synthesis of a theoretical model of student attrition*. Paper presented at the 1981 meeting of the American Educational Research Association. Los Angeles, California.
- Braxton, J. M. (2000). Reinvigorating theory and research on the departure puzzle. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 257-274). Nashville: Vanderbilt University Press.
- Carson, B. H. (2000). Thirty years of stories: The professor's place in student memories. In D. DeZure (Ed.), *Learning from change: Landmarks in teaching and learning in higher education from Change Magazine, 1969-1999* (pp.362-370). Published in association with The American Association for Higher Education. Sterling, VA: Stylus.
- Centra, J. A., & Rock, D. (1970). *College environment and student academic achievement*. Research Bulletin, Educational Testing Service. Princeton, New Jersey. (Eric Reproduction Document No. 053 205)
- Davis, R. B. (1991). Social support networks and undergraduate student-success-related outcomes: A comparison of black students on black and white campuses. In W. R. Allen, E. G. Epps, & N. A. Haniff (Eds.), *College in black and white* (pp. 143-157). Albany: State University of New York Press.
- Education Commission of the States (1995). *Making quality count in undergraduate education*. Denver, CO: ECS Distribution Center.
- Endo, J., & Harpel, R. (1982). The effects of student-faculty interaction on students' educational outcomes. *Research in Higher Education*, 16, 115-138.
- Gurin, P., & Epps, E. (1975). *Black consciousness, identity and achievement: A study of students in historically black colleges*. New York: John Wiley & Sons.
- Kocher, E., & Pascarella, E. (1988). *The effects of institutional transfer on status*

attainment. Paper presented at the meeting of the American Educational Research Association, New Orleans.

Komarovsky, M. (1985). *Women in college: Shaping new feminine identities*. New York: Basic Books.

Kuh, G. D. (1981). *Indices of quality in the undergraduate experience*. ASHE-ERIC/Higher Education Research Report, No. 4. Washington, D.C.: American Association for Higher Education.

Kuh, G., Schuh, J., Whitt, E., & Associates (1991). *Involving colleges*. San Francisco: Jossey-Bass.

Lacy, W. (1978). Interpersonal relationships as mediators of structural effects: College student socialization in a traditional and an experimental university environment. *Sociology of Education*, 51, 201-211.

Levine & Cureton (1998). *When hope and fear collide: A portrait of today's college student*. San Francisco: Jossey-Bass.

Levitz, R. (1990). Sizing up retention programs. *Recruitment and Retention in Higher Education*, 4(9), pp. 4-5.

Lewis, J. J. (1987). Do black students on a white campus value the university's efforts to retain them? *Journal of College Student Personnel*, 28(2), 176-177.

Moore, B. L., Peterson, D. C., & Wirag, J. R. (1984). Orienting traditional entering students. In M. L. Upcraft (Ed.), *Orienting students to college* (pp.39-51). San Francisco: Jossey-Bass.

Noel, L. (1978). First steps in starting a campus retention program. In L. Noel (Ed.), *Reducing the dropout rate* (pp. 87-98). New Directions for Student Services, No. 3. San Francisco: Jossey-Bass.

Pantages, T. J., & Creedon, C. F. (1978). Studies of college attrition: 1950-1975. *Review of Educational Research*, 48(1), 49-101.

Pascarella, E. T. (1980). Student-faculty informal contact and college outcomes. *Review of Educational Research*, 50, 545-595.

Pascarella, E. & Terenzini, P. (1978). Student-faculty informal relationships and freshman-year educational outcomes. *Journal of Educational Research*, 71, 183-189.

Pascarella, E. & Terenzini, P. (1979). Interaction effects in Spady's and Tinto's

- conceptual models of college drop out. *Sociology of Education*, 52, 197-210.
- Pascarella, E. & Terenzini, P. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.
- Pascarella, E., Terenzini, P., & Hibel, J. (1978). Student-faculty interactional settings and their relationship to predicted academic performance. *Journal of Higher Education*, 49, 450-463.
- Pascarella, E., Terenzini, P., & Wolfle, L. (1986). Orientation to college and freshman year persistence/withdrawal decisions. *Journal of Higher Education*, 57, 155-175.
- Stoecker, J., Pascarella, E. T., & Wolfle, L. M. (1988). Persistence in higher education: A 9-year test of a theoretical model. *Journal of College Student Development*, 29, 196-209.
- Terenzini, P., & Pascarella, E. (1977). Voluntary freshman attrition and patterns of social and academic integration in a university: A test of a conceptual model. *Research in Higher Education*, 6, 25-44.
- Terenzini, P., & Pascarella, E. (1978). The relation of students' precollege characteristics and freshman year experience to voluntary attrition. *Research in Higher Education*, 9, 347-366.
- The College Board (1988). *College bound seniors' national report: 1988 profile of SAT and achievement test takers*. New York: College Entrance Examination Board.
- Theophilides, C., & Terenzini, P. T. (1981). The relation between nonclassroom contact with faculty and students' perceptions of instructional quality. *Research in Higher Education*, 15, 255-269.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1), 89-125.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: The University of Chicago Press.
- Volkwein, J., King, M. C., & Terenzini, P. T. (1986). Student-faculty relationships and intellectual growth among transfer students. *Journal of Higher Education*, 57, 413-430.
- Wilson, R. C., Gaff, J. G., Diensky, E. R., Wood, L., & Bavry, J. L. (1975). *College professors and their impact on students*. New York: Wiley and Sons.

The Case for Faculty Involvement with First-Year Experience Programs

Joe Cuseo

The late Ernest Boyer (1987), writing as then president of the Carnegie Foundation for the Advancement of Teaching, contended that the following "key question" must be asked when assessing the effectiveness of an institution's freshman-orientation program, "Is the orientation program actively supported by the faculty?" (p. 288). After comprehensively reviewing twenty-five years of retention research, Pantages and Creedon (1978) concluded that one potentially potent approach to reducing student attrition was for colleges to find new ways to maximize faculty-student interaction during the freshman year, including greater faculty involvement in the orientation program.

The importance of student-faculty contact and front-loading of outstanding teachers and advisors are two oft-cited recommendations in the retention literature (National Institute of Education, 1984; Noel, Levitz, et al., 1985). Empirical evidence supporting this contention is provided by Moore, Peterson, and Wirag (1984), who found that faculty involvement in orientation programs had positive effects on students' academic development. Tammi (1987) also found that participants in a freshman seminar reported significantly more informal contacts with faculty than non-participants.

Faculty involvement in the freshman seminar would seem to be an effective and efficient way to simultaneously implement the dual advantages of student-faculty contact and front-loading. Involvement of faculty in freshman orientation should also serve to increase their sensitivity to the significant personal adjustments which adolescents (and returning adult students) must make upon entering college, and enhance faculty's advising skills. Furthermore, faculty involvement in orientation would improve the program's credibility and elevate the significance of student support and student retention to the level of a college-wide concern—rather than limiting it to an "extracurricular" job performed exclusively by student-affairs professionals (Cuseo, 1991).

References

- Boyer, E. (1987). The undergraduate experience in America. New York: Harper & Row.
- Cuseo, J. B. (1991). The freshman orientation seminar: A research-based rationale for its value, delivery, and content. (Monograph No. 4) Columbia, SC: National Resource Center for The Freshman Year Experience.
- Moore, B. L., Peterson, D. C., & Wirag, J. R. (1984). Orienting traditional entering students. In M. L. Upcraft (Ed.), Orienting students to college (pp. 39-51). San Francisco: Jossey-Bass.
- National Institute of Education (1984). Involvement in learning. Washington, DC: Author.

Noel, L., Levitz, R., & Associates (1985). Increasing student retention. San Francisco: Jossey-Bass.

Pantages, T. J., & Creedan, C. F. (1978). Studies of college attrition: 1950-1975. Review of Educational Research, 48, 49-101.

Tammi, M. W. (1987). *The longitudinal evaluation of a freshman seminar course on academic and social integration*. Unpublished dissertation, University of North Carolina, Charlotte.

The Case for Faculty and Staff Mentoring Programs for College Students

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Marymount College

The number of colleges offering mentoring programs is on the rise (Haring, 1997), and mentoring is increasingly being viewed as a tool for promoting student retention (Walker & Taub, 2001), particularly the retention of first-year students (Johnson, 1989). Mentoring has the potential to reduce students' feelings of marginality, increasing their sense of personal *significance*—that they “*matter*” (Schlossberg, Lynch, & Chickering, 1989). Mentoring can also provide an important “validation” experience for first-generation students, for whom the transition to college is not a normal or routine rite of passage (Rendon, 1994).

The importance of mentoring for contemporary college students is well expressed by the indefatigable leader of the first-year experience movement, John Gardner:

Students need mentors and facilitators. They need, in the words of Carl Rogers, authentic professional human beings who are worthy of emulation. They need models who exhibit professional behavior, a sense of commitment and purposefulness, and a sense of autonomy and integrity in a world that generates enormous stress. Students cannot be told how to do this; authenticity cannot be transmitted through lectures” (1981, p. 70).

The availability of exemplary, caring role models is valuable for all students, but may be especially critical to the retention and success of underrepresented, first-generation college students who do not have college role models at home. Vince Tinto (1987) notes that, “While role modeling seems to be effective in retention programs generally, it appears to be especially important among those programs concerned with disadvantaged minority students” (p. 161).

Research in the field of human development indicates that mentoring has a positive impact on the personal and professional development of young adults (Levinson, 1978). There is also a growing body of research in higher education that suggests an empirical link between student mentoring and student retention (Campbell & Cambell, 1997; Wallace & Abel, 1997). For instance, Miller, Neuner, and Glynn (1988) used an experimental research design in which students were randomly assigned to either an experimental group—who received mentoring, or a control group—who did not. It was found that students who received mentoring evinced higher retention rates than non-mentored students with similar pre-enrollment characteristics.

Despite the retention-promoting promise of mentoring, one of the major logistical stumbling blocks for implementing an effective mentoring program on a large-scale basis is the fact that mentoring is traditionally delivered via dyadic (1 to 1) relationships, which makes it difficult to find a sufficient number of mentors to sustain a program that reaches a significant number of students (Redmond, 1990). However, the results of one recent study reveals that “network” mentoring programs, in which multiple students are mentored by one college faculty or staff member, are comparable in effectiveness to traditional “dyadic” (1 to 1) mentoring arrangements—as measured

in terms of student satisfaction with the quality of the mentoring relationship and the frequency of student contact with their mentor (Walker & Taub, 2001). One implication of this finding is that traditional academic advisement programs could potentially co-function as mentoring programs, because a ratio of multiple mentees (students) to one mentor (advisor) may still allow for the advantages of mentoring to be realized. While advising and mentoring have been traditionally conceptualized as distinctly different programs, even a cursory look at some of the characteristics cited in the scholarly literature for effective mentors indicates that they are very compatible with the characteristics of effective advisors. For example, Johnson (1989) suggests that the following characteristics may serve as criteria for identifying individuals who have the potential to serve as effective mentors for college students: (a) more mature than the mentee, (b) interpersonal skill, (c) willingness to commit time, and (d) knowledge of the campus. Certainly, these qualities are also characteristic of effective advisors.

Furthermore, research on the perceptions of students, as advisees, repeatedly points to the conclusion that they value most highly academic advisors who serve as mentors—who are accessible, approachable, and helpful in providing guidance that connects their present academic experience with their future life plans (Winston, Ender, & Miller, 1982; Winston, Miller, Ender, Grites, & Associates, 1984; Frost, 1991; Gordon, Habley, & Associates, 2000). Given the similarity of desirable qualities cited for mentors and advisors, coupled with research suggesting that mentoring may be effectively delivered by networking multiple mentees with one mentor, it would seem warranted to suggest that the retention-promoting potential of mentoring programs may be achieved as effectively (and more efficiently) through advisement programs, particularly if advisors are well prepared and adequately rewarded for this role. Since advisement focuses on an issue so central to the personal lives of students—the connection between their present collegiate experience with their future life plans—and is delivered by an experienced person who has already navigated a similar course, it appears that mentoring is an integral and inescapable element of effective academic advisement. As such, academic advising programs at some institutions may be restructured in a manner that enables them to co-function with, complement, or augment the development of faculty-student or staff-student mentoring programs.

References

- Campbell, T. A., & Campbell, D. E. (1997, December). Faculty/student mentor program: Effects on academic performance and retention. *Research in Higher Education, 38*, 727-742.
- Friedlander, J. (1980). Are college support programs and services reaching high-risk students? *Journal of College Student Personnel, 21*(1), 23-28.
- Frost, S. H. (1991). *Academic advising for student success: A system of shared responsibility*. ASHE-ERIC Higher Education Report No. 3. The George Washington School of Education and Human Development, Washington DC.
- Gardner, J. (1981). Developing faculty as facilitators and mentors. In V. A. Harren, M. N. Daniels, & J. N. Buck (Eds.), *Facilitating students' career development* (pp. 67-80) New Directions for Student Services, No. 14. San Francisco: Jossey-Bass.
- Gordon, V. N., Habley, W. R., & Associates (2000). *Academic advising: A comprehensive handbook*. San Francisco: Jossey-Bass.
- Haring, M. J. (1997). Networking mentoring as a preferred model for guiding programs for underrepresented students. In H. T. Frierson, Jr. (Ed.), *Diversity in higher education* (pp. 63-76). Greenwich, CT: JAI Press.
- Johnson, C. S. (1989). Mentoring programs. In M. L. Upcraft & J. N. Gardner (Eds.), *The freshman year experience* (pp. 118-128). San Francisco: Jossey-Bass.
- Levinson, D. J. (1978). *The seasons of a man's life*. New York: Knopf.
- Miller, T. E., Neuner, J. L., & Glynn, J. (1988). Reducing attrition: A college at work in research and practice. *NASPA Journal, 25*(4), 236-243.
- Redmond, S. P. (1990). Mentoring and cultural diversity in academic settings. *American Behavioral Scientist, 34*, 188-200.
- Rendon, L. I. (1994). Validating culturally diverse students: Toward a new model of learning and student development. *Innovative Higher Education, 19*(1), 23-32.
- Schlossberg, N. K., Lynch, A. Q., & Chickering, A. W. (1989). *Improving higher education environments for adults: Responsive programs and services from entry to departure*. San Francisco: Jossey-Bass.

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures for student attrition*. Chicago: University of Chicago Press.

Walker, S. C., & Taub, D. J. (2001). Variables correlated with satisfaction with a mentoring relationship in first-year college students and their mentors. *Journal of The First Year Experience and Students in Transition*, 13(1), 47-67.

Wallace, D., & Abel, R. (1997). *Clearing a path for success: Deconstructing borders in higher education through undergraduate mentoring*. Paper presented at the Annual Meeting of the Association for the Study of Higher Education, Albuquerque, NM (ERIC Document Reproduction Service No. ED 415 812.)

Winston, R. B., Jr. (1994). Developmental academic advising reconsidered: Chimera or unrealized potentiality? *NACADA Journal*, 14(2), 112-116.

Winston, R. B., Ender, S. C., & Miller, T. K. (Eds.)(1982). *Developmental approaches to academic advising*. New Directions for Student Services, No. 17. San Francisco: Jossey-Bass.

Winston, R. B., Miller, T. K., Ender, S. C., Grites, T. J., & Associates (1984). *Developmental academic advising*. San Francisco: Jossey-Bass.

Joe Cuseo

MENTORING: PRACTICAL MATTERS

▪ **Working Definition of Mentoring:**

“A one-to-one learning relationship between an older person and a younger person that is based on modeling behavior and extended dialogue between them. A way of individualizing a student’s education by allowing or encouraging the student to connect with a college staff member who is experienced in a particular field or set of skills.”

–Cynthia S. Johnson (1989)

▪ **Potential Roles/Functions of Mentors:**

1. Advocate
2. Cheerleader
3. Coach
4. Confidante
5. Friend/Colleague
6. Guide
7. Resource-&-Referral Agent
8. Role Model

▪ **Potential Benefits of Mentoring for the Student Mentee/Protegee:**

1. Increased likelihood of persistence to graduation
2. Increased academic achievement
3. Increased satisfaction with the college experience
4. Increased educational aspirations

▪ **Potential Benefits of Mentoring for the Mentor:**

1. Revitalization/Vitality
2. Generativity/Fulfillment

▪ **Why Faculty-Student Mentoring Does Not Happen “Naturally”:**

1. Faculty lack background *experience* and *training* in the skills needed for effective mentoring.
2. *Student-faculty ratios* for teaching and advising are often too *large* for personalized mentoring to take place.
3. Faculty tend to be *discipline*-centered and *content*-oriented, often lacking the college-wide and process-oriented perspective needed for effective mentoring.
4. Faculty interest in mentoring is often compromised by *competing* professional responsibilities that carry *more weight* in their *retention and promotion* (e.g., teaching, research, and committee work).
5. Faculty rarely are provided with *incentives or reward systems* that encourage professional pursuit of mentoring.

▪ **Logistical Issues: The Dirty Dozen**

1. How will the mentees (protegees) be selected & recruited?
2. How will the mentors be selected & recruited?
3. How will mentors & mentees be paired?
4. What should be the mentor:mentee ratio?
5. When should the mentoring relationship begin and end?
6. How will mentors & mentees be prepared/oriented for their roles?
7. When & how often should mentors & mentees meet?
8. What "things" (activities) should they do together?

9. How should the program be assessed/evaluated?
10. What resources are needed to support or enhance the program?
11. Who should coordinate the program?
12. How can the program become most visible so as to stimulate institutional awareness, institutional support, or program expansion?

THE ART & SCIENCE OF MAKING *STUDENT REFERRALS*:
SOME SUGGESTED STRATEGIES

- * *Describe* the **goals and services** of the referred service. (Don't assume that the student already has a clear idea.)
- * *Personalize* the referral: Refer the student *to a person* (rather than an office).
- * Reassure the student of the **qualifications and capability** of the person to whom the s/he is being referred.
- * Help the student identify *what questions to ask* or what **approaches** to take with the resource person.
- * Make explicitly sure that the student knows **where** to go and **who** to ask for.
- * **Phone** for an appointment while the student is *in your presence*.
- * *Walk with the student* to the referred person's **office**.
- * **Follow up** the initial referral by asking the student if the contact occurred, how it went, and whether there will be future contact.

RAPPORT & RELATIONSHIP-BUILDING STRATEGIES:
A BAKER'S DOZEN (+ 2)

1. Always refer to your mentee by name.
2. Learn & remember personal information about your mentee.
3. Do something nice (and unexpected) for your mentee.
4. Show interest in the mentee's life and college experience: Ask focused, open-ended (divergent) questions.
5. Engage in active listening.
6. Be empathic: Acknowledge & inquire about your mentee's feelings.
7. Share personal experiences with your mentee.
8. Be prepared for scheduled meetings (esp. the first meeting).
9. Be reliable & punctual for meetings with your mentee.
10. Schedule some interactions with your mentee in informal settings.
11. Be easily accessible/available to your mentee.
12. Provide effective, constructive feedback to your mentee.
13. Seek input from your mentee.
14. Provide your mentee with opportunities for personal choice and decision-making.
15. Remain positive & enthusiastic in the face of frustrations.

MENTOR PROGRAM ASSESSMENT/EVALUATION

1. Assessment Purposes:

- * Formative Assessment: to help "form," shape, fine-tune, and improve the program.
- * Summative Assessment: to "sum up" the program's overall worth, value, or impact.

2. Assessment Outcomes:

* Mentee (Student) Outcomes:

- retention
- academic achievement
- satisfaction with the program
- satisfaction with the college
- use of campus services & participation in campus activities
- quantity & quality of interaction with faculty
- quantity & quality of interaction with peers.

* Mentor Outcomes:

- satisfaction with mentor training program
- satisfaction with the mentoring experience
- continuing with the mentoring program (mentor retention)
- recommending the mentoring program to colleagues (mentor recruitment)

* Institutional Outcomes:

- cost-effectiveness of the program
- institutional revenue generated by the program via increased student retention
- impact of the program on stimulating campus partnerships and building campus community

PROFESSIONAL DEVELOPMENT STRATEGIES FOR MENTORS

* Keep a mentor log or journal in which you record your specific experiences and reflect on how they could be improved.

* Talk with other mentors--collaborate with them, and learn from each other, by sharing your strategies, successes stories, and frustrations.

* Solicit feedback from your mentees, both formally and informally, and use this information to improve your skills.

* Read the professional literature on mentoring. (Perhaps the program coordinator could secure funds to purchase books/journals to be housed in a mini "mentor library.")

* Attend professional conferences on mentoring, such as the annual "International Conference on Mentoring". (Perhaps a program budget can be established that would allow at least one mentor to attend an annual conference and return to share the information with other mentors.)

* Join the International Mentoring Association by contacting:

David James, President
International Mentoring Association
Degree/Extension Centers and Special Programs
Prince George's Community College
301 Largo Road
Largo, Maryland 20772-2199
Phone: (301) 322-0495
Fax: (301) 808-0418.

**RECOMMENDED REFERENCES ON MENTORING:
THEORY, RESEARCH, & PRACTICE**

- Alleman, E., Cochran, J., Doverspike, J., & Newman, I. (1984). Enriching mentoring relationships. *Personnel and Guidance Journal, 12*, 329-332.
- Carmin, C. N. (1988). Issues in research on mentoring: Definitional and methodological. *International Journal of Mentoring, 2*, 9-13.
- Chao, G. T., Walz, P. M. & Gardner, P. D. (1991). *A comparison of informal mentoring relationships and formal mentorship programs*. East Lansing Department of Management, Michigan State University. (ERIC Document Reproduction Document Reproduction Service No. ED 333 784).
- Gray, W. A. (1986). Components for developing a successful formalized mentoring program. In *Proceedings of the First International Conference on Mentoring, 1986*, volume 2. Vancouver, Canada: International Association for Mentoring.
- Hamilton, S. J., & Hamilton, M. A. (1992). Mentoring programs: Promise and paradox. *Phi Delta Kappan, 73*(7), 546-550.
- Jacobi, M. (1991). Mentoring and undergraduate academic success: A literature review. *Review of Educational Research, 61*(4), 505-532.
- Johnson, C. S. (1989). Mentoring programs. In M. L. Upcraft, J. N. Gardner, & Associates, *The freshman year experience* (pp. 118-128). San Francisco: Jossey-Bass.
- Olton, J. D., Carroll, S. J., Giannantonia, C. M., & Feren, D. B. (1988). What do proteges look for in a mentor? Results of three experimental studies. *Journal of Vocational Behavior, 33*, 15-37.
- Rice, M. R., & Brown, R. D. (1990). Developmental factors associated with self-perceptions of mentoring competence and mentoring needs. *Journal of College Student Development, 31*(1), 293-299.
- Sandler, B. (1993, March 10). "Women as mentors: Myths and commandments." *The Chronicle of Higher Education*, p. B3
- Terrell, M. C., Hassell, R. K., & Duggar, M. (1992). Mentoring programs: A blueprint for growth and academic development. *NASPA Journal, 29*(3), 199-205.

Walker, S. C., & Taub, D. J. (2001). Variables correlated with satisfaction with a mentoring relationship in first-year college students and their mentors. *Journal of The First-Year Experience & Students in Transition*, 13(1), 47-68.

Wrightsman, L. S. (1981, August). *Research methodologies for assessing mentoring*. Paper presented at the Annual Conference of the American Psychological Association, Los Angeles. (ERIC Document Reproduction Service No. ED 209 339).

Wunsch, M. A. (Ed.)(1994). *Mentoring revisited: Making an impact on individuals and institutions*. New Directions for Teaching and Learning, No. 57. San Francisco: Jossey-Bass.

