The Effectiveness of Faculty Advisors: Theory and Assessment

by

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DEDICATION

to my sons, Scott and Mark Trombley and to my friend, Dr. Leon F. Burrell

ABSTRACT

A model of faculty advising suggests that the tasks performed by faculty advisors are explained by three conceptual constructs differing in levels of complexity and type of skill. The three constructs identify a routine set of tasks termed Providing Information and two complex sets of tasks termed Developing Academic and Educational Goals, and Providing Personal Support. However, no empirical data exist to support this model. To test the model, a sample consisting of 481 University of Vermont undergraduate students rated their advisors on the three sets of items. The data were subjected to confirmatory factor analyses using maximum likelihood procedures with the LISREL model. The existence of the three categories of advising tasks was confirmed. The nature and complexity of advising tasks must be addressed when assessing faculty advisor performance and designing development activities for advisors.

RESUME

Selon un modèle d'orientation pédagogique, les tâches exécutées par les conseillers pédagogiques s'expliqueraient par trois concepts qui diffèrent par leur niveau de complexité et le type de tâches. Les trois concepts identifient un ensemble de tâches systématiques: la prestation d'informations et deux ensembles de tâches complexes soit d'une part l'élaboration d'objectifs universitaires et pédagogiques, de l'autre, l'apport de soutien personnel. Toutefois, aucune donnée empirique n'existe qui puisse appuyer ce modèle. Afin de vérifier ce modèle, on a demandé à un échantillon de 481 étudiants de premier cycle de l'Université du Vermont d'évaluer leurs conseillers selon les trois concepts. Les données ont été soumises à des analyses de facteur afin de les confirmer; à cette fin, on a utilisé le modèle LISREL et

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les démarches de probabilité maximale. On a confirmé l'existence de trois catégories de tâches d'orientation. On devra tenir compte de la nature et de la complexité des tâches d'orientation lorsqu'on évaluera le travail du conseiller pédagogique et lorsqu'on élaborera des activités de formation pour les conseillers.

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The Problem

Faculty advising has a long tradition within North American higher education. In 1841, Rutherford Hayes, a student at Kenyon College, and later to become president of the United States, wrote a letter home to his mother in which he described a new college policy. The policy specified that each student should choose from among the faculty a professor who would serve as an advisor and friend in all matters. In the late 1800's, Johns Hopkins and Harvard instituted faculty advising systems. By the 1940s, nearly all universities and colleges had followed suit (Wren & Bell, 1942). Despite this long history, there have been few attempts to investigate the nature and complexity of advising tasks, and little agreement exists on the range of activities to be performed within the advising framework.

Historically, academic advising has occupied low institutional status in the United States when compared with research and teaching. Trombley and Holmes (1980) attribute poor advising to its "marginal position" supported, in large part, by the lack of institutional recognition of advising efforts and few, if any, opportunities for advisors to obtain the requisite skills and knowledge.

There are indications of change, however, promoted by developments at both the national and institutional level. In 1977, the first national gathering of faculty and administrators concerned about the quality of student academic support gathered at the University of Vermont for a conference on academic advising. The conference drew 275 professionals from throughout the nation and served as the impetus for the organization of a national academic advising association (NACADA) incorporated in 1979 with nearly 500 members. Concurrently, the American College Testing Program released the results of its national survey on academic advising and Kansas State University marketed an advising evaluation form. In its final report, The Carnegie Council on Policy Studies in Higher Education (1980) predicted:

A new academic revolution is upon us. In the 1960s

> the revolution consisted of many institutions trying to become research universities and mostly failing. In the 1980s it will take more and more the form of following the long-time example of the community colleges and adjusting to the [student] market. (p. 30)

Institutional vitality may well depend upon the ability to shift priorities to meet current needs. The Carnegie Council describes the next two decades as the "Golden Age of the Students" who will be recruited and supported more aggressively then ever before. The events underlying their prediction are a shrinking pool of traditional students and the economic entrenchment of higher education institutions in the United States. Student recruitment, support and satisfaction have become survival issues in an era of decline and change in enrollment patterns.

Emerging evidence of linkages between student outcomes and academic advising suggest that the responsive institution will elevate the importance of advising from a peripheral to a central position (Lindquist, 1982; Trombley & Holmes, 1981).

ORIGINAL CONTRIBUTION

This thesis addresses a missing element in the knowledge base of academic advising by linking emerging theory to advisor practices. It contributes to knowledge (a) by being an empirical confirmation of an advising model and (b) by fitting into the context of previous knowledge.

ACADEMIC ADVISING DEFINED

Academic advising is an interactive process within which an informed faculty advisor and the involved advisee seek to ensure the student's satisfactory completion of academic goals through discussion, planning, decision-making and feedback. The terms "interactive process" refer to the verbal and nonverbal interchanges between advisor and advisee for the purpose of promoting the advisee's academic and personal welfare. The process is viewed as actively demanding attention from at least two individuals, one of whom (the advisor) possesses knowledge and skill which the other (the advisee) seeks or is exposed to in the pursuit of an education.

FACULTY ADVISING

Several types of advising models are reported in the literature, including peer advising (Bonar & Mahler, 1976; Habley, 1979) and staff advising (Dameron & Wolf, 1974; Grites, 1979; Olson, 1981; Spencer, Peterson & Kramer, 1982). The preferred model is the faculty-advising system which traces its beginnings to Johns Hopkins and Harvard (Hardee, 1970). In a recent American College Testing Program (ACT) survey of academic advising, Carstensen and Silberhorn (1979) reported that the primary style in nearly four-fifths of all advising systems nationally was to use teaching faculty as undergraduate advisors. Faculty advising continues to be the system of choice for public and private institutions sampled nationally in a recent update of the American College Testing Program study (Crockett & Levitz, 1983). Seldin (1980) reasons that the desire to "reduce student planning errors" promoted faculty advising as the advising model of choice in higher education.

In the traditional advising arena, faculty advisors have been expected to inform students of academic requirements, options and policies and to monitor the students' programs of study (Atkin & Conrad, 1977; Gaff &

Wilson, 1971; Hardee, 1970; O'Banion, 1972). Yet existing reward structures failed to recognize or to evaluate expertise in advising (Biggs, Brodie, & Barnhart, 1975; Grites, 1979; Miller, 1974).

Performance

Faculty advisors have been assailed for the poor quality of their performance by students, administrators and colleagues (Grites, 1980; Hornbuckle, Mahoney, & Borgard, 1979). Poor faculty advising is attributed to lack of role preparation, little institutional support, disagreement on advising tasks and confusion over who should advise (Dressel, 1981; Trombley & Holmes, 1980). Little agreement exists on the characteristics of good performance, nevertheless, competent advising appears essential to the student's successful completion of educational goals (Crockett, 1978). Noel (1978) reported that inadequate advising support services frequently lead to decreases in student retention.

Roles

The 1960's ushered in an era of student unrest. Students voiced loudly their dissatisfaction with the status quo and with the lack of attention to individual and group rights. They demanded a voice in shaping distinctive features of their own education and desired more personalized interaction with faculty (Astin, 1977; Chickering, 1969). Academic advising presented a context in which to build the faculty and student relationship. Yet administrators experiencing unprecedented fiscal soundness and growth placed little value on the nature of relationships between faculty and students. Administrative priorities were in other directions. Faculty were expected to teach, publish and conduct funded research activities, with the advising role frequently subsumed under teaching. The realities of survival for faculty, i.e., emphases on quality in teaching, publications and research, created dilemmas. One solution was to limit the time spent with advisees to critical moments such as preregistration, thus ensuring adequate time for activities that would more likely have a positive effect on the faculty member's professional development and survival (Eble, 1976; Maclean, 1953; Seldin, 1980).

Unlike the 1960's, the decade of the 1970's was characterized by increasing economic problems, escalating costs of an education, limited resources (e.g., energy, equipment and personnel) and a shrinking pool of students from which to draw traditionally prepared applicants.

High attrition rates and changes in the student composition helped to rekindle administrative attention to student concerns. There was greater access to higher education for racial minorities, women, veterans, part-time students and older students. Many had never been on a college campus; many represented a first generation in their families to attend college; many were discriminated against for their race, sex and age; and, many had educationally disparate backgrounds. In academic advising, administrators saw a mechanism for enhancing student retention and satisfaction with their educational experiences. Ideally, the student and advisor would work together to develop an academic plan reflecting the student's specific interests and capabilities. This contemporary approach to advising undergraduate students was time consuming and demanded an extra measure of personal commitment. The renewed interest by administrators in faculty advising coupled with the

changing nature of the advising role are important reasons for establishing a theoretical framework upon which faculty-advisor performance can be assessed and weighted.

RETENTION IN COLLEGE

An important outcome recently tied to the quality of academic advising is student retention. Beal and Noel (1980) conducted a national survey on student retention for the American College Testing Program and the National Center for Higher Education Management Systems. One purpose was to discover the relationship between improved campus services and student retention. Improvements in the delivery of academic advising support were cited by slightly more than one-half of the institutions as the support effort leading to increased student retention.

The quality and frequency of faculty-student contacts beyond the classroom are regarded as important predictors of educational outcomes (Crockett, 1978; Pascarella & Terenzini, 1980). Quality refers to students' reports of satisfaction with their education and frequency refers to the number of discussions students have with faculty on matters related to the students' academic life.

In a series of investigations at a northern United States university, Pascarella & Terenzini linked the frequency of out-of-classroom contacts with faculty to freshmen attrition and the students' desire to persist to graduation. They reported that nonclassroom contacts between faculty and students positively influenced retention, particularly when discussions centered on academic information and academic counseling needs. Grites (1980) believed such concerns formed the primary dimensions of a quality faculty advising system. Academic advising, the only nonclassroom activity involving all undergraduate students with faculty, presents a natural context for promoting increased faculty-student contacts.

NEED FOR RELIABLE AND VALID INSTRUMENTATION

Advising has reemerged as a systematic and integral component of the educational process (Murry, 1972), yet frequently it is reported as inadequately performed (Grites, 1979; McKinney & Hartwig, 1981; Moore, 1976). It has been evaluated from national (Carstensen & Silberhorn, 1979; Kramer, 1982; Polson & Cashin, 1981) and institutional perspectives (Borgard, Hornbuckle, & Mahoney, 1977; Grites,

1981; Kapraun & Coldren, 1979). Institutionally based evaluations revealed little agreement on how to define effective advising. They further define the relative nonexistence of policies and programs to aid faculty in performing advising functions and a reward structure based almost entirely on the intrinsic value of helping students.

Few investigations have been undertaken to develop reliable and valid instruments to measure the performance of faculty who advise undergraduates. If academic advising is important to the students' successful completion of educational goals, then performance standards need to be developed which will differentiate the skilled (or expert) advisor from the relatively unskilled (or novice) advisor.

TOWARD A DEFINITION OF EXPERT ADVISORS

Kramer (1979) suggested that competent advisors become skillful in simultaneously addressing the technical and interpersonal levels of advising. A pilot study to this thesis (Trombley, 1984) suggests that two sets of discrete functions underlie a comprehensive advising process. The first are technical competencies, interpreted as routine tasks which place few cognitive demands on the performer

They are typified by form signing, record maintenance and referral activities. The second are interpersonal competencies, and they presuppose the development of a personal relationship between the advisor and advisee. Typical tasks include helping students to relate information to specific careers and planning academic programs based on the students' developmental needs. Such complex functions may require a specialized knowledge domain and experience base to perform well (Chase & Simon, 1973; Larkin, McDermott, Simon, & Simon, 1980) as performance is tied to the ability to establish rapport and address the student's maturation-dependent needs.

Larkin et al. proposed a three-fold explanation of expert performance. The first component of expert skill was labeled the superior indexing of stimuli. This indexing might include information on strategies, for example, referring students who appear confused about the direction of their academic program and providing information on domain-specific stimuli such as the grade-point average needed to declare a major in a particular discipline.

A second component is related to the expert's superior recognition capabilities. Larkin et al. theorized that

experts' quick recognition of patterns in external stimuli evokes a set of organized responses. Theoretically, the production system has two parts (a) a condition represented by the external stimuli and (b) an action which is the response evoked by the condition. According to the model, an integral part of the experts' perceptual knowledge base is the relationship among the stimuli. When a condition is present, the performers' complex schemata evoke a solution, for instance, when the student expresses little interest in school the advisor makes a referral to the appropriate support service.

Finally, the model suggests that chunks (or groups) of information representing properties of stimuli are linked by the relationships among them. The experts' ability to chunk information so that several bits of information are organized to represent a single unit of information is known to greatly expand the amount of meaningful information that can be recalled (Miller, 1956). The elaborate network is presumed to account for the superior problem-solving ability of experts. Experts are able to connect seemingly unrelated incidences. For example, knowledge of student development needs, program requirements and knowledge of advisees'

particular strengths and weaknesses are quickly recalled vis-a-vis an existing organizational structure to form the basis of the advisors' communication with advisees. Larkin et al. suggest that the apparently automatic performance of experts actually represents efficiency in knowledge structuring (processing).

> Although a sizable body of knowledge is prerequisite to expert skill, that knowledge must be indexed by large numbers of patterns, that on recognition, guide the expert in a fraction of a second to relevant parts of their knowledge store. The knowledge forms complex schemata that can guide a problem's interpretation and solution and that constitute a large part of what we call physical intuition. (p. 1336)

Expert advisors, then, can be said to react to students' needs and demands in a more efficient and automatic manner than novice or less skilled advisors. Expert advisors, for example, possess within their knowledge structures a large repertoire of problem-solving strategies. This knowledge is organized in connecting patterns enabling

the skilled advisor to respond quickly to a wide variety of student situations. In contrast, novice advisors have less domain-specific knowledge stored in memory and it is not as well organized or interconnected as the experts' knowledge. The novice makes fewer connections between external and internal stimuli, inhibiting both the retrieval process and the time it takes to respond, that is, the novice relies upon rote rather than automatic problem-solving strategies. These differences may be reflected in the (a) speed and accuracy with which advisors of different skill levels respond to advising problems, and (b) students' ratings of their advisors' performance on tasks distinguished by type and complexity.

The question of who is an expert faculty advisor is not directly addressed by the present study. Rather, the focus is on the confirmation of pilot study findings of multiple dimensions in measures of faculty advisor performance.

PURPOSE

The primary purpose of the present investigation is to confirm the existence of a theoretical structure suggesting that the quality of undergraduate advising can be

differentiated on the basis of task complexity and type of skill, that is, to build a model of advising which is multidimensional and to test that model with data generated from interactions between advisors and advisees. If a diverse set of skills underlies the advising process, advisor evaluation as well as advisor development programs will need to address the nature and complexity of those skills when assessing performance or designing faculty development activities.

The central question will be accompanied by two other questions of a preliminary and secondary nature. The preliminary question will examine relationships between background characteristics and students' reports of their advisors' performance while the secondary question will examine the effect of gender on the ratings. Background characteristics have shown little influence on student ratings of teaching. Since the advising interaction occurs in a more intimate context than teaching, these variables may have a stronger effect on ratings of advisor performance. If so, the relative influence of these variables should be known before interpretations of the ratings are made. Nevertheless, these questions are only

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was slightly underrepresented by 8% and 3%, respectively, χ^2 (7, N = 925) = 118.94, $p < .05$. The sample consisted of 28% freshmen, 25% sophomores, 30% juniors and 17% seniors. Freshmen slightly overrepresented (5%), sophomores approximated and juniors and seniors underrepresented (8% and 4%, respectively) the population of students at the University χ^2(3, N = 925) = 44.79, $p < .05$.

Instruments. A pool of 40 items representing tasks typically performed by faculty advisors was generated from current instruments for evaluating advising. An advisory group of faculty members ranked each item according to their perceptions of the item's level of importance within the advising system. A core of 26 items emerged from this process and became the independent variables.

There were two measures of advising practices, (a) students' ratings of the importance of the items, and (b) students' ratings of their personal advisor's performance. The 26 items were randomly divided between two surveys (Form A and Form B) to minimize the class time needed to complete the instrument. Because Form A and Form B were constructed from different items, the results are presented according to form (see Appendix I).

Items were rated on a 5-point scale ranging from "very important" and "performed well" (1) to "very unimportant" and "performed poorly" (5). For the analysis the first two scale points were collapsed to provide the "important" and "performed adequately" categories.

The data were submitted to principal factors analysis. Factors with eigenvalues greater than one were retained and rotated to a varimax solution for interpretation.

Results

Form A (N = 387). The two factors extracted from the importance items accounted for 45.8% of the total variance. The factors were termed "Informational" and "Counseling." Table 1 reports the factor loadings. Three items were factorially complex because they load significantly on both factors.

Item 9, "Helps me understand the components and requirements of my program," was most representative of Factor 1 (r = .72). Item 10, "Helps me deal effectively with my personal problems," produced the highest correlation within Factor 2 (r = .81). Table 2 presents the means for each factor. Few students rated Item 10, "Helps me deal

Table 1

Varimax Analysis of Students' Perceptions on the Importance of Tasks for Two Factors (Form A)

Item Number	Advising Tasks	Common Factor Loadings 1 (Information)	2 (Counseling)
1	Encourages me to talk about my concerns	(.558)	.260
2	Keeps track of my academic progress	(.573)	.197
3	Helps me find answers to my questions	(.663)	.161
4	Gives me information about university and community resources	(.537)	.270
5	Helps me clarify my thinking about careers or occupations	(.641)	(.343)
6	Helps me identify my educational interests and goals	(.613)	(.384)
7	Responds to my requests for advising meetings	(.667)	.157
8	Helps me plan my course of study	(.613)	.236
9	Helps me understand the components and requirements of my program	(.721)	.107
10	Helps me deal more effectively with my personal problems	.132	(.811)
11	Helps me improve my decision-making skills	.179	(.756)
12	Helps me choose a major	(.335)	(.466)
13	Extends friendship beyond academic advice	.259	(.478)
	Factor contributions	3.72	2.24
	Percent of total variance	28.6%	17.2%

Note. Values $\geq$ .30 are shown in parentheses and retained for interpretation.

effectively with my personal problems," as an important advising function (mean = 3.29). To test reliability, scales were constructed as simple sums of the items with loadings greater than .30. The respective reliability coefficients for the informational and counseling scales, as computed by Cronbach's alpha, were .87 and .75.

A general evaluation factor was extracted from the

Table 2

Means and Standard Deviations for Each Item with Significant Loadings on a Factor (Form A)

Item	Factor 1 M	Factor 1 SD	Factor 2 M	Factor 2 SD
1	1.91	1.08		
2	1.83	0.99		
3*	1.60	0.90		
4	2.10	1.18		
5	1.65	1.03	1.65	1.03
6*	1.80	0.99	1.80	0.99
7*	1.56	0.98		
8	1.68	1.01		
9	1.48	0.89		
10*			3.29	1.32
11			2.76	1.25
12*	2.51	1.44	2.51	1.44
13*			2.45	1.28
Totals	18.12		14.46	
Means[a]	1.81		2.41	

Note. The starred items are factorially complex.

[a]The scale ranged from "very important" (1) to "very unimportant" (5).

performance measure, explaining 63.5% of the unrotated total variance. Cronbach's alpha reliability coefficient was .95. The presence of a halo effect is suggested by the high intercorrelations for the performance factor.

Form B (N = 538). The three factors extracted from the importance measure accounted for 44.9% of the total variance. Table 3 displays the factor loadings for each item. Six items loaded on more than one factor, revealing

their complexity. The factors were labeled "Academic Counseling," "Personal Counseling," and "Informational." Cronbach's alpha reliability coefficients for the three scales, as computed above, were .84, .80, and .73, respectively.

Table 3

Varimax Analysis of Students' Perceptions on the Importance of Tasks for Three Factors (Form B)

Item Number	Advising Tasks	Common Factor Loadings (Academic Counseling)	(Personal Counseling)	(Information)
1	Helps me understand the registration process	.127	.048	(.454)
2	Makes me aware of relevant university publications and information	.095	.237	(.419)
3	Helps me define my educational goals	(.609)	(.342)	.161
4	Refers me to the appropriate offices to receive remedial services	.226	.231	(.514)
5	Helps me relate my academic options to specific careers	(.661)	.276	.222
6	Helps me build my self confidence	(.302)	(.545)	.205
7	Explains university and college requirements	(.546)	.031	(.452)
8	Helps me develop a major area course of study	(.667)	.262	.249
9	Makes me aware of non-traditional academic options	.282	.290	(.377)
10	Suggests ways to improve my basic study habits	.040	(.546)	(.358)
11	Provides me with explanations of university policies and procedures	.193	.157	(.630)
12	Helps me identify my academic areas of interest	(.431)	(.590)	.178
13	Helps me clarify my values, interests and goals	(.301)	(.749)	.109
	Factor contributions	2.11	1.99	1.74
	Percent of total variance	16.2%	15.3%	13.4%

Note. Values $\geq .30$ are shown in parentheses and retained for interpretation.

III. PROCEDURE

The item most representative of Factor 1 was Item 8, "Helps me develop a major area course of study" (r = .67). Item 13, "Helps me clarify my values, interests, and goals," typified Factor 2 (r = .75); and Item 11, "Provides me with explanations of university policies and procedures," was most representative of Factor 3 (r = .51). The means for each factor are shown in Table 4.

Table 4

Means and Standard Deviations for Each Item with Significant Loadings on a Factor (Form B)

Item	Factor 1		Factor 2		Factor 3	
	M	SD	M	SD	M	SD
1					2.30	1.29
2					2.57	1.21
3*	1.60	0.96	1.60	0.96		
4					2.21	1.26
5	1.53					
6*	2.39	1.28	2.38	1.28		
7*	1.36	0.74			1.36	0.74
8	1.61	0.91				
9					2.08	1.10
10*			2.75	1.27	2.75	1.27
11					2.10	1.05
12*	1.89	1.00	1.89	1.00		
13	2.15	1.16	2.15	1.16		
Totals	21.52		10.78		15.28	
Means[a]	1.79		1.80		2.18	

Note. The starred items are factorially complex.

[a]The scale ranged from "very important" (1) to "very unimportant (5).

A general evaluation factor emerged from the performance measure and accounted for 59% of the unrotated total variance. The reliability coefficient computed by Cronbach's alpha was .94. The high intercorrelations suggested the presence of a halo effect.

Discussion

Faculty competence in the advising role may require the ability to address both the informational and interpersonal aspects of the role (Kramer & Gardner, 1977). The results of the exploratory factor analyses on the two surveys revealed the existence of two broad task constructs for the survey labeled Form A and three constructs for Form B. The constructs were interpreted as defining a routine, informational role and two complex, counseling roles. The former construct was typified by maintenance or clerical type tasks while academic or personal counseling tasks represented the latter.

To master the elementary (routine) skills, advisors must make use of informational tools available to them. These may include: College bulletins, class schedules, listings of student personnel resources, student records and

departmental policies which might affect the student's program of study. These tools must be easily accessible and up-to-date or students may be misinformed.

Informational items included providing information about university and community resources, making appointments for advising meetings, informing the student about program requirements and monitoring the student's progress. Donk and Oetting (1968) argued that the informational role might be better fulfilled by "trained clerks" freeing the faculty for more personal involvement with their advisees.

Counseling, whether academic or personal, is a complex process maturing over time. Evidence of this complexity is presented in the literature (Egan, 1975; Erickson & Schultz, 1982) and by the range of tasks forming the counseling clusters. A working knowledge of developmental stages in student life would lay the foundation for establishing rapport and providing guidance at these critical junctures. Typical items forming the counseling cluster were: clarifying values, interests and goals, identifying areas of interest, defining educational goals, developing a major area course of study and relating academic options to specific careers.

The counseling role can be further defined by the nature of the counseling functions, that is, as an academic or personal counseling task. For example, extending friendship beyond academic advice might be interpreted as personal support while developing a major area course of study would be perceived as academic support. The relatively high number of factorially complex items can be interpreted as (a) additional evidence for the complexities of the advising role (b) items with multiple interpretations or (c) suggestive of setting a loading value (> .30) that was too low on items retained on interpretation. The three constructs are interpreted as overlapping naturally, that is, one would expect interactive variables to be correlated.

The word "counseling" frequently implies a dimension such as emotional support, which was not within the range of tasks rated by students as important faculty advisor responsibilities. Thus, within the context of the thesis, the more complex, counseling role will be referred to as either providing personal or academic support. Three constructs will be tested and the labeling of each has been modified to more precisely reflect the tasks underlying each domain. The information domain will be referred to as

Providing Information while the respective academic and personal support domains will be referred to as Developing Academic and Educational Goals and Providing Personal Support.

THEORETICAL MODEL

The advising model examines the relationship between and within three sets of advising constructs. The model is based, in part, on a model of interaction proposed by Tyler, Pargament and Gatz (1983). The first construct, Providing Information (INFO), defined by the routine and maintenance-type tasks, presumes little depth, in terms of the level of communication between advisor and advisee, that is, it places few cognitive demands upon the communicators. No special training or sensitivity to students is deemed necessary to fulfilling the informational functions. Only the advisor is perceived to have status and influence, although contact is almost always initiated by the advisee.

The second construct, Developing Academic and Educational Goals (GOAL), defined by more complex academic counseling tasks, presumes increased interaction and assumes a two-way pattern of communication. Even though

communication is possible in two directions, it may occur in only one direction. Specialized training and knowledge of student development are viewed as prerequisite to successful completion of these functions. Although the advisee generally initiates contact, advisors may also contact students, for example, to share insights regarding a career opportunity. The advisor is presumed to have more status but both collaborate on setting goals.

The third construct, Providing Personal Support (PERS), defined as the most complex set of advisors' tasks, presumes a high level of interaction and a well established pattern of reciprocal communication. Preparation for performing these tasks may require specialized training and knowledge. Each brings a unique perspective to the interaction and there is the presumption of shared status. Contact may be initiated by either the advisor or advisee. Both advisor and advisee may change (grow) as a result of the interaction. For example, meaningful interchanges with older students may result in new appreciation of their unique needs.

The realm of advisor's tasks is organized in terms of the complexity of tasks, and the type of skills performed,

with the INFO domain postulated as the most routine and least complex. The GOALS and PERS domains represent more complex skills that are differentiated on the basis of whether competency implies support of the student's academic or personal needs.

The advising model may be hierarchical (i.e., competency within each advising domain building upon mastery of skills at a lower level). This premise will not be addressed by this study; rather, the basic question to answer is whether the existence of three distinct advising domains can be ascertained.

TASK ANALYSIS

Task analysis has been described as the identification of subordinate skills necessary to achieving learning outcomes (Gagné, 1974). Gagné developed a task classification system based on learning hierarchies. He viewed the mastery of higher level skills as dependent upon performance of lower level skills.

Task analysis can also be described as the making of inferences about cognitive processes utilized in performing tasks (Simon & Simon, 1978). For example, Dillard, Bhaskar,

and Stephans (1982), analyzing accounting tasks, defined a hierarchical task structure based on the degree of cognitive processing. Other well known task-analysis schemes are the taxonomies of educational objectives in the cognitive (Bloom, Englehart, Furst, Hill, & Krathwohl, 1956) and the affective (Krathwohl, Bloom, & Masia, 1964) domains. A common element within these taxonomies is the attempt to differentiate skills according to the nature of their complexity and to identify a set of procedural criteria for performance within each skill area. The present study is not a task analysis but was undertaken to confirm that advising skills differing in levels of complexity and type are theoretically defensible.

A step toward defining a taxonomy of advising skills would involve observations of faculty-student interactions to map the cognitive and noncognitive strategies used by skilled (expert) and relatively unskilled (novice) advisors in performing the tasks underlying advising domains.

Chapter 2

Review of Related Literature

ASSESSMENT OF FACULTY ADVISING

Few would challenge the necessity of advising undergraduate students, yet further advances in faculty advising may depend upon the development of theoretically defensible advising models. Although there exists an abundance of literature on the effectiveness of faculty advising systems there is a paucity of empirical research on faculty advisor effectiveness (Polson & Cashin, 1981; Seppanen, 1982; Walsh, 1979).

A review of the advising literature reveals that the common form of institutionally based evaluation focuses on assessment of the advising system rather than advisor performance. The general conclusions are that advising

holds low institutional status, lacks adequate rewards, sponsors few advisor performance assessments and is defined primarily as an informational activity (Carstensen & Silberhorn, 1979; Chickering, 1973; Crockett & Levitz, 1983; Hardee, 1970; Levine & Weingart, 1973; Moore, 1976; Seligsohn, 1977; Winston, Ender, & Miller, 1982).

Even though the literature supports the need for systematic advisor assessment, reliable and valid instruments for this purpose do not exist (Johnson, 1979; McKinney & Hartwig, 1981). In general, attention has not been given to standardizing either the instruments or process of gathering student ratings of advisor performance. Considerable variation exists with respect to the characteristics, format and process of compiling the ratings.

BARRIERS TO EFFECTIVE FACULTY ADVISING

Moore (1976) reports that discussion of registration and course selection typifies faculty advising interactions. She concludes that the restricted range of advisor activities may mediate against a student's need for guidance and support. Although no attempt was made to define effective advising, she states:

> The effective adviser in any discussion of course selection will customarily consider relevant aspects of the student's interests and plans. It is more often the unskilled or inept advisers and the naive or timid students who fail to use the opportunity provided by the registration mechanism to enhance the learning process. Nevertheless, within the realm of directly assisting the student as a whole person faculty advisers do not seem to be taking an active part nor do they seek it, particularly if it involves counseling or counseling-related skills and activities. (p. 374)

In a series of investigations, Borgard, Hornbuckle, and Mahoney (1977), Mahoney, Borgard, and Hornbuckle (1978) and Hornbuckle, Mahoney, and Borgard (1979) present evidence to suggest that faculty advising is a complex process lacking clearly defined parameters and lacking agreement among faculty on the relevance of the role. For example, Borgard et al. examined faculty attitudes on the advising system. They reported that 42% of the overall variance in faculty attitudes could be explained by statements addressing role-relevance (27%) and statements relating advising to professional advancement opportunities (15%).

In a follow-up study, Mahoney et al. report evidence suggesting that faculty attitudes on advising are related to their professional status. Faculty with the most rank, years of experience, or who were tenured, were more likely to view advising positively than junior faculty. This result is not surprising when one considers that research and publication continue to be the path to promotion and status, particularly for junior university faculty.

Finally, Hornbuckle et al. investigated students' perceptions of faculty advisor performance across a range of tasks and interpersonal relations items. They reported that a general factor accounted for nearly nine-tenths (88%) of the variance in the items measuring advisor's performance. The bipolar items underlying the general factor measured students' feelings about the relationship with their advisor, including "I feel I can have a casual discussion with my advisor" and "My advisor does not seem to be aware of my existence." The results suggest a halo effect interpreted as a response bias based on socially determined advisor attributes rather than competency in any advising domain.

Little attention has been given to the impact of sex

differences on advising. McLaughlin and Starr (1982), reviewing the post 1965 advising literature, cited only one published reference. Grites (1979) connects the paucity of female role models on campus to female students' reticence to explore traditionally male dominated academic areas such as mathematics. Grites (1979) and Lacher (1978) posit that advisors can help female students gain confidence by paying special attention to their needs for role models, discussing role stereotypes and encouraging them to make academic choices based on knowledge of the full range of available possibilities. Their thesis is indirectly supported by Bradenburg's (1981) investigation of student gender preferences for campus resource persons. She found significant differences by sex with both groups preferring to interact with same-sex resource persons. The preferences were particularly strong for female students and the strength of the associations were related to the implied intimacy of the relations. For instance, she presented evidence of strong same-sex preferences for contacts with academic advisors and personal counselors but weak or nonexistent preferences for instructors and academic administrators. The effect of gender differences on

advising needs further exploration. Findings of gender differences would have implications for staffing considerations and improving faculty advisors' expertise.

FACULTY-STUDENT CONTACTS BEYOND THE CLASSROOM

There is some question whether the realities of "publish or perish" make the notion of increased faculty-student contact defensible (Hallberg, 1965). In an investigation of administrator and student perceptions of academic advising at a western university, McKinney and Hartwig (1981) found less than 10% of the students sampled viewed faculty as sources of support. From follow-up interviews, the authors determined students felt their advisors were unapproachable. They concluded that the high priority placed on research may have limited student access to the faculty, therefore students tended to seek other sources of information and guidance.

There exists substantial support in the literature for increasing faculty-student contacts outside the classroom in terms of student development. One of the more important characteristics defining educational environments is the relationship between faculty and students (Hines, 1981;

Redwine, 1980; cited in Winteler, 1981). Two decades ago, Robinson (1957), in an examination of faculty advising on 20 campuses, noted that faculty as well as students generally benefited from nonclassroom contacts. He wrote "this broader more responsible relationship between student and teacher can best be achieved through an academic advising program" (p. 235). He concluded that students who gained "maximum benefit" were encouraged to question the rationale behind their choices. Walsh (1979) referred to the broader advising context as supplying "multiple perspectives." Robinson maintained that faculty would also gain fresh perspectives which would carry over to the classroom. Crookston (1972) referred to the additional perspectives as defining a developmental relationship. He states:

> the relationship itself is one in which the academic advisor and the student differentially engage in a series of developmental tasks, the completion of which results in varying degrees of learning for both parties. (p. 13)

Recently, Bess (1973) argued that the greatest potential for faculty growth and development lies in their

ability to establish a mentoring relationship with students. Kramer (1979) concurs:

> The escalating feelings of gloom by faculty may be alleviated, perhaps displaced, by the challenges and the resultant satisfaction of providing competent and timely assistance and support for students. (p. 206)

The frequency of faculty-student interaction outside the classroom is positively associated with desired educational outcomes such as satisfaction with college (Astin, 1977; Feldman & Newcomb, 1969;, Pascarella & Terenzini, 1978; Wilson, Gaff, Dienst, Wood, & Bavry, 1975) and educational and career goals (Chickering, 1969; Gurin & Katz, 1966; Phelan, 1979; Wilson, Wood & Gaff, 1974). Pascarella (1980) agrees in his comprehensive review of the impact of faculty-student nonclassroom contacts on educational outcomes. In general, the research reviewed by Pascarella did not address academic advising, yet the content (e.g., discussion of academically-related concerns) suggested an advising process.

Hartnett and Centra (1977) reported that the extent of

faculty-student contact was related to academic performance. Students who, performed best were more likely to meet frequently outside the classroom atmosphere with faculty than students who did poorly. Pascarella and Terenzini (1977) linked the students' desire to persist to graduation with the frequency of their nonclassroom contacts with faculty. Interactions to discuss course related matters, academic information or career concerns differentiated students who persisted to graduation from nonpersisters.

STUDENT RATINGS OF TEACHING AND ADVISING

Mayhew (1969) argued that teaching and advising demand related but separate sets of skills. He depicted the teacher's role as primarily subject-matter oriented while the faculty advisor's role was seen as student-oriented.

> The act of teaching is an act of forming and creating. Even though the teacher may adopt relatively passive means, he is likely to have certain objectives that he wishes students to achieve. Advising, on the other hand, is much more concerned with facilitating the evolution of goals and solutions to problems of students themselves.

> Where the teacher injects his personality, the advisor needs to subdue his own impact as a person. In the classroom, a subject external to the student is important to the teaching equation; but the student himself is the subject in an advising relationship. In teaching, teacher responses tend to be less subtle than is demanded in the intimate, face-to-face advising function. (p. 172)

Given these considerations, the criteria for evaluation of faculty as advisors will likely differ from those established to measure the faculty member's teaching effectiveness. However, since students are the consumers of faculty expertise in either role, an effective process for measuring advising competency would take into account the literature on students' evaluation of teaching effectiveness.

Student ratings are an important component of assessing faculty advising (Hardee, 1970). The key rationale for seeking student ratings of instruction has centered on the concept of students as consumers. As the direct recipients of instruction, students are perceived as a logical source of data on process variables, for example, teacher

characteristics and outcome measures, such as educational goals (Aleamoni, 1981). Student ratings have been commonly used to measure faculty effectiveness in their teaching role but not without weighty criticism from the faculty. Faculty often feel that student biases unrelated to teaching effectiveness affect the students' ratings. However, in an investigation of the effect of student variables on ratings of instructors' performance, Marsh (1980) found the bias introduced by these factors to be slight. Less than 16 percent of the total variance in 11 evaluation items was explained by a group of 16 background variables. Feldman (1977), in a comprehensive review of the research related to student ratings, argued that only a few student variables have been shown to affect ratings. His analysis suggested fairly strong associations between student motivational variables and the evaluation of teacher performance. For instance, students who reported liking the subject matter consistently reported more positive associations than students articulating less interest or motivation to perform well. It was unclear, however, whether this was an inherent student characteristic or related to teacher variables (e.g., the ability to motivate students).

In the studies Feldman reviewed, moderately positive associations were reported between ratings and possession by the students of prior knowledge of the teacher or course. There was also some evidence of a positive correlation between the students' amount of prior knowledge and subsequent ratings. Weak associations, if any, were attributed to other student variables such as learning style, year in school, grade-point average, traits and attitudes. Finally, the influence of sex differences on ratings and the interaction of sex with other student variables were inconclusive or nonexistent.

Reports of gender differences in the ratings of instructor performance are inconsistent. Although the reports of gender differences in student's ratings of instructors are inconclusive, differences found are generally attributed to female students. For example, six studies cited by Aleamoni (1981) reported that females gave instructors higher performance ratings than males but five studies cited reported no gender differences. Feldman (1977) cited 26 studies that reported no gender differences and cited an equal number reporting only small differences with females typically assigning the higher instructor

ratings. Feldman also cited three studies with "mixed" results, that is, females gave higher ratings for some items while males rated instructors higher on other items.

Feldman concluded that the determination of whether the correlates of student ratings are to be considered biasing or not depends on the way the ratings are interpreted.

> If the ratings are designed not so much to obtain objective descriptions of teachers and courses but to measure the subjective reactions of students to them, as important information in its own right, then some of the patterned variability in ratings represents so-called true variance and not systematic error. In this orientation, differences among the background, characteristics, and experiences of students are seen as legitimate or genuine sources of influences on their ratings. (p. 258)

He concludes that the proportion of variance attributed to either student, teacher or environment must be known if meaningful interpretations of the ratings are to be made.

INSTRUMENT STANDARDIZATION

Harris (1981) reported agreement among noted authorities on the criteria for developing student-rating instruments. They agreed that reliable and valid instruments will (a) reflect standard procedures and processes, (b) contain few high inference items, and (c) be composed by content and measurement experts. One way of producing valid and reliable measures is to control for biases in the ratings by standardizing the instrumentation (Harris, 1982; Marsh, 1982).

In an analysis of teacher rating instruments used by departments in one institution, Harris found major instrument discrepancies in the content, format, item construction and response categories. Her findings underscored the need for standardized procedures especially when the ratings may form the basis for summative judgments. For instance, when ratings might affect a faculty member's professional advancement, standardizing the instrument would ensure that all faculty are rated by the same and equal measures. As Harris pointed out, the instrumentation should be flexible enough to allow for the addition of items unique to each unit's needs. Concurrently, the method of

administering the instruments should control for biases. For example, Aleamoni purported that both students and the faculty felt threatened when instruments are administered by administration. Thus, in a nonstandard situation, unwanted error variance may enter the data.

RESPONSE BIAS IN PERFORMANCE RATINGS

Performance rating scales are known to be particularly susceptible to measurement error introduced by the halo effect (Bergman & Kenny, 1976; Borman, 1975; Holzbach, 1978; Saal, Downey, & Lackey, 1980). The term "halo effect" was first described by Thorndike (1920) and refers to the tendency of individuals to respond in a specific direction. With specific reference to ratings, English and English (1958) defined the halo effect as:

> the tendency, in making an estimate or rating of one characteristic of a person, to be influenced by another characteristic or by one's general impression of that person. (p. 236)

The results of the pilot study to this research suggested that students judged their faculty advisors'

performance on the basis of overall impressions of good or bad advising. Evidence for this response bias is presented by the high intercorrelations within the performance measure (Harvey, 1982). Response bias has been attributed to a "person-positivity" bias defined as the tendency to evaluate individuals higher than groups or inanimate objects based on the perception of similar human qualities (Sears, 1983). Rater halo also has been attributed to the tendency to give the "socially desirable" response. This bias is defined as a predisposition toward style of responding which is independent of the content being measured (Fowler, 1982; Rock, 1981).

Halo error has been controlled statistically by factor analytic procedures (Hulin, 1982; Marsh, 1982) and by partial correlation techniques (Landy, Vance, Barnes-Farrell, & Steele, 1980). Harvey (1982) cautions against the use of partial correlation procedures as "correct use of the [partialing out] technique is seen to depend on the validity of specific causal assumptions that have yet to be tested" (p. 173). Marsh reasoned that factor analysis "provides a safeguard against a halo effect" because underlying factors wouldn't be discovered when all items

were highly intercorrelated, that is, the analyses would suggest the presence of a general factor.

SUMMARY

Faculty involvement with students both inside and outside the classroom affects students' academic life. Specifically, faculty-student contact beyond the classroom has been shown to affect students' perceptions of belonging on campus. In principle, faculty advising represents one scheduled activity within which all students have nonclassroom contact with faculty. In practice, several factors such as student or faculty responsiveness and the quality and frequency of the advising sessions mitigate the development potential (for both students and faculty) of a faculty advising system.

The dual faculty roles of instructor and advisor frequently involve different groups of students and demand a separate orientation. It was suggested that the differences inherent in the teaching and advising processes illustrate the need for separate assessments. Thus the criteria for evaluating faculty advisor effectiveness would likely differ from those used to measure instructional effectiveness.

Most background characteristics contribute little if any variance to measures of teacher effectiveness. Given the contextual differences in teaching and advising, such variables could be expected to contribute more to the variance in students' ratings of faculty in their advising role than their teaching role.

Finally, there is scant evidence in the literature that student rating instruments of faculty advisor performance have been theoretically derived, standardized or designed to control for the effects of rater halo.

Chapter 3

Procedure

RESEARCH QUESTIONS

Primary Question

How well is faculty advisors' performance explained by three hypothetical constructs labeled: Providing Information, Developing Academic and Educational Goals, and Providing Personal Support? The exploratory pilot study suggested that the tasks measuring faculty advisors' performance could be grouped into these three domains.

Preliminary Question

What are the relations between advisor background characteristics and measures of faculty advisor performance? Few background variables have been shown to affect student

ratings of faculty in their teaching role. Since most advising occurs in a more personal context than teaching, it was assumed that the three sets of background variables (student, faculty and context) would significantly affect the ratings.

Secondary Question

Gender pairings have been shown to contribute little if any variance to the measurements of teacher performance. Given the personal nature of the advising environment, a secondary question to explore is: Do gender differences produce systematic variability in the ratings of faculty performance and, if present, are these differences linked to same-sex pairings?

ASSUMPTIONS

The assumptions that advanced the study are listed below:

1. Academic advising has become a complex process requiring both technical and interpersonal competencies.
2. The tasks performed by faculty who advise

undergraduate students appear to range in their level of complexity from routine, information-giving tasks to the more complex, personal support tasks.

3. Effectiveness in advising practices may depend on the opportunities for advisors to obtain the requisite knowledge and skill base.
4. Should a diverse set of skills underlie the advising process, faculty evaluation as well as development programs will need to address the relative complexity of those skills when assessing performance or designing faculty development activities.
5. There is a need for valid and reliable instruments to measure the performance of faculty who advise undergraduates.

OPERATIONAL DEFINITIONS

Theoretical Definitions

Academic advising. An interactive process within which an informed advisor and an involved advisee seek to ensure the advisee's satisfactory completion of academic goals.

Advising. The act of academic advising.

Academic advisor. A faculty member who accepted or was assigned responsibility for providing information and guidance to students seeking to complete their education.

Advisee. Any undergraduate student who chose or was assigned to an advisor for the purpose of academic advising.

Providing information. The advising tasks forming the construct are characterized by routine, maintenance-type functions which demand little, if any, two-way communication. The communication pattern is generally from advisor to advisee, as when the advisee seeks information and the advisor supplies it.

Developing academic and educational goals. The construct is characterized by complex, academic support tasks that change with the student's developmental needs. Satisfactory completion requires interaction and demands a two-way pattern of communication as when both advisee and advisor engage in a discussion of the student's academic options.

Providing personal support. This level of advising incorporates the most complex set of tasks. It assumes a high level of interaction and a well established pattern of

two-way communication. All of the elements of the preceding constructs are presumed to be present as when advisors help students come to terms with their academic strengths and limitations.

Empirical Definitions

Bentler and Woodward (1979, p. 79) provided the following definitions for construct validation and causal modeling.

1. The construct validity of a theory refers to the empirical adequacy of a causal model, evaluated on relevant data by appropriate statistical methods;
2. A causal model is the representation of a theory by a structural model and a measurement model;
3. A structural model is a representation of the interrelations among constructs through mathematical equations;
4. A measurement model is a representation of the interrelations between constructs and observed variables through mathematical equations;
5. A construct is a postulated attribute of a

measured object. Each construct is held to occupy a specific knowledge or skill domain.

HYPOTHESES

Primary Hypothesis

In response to the primary research question, it is predicted that groups of rating items formed by levels of complexity and type of task would account for the significant variance in the items. Thus the test theory model implies that the tasks measuring faculty advisors' performance are explained by three advising domains differing in their relative level of complexity and the types of skill needed to perform them.

Preliminary Hypothesis

In response to the preliminary question, it is anticipated that there exists a significant correlation between a set of background variables and the ratings of students' advisors.

Secondary Hypothesis

In response to the secondary question, the third

hypothesis is that groups of students formed by gender would differ with respect to judgments of advisors' performance and that the greatest student gender differences would be associated with the more intimate Personal Support construct. It is further anticipated that students with same-sex advisors would evaluate them more favorably than students with opposite-sex advisors.

SUBJECTS

Sample Representation

The subjects were University of Vermont (UVM) undergraduate students drawn using a random number generator. UVM has an undergraduate enrollment of approximately 7500 undergraduate students and 764 full-time faculty. Approximately 55% of the undergraduates are out-of-state students. There are eight colleges and schools, 71 graduate-level programs of which 16 are at the doctoral level, and a medical school with 356 students. The university is a land grant institution chartered in 1791 and situated in the state's largest city (Burlington) with a greater Burlington population of approximately 100,000 people. The environment can be classified as rural/urban.

A 14% random sample was drawn on all 7526 four-year, full time students. Table 5 compares the sample and population distributions by academic unit and by academic year. As shown, freshmen are underrepresented by 13% and upperclassmen slightly overrepresented $\chi^2(3, N = 479) = 36.85$, $p < .01$. Students from the College of Arts and Sciences are slightly underrepresented in the sample $\chi^2(5, N = 474) = 12.16$, $p < .01$. Female students represent 61% of the sample whereas they constitute 56% of campus enrollment. For male students the proportions are 38% and 44%, respectively $\chi^2(1, N = 479) = 6.175$, $p < .01$. Given the relatively large sample size, the biases introduced by the academic year and gender variables are not serious.

Based on an initial sample size of 1034 students, 481 (47%) usable surveys were returned. Twenty-nine students for whom surveys could not be delivered (due to incomplete mailing addresses or no forwarding address) were subtracted from the sample to produce the corrected response rate of 48% ($N = 1005$). A series of chi-square analyses with a small random sample of nonrespondents revealed no significant differences between the two groups.

Table 5

Frequency and Percentage of Respondents by Academic Unit and by Academic Year

Academic Unit	Respondents n = 474 fx	(%)	Population[a] n = 7526 fx	(%)
Agriculture	047	(09.9)	0717	(09.5)
Allied Health	027	(09.9)	0275	(09.5)
Arts & Sciences	187	(39.5)	3338	(44.3)
Education & Social Services	043	(09.1)	0729	(09.6)
Engineering, Mathematics & Business Administration	119	(25.1)	1768	(23.4)
Natural Resources	021	(04.4)	0354	(04.7)
Nursing	030	(06.3)	0345	(04.5)

Year	Respondents n = 479 fx	(%)	Population n = 7526 fx	(%)
Freshmen	106	(22.1)	2642	(35.1)
Sophomore	118	(24.6)	1654	(21.9)
Junior	119	(24.8)	1559	(20.7)
Senior	137	(28.6)	1671	(22.2)

Note. The differences in the n's are explained by missing data on the parameter. The sample size = 1034.

[a]Data from Budgeting and Institutional Studies, University of Vermont, 1983-84 enrollment patterns.

DESIGN

Instrument

Four criteria were used to revise the Pilot Surveys and to develop a single faculty advisor evaluation form (see Appendix B for complete derivation). The criteria were (1) student ratings of item importance, (2) factor analysis, (3) item reliabilities, and (4) faculty and administrator review. This is essentially the same process utilized by Marsh (1982) in developing and validating an instrument to measure students' evaluation of university teaching.

The Student Evaluation of Faculty Advisors instrument (SEFA) contained three parts. Parts 1 and 2 requested background information related to students, faculty advisors and advising meetings. Part 3 asked students to make judgments concerning their official advisors' performance. There were a total of 10 items grouped within the three advising domains. Only tasks which best measured each construct, in terms of importance ratings and loadings, were retained reducing the overall number of items to measure from 26 to 13.

Independent Variables

There were three sets of independent variables; student-related, faculty-related and context-related. The student characteristics were college or school, sex, academic year, grade point average, advisor changes, reasons for changes and view of importance self and others attached to academic advising. Faculty advisor characteristics included sex, advisor status, grade average and advisor initiated contact. The context variables for advising meetings were length, time frame, principal initiator and frequency.

Dependent Variables

The dependent variables were 10 faculty advisor performance measures constructed from the previously described exploratory studies. The three advising domains (Providing Information, Developing Educational and Academic Goals and Providing Personal Support), supported by the exploratory findings, constituted the performance subscales. Examples of statements from each domain are: "My advisor helps me find answers to my questions," "My advisor helps me relate my academic options to specific careers," "My

advisor helps me build my self-confidence." The measures were scaled on a Likert-type scale from strongly agree (1) to strongly disagree (5). Students were also asked to assign a letter grade (A-F) to their official advisors' overall performance. Finally, open ended comments concerning the content and process were solicited. Figure 1 reproduces the research instrument.

Text continues on page 62

Evaluation of Faculty Advisors
Research Questionnaire

The evaluation is intended to measure student judgments of faculty advisor performance. Please respond carefully as the results may affect program development and budgetary decisions. All individual responses will be held in strictest confidence and only group responses will be reported.

PART I

PLEASE CHECK OR FILL IN THE APPROPRIATE RESPONSE

1. My college or school: _____
2. Sex: ☐ 1) female ☐ 2) male
3. Age: ☐ 1) 25 or under ☐ 2) over 25
4. Is this your first semester at this institution?
   ☐ 1) yes ☐ 2) no
5. My academic year:
   ☐ 1) freshman ☐ 2) sophomore ☐ 3) junior ☐ 4) senior
6. My overall grade point average is:
   ☐ 1) 3.00 to 4.00 ☐ 2) 2.00 to 2.99 ☐ 3) less than 2.00
7. Whom do you consider your official advisor?
   ☐ 1) a student assigned by my college
   ☐ 2) a faculty member assigned by my college
   ☐ 3) a faculty member chosen by me
   ☐ 4) myself
   ☐ 5) I don't have an advisor
   ☐ 6) other (please specify) _____

The rest of this questionnaire is concerned with official faculty advisors. If in question # 7 you selected response 5 or 6, please continue. IF YOU DID NOT CHOOSE RESPONSE NUMBERS 2 OR 3 IN QUESTION # 7 ABOVE, PLEASE RETURN THE FORM WITH ONLY PART I COMPLETED. THANK YOU.

PART II

8. My official faculty advisor is:
   ☐ 1) a faculty member in my interest area
   ☐ 2) a faculty member in my college but not in my interest area
   ☐ 3) other (please specify) _____
9. My faculty advisor's sex:
   ☐ 1) female ☐ 2) male
10. I have changed faculty advisors:
    ☐ 1) never ☐ 3) twice
    ☐ 2) once ☐ 4) three or more times
11. If you have changed or wanted to change advisors, what were the reasons?

    _____

    _____
12. How many times each semester do you meet with your faculty advisor?
    ☐ 1) never ☐ 4) three times
    ☐ 2) once ☐ 5) four or more times
    ☐ 3) twice
13. On the average, a meeting with my faculty advisor lasts:
    ☐ 1) less than 15 minutes ☐ 3) more than 30 minutes
    ☐ 2) 15 to 30 minutes
14. The amount of time I spend with my faculty advisor each semester is:
    ☐ 1) not enough ☐ 2) just about right ☐ 3) too much
15. Has your advisor ever contacted you to discuss academic opportunities and/or to request a meeting?
    ☐ 1) yes ☐ 2) no
16. Who typically initiates an advising meeting?
    ☐ 1) my advisor ☐ 2) me

QUESTIONNAIRE CONTINUES ON REVERSE SIDE

PART III

Below you are asked to make judgments concerning your faculty advisor's performance. On a scale from 1 to 5, please indicate your degree of agreement or disagreement with each statement. *Please respond to each statement for the faculty advisor you commented on in Part II.* If you do not think that your advisor should perform a given function, please circle the last column labeled NA, for "Not applicable."

For each statement circle:

1. if you strongly agree with the statement
2. if you moderately agree
3. if you neither agree nor disagree
4. if you moderately disagree
5. if you strongly disagree
NA, if you feel the statement does not apply

		strongly agree				strongly disagree	
Providing Information:							
18. My advisor helps me find answers to my questions	18.	1	2	3	4	5	NA
19. My advisor responds to my requests for meetings	19.	1	2	3	4	5	NA
20. My advisor helps me understand the components and requirements of my program	20.	1	2	3	4	5	NA
21. My advisor helps me plan my course of study	21.	1	2	3	4	5	NA
Developing Academic and Educational Goals:							
22. My advisor helps me develop a major area of study	22.	1	2	3	4	5	NA
23. My advisor helps me relate my academic actions to specific careers	23.	1	2	3	4	5	NA
24. My advisor helps me define my educational goals	24.	1	2	3	4	5	NA
Providing Personal Support:							
25. My advisor helps me build my self-confidence	25.	1	2	3	4	5	NA
26. My advisor helps me clarify my values, interests and goals	26.	1	2	3	4	5	NA
27. My advisor initiates friendship beyond academic advice	27.	1	2	3	4	5	NA

PART IV

28. Considering (1) your academic and personal needs, (2) what you feel your academic advisor's role should be, and (3) the efforts you have made to effectively seek advice from him or her; please assign a grade to your official advisor's overall performance.
    ☐ 1) A grade ☐ 4) D grade
    ☐ 2) B grade ☐ 5) F grade
    ☐ 3) C grade
29. Academic advising is viewed as an important aspect of my university's support services by: (Check all that apply.)
    ☐ 1) faculty in general ☐ 5) me
    ☐ 2) my academic department ☐ 6) my peers
    ☐ 3) my college or school ☐ 7) no one
    ☐ 4) my university administration

Comments: Please make any comments which you feel are appropriate.

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Figure 1. Research Instrument

METHODOLOGY

Causal Modeling

Covariance matrix. An error-correlation matrix was constructed by calculating all possible pairs of values for the evaluation items. This method of conditioning matrices reduces the tendency of inflated correlations in data sets with missing values while taking into consideration all the data available for analysis (Finn, 1974). Table 6 reproduces the conditioned input matrix (Sigma).

Table 6

Error-Correlation Matrix Formed from All Possible Pairs

	INFO18	INFO19	INFO20	INFO21	GOAL22	GOAL23	GOAL24	PERS25	PERS26	PERS27
INFO18	1.00000									
INFO19	.59275	1.00000								
INFO20	.65404	.58762	1.00000							
INFO21	.64137	.53592	.77455	1.00000						
GOAL22	.59489	.46079	.63671	.69147	1.00000					
GOAL23	.56387	.43912	.62362	.64809	.77930	1.00000				
GOAL24	.58289	.44874	.62530	.65764	.75245	.83846	1.00000			
PERS25	.60823	.44981	.56186	.59500	.68945	.66753	.70170	1.00000		
PERS26	.60116	.45626	55518	.58697	.67865	.68687	73237	.87547	1.00000	
PERS27	.59135	.51099	.55081	.55862	.66623	.62385	.63776	76910	.75441	1.00000

Model fitting. Confirmatory factor analytic procedures were employed to fit the model specifications of multiple dimensions in the items measuring faculty advisors' performance. LISREL IV, a powerful statistical package for analyzing covariance structure models tests the fit of the model chosen (Joreskog & Sorbom, 1978). Several comparative causal models (see the results chapter, p. 75) were developed to test for rival theories.

The analysis of covariance structure model seeks to explain the interrelationships among a set of observed (manifest) variables in terms of a smaller set of unobserved (latent) variables. The latter are also known as hypothetical constructs since they cannot be measured directly but are inferred (theorized) by the clustering of the manifest variables. The covariance matrix structure created from the observed correlations (covariances) among the set of manifest variables tests whether the predicted (reconstructed) correlations are meaningful or arbitrary. A covariance matrix of standardized variables is a correlation matrix and all of the information characterizing the relationships is contained in the standardized matrix structure.

Causal modeling procedures are used to decompose the matrix revealing the structural pattern among the manifest variables imposed by the latent variables. LISREL procedures estimate the model parameters on two mathematically derived levels. First, the measurement model estimates the interrelationships among the manifest variables and latent constructs and second, the structural model estimates the pattern of relationships among the latent variables.

Evaluation of models. The models are estimated using maximum likelihood procedures and the large sample likelihood ratio chi-square statistic and secondarily by examination of the residual variances. The chi-square statistic tests the theory model (hypothesis) against competing hypotheses (models). It provides a test of the goodness-of-fit, that is, it tests how well the theory model or predicted correlations (Sigma) fits the data of observed correlations (S). Because it is the null hypothesis of no relationship that is tested, a nonsignificant chi-square statistic is interpreted as evidence of a good fit. A favorable result, therefore, would be nonsignificance. Bentler (1980) muses:

> One frequently wants to show that a model provides a plausible representation of the data. This is difficult to do with statistical hypothesis testing procedures, since it entails accepting the null hypothesis that the model provides a plausible representation of the data. Within such a framework, statistical power plays a paradoxical role. (p. 428)

For the chi-square statistic, the best representation of a model occurs when the degrees of freedom are larger than or approach the size of the chi-square statistic. Larger data sets may produce significance regardless of model fit since the size of the chi-square statistic is a function of sample size (Bentler, 1980; Jöreskog, 1978; Pedhauser, 1982). Bentler and Bonnett (1980) explain:

> While the chi-square statistic provides valuable information about a statistically false model, problems associated with sample size mitigate the value of the information that is obtained. The increase in ability to detect a false model with increasing sample size represents an important

> aspect of statistical power, but in the context of most applications in which the exactly correct model is almost certainly unknowable, this effect of sample size is a mixed blessing. Since the chi-square variate is a direct function of sample size, the probability of rejecting any model increases as N increases, even when . . . the residual matrix (S-Sigma) contains trivial discrepancies between data and estimated model. (p. 591)

For large samples, a careful examination of the residual variances may provide a more straightforward estimate of model fit than the chi-square statistic (Bentler, 1980; Jöreskog, 1978). The residual matrix (S-Sigma) estimates the amount of model misspecification (measurement error) in the attempt to reconstruct the data from the model.

Explication of the theory model. Figure 2 schematically represents the causal ordering of the measurement model. As shown, the constructs were presumed to be correlated (designated by the curved arrows between constructs). The one-way arrows indicate the direction of plausible causal influence.

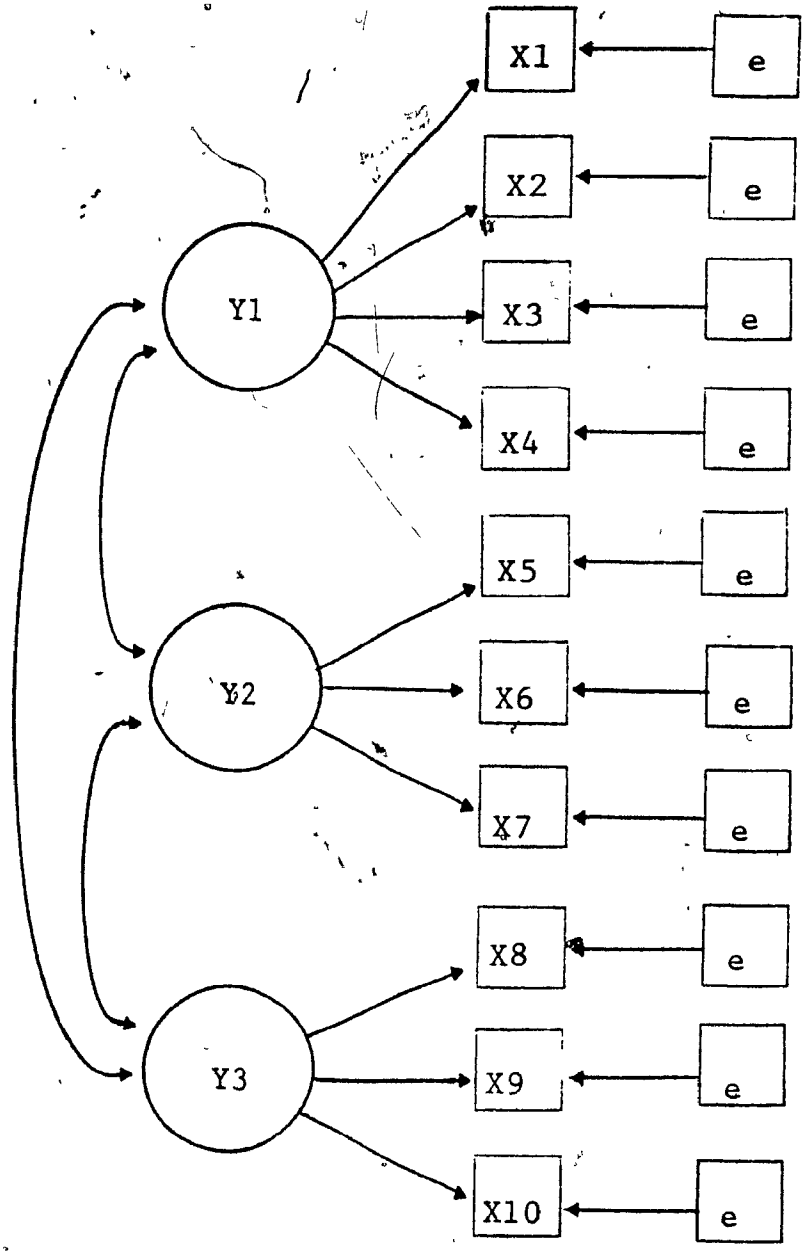

Figure 2. Measurement Model

The three latent factors (Y1 to Y3) were Providing Information (Y1), Developing Academic and Educational Goals (Y2) and Providing Personal Support (Y3). The four indicators for Y1 were: Info18--My advisor helps me find answers to my questions (X1), Info19--My advisor responds to my requests for meetings (X2), Info20--My advisor helps me understand the components and requirements of my program (X3), and Info21--My advisor helps me plan my course of study (X4). After studying the measures that defined Y1, Info19 was eliminated (for the model testing procedures only) as the measure was not considered to reside within the domain but to define a precondition for advising.

There were three indicators for Y2. These were: Goal22--My advisor helps me develop a major area of study (X5), and Goal23--My advisor helps me relate my academic options to specific careers (X6), and Goal24--My advisor helps me define my educational goals (X7).

The three indicators for Y3 were: Pers25--My advisor helps me build my self-confidence (X8), and Pers26--My advisor helps me clarify my values, interests and goals (X9), and Pers27--My advisor extends friendship beyond academic advice (X10).

Reliability and Validity

Reliability. Cronbach's alpha (Cronbach, 1951) provides measures of the internal consistency of the items for each construct. An alpha value is dependent upon an average item correlation and the number of items measured. Carmines and Zeller (1979), for example, demonstrated that a 2-item scale, with an average interrater correlation of .40 resulted in an alpha of .57, while a 4-item scale would produce a considerably higher alpha of .73. The magnitude of increase in alpha, however, decreases as the number of items increases. Although the size of the scale could mitigate the interpretation, they suggested interpreting alphas above .80 as indicative of high internal consistency. This standard was used for the present study.

The reliability coefficients (alpha) for the three scales were .87, .87, and .90, respectively. The internal consistency for the set of 10 items measured as above was .93. These reliabilities were consistent with and somewhat higher than the internal consistency of the three scales on the pilot instruments (.84, .80, and .73, respectively).

Validity. Validity is commonly defined as the extent to which an instrument measures what it was intended to

measure. Cronbach (1971) reported that in the "strictest sense one validates, not a test, but an interpretation of data arising from a specific procedure" (p. 441). A test may be valid in one setting, with one group of subjects, yet invalid with different subjects in another setting.

A primary purpose of the current study is to evaluate theoretical specifications of multiple dimensions in the items measuring faculty advisor performance. Construct validation is viewed as the appropriate approach to assessing the validity of theoretical concepts (Bentler & Woodward, 1979; Carmines & Zeller, 1979; Nunnally, 1978).

Replications in several settings are deemed necessary to establish construct validity (Marsh, 1980). Thus the study provides a single measure of evidence for the validity of the three hypothetical constructs defining the performance indicators. It is not a validation study. The intent is not to validate any instrument but to confirm the existence of the three hypothetical (latent) constructs measured by the ten observed (manifest) variables.

Multivariate Analyses

A series of multivariate analyses examined the

complexities of gender differences on the three sets of dependent variables. The two grouping variables were student sex (SSEX) and faculty sex (FSEX). The Statistical Package for the Social Sciences, Version SPSS-X (1983), was utilized to perform the multivariate analyses of variance (MANOVA).

The MANOVA analysis was based on 452 cases. The difference between the number of cases accepted with the means adjusted (N = 452) and the sample size (N = 481) is explained by 29 cases eliminated because they represented subjects who reported that they did not have an official advisor. These 29 were instructed to provide only the background information.

Error-correlation matrix. A reconstructed set of means was used to produce the error-correlation matrix for the MANOVA analyses (Table 7). This is desirable since the MANOVA procedure eliminates cases (people) with missing values on any one item from the calculation of the entire set of means. For example, there were 27 cases with missing values on at least one of the four informational construct items. Values were coded as missing if left blank, perceived not applicable, or if more than one scale point

Table 7

Error-Correlation Matrix Formed by Substitution of Means for Missing Data

	INFO18	INFO19	INFO20	INFO21	GOAL22	GOAL23	GOAL24	PERS25	PERS26	PERS27
INFO18	1.00000									
INFO19	.57426	1.00000								
INFO20	.64444	.57559	1.00000							
INFO21	.62777	.52471	.77010	1.00000						
GOAL22	.56878	.43622	.60867	.65671	1.00000					
GOAL23	.54729	.41681	.59944	.62049	.74690	1.00000				
GOAL24	.56322	.42435	.60216	.62610	.71585	.80802	1.00000			
PERS25	.58778	.46727	.53720	.56372	.63705	.61367	.64960	1.00000		
PERS26	.58452	.42758	.52863	.55391	.63734	.64593	.70093	.85398	1.00000	
PERS27	.57298	.47985	.52878	.53560	.61252	.57954	.58745	.74319	.72922	1.00000

Note. The effects of students' sex were partialed out.

was circled. All 27 would be rejected even when the values missing pertained to only one item. Substituting means for missing data is a conservative and acceptable method of treating missing data (Finn, 1974). By assigning an item mean to any case with a missing value, the overall mean remains the same but more cases are accepted by the MANOVA procedure for calculating the Group means (27 to 76).

Substituting means for the missing data decreases the variance and results in a narrower confidence interval. Thus one would be more likely to observe a given deviation from the mean as significant. This risk can be counterbalanced by accepting a more stringent confidence level, e.g., $p < .04$ for the multivariate analyses. Since little is known about the effect of gender on student ratings of advisor performance, the .05 level of confidence is retained to allow for all possible relationships for future research purposes.

Multiple Regression Analyses

Multiple regression analyses were performed to assess the relative importance of five background variables in predicting the three sets of criterion variables. The predictor variables of interest are: length of advising meetings, number of advising meetings, student's sex, faculty sex and academic year. The first two predictors were chosen because a relationship between the quantity of time spent in advising and the evaluation scores presents implications for establishing reasonable guidelines for faculty work load. The student sex and faculty sex

predictors were included to measure the direction and influence of gender in predicting scores. Finally, academic year was included as pilot study findings indicated significant differences by academic year in the importance students attached to the evaluation items.

Chapter 4

Results

The results of the central question will be presented first, followed by a discussion of the incidental findings.

PRIMARY QUESTION

Model Building

Approach to testing construct validity. Confirmatory maximum likelihood procedures were used to estimate the model specifications and a comparative model fitting approach tested for rival explanations (LISREL IV, Joreskog & Sorbom, 1978). Figure 3 shows the nested structural models. The arrows indicate the direction and degree of constraint on the parameter space with the most constrained models being 2A and 2B.

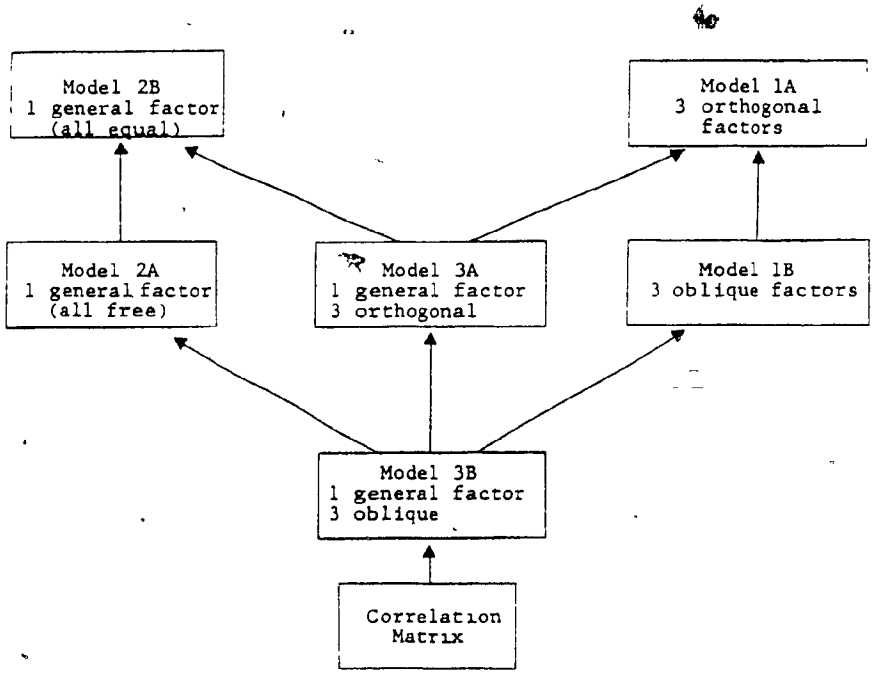

Figure 3 Comparative Model Structure

The unconstrained general model is model 3B. It was postulated that three correlated (oblique) group factors plus a general (response bias) factor explained the data. One logical progression was from model 3B to 3A. The only difference between the two models was to restrict the group factors to an uncorrelated (orthogonal) solution.

Models 2A and 2B are test theory models representing a second line of progression. They test the hypothesis that

the items represent congeneric models, i.e., they are all equivalent and measure the presence of a unitary factor. Model 2B is the most constrained as it assumes that all the factor weights are the same.

A third line of progression represented by models 1B and 1A eliminates the general factor and tests for the presence of oblique (1B) or orthogonal (1A) group factors.

Results of model fitting. Table 8 presents the results of fitting the individual models to the data and displays the number of parameters tested, obtained chi-square, degrees of freedom and probability level for each model. The worst fit model was 1A with a chi-square of 769.3506 with 27 degrees of freedom. It was obvious that the data could not be explained alone on the basis of a group structure: A sizable reduction in the chi-square was obtained, in contrast to the drop in the degrees of freedom (687.642 vs. 3), when the group structure was allowed to correlate (1B). Although the overall fit was improved, the size of the chi-square was still large in contrast to the degrees of freedom, suggesting that something other than a group structure accounted for the data.

A considerable reduction in the chi-square was obtained

Table 8

Comparative Models Tested by Maximum Likelihood Confirmatory Factor Analytic Procedures

Model		# Parameters	χ^2	df	p
1A	3 factors orthogonal	18	769.3506	27	.0000
1B	3 factors oblique	21	81.7086	24	.0000
2A	1 factor all free	18	468.1026	27	.0000
2B	1 factor all equal	10	491.4113	35	.0000
3A	4 factors 1 general 3 orthogonal	27	36.4640	18	.0062
3B	4 factors 1 general 3 oblique	30	25.2948	15	.0461

by testing the mixed models (3B & 3A). The addition of a general factor reduced the overall size of the chi-square 732.8866 with a loss of 9 degrees of freedom for the orthogonal solution and 744.0558 with a loss of 12 degrees of freedom for for the oblique solution. Both models approached acceptance, however, the best fitting model (3B) occurred when the parameters were relaxed to allow the factors to correlate.

The chi-square of 468.1026 for model 2A and 491.4113 for model 2B with degrees of freedom of 27 and 35, respectively indicated a poor fit for the congeneric models, i.e., the data could not be explained alone on the basis of a unitary factor. Model 2B tested the hypothesis that the effect of the general factor was equal for all variables while Model 2A was not constrained by the condition of equality.

Examination of the residuals (Table 9) provides additional evidence that the mixed model (3B) reproduced the correlations among the variables nearly perfectly and, therefore, provides a plausible explanation of the data.

Table 9

Matrix of Residuals for Model 3B Tested by LISREL Confirmatory Factor Analytic Procedures

Variable	INFO18	INFO20	INFO21	GOAL22	GOAL23	GOAL24	PERS25	PERS26	PERS27
INFO18	0 000								
INFO20	-0.017	-0.000							
INFO21	-0.012	-0.001	-0.000						
GOAL22	-0 010	-0.004	-0.032	-0.000					
GOAL23	-0.003	-0 004	-0.007	0 001	-0.000				
GOAL24	-0.015	-0 018	-0.003	-0.000	-0 000	-0 000			
PERS25	-0 001	-0.004	0.001	-0 014	-0 015	-0 002	-0.000		
PERS26	0.001	0 001	0 005	-0.020	0 006	0.032	0.001	-0.000	
PERS27	0.016	0 001	-0.016	0 024	0.012	-0 000	0.005	-0 009	-0 000

Note. Model 3B tests for the presence of a general factor plus three oblique group factors

Tests of specific structural hypotheses. Figure 4 illustrates the results of testing the alternative models.

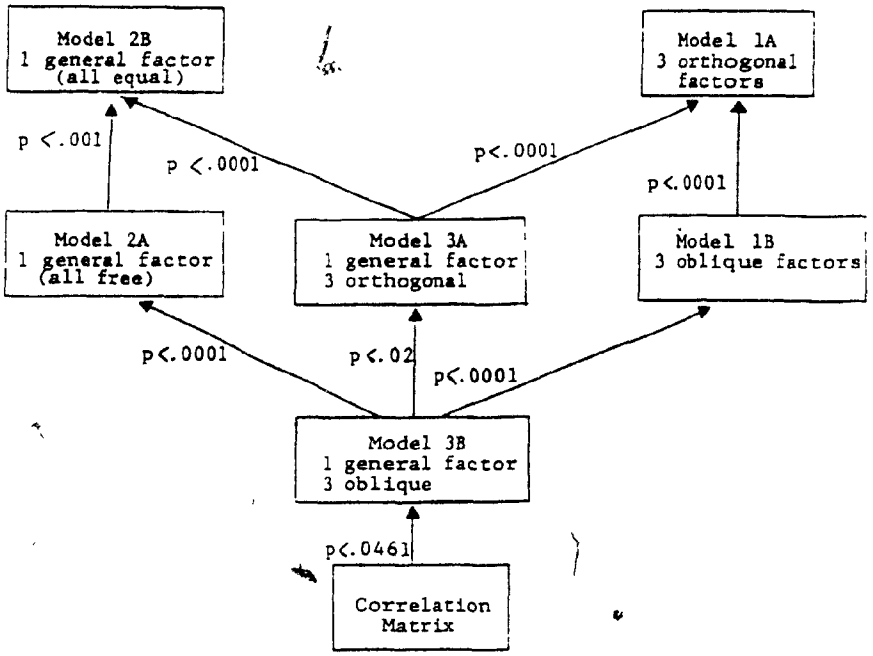

Figure 4 Confidence Levels for Tests of Comparative Models

The least constrained model designated 3B includes all other models as special cases. The relative contribution of each model to the total parameter space can be understood by comparing one model against the other as a maximum likelihood ratio.

Model 2A against Model 3B tested the hypothesis of no group factor structure. This hypothesis was strongly rejected $\chi^2(12,385) = 442.80$, $p < .0001$ indicating that the data were represented by more than a single (general) factor.

Model 1B against Model 3B tested the hypothesis of no general factor given oblique group factors and was strongly rejected $\chi^2(9, 385) = 56.4138$, $p < .0001$. Thus the presence of a general disturbance or biasing factor is confirmed.

Model 1A against Model 1B tested for the presence of correlations among the group factors with no general factor in the model. The hypothesis of no correlations among the group factors was strongly rejected indicating that if no general factor is included in the models the group factors are correlated $\chi^2(3, 385) = 687.64$, $p < .0001$.

Since group factors may be correlated as a result of (a) a general biasing factor, (b) real correlations among the latent factors, or (c) both, Model 3A was tested against Model 3B to test the hypothesis of orthogonality, that is, uncorrelated factors, when the general biasing factor is included as a separate factor uncorrelated with the group factors. Model 3A approached acceptance (nonsignificance),

but was rejected when tested against Model 3B $\chi^2(3, 385) = 11.1692$, $p < .02$. Therefore, the constructs were modestly correlated. An examination of Table 10 shows that the residual variances were relatively low for model 3A ranging from -.02 to .06. However, a comparison of Tables 9 and 10 reveals that the amount of misspecification in reconstructing the data from the models was slightly higher for model 3A than model 3B.

Table 10

Matrix of Residuals for Model 3A Tested by LISREL Confirmatory Factor Analytic Procedures

Variable	INFO18	INFO20	INFO21	GOAL22	GOAL23	GOAL24	PERS25	PERS26	PERS27
INFO18	-0.000								
INFO20	-0.000	-0.000							
INFO21	-0.000	-0 000	-0.000						
GOAL22	-0 014	0.010	0.027	-0.000					
GOAL23	-0.023	0.019	0.008	-0.000	-0.000				
GOAL24	-0 025	-0.000	-0 005	-0 000	-0.000	-0 000			
PERS25	0 045	-0.018	-0 019	-0.007	-0 004	0.007	-0 000		
PERS26	0 033	-0 029	-0 033	-0.023	0.010	0 032	-0.000	-0.000	
PERS27	C 060	0 004	-0 021	0.009	-0 009	-0 018	-0 000	-0.000	-0.000

Note Model 3A tests for the presence of a general factor plus three orthogonal (uncorrelated) group factors

Several additional comparisons among models were made, to further explore the nature of the group factor plus general factor structure. Model 2B against Model 2A tested the hypothesis of tau equivalence, meaning that the response bias factor was involved to the same extent in all tests. The hypothesis was rejected $\chi^2(8, 385) = 23.3087$, $p < .0001$.

Model 2B against Model 3A tested the hypothesis of tau-equivalence plus no group structure and was strongly rejected $\chi^2(17, 385) = 454.94$, $p < .0001$. Model 1A against Model 3A tested the hypothesis of no general factor given orthogonal group factors. This hypothesis was also strongly rejected $\chi^2(9, 385) = 732.88$, $p < .0001$.

The lack of fit of the test theory models confirmed that a hybrid factor structure consisting of three oblique group factors plus a general factor model provided a reasonable explanation of the data. Table 11 presents the parameter estimates for model 3B, which best represented the data.

Table 11

Maximum Likelihood Estimates of Parameters for Model 3B

Variables	Loadings		Factor Intercorrelations	Unique Variances
	General Factor	Group Factors		
Manifest				
X1	.753	.148		.411
X3	.762	.432		.233
X4	.789	.404		.215
X5	.783	.342		.270
X6	.714	.640		.080
X7	.767	.455		.206
X8	.844	.398		.129
X9	.835	.425		.122
X10	.786	.252		.318
Latent				
Y2-Y3			.302	
Y2-Y4			-0.446	
Y3-Y4			.310	

Note, The three sets of indicators for the group factors Y2-Y4 were respectively X1, X3+X4; X5-X7; and X8-X10.

PRELIMINARY QUESTION

Description of Preliminary Findings

Tables 12 and 13 portray the background variables of interest. The majority of students were female while the majority of faculty advisors were male (61% vs. 71%). Most students (78%) had attended UVM for more than one semester and typically met once or twice (68%) with their advisors. For 50%, an advising meeting lasted less than 15 minutes.

Table 12

Frequency and Percentage of Self-Report Characteristics for Respondents on Selected Variables

Characteristics	Frequency	Percentage
Student's sex (n = 479)		
Female	295	61%
Male	184	39
New Student (n = 479)		
First semester	107	22
Returning student	372	78
Advisor status (n = 535)		
Student, college assigned	063	01
Faculty, college assigned	364	77
Faculty, self-chosen	082	17
Self	014	03
No advisor	002	00
Other (deans' offices)	010	02
Frequency of advisor changes (n = 453)		
Never	266	59
Once	128	28
Twice	036	08
Three or more	023	05

Table 13

Frequency and Percentage of Respondents' Perceptions of Faculty Advisor and Context Characteristics

Characteristics	Frequency	Percentage
Faculty advisor		
Advisor's sex (n = 455)		
Female	130	29%
Male	325	71
Advisor's interest area (n = 452)		
Same as students	351	78
Different from students	091	20
Other	010	02
Advisor initiated a contact (n = 455)		
Yes	081	18
No	374	82
Advisor's grade (n = 449)		
A	129	29
B	144	32
C	115	26
D	044	10
F	017	04
Context characteristics		
Number of meetings (n = 451)		
Never	015	03
Once	169	37
Twice	139	31
Three	071	16
Four or more	057	13
Length of meetings (n = 448)		
Less than 15 minutes	225	50
15 to 30 minutes	210	47
More than 30 minutes	013	03
Adequacy of meeting time (n = 452)		
Not enough	147	33
Just about right	299	66
Too much	006	01
Principal initiator (n = 450)		
Advisor	019	04
Advisee	417	93
Both	014	03

In general, students were assigned an advisor, however, a few reported they chose their own advisor (77% vs. 17%). Forty-one percent changed advisors once or more often. Typical reasons given for the changes were a change in the student's college or major (39%), a lack of help, inaccurate information or dissimilar interests (35%), the advisor was unavailable, on sabbatical leave or left for other reasons (14%), and an administrative change (10%), e.g., to reduce an overload on the student's advisor.

Context. Nearly all students (93%) reported that they typically initiated advising meetings, although a few (18%) said their advisor made at least one first contact to discuss academic matters or to request a meeting.

A little over one-third (37%) reported they averaged one advising session per semester while approximately another third (31%) said they averaged two sessions. Of the remainder, fewer than a third reported more than two advising sessions each semester.

Two context variables, length of meetings and judgments of the adequacy of meeting length, revealed differences. Students who averaged 15 to 30 minutes per advising session were more likely to be satisfied with the length of their

sessions. Fifty percent stated they averaged less than 15 minutes per session. Of these, 51% felt the time frame was "just about right." Nearly one-half (47%) averaged 15 to 30 minutes with 81% comfortable with the meeting length. Most others indicated that the less than 15 minutes and the 15 to 30 minute time frames were "not enough" (46% and 19%, respectively).

Gender. There were notable sex differences, with female students averaging more time per meeting than their male counterparts. Female students (54%) said they typically spent 15 to 30 minutes with their advisor while male students (63%) generally reported their meetings lasted less than 15 minutes $\chi^2(2, n = 446) = 17.24$, $p < .01$. How do these students feel about the length of their advising meetings? Females appeared the most satisfied with slightly more than three-quarters (79%) indicating that the 15 to 30 minute time frame was "just about right." Males seemed less convinced with nearly one-half (43%) who met less than 15 minutes reporting dissatisfaction with the time frame.

View of advising support on campus. In an attempt to ascertain the students' perception of the importance of advising on campus, they were asked: Who on campus viewed

advising as an important support service? In rank order (from highest to lowest) the responses were: Self (73%), the college or school (47%), the academic department (41%), peers (34%) faculty (33%), central administration (33%), and no one (4%).

The present study did not directly address the effect of these differences on students' behavior. However, a relationship existed between the number of advisor changes and students view of the importance faculty attached to academic advising. Two-thirds (66%) who had never changed advisors also perceived advising to be important to the faculty, while less than 10% of those who changed advisors two or more times agreed.

Academic year. In general, students rather than advisors appeared to be the typical initiators of advising meetings (96% vs. 4%). Although not statistically significant, reports of first contact increased by academic year from 20% for freshmen to 30% for seniors. Of the 22% who were completing their first semester at UVM, 97% were freshmen. Of these, one-third said their areas of interest did not match the advisors' interest areas.

For the 78% who were returning students, reports of a

mismatch in interest areas decreased by academic year with fewer seniors (9%) than either juniors (18%) or sophomores (24%) assigned faculty advisors with academic interests unlike the students'.

A comparison of the average length of advising sessions by academic year revealed no significant differences.

Gender Compared with Other Background Variables

In what ways did students and advisors compared by sex differ on indices describing the advising relationship? Though the sample contained more men than women, it was sufficiently large to permit meaningful analyses for gender differences.

Length of session. A comparison of the average length of sessions with judgments of the appropriateness of the sessions' length yielded differences when controlled by students' sex. Male students (51%) thought less than 15 minutes was the appropriate time frame for advising sessions. In contrast, females (64%) preferred a 15 to 30 minute session.

There was a tendency for students to grade faculty higher as advising meetings increased in length. The

proportion of females (89%) and males (50%) who gave faculty an "A" grade reported the average length of their advising sessions as 30 or more minutes. For short sessions (less than 15 minutes), males (28%) were more likely than females (18%) to assign a low grade (D or F).

Advisors' grade. A chi-square for independence indicated a tendency for female students (64%) to assign higher grades (A or B) for overall performance than males (55%) $\chi^2(4, n = 447) = 15.66$, $p < .01$. A relationship existed between the number of advising meetings and the grades with 90% of both sexes who reported four or more advising meetings each semester assigning an A or B grade. Females, however, tended to assign slightly more "A" grades than males (72% vs. 64%).

Faculty initiated contact. In general, students said faculty did not contact them for advising purposes. Only 18% of the faculty advisors were reported to have contacted students first and they tended to contact female rather than male students (73% vs. 27%).

Faculty sex differences were apparent. Proportionally, more female faculty (29/130 = 22%) than male faculty (50/271 = 15%) made first contacts. When there was a first contact,

both male and female faculty tended to contact female students rather then male students: Female faculty by a proportion of 9:1 and male faculty by a proportion of 6:4.

Variance Explained by Background Variables

Table 14 displays correlations among five predictor variables and the three sets of criterion variables. All five predictors of interest (see the procedures chapter, page 76) were entered at once into the model. The set of predictors accounted for 24% of the variance in Group 1: Providing Information; 18% in Group 2: Developing Academic and Educational Goals; and, 32% in Group 3: Providing Personal Support. The best predictors of the constructs analysed separately were the length of advising meetings (LENGTH) and the number of advising meetings (MEETNUM). As indicated, LENGTH and MEETNUM were positively correlated with Providing Information (INFO), respectively .42 and .37. LENGTH and MEETNUM were also moderately intercorrelated (.38).

The pattern of associations for the second construct, Developing Academic and Educational Goals (GOAL) was similar but less strong. LENGTH was less influential on the GOAL

than INFO scores (.33 and .42, respectively). The most important predictor was MEETNUM (.35). Again, LENGTH and MEETNUM were intercorrelated, however, the associations were weaker.

Text continues on page 95

Table 14

Correlations Among Five Predictor and Three Sets of Criterion Variables

Providing Information (n = 437)

	Info		SSEX	YEAR	FSEX	MEETNUM	LENGTH
Info	1.000						
SSEX	-.126		1.000				
YEAR	-.069		.024	1.000			
FSEX	-.092		.218*	-.006	1.000		
MEETNUM	.373	**	.082	.126	.021	1.000	
LENGTH	.424	**	.186	.043	-.038	.384**	1.000

Developing Academic and Education Goals (n = 401)

	Goal		SSEX	YEAR	FSEX	MEETNUM	LENGTH
Goal	1.000						
SSEX	-.074		1.000				
YEAR	-.055		.027	1.000			
FSEX	-.111		.202*	.024	1.000		
MEETNUM	.348	**	-.090	.132	.012	1.000	
LENGTH	.334	**	- 195	-.111	-.072	.313**	1.000

Providing Personal Support (n = 396)

	Pers		SSEX	YEAR	FSEX	MEETNUM	LENGTH
Pers	1.000						
SSEX	-.086		1.000				
YEAR	-.018		.039	1.000			
FSEX	-.041		.193	.022	1.000		
MEETNUM	.450	**	-.071	.101	.051	1.000	
LENGTH	.504	**	-.163	-.040	-.029	.419**	1.000

Note. SSEX = students' sex; YEAR = academic year, FSEX = faculty sex; MEETNUM = number of advising meetings, LENGTH = length of advising meetings; Info = Providing Information; Goal = Developing Academic and Personal Goals, Pers = Providing Personal Support.

*p <.05. **p <.01.

For the third construct, Providing Personal Support (PERS) the pattern of associations were the same although the correlations were higher. As shown, LENGTH and MEETNUM positively correlated with PERS (.50 and .45, respectively). Again, LENGTH and MEETNUM were intercorrelated (.41).

Less than 10% of the variance in the 10 items was accounted for by each of the other variables (.01 to .09). Faculty sex (FSEX) and student sex (SSEX) were intercorrelated, however, the correlation merely indicates that there were more male than female students and they tended to be advised by males. The least important predictor of the three sets of scores was the student's academic year explaining less than two percent of the overall variance.

PERFORMANCE RATINGS

Table 15 presents the means and standard deviations for each measure. Respondents had the option of rating each item or choosing a "not applicable" response category when an item failed to portray a specific advising need. Less than five percent indicated that any informational item was inapplicable while approximately ten percent found the remaining two conceptual areas irrelevant.

Table 15

Means and Standard Deviations for Faculty Advisors' Performance on Each Task

Evaluation Items[a]	n	Mean[b]	S.D.
Providing information ($\bar{X}$ = 2.09)			
Find answers	438	2.23	1.15
Respond to requests for meetings	435	1 69	.90
Understand program components/requirements	442	2 11	1.21
Plan course of study	439	2 37	1.23
Developing academic and educational goals ($\bar{X}$ = 2 95)			
Develop major study area	396	2.80	1 16
Relate options to specific careers	403	3 04	1.26
Define educational goals	405	3.00	1.25
Providing personal support ($\bar{X}$ = 3.02)			
Build self confidence	392	3.06	1.29
Clarify values, interests and goals	401	3.15	1.25
Extend friendship beyond advice	406	2.85	1.40

[a]Items have been paraphrased from the research instrument.

[b]The scale ranged from "strongly agree" (1) to "strongly disagree" (5).

Overall, performance within the Informational area received the most positive mean rating (mean rating for construct = 2.09) while the Personal Support area received the lowest rating (mean rating for construct = 3.03). The table reveals that ratings decreased as the nature of the

tasks became more complex. For example, the most positive mean rating was given to the routine, maintenance-type tasks, such as "Responding to requests for meetings" ($\underline{M}$ = 1.69) and "Understanding program components and requirements" ($\underline{M}$ = 2.10). The least positive mean ratings were assigned to the more complex, developmental-type tasks including "Defining educational goals" ($\underline{M}$ = 3.00) and "Clarifying values, interests and goals" ($\underline{M}$ = 3.15).

The pilot study had revealed that the level of importance for the three conceptual areas differed with Providing Information (INFO) the most important and Providing Personal Support (PERS) the least important.

Two different types of evaluation items were included on the survey instrument. First, students rated advisors' performance on 10 items clustered within the previously identified conceptual areas. Second, students assigned a letter grade to their advisors' overall performance.

Crosstabulations of performance ratings with the grade assigned for overall performance showed high correspondence for INFO, moderately high correspondence for GOAL and moderate correspondence for PERS. For the latter two constructs, there was a tendency to inflate the advisors'

grade in relation to their performance. For example, 20% who disagreed with the concept that their advisors helped develop academic and educational goals gave them an A or B grade. A similar, but somewhat stronger pattern emerged for the personal support area with 30% who disagreed assigning the higher grades.

SECONDARY QUESTION

Gender Pairings

Table 16 summarizes the results of two-factor multivariate analyses of variance (MANOVA) for the three sets of performance criteria. The two factors, faculty sex (FSEX) and student (SSEX), had a combined effect on only one set of performance criteria. There were no significant interaction effects for the Constructs termed Providing Information or Developing Academic and Educational Goals. A significant interaction was found for the Construct termed Providing Personal Support, i.e., SSEX and FSEX jointly affected the ratings for the set of personal support items $F(3, 446) = 3.03$, $p < .05$. The source of the interaction effect was not isolated.

Providing Information. Significant main effects were

Table 16

Summary Table of Multivariate Analyses for Two-Way Crossed Design

Source	Value	Approx F	Degrees of Freedom	F
Providing Information				
Faculty Sex (FSEX)	.02702	3.00639	4	018*
Student Sex (SSEX)	02502	2.78296	4	026*
FSEX x SSEX	.00811	.90922	4	458
Developing Goals				
FSEX	01926	2.86383	3	.036*
SSEX	.01615	2.40034	3	.067
FSEX x SSEX	.01452	2.15903	3	092
Providing Support				
FSEX	.02032	3.02017	3	030*
SSEX	00203	3.27487	3	021*
FSEX x SSEX	02039	3.03122	3	029*

Note. The values shown are for Hotellings' test of significance

*p < 05

found for the construct termed: Providing Information. The main effect faculty sex was significant $F(4,445) = 301$, $p < .05$ with female faculty rated more positively than their male counterparts for the set of informational items. Univariate tests revealed significance for Info19--"My advisor responds to my requests for meetings" $F(1,448) = 4.06$, $p < .05$ and Info21--"My advisor helps me plan my

course of study" $F(1,448) = 6.09$, $p < .01$. Both female and male students scored female faculty higher than male faculty for Info19 ($M = 1.51$ and 1.58, respectively for female faculty; $M = 1.65$ and 1.92, respectively for male faculty). A similar pattern prevailed for Info21 although the overall mean ratings were slightly lower ($M = 2.05$ and $M = 2.33$, respectively for female faculty; $M = 2.38$ and $M = 2.60$, respectively for male faculty).

The main effect "student sex" was significant $F(4.445) = 2.78$, $p < .05$. The univariate tests revealed significance for Info19 $F(1,448) = 9.78$, $p < .01$ and Info21 $F(1,448) = 6.54)$, $p < .01$. The student effect for Info19 was statistically stronger than the faculty sex effect for that item. In addition there was a significant student sex effect for Info18: "My advisor helps me find answers to my questions" $F(1,448) = 6.33$, $p < .01$ and Info20--"My advisor helps me understand the components and requirements of my program" $F(1,448) = 15.21$, $p < .05$. Table 17 reports the significant faculty and student-sex mean differences for the Information Construct.

Table 17

Means and Standard Deviations for Two Factors on The Information Construct

Gender	Info18 M	Info18 SD	Info19 M	Info19 SD	Info20 M	Info20 SD	Info21 M	Info21 SD
Female students								
female faculty (n = 103)	2.08	1.05	1.51	.72	1.91	1.06	2.05	1.10
male faculty (n = 179)	2.17	1.17	1.64	.84	2.08	1.26	2.38	1 27
Male students								
female faculty (n = 27)	2.38	1.07	1.58	.78	2.33	1.27	2.33	1.17
male faculty (n = 143)	2.41	1.11	1.91	1.01	2.27	1.15	2.60	1.17
Sample means (n = 452)	2.24	1.12	1.69	.88	2 11	1.19	2.37	1.21

Note. A total of 29 respondents were rejected who indicated they didn't have an official advisor.

text continues on page 102

Developing Goals. There were significant multivariate tests for the set of items labeled Developing Educational and Academic Goals. The main effect faculty sex indicated differences in the scores on the items analyzed as a set $F(3,446) = 2.86$, $p < .05$. These differences were attributed to Goal23--"My advisor helps me relate my academic options to specific careers" $F(1,448) = 5.55$, $p < .05$ and Goal24--"My advisor helps me define my educational goals" $F(1,448) = 7.72$, $p < .01$.

Both female and male students rated same-sex advisors highest. For Goal23, female students rated same-sex advisors higher than opposite-sex advisors ($M = 2.64$ and 3.18, respectively). Male students also scored same-sex advisors higher ($M = 3.18$) than opposite-sex advisors ($M = 3.41$). A similar pattern prevailed for Goal24 with both female and male students scoring same-sex advisors highest. Although the main effect "student sex" was hot significant, female students tended to rate their advisors higher than their peers. Table 18 presents the mean differences.

Providing support. Female faculty were rated more positively than male faculty on the set of Personal Support items. The significant faculty sex main effect $F(3,446) =$

3.02, $p < .05$ resided in Pers25--"My advisor helps me build my self-confidence" $F(1,448) = 7.22$, $p < .05$. The mean scores for the main effect students were also significantly different with female students assigning the most postive overall ratings $F(3,446) = 3.27$, $p < .05$. These differences were also attributed to Pers25, however, the student sex effect for Pers25 was statistically stronger $F(1,4418) = 7.57$, $p < .01$. Table 19 reports the mean differences.

Table 18

Means and Standard Deviations for Two Factors on the Goals Construct

Gender	Goal22 M	Goal22 SD	Goal23 M	Goal23 SD	Goal24 M	Goal24 SD
Female students						
female faculty (n = 103)	2.57	1 05	2.64	1.19	2 58	1.16
male faculty (n = 179)	2.84	1 16	3.11	1.20	3 08	1.20
Male Students						
female faculty (n = 27)	3 00	1.00	3.41	1.03	3.25	88
male faculty (n = 143)	2 86	99	3 18	1 12	3 15	1.15
Sample means (n = 452)	2 80	1 08	3.04	1.18	3 00	1.17

Note. A total of 29 respondents were eliminated who indicated they didn't have an official advisor.

Table 19

Means and Standard Deviations for Two Factors on The Personal Support Construct

Gender	Pers25		Pers26		Pers27	
	M	SD	M	SD	M	SD
Female students						
female faculty (n = 103)	2.68	1.21	2.89	1 14	2.80	1 33
male faculty (n = 179)	3.09	1 26	3.18	1.25	2.82	1.37
Male students						
female faculty (n = 27)	3 33	1.06	3.27	1.11	2 84	1.34
male faculty (n = 143)	3.25	1.08	3.29	1 08	2 98	1.24
Sample means (n = 452)	3.06	1.20	3.15	1.17	2.87	1.32

Note A total of 29 respondents were eliminated who indicated they didn't have an official advisor.

Chapter 5

Discussion, Conclusions and Future Research

There were three results, one of which was central to the study; the other two were incidental.

DISCUSSION

Primary Question

Theoretical model. The results of the confirmatory factor analyses (CFA) revealed that the theoretical framework tested provided a plausible explanation of the data. The small error discrepancies obtained from reconstructing the correlation matrix confirmed that the model was appropriate for the data. The items were highly related to the construct they were measuring and, as expected, the constructs were interrelated.

The theoretical model was refined slightly by

eliminating Info19 "Responds to requests for meetings." This item was interpreted as measuring a precondition for advising. Advising, defined as basically an interactive process implies that the conditions for interaction, for example, arranging a meeting, must be established before advising begins.

In their role as academic advisors, faculty are expected to perform a wide range of tasks. The results lend support to emerging theory that the range of advisors' tasks can be dichotomized on the basis of (a) levels of complexity and (b) type of skill. Three levels were theorized to account for faculty advising activities.

Providing information. The first level was characterized by informational tasks and placed few cognitive demands on advisors. The focus was on the collection and dissemination of data and facts. However, faculty need access to a wide range of information including student data, policies and procedures, program requirements and referral resources. The dissemination of incorrect information could negatively affect the student's progress toward academic goals. As an illustration, incorrect advisor information regarding the proper sequencing of

required courses might result in an additional semester of course work to complete the sequence. Clearly, the student's confidence in future advisor information would be shaken.

Kramer and Gardner (1983) concurred when they referred to providing information as the "bare minimum" upon which all other indices of advising rest. They commented: "If the advisor doesn't have command of basic information, he or she will never be able to establish an advising relationship with a student" (p. 38).

As revealed by the very high percentage of students who found the information construct applicable, they generally expected their advisors to provide them with information. Most felt their advisors performed informational advising functions fairly well in comparison to the higher level functions.

Developing academic and educational goals. The second level incorporates information dissemination with goal planning. The primary focus is on the student. At this stage, mentoring characterizes the advisor's role. Academic goals are discussed and refined in the context of the student's personal growth and development needs. A

sophomore, for example, would be expected to have a different set of needs than a senior.

The student's role is perceived as active. Effective advisors guide students through discussion and feedback on academic choices and future possibilities. A two-way pattern of communication is established and the information exchanged is geared more to the student's unique needs. Ratings for the second advising level were consistently lower than the first level, yet most (85%) reported that developmental advising applied to their needs.

Within the context of goals, the lower ratings were applied to tasks of increasing complexity, suggesting a relationship between task difficulty and performance ratings. This was also true for informational advising, with the process-based task of arranging a meeting judged as performed more adequately than content-based tasks, such as planning a course of study.

Providing personal support. The third advising level incorporates all aspects of the first two levels. Approximately the same percentage of students (84%) reported that the third level applied to their advising needs. Slightly lower ratings were assigned to the advisor's

performance, albeit the ratings closely mirrored ratings on the developmental tasks. Within the construct, students assigned the lowest ratings to tasks where the students' personal investment could be interpreted as greatest and the element of trust the most important (e.g., Helps me build my self-confidence and Helps me clarify my values, interests and goals).

Overall, there was an inverse relation between the ratings and the complexity of tasks. Students assigned the highest performance ratings to tasks which placed little cognitive demand on the advisor. The lowest ratings were reserved for tasks that required cognitive integration of informational facts with developmental theory and awareness of the student's unique characteristics.

Preliminary Question

Influence of Background Characteristics. The results reveal that a set of background characteristics influences students' judgments of advisor performance. Two characteristics, length of advising sessions and the number of advising meetings, explained most of the variance in the ten items, these were interrelated, indicating they were

measuring common elements such as "time on task" or the demand for services. This influence was particularly strong in the personal support domain where nearly all the patterned variance was attributed to the combination of these two variables.

There are two possible reasons that the personal support domain is more susceptible to variance. First, individuals do not easily talk about themselves. The self-disclosures necessary for real growth are frequently painful and not easily shared. At the same time, faculty often lack the training that could guide students through stressful moments. Coupled with these constraints is a lack of privacy for meetings. Sessions may be interrupted by telephone calls, a knock on the door or distracting office arrangements (e.g., shared office space). Certainly, under the best of circumstances, establishing rapport can be difficult and time-consuming. The barriers to effective communication imposed by faculty, student and environmental influences are viewed as true variance and not measurement error since they measure real sources of influence on the ratings.

Second, the items clustered within the Personal Support

domain are not behaviorally anchored and may be biased by alternate interpretations of the items. Thus measurement errors would account for a larger proportion of the variability in the ratings. Kenny (1979) stressed that measurement errors are to be expected in testing theoretical models. The high interrater reliabilities are evidence, however, that the biases are inconsequential. Examination of the residual variance created from estimation of the theory model confirmed that the effect of measurement errors was slight.

Secondary Question

Gender Pairings. The extent of faculty-student advising contacts were reported to affect students' judgments of their advisors' performance. These findings concur, in part, with the results of a national investigation of college impacts (Astin, 1977). The importance of nonclassroom contacts on student satisfaction is underscored by Astin's conclusion that increasing opportunities for faculty and students to interact could promote greater student satisfaction with aspects of their educational life.

Advising may have a differential affect on male and female students. Although the relationships were small, the data show that male and female students tended to judge advisors differently and to present dissimilar reports of satisfaction with their advising interactions. Females averaged more frequent sessions with faculty advisors, longer meetings (15 to 30 minutes) and were more likely to feel satisfied with the advising time frame. In contrast, male students tended to meet less frequently, for less time (fewer than 15 minutes) and nearly one-half were dissatisfied with their advising arrangements. These results parallel, in part, Astin's findings that female students tended to be more satisfied with faculty-student nonclassroom contacts than their male counterparts.

Recently, Schaef (1981) characterized females compared to males as process-oriented versus time-dependent. Women are also viewed as the better listeners in interpersonal relationships. Markel, Long, and Saine (1976) noted that communicators of both sexes spoke longer when the listener was female. Similar distinctions are suggested from the advisor-advisee relations profile emerging from the present study. Students, in general, who reported that their

advisors performed well possessed the following characteristics:

1. they were female,
2. their advisors were female,
3. they met with advisors four or more times each term,
4. they averaged more than 15 minutes per advising meeting and,
5. they had never changed advisors.

There were notable exceptions. Male students judged male advisors' performance more favorably than their female counterparts when the substantive content concerned goal setting, in particular, relating academic goals to specific career opportunities and helping students to define goals. Perhaps these ratings reflect a real lack of knowledge by female advisors of male dominated occupations. A more complicated interpretation suggests that male students may lack confidence in career related guidance from female faculty because existing stereotypes of male or female societal roles support the notion of male superiority in the work force.

Differences in the socialization of men and women may account for the disparity in their attitudes about and participation in academic advising. Men have been socialized to believe that "he who helps himself succeeds" and, therefore, may interpret seeking guidance as a sign of weakness. Women, however, would be more likely to interpret "reaching out" for help as a sign of inner strength. These issues may be particularly telling at a time when students are testing their independence from family authority figures.

CONCLUSIONS

Primary Question

1. Empirically, the causal model that best fit the data confirmed the existence of three distinct advising constructs plus a general response bias factor. The three advising constructs were interpreted as ranging from routine maintenance tasks (Providing Information) to more complex developmental tasks (Developing Academic and Educational Goals and Providing Personal Support). The general factor was interpreted as a response bias (halo effect).

2. Several rival theories were tested against the theoretical model but did not provide a good fit. Thus the primary hypothesis that the range of faculty tasks could be distinguished on the basis of task complexity and type of task was confirmed.

Preliminary Question

1. The hypothesis of a relationship between a set of background variables and the ratings was partially supported. Empirically, a significant relationship was found between the ratings and two of the background variables. The length of advising seesions and the number of sessions accounted for most of the variance in the construct ratings (range was .37 to .50). These two contextual variables were positively correlated (.31 to .42) indicating they were measuring something in common such as "time on task."

2. A significant low positive relation between the

gender variables merely indicated that there were more male than female students and they tended to be advised by male faculty. There was no significant correlation between academic year and the ratings.

Secondary Question

1. The hypothesis of significant gender differences in the ratings was supported. Significant differences were found by gender across and within the advising constructs. The differences were linked to same-sex pairings and to the interaction of student and faculty sex for the PERS domain. The source of the interaction effect was not determined.

RECOMMENDATIONS FOR FUTURE RESEARCH

Primary Question

1. A robust theoretical model differentiating faculty advisor tasks by levels of complexity and type of task emerged from the investigation. The comparative model fitting approach provides the

information needed for replications. External replications with representative samples of students and faculty will provide additional measures of construct validity.

2. This study did not test the assumption that the model is hierarchical. That is, information giving (Domain 1), forms the foundation upon which developing goals (Domain 2), and personal support (Domain 3) are built. In such a sequential scheme, adequate performance for the more complex, developmental-type tasks (Domains 2 & 3) would presuppose the existence of a strong informational base. Future research should discover whether the three domains are sequentially dependent.

3. The relationship of faculty self-ratings to student ratings of advisor effectiveness remains to be determined. Marsh, Overall and Kesler (1979) report fairly high faculty-student agreement for ratings of instructor

effectiveness. Future research should address the question of agreement between advisor-advisee ratings. High agreement would promote faculty confidence in the ratings.

Preliminary Question

1. The finding that the advising time frame, as measured by the length and number of advising meetings, was modestly related to the students' ratings presents implications for the interpretation of student ratings. Future research should control for the influence of time to ensure that the relative contribution of these characteristics is known before interpretations are made. That is, one wants to determine the proportion of variance in the ratings attributable to characteristics other than advisor behavior.

2. Assessment of other background variables including personality indices, environmental constraints and generational differences are also

needed to determine the relative contribution of a comprehensive set of correlates. Feldman (1981) argues that consistent variability in the ratings can only be attributed to "legitimate influences" when the behaviors rated are measures of high inference (impersonal items) and not low inference (interactional items).

Secondary Question

1. Further evidence is needed to support the findings of gender differences in the ratings of advisor performance. Differences found were attributed, in part, to the intimacy of advising relations in contrast with classroom relations.

2. Future research should attempt to assess the stability and level of importance of gender differences in the advising context.

General Comments on the Application of the Results

Presently, student evaluation of faculty advisors is viewed as a tool to aid faculty in improving their advising

practices, therefore, it is suggested that faculty use be voluntary. To ensure student confidentiality and to maximize survey return rates, experimentation with different methods of collecting ratings is encouraged. Unless all advisors on campus are evaluated, classroom implementation would not be effective (same teacher but different advisors). The methods for collecting the student data should be standardized with completed forms returned to a neutral or central office such as a faculty development center for analysis.

An advisor profile generated from the student data and other related information (e.g., faculty advisor impressions of the importance of each advising domain) could be prepared and returned to the advisor for review. An example of a faculty advisor profile generated from a student evaluation and faculty data in a University of Vermont pilot study are included in Appendix IV.

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APPENDICES

Contents

Pilot Study on Academic Advising

Your College_____ Your Academic Major_____

Your year in school (please circle) Freshmen Sophomore Junior Senior

In Column A; please rate (on a scale from 1 to 5) how important it is to you for your advisor to perform each function. In Column B; please rate how well you felt your advisor has performed each function.

ADVISOR FUNCTIONS	COLUMN A: How important is each function?					COLUMN B: Does your advisor do a good job?				
	Very Imp				Not Imp	Clearly Yes				Not at all
1. Encourages me to talk about my concerns	1	2	3	4	5	1	2	3	4	5
2. Keeps track of my academic progress	1	2	3	4	5	1	2	3	4	5
3. Helps me find answers to my questions	1	2	3	4	5	1	2	3	4	5
4. Gives me information about University and community resources	1	2	3	4	5	1	2	3	4	5
5. Helps me clarify my thinking about careers or occupations	1	2	3	4	5	1	2	3	4	5
6. Helps me identify my educational interests and goals	1	2	3	4	5	1	2	3	4	5
7. Responds to my requests for advising meetings	1	2	3	4	5	1	2	3	4	5
8. Helps me plan my course of study	1	2	3	4	5	1	2	3	4	5
9. Helps me understand the components and requirements of my program	1	2	3	4	5	1	2	3	4	5
10. Helps me deal more effectively with my personal problems	1	2	3	4	5	1	2	3	4	5
11. Helps me improve my decision-making skills	1	2	3	4	5	1	2	3	4	5
12. Helps me choose a major	1	2	3	4	5	1	2	3	4	5
13. Extends friendship beyond academic advice	1	2	3	4	5	1	2	3	4	5
14. _____ (Additional Function)	1	2	3	4	5	1	2	3	4	5
15. _____ (Additional Function)	1	2	3	4	5	1	2	3	4	5

Pilot Study on Academic Advising

Your College_____ Your Academic Major_____

Your year in school (please circle) Freshmen Sophomore Junior Senior

In Column A; please rate (on a scale from 1 to 5) how important it is to you for your advisor to perform each function. In Column B; please rate how well you felt your advisor has performed each function.

ADVISOR FUNCTIONS	COLUMN A: How important is each function? Very Imp				Not Imp	COLUMN B: Does your advisor do a good job? Clearly Yes				Not at all
1. Helps me understand the registration process	1	2	3	4	5	1	2	3	4	5
2. Makes me aware of relevant University publications and information	1	2	3	4	5	1	2	3	4	5
3. Helps me define my educational goals	1	2	3	4	5	1	2	3	4	5
4. Refers me to the appropriate offices to obtain remedial services	1	2	3	4	5	1	2	3	4	5
5. Helps me relate my academic options to specific careers	1	2	3	4	5	1	2	3	4	5
6. Helps me build my self confidence	1	2	3	4	5	1	2	3	4	5
7. Explains University and college requirements	1	2	3	4	5	1	2	3	4	5
8. Helps me develop a major area course of study	1	2	3	4	5	1	2	3	4	5
9. Makes me aware of non-traditional academic options	1	2	3	4	5	1	2	3	4	5
10. Suggests ways to improve my basic study habits	1	2	3	4	5	1	2	3	4	5
11. Provides me with explanations of University policies and procedures	1	2	3	4	5	1	2	3	4	5
12. Helps me identify my academic areas of interest	1	2	3	4	5	1	2	3	4	5
13. Helps me clarify my values, interests and goals	1	2	3	4	5	1	2	3	4	5
14. _____ (Additional Function)	1	2	3	4	5	1	2	3	4	5
15. _____ (Additional Function)	1	2	3	4	5	1	2	3	4	5

Evaluation of Faculty Advisors Research Questionnaire

This evaluation is intended to measure student judgments of faculty advisor performance. Please respond carefully, as the results may affect program development and budgetary decisions. All individual responses will be held in strictest confidence and only group responses will be reported.

PART I

PLEASE CHECK OR FILL IN THE APPROPRIATE RESPONSE

1. **My college or school:** _____
2. **Sex:** ☐ 1) female ☐ 2) male
3. **Age:** ☐ 1) 25 or under ☐ 2) over 25
4. **Is this your first semester at this institution?**
   ☐ 1) yes ☐ 2) no
5. **My academic year:**
   ☐ 1) freshman ☐ 2) sophomore ☐ 3) junior ☐ 4) senior
6. **My overall grade point average is:**
   ☐ 1) 3.00 to 4.00 ☐ 2) 2.00 to 2.99 ☐ 3) less than 2.00
7. **Whom do you consider your official advisor?**
   ☐ 1) a student assigned by my college
   ☐ 2) a faculty member assigned by my college
   ☐ 3) a faculty member chosen by me
   ☐ 4) myself
   ☐ 5) I don't have an advisor
   ☐ 6) other (please specify) _____

The rest of this questionnaire is concerned with official faculty advisors. If in question # 7 you selected response 2 or 3, please continue. IF YOU DID NOT CHOOSE RESPONSE NUMBERS 2 OR 3 IN QUESTION # 7 ABOVE, PLEASE RETURN THE FORM WITH ONLY PART I COMPLETED, THANK YOU.

PART II

9. **My *official* faculty advisor is:**
   ☐ 1) a faculty member in my interest area
   ☐ 2) a faculty member in my college but not in my interest area.
   ☐ 3) other (please specify) _____
10. **My faculty advisor's sex:**
    ☐ 1) female ☐ 2) male
11. **I have changed faculty advisors:**
    ☐ 1) never ☐ 3) twice
    ☐ 2) once ☐ 4) three or more times
12. **If you have changed or wanted to change advisors, what were the reasons?**

    _____

    _____
13. **How many times each semester do you meet with your faculty advisor?**
    ☐ 1) never ☐ 4) three times
    ☐ 2) once ☐ 5) four or more times
    ☐ 3) twice
14. **On the average, a meeting with my faculty advisor lasts:**
    ☐ 1) less than 15 minutes. ☐ 3) more than 30 minutes.
    ☐ 2) 15 to 30 minutes
15. **The amount of time I spend with my faculty advisor each semester is:**
    ☐ 1) not enough ☐ 2) just about right ☐ 3) too much
16. **Has your advisor ever contacted you to discuss academic opportunities and/or to request a meeting?**
    ☐ 1) yes ☐ 2) no
17. **Who typically initiates an advising meeting?**
    ☐ 1) my advisor ☐ 2) me

QUESTIONNAIRE CONTINUES ON REVERSE SIDE

141 A

PART III

Below you are asked to make judgments concerning your faculty advisor's performance. On a scale from 1 to 5, please indicate your degree of agreement or disagreement with each statement. *Please respond to each statement for the faculty member you commented on in Part II.* If you do not think that your advisor *should* perform a given function, please circle the last column labeled NA, for "not applicable."

For each statement circle:

1, if you strongly agree with the statement
2, if you moderately agree
3, if you neither agree nor disagree
4, if you moderately disagree
5, if you strongly disagree
NA, if you feel the statement does not apply

		strongly agree				strongly disagree	
Providing Information:							
18. My advisor helps me find answers to my questions.	**18.**	1	2	3	4	5	NA
19. My advisor responds to my requests for meetings.	**19.**	1	2	3	4	5	NA
20. My advisor helps me understand the components and requirements of my program.	**20.**	1	2	3	4	5	NA
21. My advisor helps me plan my course of study	**21.**	1	2	3	4	5	NA
Developing Academic and Educational Goals:							
22. My advisor helps me develop a major area of study	**22.**	1	2	3	4	5	NA
23. My advisor helps me relate my academic options to specific careers.	**23.**	1	2	3	4	5	NA
24. My advisor helps me define my educational goals.	**24.**	1	2	3	4	5	NA
Providing Personal Support:							
25. My advisor helps me build my self-confidence.	**25.**	1	2	3	4	5	NA
26. My advisor helps me clarify my values, interests and goals.	**26.**	1	2	3	4	5	NA
27. My advisor extends friendship beyond academic advice.	**27.**	1	2	3	4	5	NA

PART IV

28. Considering (1) your academic and personal needs, (2) what you feel your academic advisor's role should be, and (3) the efforts you have made to effectively seek advice from him or her; please assign a grade to your official advisor's overall performance.

- ☐ 1) A grade
- ☐ 2) B grade
- ☐ 3) C grade
- ☐ 4) D grade
- ☐ 5) F grade

29. Academic advising is viewed as an important aspect of my university's support services by: (Check all that apply.)

- ☐ 1) faculty in general.
- ☐ 2) my academic department.
- ☐ 3) my college or school.
- ☐ 4) my university administration.
- ☐ 5) me
- ☐ 6) my peers
- ☐ 7) no one

Comments: Please make any comments which you feel are appropriate.

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FACULTY ADVISOR EVALUATION PROFILE
UNIVERSITY OF VERMONT
1DC

FACULTY ADVISOR'S NAME: [redacted]
DEPARTMENT: AREC
TOTAL NUMBER OF ADVISEES: 14
ADVISEES SURVEYED: 14
COMPLETED SURVEYS RECEIVED: 9
PERCENT RECEIVED: 64%

RESPONDENTS

SEX	NUMBER	PERCENT
FEMALE	5	56
MALE	4	44

CLASS	NUMBER	PERCENT
FRESHMAN	0	0
SOPHOMORE	1	11
JUNIOR	2	22
SENIOR	6	67

STUDENT RATINGS OF ADVISOR PERFORMANCE

GRAPHIC DISPLAY OF MEANS

	STRONGLY AGREE 1	2	3	4	STRONGLY DISAGREE 5	N/A 0	STUDENT RATING M (SD)	COLLEGE SCHOOL NORMS M (SD)
PROVIDING INFORMATION								
OVERALL MEAN RATING = C			C				1.62 --	
MEAN FOR EACH ITEM = I								
1. HELPS ME FIND ANSWERS TO MY QUESTIONS.			I			0	2.00 (0.87)	1.74 (0.72)
2. RESPONDS TO MY REQUESTS FOR MEETINGS.		I				1	1.38 (0.67)	1.23 (0.58)
3. HELPS ME UNDERSTAND MY PROGRAM.		I				0	1.33 (0.50)	1.19 (0.86)
4. HELPS ME PLAN MY COURSE OF STUDY.			I			0	1.78 (0.67)	1.75 (0.98)
DEVELOPING ACADEMIC AND EDUCATIONAL GOALS								
OVERALL MEAN RATING = C			C					
MEAN FOR EACH ITEM = I								
5. HELPS ME DEVELOP A MAJOR AREA OF STUDY.			I			1	2.50 (1.30)	2.06 (1.07)
6. HELPS RELATE MY ACADEMIC OPTIONS TO CAREERS.			I			1	2.75 (1.42)	2.21 (1.12)
7. HELPS ME REFINE MY EDUCATIONAL GOALS.			I			1	2.63 (1.22)	2.02 (1.07)
PROVIDING PERSONAL SUPPORT								
OVERALL MEAN RATING = C			C					
MEAN FOR EACH ITEM = I								
8. HELPS ME BUILD MY SELF-CONFIDENCE.			I			2	2.57 (1.41)	2.15 (1.14)
9. HELPS ME CLARIFY MY VALUES, INTERESTS AND GOALS.			I			3	2.50 (1.58)	2.27 (1.13)
10. DEVELOPS FRIENDSHIP BEYOND ACADEMIC ADVICE.			I			2	2.29 (1.20)	1.86 (1.14)

STUDENT GRADING OF ADVISOR'S OVERALL PERFORMANCE

ADVISOR'S GRADE FOR OVERALL PERFORMANCE: (2) A GRADE (3) B GRADE (4) C GRADE (0) D GRADE (0) F GRADE

FACULTY SELF-REPORT

FACULTY SELF-RATINGS OF THE IMPORTANCE OF EACH ADVISING CATEGORY = F	VERY IMPORTANT 1	2	3	4	VERY UNIMPORTANT 5	N/A
1. PROVIDING INFORMATION	F					
1. DEVELOPING ACADEMIC AND EDUCATIONAL GOALS	F					
3. PROVIDING PERSONAL SUPPORT		F				

BACKGROUND CHARACTERISTICS: ADVISEES AND ADVISING SESSIONS

1. STUDENTS' GRADE POINT AVERAGE:
(1) 3.00 TO 4.00 (8) 2.00 TO 2.99 (0) LESS THAN 2.00

2. AVERAGE NUMBER OF ADVISING SESSIONS EACH SEMESTER:
(0) NEVER (2) THREE TIMES
(2) ONCE (0) FOUR OR MORE TIMES
(5) TWICE

3. AVERAGE LENGTH OF SESSIONS:
(3) LESS THAN 15 MINUTES (0) MORE THAN 30 MINUTES
(7) 15 TO 30 MINUTES

4. APPROPRIATENESS OF THE LENGTH OF ADVISING SESSIONS:
(1) NOT ENOUGH (8) JUST ABOUT RIGHT (0) TOO MUCH

5. PRIMARY INITIATOR OF ADVISING SESSIONS:
(0) ADVISOR (7) STUDENT (2) BOTH

KEY

C = [illegible] mean for each category
I = [illegible] mean for each item
M = [illegible] mean
SD = standard deviation (average deviation of the ratings from the mean)
N/A = not applicable
= number or frequency

COMMENTS

The Evaluation of Faculty Advising profile is available to faculty seeking assessment of their advising practices. For each advisor evaluated, data were compiled when at least 5 advisees or 50% (whichever was greater) returned a completed evaluation form.

The reasons for discrepancies between the "total number of advisees" and the number of "advisees surveyed" occurred when IDC received incorrect advisee mailing addresses, advisees had left UVM, transferred to another UVM college or school or identified other faculty as their official advisor.