

Advising Components, Roles, and Perceived Level of Competence of University Faculty

Brian E. Myers, University of Florida

James E. Dyer, University of Florida

Abstract

The roles and expectations of faculty in advising both graduate and undergraduate students are changing throughout much of higher education. These changes are occurring so quickly and so dramatically that both faculty and administration are redefining their approach to advising. This study sought to determine the components, roles, and perceived level of competence of university faculty in regards to student advising. Results of the study showed that the majority of faculty perceived advising to be a component of the teaching load. However, only a small number of faculty have received any type of training in academic advising. This lack of formal preparation in advising issues did not affect faculty's perceived level of competence toward advising. Faculty placed the greatest importance on the traditional roles of meeting degree and program requirements, course scheduling, and career counseling. Faculty agreed that advising should be compensated in the promotion and tenure process, but were reluctant to base rewards on student evaluations of advising. Recommendations include to determine influences on faculty perceptions toward advising and to examine the most effective methods of providing faculty with professional development experiences in advising. Further study is needed to determine how faculty suggest advising be evaluated and rewarded.

Introduction/ Theoretical framework

Whereas the most often cited criterion for hiring faculty is expertise in subject matter, student advising is an expectation of faculty on many college and university campuses – and hopefully a positive experience for both the faculty member and students. However, most faculty enter into an advising role without any professional experience or preparation (Habley, 1997). Instruction in how to properly advise students in academic, personal, or career choices is generally not a component of most doctoral degree programs from which faculty members graduate. As such, faculty are often left with the formidable task of finding workable solutions via any avenue possible.

Although faculty are expected to be experts in their subject matter area, expectations to possess adequate advising skills are not considered at the same level of necessity. Yet many faculty are immediately placed in a position of being experts in advising and counseling students upon employment. Many students are incredulous that college advisors are not required somewhere in their educational preparation to have at least a basic course in advising strategies and techniques.

The extent to which teaching faculty should be expected to advise students continues to create rifts in the higher education community. Perhaps partly because of their self-perceived inadequacy in advising knowledge, many faculty retreat to their expertise in research and only teach in the most limiting of contexts (Hancock, 1996). Yet Boyer (1990) clearly expands the definition of the scholarship of teaching to include such activities as the advisement of students.

Academic advising is an on-going, active process involving the student, advisor, and institution – the primary goal of which is to assist students in the development and accomplishment of meaningful educational plans that are compatible with their life goals (Stull, 1997). While a daunting task for a trained faculty member, it is often an overwhelming task for a new or untrained one. Furthermore, this need for expertise transcends disciplinary lines.

The results of expecting unprepared faculty to advise students can be devastating to an institution and its instructional programs. Kennedy, Gordon, and Gordon (1995) reported that faculty contact plays a significant role in student attitudes toward college. Habley (1993) noted that advising contributes to overall student success. He further stated that faculty and administrators “recognize that students who formulate a sound educational/career plan based on their values, interests, and abilities will have an increased chance for academic success, satisfaction, and persistence. Academic advising remains the most significant mechanism available on most college and university campuses for aiding and abetting this important process” (p. 1).

Not only do the results of poor advising threaten the future of the food and fiber industry, it is also of major concern to the financial stability of institutions of higher learning. More students actually leave college before completing a degree than stay and graduate (Tinto, 1993). This loss of students translates into a substantial monetary loss by colleges of agriculture throughout the nation. Dyer, Lacey, and Osborne (1996) reported an 11 million-dollar loss at one institution because of student attrition. Glennen, Farren, and Vowell (1996) noted that

proper academic advising could improve the fiscal stability of institutions by increasing graduation rates.

Advising is an important component of the scholarship of teaching. The Texas Higher Education Coordinating Board (1996) reported 99% of their institutions considered advising to be an important component of faculty members' expectations. However, the Board also reported that all too often students are forced to "self-advise," emphasizing the need for proper faculty development in the area of advising.

Several authors have called for advising assistance programs for university faculty. Stull (1997) noted that university faculty must be trained in three areas: curricular and programmatic advising, career advising, and developmental advising. Crawford (1991) called for a university-wide review of the nature and structure of academic advising and the ability of faculty to complete this expectation. Stowe (1996) characterized advising as a unique opportunity for faculty to affect students' opportunities for success, not a chore of faculty.

Gordon (1992) noted several advantages of a faculty advising system, but also noted that many faculty are unclear as to the specific roles of advising. Whereas advising can include several different facets, O'Banion (1972) outlined various skills, knowledge, and attitudes that are required for good academic advising. However, according to several researchers (Fiddler & Alicea, 1996; Gordon, 1992; Petress, 1996), faculty need professional development to acquire these attributes.

Professional development opportunities are often not available to faculty. Habley and Morales reported that only about one-third of colleges and universities provide any type of professional development activities for advisors (Gordon, Habley, & Associates, 2000). Of those that do provide assistance, less than one-fourth require faculty to participate in these activities. In addition, Habley and Morales also noted that most of the professional development assistance provided focuses solely on the communication of factual information from advisor to student, with little time (if any) devoted to development of advising concepts and relationship skills.

Though the need for faculty professional development in general is well documented, little information has been gathered about the specific needs of advisors. Habley (1997) suggested a three category approach to professional development of faculty advisors. Professional development in the first category would include concept components dealing with the definition of advising, student expectations, and rights and responsibilities of advisors and advisees. The second category would include information components discussing rules and regulations, program and course offerings, referral sources and services. The third category of professional development would address relationship components that would provide professional development in questioning techniques, discussion, and communication skills.

The impact of advising goes beyond that of student academic progress. Academic advising influences areas such as student retention, institution fiscal stability, and faculty perceptions (Glennen, et al., 1996; Stowe, 1996). A number of studies have identified advising as a frequent source of dissatisfaction among students, which is directly related to retention (Corts, Lounsbury, & Saudargas, 2000). Likewise, students feel strongly that interaction with

faculty has a positive influence on their attitude toward college (Kennedy, et al., 1995). This individual interaction (advising) may be a key to the success of many students.

Petress (1996) identified four major factors that affect a faculty member's self perceptions of his or her ability to advise: 1) how advisors interpret their advising role, 2) training and/or guidance that is provided to advisors, 3) expectations of administrators and colleagues for advisors, and 4) recognition or rewards available for competent or exemplary advising.

The theoretical framework for this study lies in Bandura's social-cognitive theory as adapted by Mager (1992). Mager noted that four conditions must be present in order for a person to successfully perform a task: skill, opportunity, a supportive environment, and self-efficacy. The university setting can provide the first three conditions. The fourth component, self-efficacy, is supplied by the faculty member. Mager noted that a person's self-efficacy can be improved through completion of tasks that allow a person to practice a certain skill. As adapted to this study, if faculty members feel as though they are adequately prepared to advise students, their levels of self-efficacy increase and the adviser feels comfortable in that role. By contrast, if the adviser feels inadequately prepared, it is likely that this lower level of self-efficacy will manifest itself in less favorable attitudes toward advising, and eventually in lower performance of task.

Many faculty are not afforded the opportunity to adequately prepare for future advising roles through their doctoral program course work. As such, faculty often rely on personal experiences to help them adequately meet the expectations of advising. This lack of formal instruction may often leave faculty members with low levels of self-efficacy, which according to Mager (1992), may severely limit their ability to perform.

Purpose and Objectives

The purpose of this study was to determine the attitudes, needs, and level of competence in advising as perceived by faculty of a college of agriculture at a land grant institution. The objectives of the study, stated as questions, were as follows:

1. How do faculty define advising in terms of rewards and time commitments?
2. What are the attitudes/perceptions of faculty toward student advising?
3. What is the perceived competence/preparation level of faculty to advise students?
4. What advising roles do faculty perceive to be most important?
5. What advising practices do faculty consider to be most useful?

Methods

This study used a descriptive survey research design. The population for the study was faculty with teaching appointments in a college of agriculture in a land grant institution. A random sample of 150 faculty (Gall, Borg, & Gall, 1996) meeting the population criteria was established using computer generated random numbers. Names and contact information of faculty were obtained from the university personnel office.

The study used a researcher-designed instrument to assess the attitudes, needs, and perceptions of faculty members toward advising. The mailed questionnaire used a 4-point Likert-type scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree) to solicit responses. A 4-point scale was chosen to compel the respondent to express an opinion about the statement. Dillman (2000) noted that it is appropriate to pose attitudinal questions without giving the option of a neutral opinion or no opinion at all. In addition, each question was designed to be general enough that all faculty should have enough knowledge on the subject to form an opinion. Demographic questions were asked using open-ended and short-answer options.

Face and content validity was established by a panel of experts consisting of current and future faculty at two land grant universities. The instrument was pilot tested using a random sample of faculty not included in the study. The coefficient of internal consistency was established at $r = .94$ using the Spearman-Brown test for reliability.

In an attempt to reduce nonresponse error, a total of six respondent contacts were made (Dillman, 2000). Sixty-seven faculty returned questionnaires. Of these, 21 faculty asked to be removed from the sample for reasons such as “no advising responsibilities” and “not interested in participating.” This somewhat low response rate was found to be similar to response rates found in other studies investigating faculty advising and other related topics (Jirojwong & Wallin, 2002; Klingele & Lyden, 2001; Madison & Huston, 1996; Milem, Berger, & Dey, 2000). However, due to the limited response rate from the multiple contacts with the sample, and negative feedback from sample respondents who expressed a desire to not be contacted again, it was reasoned that those faculty who responded represented respondents who were interested in advising. Cajoling a response from faculty who were not interested in advising would have yielded inappropriate data as noted by Miller & Carr (1997).

The results of the study were analyzed using SPSS software. Frequencies, standard deviations, percentages, and means were calculated for individual questions. Although by definition Likert-type scales produce ordinal data, results were treated as interval data for analysis and interpretation purposes. This procedure is commonly accepted in social science research, especially if data are categorized into equal intervals as was done in this study (Clason & Dormody, 1994).

Results

The first objective sought to describe how faculty define advising in terms of rewards and time commitments. Most respondents indicated that advising should be a component of promotion and tenure (93.5%), compensation (93.2%), and teaching FTE (90.9%). However, less than 32% of the respondents indicated that advising is currently valued in promotion and tenure decisions (see Table 1). Similarly, over 68% indicated that advising student organizations should be a factor in promotion and tenure, yet only 31% reported that it is currently considered.

There appears to be limited value placed upon the quality of advising. Only slightly more than half (52.2%) of respondents indicated that quality advising, as determined by student

advising evaluations, should be a component of faculty pay. Likewise, only slightly more than 73% of the respondents indicated that quality advising is valued by their department.

The second objective sought to describe attitudes/perceptions of faculty toward advising. All respondents (100%) indicated that advising is a good way to build rapport with students (see Table 2). In addition, almost all respondents indicated that advising plays an important role in recruiting (91.1%) and retaining students (97.9%). Likewise, over 95% indicated that students are more likely to change majors when they have negative advising experiences.

Advising graduate students appears to be held in higher esteem than advising undergraduate students. Whereas most respondents (85.8%) indicated that advising undergraduate students is a good use of their time, a larger percentage (97.9%) indicated that advising graduate students is a good use of faculty time. The same pattern of agreement prevailed on attitudes of advising as a scholarly activity. Whereas over 71% agreed that advising undergraduate students is a scholarly activity, more than 93% agreed that advising graduate students is scholarly.

Table 1
Faculty Definition of Advising in Terms of Rewards and Time Commitments (n = 46)

Statement	Agree ^a		Disagree ^a	
	f	%	f	%
Student advising should be a component of promotion and tenure review.	43	93.5	3	6.5
Student advising should be a component of faculty compensation.	41	93.2	3	6.8
The number of students advised should be a component of teaching FTE.	40	90.9	4	9.0
The advising of student organizations should be a component of teaching FTE.	33	75.0	11	25.0
Quality advising is valued in my department.	33	73.3	12	26.7
Advising student organizations should be a component of promotion and tenure review.	30	68.2	14	31.8
The quality of student advising, as determined by student advising evaluations, should be a component of faculty pay scale.	24	52.2	22	47.8
Faculty are provided enough time to adequately advise students.	14	31.8	30	68.2
Student advising is currently a valued component of promotion and tenure review.	14	31.8	30	68.2
Advising student organizations is currently a valued component of promotion and tenure review.	13	31.0	29	69.0

^a Means were indexed and categorized as follows: Disagree ($M = 1.00 - 2.49$), Agree ($M = 2.50 - 4.00$).

Advising undergraduate students may be perceived as being more closely related to teaching than is advising graduate students. Most respondents disagreed with the statement that only faculty with teaching appointments should advise graduate students (86.4%) and student

organizations (83.3%). However, a majority of faculty (54.5%) agreed that only faculty with teaching appointments should advise undergraduate students.

The third objective sought to describe faculty preparation to advise students. In general, faculty perceived themselves to be competent and/or prepared to advise individual students on academic career decisions, but indicated a need for assistance in advising student organizations, in advising students on personal matters, and in the use of on-line advising technology (see Table 3).

Almost 98% of the respondents indicated that they felt comfortable working with students one-on-one. Most respondents also indicated a knowledge of where to find information on academic policies (91.2%), assisting students in planning class schedules (84.5%), locating campus resources (80%), and in helping students to make career choices (80%). Likewise, over 78% of the respondents considered their current level of expertise to be adequate. However, respondents did not perceive themselves to be as competent/prepared in advising student organizations (48.9%), using on-line advising tools (40%), or in their knowledge of legal issues concerning advising (22.2%).

Table 2
Attitudes / Perceptions of Faculty Toward Advising (n = 46)

Statement	Agree ^a		Disagree ^a	
	<i>f</i>	%	<i>f</i>	%
Advising students is an effective way to build rapport.	46	100	0	0.0
Advising graduate students is a good use of faculty time.	43	97.9	1	2.3
Advising plays an important role in retaining students.	44	97.8	1	2.2
Students are more likely to change majors when they have negative advising experiences.	43	95.6	2	4.4
Advising graduate students is a scholarly activity.	41	93.2	3	6.8
Advising plays an important role in recruiting students.	41	91.1	4	8.9
Advising undergraduate students is a good use of faculty time.	36	85.8	6	14.3
Advising student organizations is a good use of faculty time.	36	83.7	7	16.3
Advising students should be an expectation of all faculty.	33	81.0	8	19.0
Advising undergraduate students is a scholarly activity.	32	71.2	13	28.9
University faculty should be responsible for advising students regardless of pay.	25	58.1	18	41.9
Only faculty with teaching appointments should advise undergraduate students.	24	54.5	20	45.5
Students should utilize advising sessions with faculty on a walk-in basis.	12	30.0	28	70.0
Only faculty with teaching appointments should advise student organizations.	7	16.7	35	83.3
Only faculty with teaching appointments should advise graduate students.	6	13.6	38	86.4

^a Means were indexed and categorized as follows: Disagree ($M = 1.00 - 2.49$), Agree ($M = 2.50 - 4.00$).

Only one-third (33.3%) of the respondents indicated they had received any type of professional training on how to advise and/or counsel students on academic and professional matters. A smaller percentage (10.9%) indicated they had received any training on how to advise students on personal matters. An equally low percentage (10.9%) indicated they had received any type of training in advising student organizations.

Over three-fourths of the respondents (77.8%) rated themselves as either “competent” or “very competent” in their knowledge of degree and/or program requirements (see Table 4). Likewise, faculty considered themselves as “very competent” or “competent” in assisting with course scheduling (77.2%), career counseling (75.5%), and industry/job market demands (77.8%). However, a total of 60% of the respondents rated themselves as either “not competent at all” or “somewhat competent” on dealing with students’ personal issues. Likewise, over 64%

of the respondents also indicated limited expertise in advising students for financial assistance opportunities, and over 53% indicated a lack of competence in advising student organizations.

Table 3
Faculty Perceived Knowledge and Preparation for Advising (n = 46)

Statement	Agree ^a		Disagree ^a	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
I feel comfortable in communicating one-on-one with students.	45	97.9	1	2.2
I know where to find information on academic policies.	41	91.2	4	8.9
I feel competent in assisting students in planning schedules.	38	84.5	7	15.6
I am aware of campus resources to assist students who are in academic difficulty.	36	80.0	9	20.0
I feel competent in counseling students on making career choices.	36	80.0	9	20.0
My current level of expertise in advising students is adequate.	36	78.3	10	21.7
I feel competent in counseling students on personal matters.	26	59.1	18	40.9
I feel competent in advising student organizations.	22	48.9	23	51.1
I feel competent in using on-line advising tools.	18	40.0	17	60.0
I have received training in how to advise students on academic and professional matters.	15	33.3	30	66.7
I feel competent in my knowledge of legal issues concerning advising.	10	22.2	35	77.8
I have received training on how to counsel students on personal matters.	5	10.9	41	89.1
I have received training on how to advise student organizations.	5	10.9	41	89.1

^a Means were indexed and categorized as follows: Disagree ($M = 1.00 - 2.49$), Agree ($M = 2.50 - 4.00$).

The fourth objective of the study sought to determine what advising roles faculty perceive to be most important. Index scores of respondent rankings were used to determine an overall ranking of advising roles.

Table 4
Faculty Perceived Advising Competence Level (n = 46)

Area of Advising	Not at all Competent		Somewhat Competent		Competent		Very Competent	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Degree / Program Requirements	2	4.4	8	17.8	12	26.7	23	51.1
Course Scheduling	3	6.8	7	15.9	17	38.6	17	38.6
Career Counseling	0	0.0	11	24.4	19	42.2	15	33.3
Industry / Job Market Demands	4	8.9	6	13.3	23	51.1	12	26.7
Activities / Competitions	6	14.0	14	32.6	21	48.8	2	4.7
Personal Issues	3	6.7	24	53.3	16	35.6	2	4.4
Financial Assistance Opportunities	11	24.4	18	40.0	15	33.3	1	2.2
Student Organization Advising	16	35.6	8	17.8	14	31.1	7	15.6

As noted in Table 5, respondents considered three roles of advisers to be most important for student advising: helping students meet degree/program requirements, career counseling, and course scheduling. Assisting with student organizations, preparing students for activities/competitions, and assisting students with personal issues were ranked lowest.

Table 5
Rank Importance of Adviser Roles (n = 46)

Item	Undergraduate		Graduate	
	Rank	Index Score ^a	Rank	Index Score ^a
Degree/Program Requirements	1	307	1	324
Career Counseling	2	271	3	241
Course Scheduling	3	258	2	242
Scholarship/Financial Aid Counseling	4	171	5	153
Industry/Job Market Demands	5	148	4	185
Personal Issues	6	117	6	134
Activities/Competitions	7	115	7	120
Student Organization Advising	8	112	9	48
Other	9	0	8	88

^a An index score was calculated by reverse coding respondent ranking (e.g., 1 = 8 pts, 2 = 7 pts, etc.) and summing total points received by each item.

The final objective of the study was to determine the most effective practices used by advisers. As indicated in Table 6, those practices were grouped into six categories: course scheduling, knowledge of the “system,” student planning, technology, personal relationships with students, and strategies used in advising individual students. No practices were identified that dealt with advising student organizations.

Advisors appear to be relying more on the use of technology as a useful tool in advising. Many listed the use of e-mail distribution lists and e-mail reminders as an effective tool. Also,

several faculty have developed websites with important advising information for students. These websites were described as both genetic department advising sites as well as advisor made websites with specific information for their advisees.

Many faculty listed developing a personal relationship with their advisees as important. Practices such as being interested in each individual student's situation, being a good listener, and treating students with respect were listed as effective methods.

Respondents listed only a limited number of strategies for advising. Peer advising was found to be a practice that many found to be useful. This was accomplished through both group advising sessions and one-on-one interaction between students. Placing the responsibility of program planning on the student was also listed by several faculty. One method suggested for giving the student more responsibility was to have the student develop a course plan. This was suggested for advising both undergraduate and graduate students.

Table 6
Advising Best Practices

Category	Practice
Course Scheduling	Be available Schedule regular meetings with advisees
Knowledge of the "system"	Know available student services Know course and degree requirements
Student Planning	Students complete a plan of study Goal setting Keep complete records Regularly monitor student progress Regular evaluation of student progress
Technology	Use computer auditing system E-mail reminders Distribution lists Advising websites
Personal relationship with students	Be interested in the student Be a good listener Treat students with respect Be honest with students Use leading questions Counsel students on personal matters
Strategies used in advising individual students	Peer advising Project development Make student responsible for program Always suggest and discuss additional options

Conclusions / Implications / Recommendations

Overall, there appears to be a lack of understanding among respondents as to the definition of advising and the subsequent roles of faculty, as outlined by Glennen et al. (1996),

Habley (1993), Stickle (1982), Stowe (1996), and Stull (1997). Both undergraduate and graduate student advisors placed a great deal of importance on the traditional roles of assisting students in meeting degree and program requirements, course scheduling, and career counseling – the roles most generally associated with basic levels of advising. Other areas of student development were consistently ranked as less important. Focusing on academic issues does not preclude advisors from employing developmental advising techniques. The differentiation between developmental and prescriptive advising is made on the basis of how the different roles and duties are completed. It is recommended that programs be implemented to develop and expand faculty advising capacity.

Faculty perceive advising to be an element of faculty teaching load, value it as a component in promotion and tenure decisions, and expressed the opinion that it should be compensated. Faculty were reluctant, however, to base rewards on student evaluations of advising. Further study is warranted to determine how faculty suggest advising duties be evaluated and rewarded. Faculty perceive advising to be a good way to recruit and retain students, and to develop positive rapport with students. Almost all respondents indicated that negative advising experiences would likely cause students to change majors. Faculty should utilize this opportunity for rapport-building both on an individual basis and in advising student groups.

Faculty perceive undergraduate advising to be more closely tied to teaching than is graduate advising. In addition, advising graduate students seems to be held in higher esteem than is the advisement of undergraduate students. This may indicate a lack of understanding of the importance of advising, or may reflect an institutional hierarchy of research over teaching. Remediation may be warranted to emphasize the scholarship of teaching as outlined by Boyer (1990).

In general, faculty perceive themselves to be competent and/or prepared to advise students on items such as class scheduling and/or making career choices, but indicated a lack of expertise in advising student organizations, in advising students on personal matters, in dealing with various legal issues surrounding advising, and in the use of on-line advising technology. Even with these deficiencies, nearly 80% of the respondents considered their current level of expertise to be adequate. This may imply that faculty in this study define advising only as class scheduling and career preparation. Further research is needed to determine how faculty define their advising responsibilities.

Based upon Mager's theory of task performance, faculty in this study likely experience a high level of self-efficacy in the advising areas of scheduling and career guidance. In accordance with Mager's theory, faculty exhibited positive attitudes toward advising in these areas. According to Mager's theory, they would therefore be willing to advise students in these areas. However, faculty indicated a low level of self-efficacy in relating to students on a personal basis and in advising student organizations.

Although most faculty indicated they perceived their preparation to advise students as adequate, only one-third of the respondents indicated that they had ever received any type of preparation in advising strategies and/or techniques. The literature base suggests that these

perceptions of preparedness may be in error. According to Fiddler and Alicea (1996), Gordon (1992), and Petress (1996), training is necessary for faculty to gain the skills, knowledge, and attitudes required for good advising as outlined by O'Banion (1972). This situation may also exist as a result of a misunderstanding of exactly what constitutes student advising. As recommended earlier, professional development activities to acquaint faculty with the holistic responsibilities and duties of advising may be warranted.

Respondents considered three roles of advisers to be most important for both undergraduate and graduate student advising: helping students meet degree/program requirements, career counseling, and course scheduling. Advising student organizations, activities/competitions, and advising students on personal issues were viewed as the least important roles of advisers.

The request by numerous faculty to be removed from the study because of little or no interest in advising, and the resulting low response rate after six contacts, was surprising. Although not all nonresponse can be attributed to non-interest in advising, it does possibly signal a potential problem and lack of understanding of what constitutes advising. With so many studies showing that positive advising experiences aid in retaining students (Corts et al., 2000), disinterest among faculty in advising issues should be of great concern to college administration. This needs further study, thus it is recommended that this study be replicated on a national scale

References

- Boyer, E. L. (1990). *Scholarship reconsidered, priorities of the professorate*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.
- Clason, D. L., & Dormody, T. J. (1994). Analyzing data measured by individual Likert-type items. *Journal of Agricultural Education*, 35(4), 31-35.
- Corts, D. P., Lounsbury, J. W., & Saudargas, R. A. (2000). Assessing undergraduate satisfaction with an academic department: A method and case study. *College Student Journal*, 34(3), 399-408.
- Crawford, A.E. (1991). Academic advising at UNO: Report of the 1991 survey. *Ess Reports*, 4(2).
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York: John Wiley & Sons, Inc.
- Dyer, J. E., Lacey, R., & Osborne, E. W. (1996). Attitudes of University of Illinois College of Agriculture freshman toward agriculture. *Journal of Agricultural Education*, 37(3), 43-51.
- Fiddler, M. B., & Alicea, M. (1996). Use of a collective narrative process to articulate practice-based advising competencies. *NACADA Journal*, 16(1), 14-20.

- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction* (6th ed.). White Plains, NY: Longman Publishers.
- Glennen, R. E., Farren, P. J., & Vowell, F. N. (1996). How advising and retention of students improves fiscal stability. *NACADA Journal*, 16(1), 38-41.
- Gordon, V. N. (1992). *Handbook of academic advising*. Westport, CT: Greenwood Press.
- Gordon, V. N., Habley, W. R., & Associates. (2000). *Academic advising: A comprehensive handbook*. San Francisco: Jossey-Bass.
- Habley, W. R. (1993). "Advisor training in the context of a teaching enhancement center." Academic Advising as a Comprehensive Campus Process. Monograph Series, No. 2. National Academic Advising Association, Manhattan, KS.
- Habley, W. R. (1997). Organizational models and institutional advising practices. *NACADA Journal*, 17(2), 39-44.
- Hancock, D. R. (1996). Enhancing faculty motivation to advise students: An application of expectancy theory. *NACADA Journal*, 16(2), 11-15.
- Jirojwong, S., & Wallin, M. (2002). Use of formal and informal methods to gain information among faculty at an Australian regional university. *The Journal of Academic Librarianship*, 28(1/2), 68-73.
- Kennedy, G. J., Gordon, R. L., & Gordon, V. N. (1995). Changes in social and academic integration in freshman of high and average ability: Implications for retention. *NACADA Journal*, 15(2), 9-18.
- Klinge, W. E., & Lyden, J. A. (2001). Organizational health and teacher education. *The Teacher Educator*, 37(2), 100-116.
- Madison, J., & Huston, C. L. (1996). Faculty - faculty mentoring relationships: An American and Australian perspective. *NASPA Journal*, 33, 316-330.
- Mager, R. F. (1992). No self-efficacy, no performance. *Training*, 29(4), 32-36.
- Milem, J. F., Berger, J. B., & Dey, E. L. (2000). Faculty time allocation. *The Journal of Higher Education*, 71(4), 454-475.
- Miller, G., & Carr, A. (1997). Information and training needs of agricultural faculty related to distance education. *Journal of Applied Communications*, 81(1), 1-9.
- O'Banion, T. (1972). An academic advising model. *Junior College Journal*, 72(42), 62, 66-69.
- Petress, K. C. (1996). The multiple roles of an undergraduate's academic advisor. *Education*, 117, 91.

Stowe, D. E. (1996). Postmodern view of advisement in higher education. *NACADA Journal*, 16(2), 16-18.

Stull, N. (1997). Academic advising: What does it mean at MU today? *Chalkboard*, 15(5).
Texas Higher Education Coordinating Board. (1996). "Report on academic advising." Author.
Austin, TX.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.).
Chicago: University of Chicago Press.