

EVALUATING ACADEMIC ADVISING:
Manual for the
Academic Advising Inventory

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Preface and Permission for Use

We are providing the *Academic Advising Inventory*(AAI) to the academic advising profession under the auspices of the National Academic Advising Association and its Web Site as a means of promoting good practices through thorough, theory-based evaluation. The AAI is provided for the non-commercial use of advising practitioners at no costs by permission of Student Development Associates, Inc. (PMB 500, 2351 College Station Road, Athens, GA 30605)-- the copyright holder. No specific permission is required for institutional uses or for research studies. The AAI also may be used in dissertation and thesis research and included as an appendix with the document without written permission from Student Development Associates, Inc.

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Users have permission to use AAI Parts I and II in their entirety, that is, either or both of these parts may be used in their entirety, but individual items may not be removed from these two parts for use in other instruments. Users, however, have permission to use individual items from Parts III and IV. Items in Parts III and IV may be altered or eliminated to fit local conditions.

This manual was originally written in 1984. Subsequent to its publication additional research was conducted and an Addendum was written in 1986 to reflect the findings about the items in Part II of the AAI. This manual reflects an integration of these two documents. We, however, have not attempted to update the manual further by reporting on later studies that have utilized the AAI for evaluation or research purposes.

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Chapter 1

ACADEMIC ADVISING: WHAT TO EVALUATE?

Kinds of Evaluation

Academic advising has received a great deal of attention in the past decade. Many have seen improved academic advising as an essential ingredient in most successful institutional retention programs (Beal & Noel, 1980). Unfortunately, Crockett and Levitz (1984) found that over three-fourths of all advising programs had no systematic plan for evaluation and one-half did not even evaluate the performance of individual advisors.

If academic advising is seen as a significant educational activity, and not just an administrative bookkeeping task, then the need to evaluate current academic advising programs is more important than ever before. First, it is important to determine what *should* be happening in academic advising and secondly, what is happening in the advising program. Once the decision to institute an evaluation has been made, two immediate questions arise: Why specifically is the evaluation being conducted? and What to evaluate?

The Purpose of Advising Evaluation

Evaluation helps answer two types of questions concerning advising programs: How well is the program progressing or operating on a day-to-day basis? and What were outcomes of the programs or what differences did advising make in students' lives? These questions refer to two kinds of evaluation: formative and summative (Brown, 1978; Brown & Sanstead, 1982).

Formative evaluation. Formative evaluation focuses on *process*, that is, is the advising program on track? Are the expected reactions of students being observed? What can be done next week to make the program more effective or to overcome an unexpected obstacle? The primary focus of formative evaluation is on monitoring program progress and on identifying potential trouble spots that need immediate attention. As Kramer (1982) observed, the advisor is the client of formative evaluation. These evaluation goals are short range, and the data collected should be in a form that can be used in making decisions about immediate action. Generally, informal assessment techniques such as observation, staff discussion, and unobtrusive measures (for example, written records, class rosters, and appointment calendars) are used in formative evaluation.

Summative evaluation. Summative evaluation focuses on *outcomes*, that is, asks questions about whether the program reached its goals or objectives for the year or whether one approach was more effective or efficient than another. In summative evaluation, data are gathered about alternative advising interventions, techniques, or organizational structures. Within the context of the program goals, the data should then allow a comparison, as to the structure's or intervention strategy's relative effectiveness or efficiency.

Examples of the kinds of questions that might be asked in formative and summative evaluations are presented in Table 1.1

Table 1.1

Examples of Formative and Summative Evaluation Questions

AREA	FORMATIVE	SUMMATIVE	
Advisors	Selection	Is the process used to select who advises effective in obtaining the best talent?	Are part-time advisors more effective than full-time ones?
	Skill & Knowledge	What problems are advisors encountering in regards to the advising process or with majors in history?	Does advising through a center help a student explore learning opportunities outside the classroom more effectively than decentralized advising?
	Attitudes	Do student reports of their advising experiences reflect advisors' commitment to "developmental advising"?	Do students who received "developmental advising" express greater satisfaction with the college experience than those who received "prescriptive advising"?
Process	Assignment	What is the frequency of reported mismatches of advisors and students?	Do students (and advisors) report being satisfied with assignment process?
	Contact	Are students and advisors having difficulty getting together when needed?	Did each advisor and student meet at least twice during the academic year to discuss academic and personal goals?
	Content	How often were plans about academic majors discussed with students the first term?	Did students receiving group advising report a greater frequency of discussions about career plans than did those who were advised by peer advisors?

Table 1.1 continues

Table 1.1 Continued

AREA	FORMATIVE	SUMMATIVE
Relationship	Do advisors and students report warm, friendly relationships?	Is there a difference in the kinds of relationships reported by students and advisors in a program with “developmental advising goals” and another with more mechanical goals?
Objectives	Was each freshman advisee seen at least once by mid-term?	Did students who received “developmental advising” (compared to a program with different goals or process) ...obtain higher GPAs? ...report more satisfaction with classes? ...return for a second term in greater numbers?

Note. Based on and adapted from Brown and Sanstead, 1982.

Objectives of Advising

To perform any meaningful formative or summative evaluation goals and objectives for the advising program are necessary. These goals and objectives should reflect all aspects of academic advising such as, advising relationships, advising activities, frequency of advisor-advisee contact, and student satisfaction with advising (Brown & Sanstead, 1982). Research in academic advising suggests that advising that makes a meaningful difference in students’ college experience must be more than just the signing of registration forms. Interpersonal relationships and sustained contact are important factors in advising success and students’ satisfaction with advising (Winston et al., 1984). Crookston (1972) suggested that there are two basic approaches to academic advising—developmental and prescriptive. The differences between these approaches are summarized in Table 1.2

Table 1.2		
Differences in Developmental and Prescriptive Academic Advising		
In Terms of	PRESCRIPTIVE ADVISING	DEVELOPMENTAL ADVISING

ABILITIES	Focus on limitation of students	Focus on potentialities of students
MOTIVATION	Students are lazy	Students are active and striving
REWARDS	Grades, credits	Achievement, mastery, feeling of fulfillment
MATURITY	Students are immature, irresponsible, and must be supervised closely.	Students are growing, maturing, and capable of self-direction.
INITIATIVE	Advisor fulfills duty by signing forms and giving advice; the remainder is up to student.	Either student or advisor may take initiative—who does what is a matter of shared decision-making.
CONTROL	By advisor	Not a major issue
RESPONSIBILITY	Advisor has primary responsibility for outcomes.	Clearly negotiated as to who does what (not the same with every student)
RELATIONSHIPS	Advisor demands respect based on status and position. Relationship is formal and guarded.	Relationship is based on the nature of the tasks, situation, and high trust. Position and status are de-emphasized.

Note. Based on Crookston, 1972.

Drawing on Crookston's (1972) conception of what academic advising could be, Ender, Winston, and Miller (1984) have defined "developmental academic advising" as a systematic process based on a close student-advisor relationship intended to aid students in achieving educational, career, and personal goals through the utilization of the full range of institutional and community resources. It both stimulates and supports students in their quest for an enriched quality of life. Developmental academic advising relationships focus on identifying and accomplishing life goals, acquiring skills and attitudes that promote intellectual and personal growth, and sharing concerns for each other and for the academic community. (p.19)

It is essential that each advising program formulate a set of goals and objectives that represents that program's carefully developed operational definition of academic advising. Once that has been done, it is possible to begin planning summative advising program evaluations that address the specified goals and objectives of the program.

What the advising field has lacked is a measurement tool that can be used to evaluate advising programs from a theoretically-grounded perspective and that would allow comparisons across institutions. The *Academic Advising Inventory* (AAI), developed as a theoretically grounded measurement tool, has filled a void in the advising field. The *Inventory* provides the means for evaluating advising programs. It serves as a mechanism for gathering data from different institutions or different programs within large institutions and making meaningful comparisons across institutions or programs.

This inter-institutional comparison is particularly important for two reasons. (a) Summative evaluation requires comparisons among different programs or approaches; however, many campuses are unable to establish comparable programs in order to test differences. (It would be unethical to withhold academic advising from some control group of students in order to make comparisons). The second and often more feasible approach is to compare competing approaches on different, but similar, campuses in order to evaluate alternative advising strategies or techniques. The AAI allows such comparisons. (b) Higher education is founded upon the principle that it is important to understand what happens and why. The AAI provides a tool for investigating alternative advising strategies and relating the findings to theoretical constructs—developmental academic advising.

The authors developed the *Academic Advising Inventory*, based on the conceptualizations of Crookston (1972), to support the further investigation of academic advising as an important higher education function that can affect positively the lives of students and the pragmatic improvement of advising programs through more thorough and systematic summative evaluation.

Chapter 2

DEVELOPMENT, ADMINISTRATION, AND SCORING OF THE ACADEMIC ADVISING INVENTORY

Development of the Instrument

Development of the *Academic Advising Inventory* (AAI) began in early 1983. Information in this manual is based on five studies conducted at different colleges and universities using various forms of this instrument. The AAI was designed to measure three aspects of academic advising: (a) the nature of advising relationships, seen along a developmental-prescriptive continuum (Part I), (b) the frequency of activities taking place during advising sessions (Part II), and (c) satisfaction with advising (Part III). Part IV of the *Inventory* was designed to gather demographic-type information about the student and his or her advising situation.

Developmental–Prescriptive Advising (Part I)

In constructing Part I of the AAI, 62 statements were written—(31 pairs of statements, one intended to be developmental and the other prescriptive) representing contrasting advisor-advisee behavioral styles, as hypothesized by Crookston (1972). The unpaired statements were ordered randomly and given to eight expert judges¹--selected because their writings on academic advising in the professional literature indicated both extensive experience in academic advising and an understanding of the concept of “developmental academic advising.” They were asked to identify each item as either “developmental” or “prescriptive,” based on a definition derived from Crookston (1972). Items that did not clearly fit either category were labeled “inappropriate” by the judges. The judges were also asked to suggest items concerning areas that had been overlooked and to suggest ways to reword items that were deemed unsatisfactory in their present form, but important to the advising process.

As a result of this process nine item-pairs were discarded. Each of the remaining 22 item-pairs (agreed upon by at least six of the eight judges) were then administered to undergraduates at five colleges and universities ($n = 412$). An item analysis and factor analysis were performed; as a result, five additional pairs of items were discarded because they failed to contribute significantly to the overall scale.

The second version of the AAI contained 17 pairs of items belonging to four factors and was administered to undergraduates from five widely different and geographically diverse colleges and universities ($n = 506$). This sample of traditional-age undergraduates was composed of 41% males and 59% females and approximately equal representation from the four classes—freshman through senior. Another series of item analyses and factor analyses were performed. A varimax rotation produced three factors, after the deletion of three pairs of items from the 17 pairs, producing the present instrument of 14 items which define the Developmental-Prescriptive Advising Scale (DPA) and its three Subscales:

¹ Thanks are extended to Virginia N. Gordon, Steven C. Ender, Theodore K. Miller, Sue A. Saunders, Thomas J. Grites, David S. Crockett, Wesley R. Habley, and Howard C. Kramer for their assistance. The authors, however, were responsible for the final items selected and development of the instrument.

Personalizing Education (PE), Academic Decision-Making (ADM), and Selecting Classes (SC)

Following are descriptions of the Developmental-Prescriptive Advising Scale and its Subscales.

Developmental-Prescriptive Advising (DPA) [Items 1-14]. This scale describes the nature of the advising relationship and the breadth of topics and concerns addressed during advising sessions. It represents a continuum between the two contrasting behavioral styles and attitudes—prescriptive and developmental—as perceived by students.

Low scores (14 to 56) indicate that *prescriptive advising* is prevalent and result when students report a relationship based on authority, with the advisor functioning as the expert. Typically the advisor diagnoses the student's problems, prescribes remedies, and gives detailed instructions. Formal academic matters are the exclusive or primary focus of prescriptive advising.

High scores (57 to 112) indicate *developmental advising* and result when students report: (a) advisor and student have established a warm, caring, and friendly relationship, (b) advisor and student share and clearly negotiate responsibilities for various advising tasks, and (c) advising is based on a concern for the student's total education and use of all available resources within the collegiate environment.

The total Developmental-Prescriptive Advising scale (DPA) is composed of three scales, which are described below.

Personalizing Education (PE) [Items 1, 3, 4, 5, 8, 9, 10, 13]. This subscale reflects a concern for the student's total education, including career/vocational planning, extracurricular activities, personal concerns, goal setting, and identification and utilization of resources on the campus. The advising process addresses both academic and personal interests and concerns. *Developmental advising*, high scores (33 to 64), is characterized by a mutually-derived relationship that is warm, trusting, and purposive. The student's total experience in the college environment (in and out of class) is considered important and worthy of attention in the advising relationship. Both the advisor and student share their expectations of the advising process and share responsibilities for its success. *Prescriptive advising*, low scores (8 to 32) describes student-advisor relationships that are formal and distant. Academic matters are the only subjects thought appropriate to be dealt with in the advising process. The advisor is perceived as the expert in the advising situation and is responsible for its success. Students are seen as being primarily receivers of information.

Academic Decision-Making (ADM) [Items 6, 7, 11, 14]. This subscale focuses on the process of academic decision-making and the responsibilities for making and implementing those decisions. The process includes monitoring academic progress, collecting information and assessing the student's interests and abilities concerning academic concentrations, as well as other areas, and then carrying through by registering for appropriate courses. High scores (17 to 32) are indicative of *developmental advising*, that is, the advisor helps students evaluate academic progress and identify steps or consider alternatives. The advisor then trusts students to carry through and take responsibility for their own decisions. Low scores (4 to 16) indicate *prescriptive advising*, that is, the advisor tells students what to do, when to do it, and makes sure that they follow through. Many decisions are made by the advisor for the student.

Selecting Courses (SC) [Items 2, 12]. This subscale deals with the process of course selection—first determining specific course needs and then planning an appropriate

schedule. High scores (9 to 16)—*developmental advising*—reflect the behaviors and attitudes of advisors who collaborate with students to evaluate academic course needs and then suggest important considerations in planning a schedule. The advisor evidences trust in students to make the final selections. Low scores (2 to 8)—*prescriptive advising*—indicate that the advisor accepts the major portion of the responsibility for choosing courses and planning students' schedules. Grades and test scores are seen as being of *primary* importance in determining appropriate courses for students.

Advisor-Advisee Activity Scales: Definitions (Part II)

Five scales were created through factor analysis (varimax rotation) and have been named and described as follows (with the item numbers enumerated).

Personal Development and Interpersonal Relationships [PDIR]. This scale is composed of 12 items: 18, 20, 32, 34, 35, 36, 37, 38, 39, 40, 43, 44. Activities associated with this scale include: (1) interpersonal exchanges that serve as foundations for a friendly personal relationship, (2) discussing student's college experiences—both classroom-related and extracurricular activities, (3) addressing personal issues, such as academic or personal problems and values, and (4) discussing both short-term and long-range plans for the future.

Exploring Institutional Policies [EIP]. This scale is composed of 5 items: 24, 25, 27, 28, 33. Activities associated with this scale include providing general information about the college, explanation of academic rules and regulations (e.g., transfer credit and academic probation) and identifying campus resources and programs, such as cooperative education or study abroad programs or referral to financial aid office.

Registration and Class Scheduling [RCS]. This scale is composed of 4 items: 16, 17, 22, 23. Activities falling within this scale include signing registration forms, selecting courses and planning class schedules for the next term, and adjusting classes after registration.

Teaching Personal Skills [TPS]. This scale is composed of 3 items: 15, 30, 42. The activities associated with this scale are discussing college policies, study skills and tips, and time management techniques.

Academic Majors and Courses [AMC]. This scale is composed of 6 items: 19, 21, 26, 29, 31, 41. The activities included in this Scale include discussing possible academic majors, the courses and other requirements associated with different majors, the administrative process of "declaring a major," and possible career alternatives.

Satisfaction with Advising (Part III)

Part III of the AAI is composed of five items (45-49) that relate to various aspects of students' satisfaction with the advising they have received during the current academic year, namely (a) overall satisfaction, (b) accuracy of information provided, (c) adequacy of notice about important deadlines, (d) availability of advising when desired, and (e) amount of time available during advising sessions. Students respond to each item using a four-place Likert-type scale.

Demographic Information (Part IV)

Questions in Part IV solicit demographic-type information about the student and the type and frequency of advising received. Students are requested to provide information about: (a) gender, (b) cultural/racial background, (c) age, and (d) academic class standing. Data requested about the advising setting include: (a) type of advising, (b) amount of time

typically spent in advising, (c) number of sessions in current advising situation, and (d) total number of advising sessions participated in during the current academic year.

Administering the AAI

The AAI takes approximately 20 minutes to complete. Students will need an *Inventory* booklet, an optical scanner answer sheet (we have used 10-option NCS answer sheet number **T4887**), and a number two pencil with eraser. If other means of recording students' responses are utilized, instructions in the AAI booklet will need to be modified.

Experience has shown that data collected in a relatively controlled setting, such as a class during a regularly scheduled period, provides the most complete and reliable results.

Scoring the AAI

In any case, the scoring of Part I is very complicated without the use of optical scanning and scoring equipment.

Scoring Part I

To prevent the occurrence of a response set, the developmental and prescriptive ends of the item continuum have been randomly placed on the left and right side of each item pair. Therefore, the first step in scoring is to recode the items.

FOR ITEMS 1, 3, 4, 5, 9, 13 RECODE:	A=8	E=4
	B=7	F=3
	C=6	G=2
	D=5	H=1

FOR ITEMS 2, 6, 7, 8, 10, 11, 12, 14 RECODE:	A=1	E=5
	B=2	F=6
	C=3	G=7
	D=4	H=8

To aid in interpreting the scores for the total scale (DPA) and the separate subscales (PE, ADM, SC), the range of scores and the scores that demark the dividing point between developmental and prescriptive advising are provided below. In all instances, the higher the score the more developmental the nature of the advising. First, recode items 1-14, then sum the items that belong to the scale or subscale as indicated below.

DEVELOPMENTAL-PRESCRIPTIVE ADVISING (DPA)

Range: 14-112

(Prescriptive advising = 14-56; Developmental advising = 57-112)

PERSONALIZING EDUCATION (PE)—Items 1, 3, 4, 5, 8, 9, 10, 13.

Range: 8-64

(Prescriptive advising = 8-32; Developmental advising = 33-64)

ACADEMIC DECISION-MAKING (ADM)—Items 6, 7, 11, 14.

Range: 4-32
(Prescriptive advising = 4-16; Developmental advising = 17-32)

SELECTING COURSES (SC)—Items 2, 12.

Range: 2-16
(Prescriptive advising = 2-8; Developmental advising = 9-16)

Scoring Part II

The information in Part II will help provide a total picture of activities that take place during advising sessions. In interpreting results the following cautions should be observed.

1. These items elicit student-reported frequencies and, therefore, represent only the student perspective of the advising situation. Because the student is requested to recall sessions, there is the potential that some activities will be under-reported.
2. Some items are applicable to all students and others to only select groups of students. As a result, some frequencies can be expected to be higher than others, depending on the population being surveyed.
3. Items have been grouped into five scales based on factor analysis to create a general framework for interpreting results.

Scoring of Part II can be accomplished by tabulating the frequencies of each response (ranging from 0 to 5 or more times). [Responses that indicate the activity was engaged in five or more times are tabulated as 5.] Following are the activity categories.

Personal Development and Interpersonal Relationships (PDIR)
(*items* 18, 20, 32, 34, 35, 36, 37, 38, 39, 40, 43, 44)

Exploring Institutional Policies (EIP)
(*items* 24, 25, 27, 28, 33)

Registration And Class Scheduling (RCS)
(*items* 16, 17, 22, 23)

Teaching Personal Skills (TPS)
(*items* 15, 30, 42)

Academic Majors and Courses (AMC)
(*items* 19, 21, 26, 29, 31, 41)

Scoring Part III

Part III is composed of five items that address students' satisfaction with the academic advising they have experienced during the current academic year. Each item should be scored and reviewed separately. Items should be recorded so that A (Strongly Disagree) = 1, B (Disagree) = 2, C (Agree) = 3, and D (Strongly Agree) = 4. Once the items have been recoded, frequencies and means for each item can be computed. Low mean scores (1-2) suggest dissatisfaction with the overall advising received and/or specific aspects of that advising; high mean scores indicate satisfaction with advising.

Chapter 3
RELIABILITY AND VALIDITY ESTIMATES
Developmental-Prescriptive Advising

Reliability

Internal consistency reliability for the Developmental-Prescriptive Advising Scale (DPA) and its subscales Personalizing Education (PE), Academic Decision-Making (ADM), and Selecting Courses (SC) were estimated through use of the Cronbach Alpha procedure (see Table 3.1).

Table 3.1	
Coefficient Alpha Reliability Estimates for Developmental-Prescriptive Advising Scale and Subscales (n = 476)	
SCALE	ALPHA
Developmental-Prescriptive Advising (DPA)	.78
Personalizing Education (PE)	.81
Academic Decision-Making (ADM)	.66
Selecting Courses (SC)	.42

The coefficients ranged from .42 for the two-item SC subscale to .81 for the eight-item PE subscale. The alpha coefficient for the total DPA Scale was found to be .78. It appears that the DPA and its subscales are relatively homogeneous and stable enough measures for use with groups of students.

The subscales also seem to be relatively independent measures as well (as can be seen in Table 3.2, which displays the Pearson-product moment correlations among the subscales and the total scale).

Table 3.2			
Intercorrelations of Subscales and DPA (n = 464)			
	ADM	SC	DPA
PE	.24	.02	.87
ADM		.39	.64
SC			.42

NOTE: DPA = Developmental-Prescriptive Advising, PE = Personalizing Education, ADM = Academic Decision-Making, SC = Selecting Courses

Item characteristics of the 14 items that compose the DPA Scale are reported in Table 3.3.

Demographic characteristics of the sample used to estimate reliability of the DPA and its subscales are presented in Table 3.4. In order to investigate whether these variables produced any statistically significant differences among groups, appropriate parametric statistical tests (*t* and analysis of variance) were used (see Table 3.4).

Table 3.3

**Item Means, Standard Deviations, and
Factor Loadings with DPA and Subscales**
(*n* = 476)

Item	Mean ^a	SD	Factor Loading ^b			DPA ^c
			PE	ADM	SC	
1R†	4.79	2.06	.36*	-.13	-.05	.19
2	5.15	2.24	-.13	.31	.33*	.07
3R	3.87	2.52	.73*	.12	-.16	.53
4R	3.34	2.60	.66*	.07	-.08	.48
5R	5.08	1.82	.49*	.08	.31	.46
6	5.61	1.94	-.01	.53*	.01	.22
7	5.20	2.07	-.05	.59*	.18	.32
8	5.51	2.26	.41*	.14	.20	.42
9R	3.36	2.49	.79*	.08	-.02	.50
10	4.49	1.87	.62*	-.02	.17	.48
11	5.60	1.85	.08	.54*	.19	.34
12	5.12	1.98	.05	.16	.50*	.27
13R	3.36	2.49	.64*	.08	-.02	.50
14	4.79	2.22	.31	.54*	.03	.47

†R = Reverse key (i.e., A = 8, B = 7, C = 6, D = 5, E = 4, F = 3, G = 2, H = 1)

* Item assigned to subscale.

^a Means computed after items have been recoded.

^b Varimax rotation.

^c Correlation corrected for overlap.

Note. SD = Standard deviation. PE = Personalizing Education, ADM = Academic Decision-Making, SC = Selecting Courses, DPA = Developmental-Prescriptive Advising

Table 3.4
Demographic Characteristics of Sample
Utilized to Estimate Reliability of DPA

GROUP	<i>n</i>	%	Mean			
			PE	ADM	SC	DPA
Sex						
Male	198	42.3	35.31 [11.53]	20.98 [5.51]	10.15 [3.39]	66.08 [14.20]
Female	271	57.7	34.03 [12.69]	21.38 [5.71]	10.54 [3.22]	65.93 [16.79]
Racial/Cultural Background						
Black	38	8.1	38.74 [13.47]	21.38 [7.02]	9.47 [4.32]	68.94 [17.09]
Spanish Surname	14	3.0	31.57 [10.29]	18.07 [5.61]	10.07 [3.22]	59.50 [14.63]
Asian	9	1.9	34.89 [12.90]	19.33 [5.61]	10.00 [3.46]	64.22 [10.99]
Native American	17	3.6	37.29 [12.29]	18.24 [6.24]	8.94 [3.34]	64.47 [12.51]
White	367	77.8	34.03 [12.02]	21.42 [5.36]	10.61 [3.11]	65.92 [15.89]
Declined to Respond	27	5.7	37.77 [13.31]	21.28 [7.17]	9.04 [3.68]	68.36 [15.64]
Class						
Freshman	175	36.8	37.44 ^{†*} [12.77]	21.73 [6.30]	10.14 [3.59]	69.31 ^{††} [16.18]
Sophomore	99	20.8	33.63 [†] [12.60]	21.70 [5.30]	10.45 [3.06]	65.50 [15.39]
Junior	111	23.3	32.31 [10.40]	20.68 [5.38]	10.29 [3.15]	63.41 [14.82]
Senior	91	19.1	31.22* [11.11]	19.83 [4.66]	10.82 [3.10]	61.47 ^{††} [14.10]

NOTE. Standard deviations are enclosed in brackets.

*Statistically significantly different from each other ($p < .05$).

†Statistically significantly different from each other ($p < .05$).

††Statistically significantly different from each other ($p < .05$).

In terms of age, the student sample used to estimate reliability could best be described as “traditional,” with 117 (24%) age 18, 118 (24%) age 19, 100 (20%) age 20, 57 (12%) age 21, 40 (8%) age 22, 39 (8%) between 23 and 26, and 24 (5%) age 27 or older. On the variable marital status, the sample reported that 428 (86%) were unmarried, 49 (10%) were married, and 15 (3%) were separated/divorced/widowed.

Validity

Since there are currently no instruments that attempt to measure the same constructs as those measured by the Developmental-Prescriptive Advising (DPA) Scale, it was necessary to devise other means of estimating its validity. Validity of the DPA Scale was estimated, therefore, in two ways—contrasted groups and correlations with categories of activities in Part II of the AAI. One means of estimating construct validity is to identify groups of students who would be expected to perceive advising differently from each other—based on a knowledge of Crookston’s construct—and then to administer the PDA Scale to them. Two groups of such students were identified at the University of Georgia.

One group thought to be receiving “developmental advising” were freshmen enrolled in the Developmental Studies Division. These students were specially-admitted, academically-marginally-prepared freshmen who were receiving intensive instruction in one or more of the following areas: reading, English, and mathematics. Each student was assigned a professionally trained counselor as her or his academic advisor. Students met in a class setting twice weekly, and periodically privately, with their advisor-teacher. The goals (Developmental Studies Operating Manual, 1982) of the advising program are to (a) assist students in overcoming academic deficiencies by providing psychological support, (b) teach students effective academic and personal coping skills, and (c) encourage realistic personal and career exploration.

The comparison group was composed of regularly-admitted freshmen who received advising either through the College of Arts and Sciences Academic Advising Center, which is staffed with part-time professional advisors, or through departmental faculty members in other colleges of the University. Most students were advised through the Arts and Sciences Center, where the advisors are not faculty members, but are personnel from a wide variety of academic backgrounds, with at least a bachelor’s degree in an area of Arts and Sciences. Many also have master’s or doctoral degrees.

According to the regularly-admitted freshmen’s self-reports, most of them received advising from an assigned advisor who they saw once a quarter for approximately 20 to 30 minutes. Generally, most of the advising time was spent planning and arranging class schedules.

It was predicted that students in the Developmental Studies Division would perceive the advising received as being more developmental than the regularly-admitted students. Data were collected from 53 students in Developmental Studies during regularly-scheduled classes and from 74 regularly-admitted freshmen through introductory English composition classes. Students completed the DPA during Winter Quarter after having been at the University for approximately five months. Results from that study are reported in Table 3.5.

Table 3.5		
Developmental Studies vs. Regularly Admitted Freshmen on DPA and Its Subscales		
SCALE	Developmental Studies (n = 53)	Regular Admit (n = 74)
Developmental-Prescriptive		
Advising (DPA)		
Mean	80.91	66.61
Standard Deviation	10.46	12.29
<i>t</i> = 6.57 (<i>df</i> = 115, <i>p</i> < .001)		
Personalizing Education (PE)		
Mean	54.96	38.65
Standard Deviation	8.76	11.94
<i>t</i> = 8.36 (<i>df</i> = 122, <i>p</i> < .001)		
Academic Decision-Making (ADM)		
Mean	22.25	22.85
Standard Deviation	6.24	5.29
<i>t</i> = 0.58 (<i>df</i> = 123, <i>p</i> < .56)		
Selecting Courses (SC)		
Mean	12.32	10.44
Standard Deviation	3.35	3.32
<i>t</i> = 1.60 (<i>df</i> = 125, <i>p</i> < .15)		

As can be seen, the Developmental-Studies group scored higher (perceived the advising as more developmental) than did the regularly-admitted-freshman group on DPA and PE and SC Subscales. Only on DPA and PE, however, were the groups statistically significantly different from each other at the pre-established alpha level ($p < .001$). This may be taken as providing strong support for the validity of DPA and PE. It is difficult to determine why there were no statistically significant differences on ADM and SC. The cause may be that there was little difference in the approaches (as perceived by students) used in Developmental Studies and advisors of regularly-admitted freshmen in assisting with academic decision-making and scheduling courses. It should be noted that on all measures both groups reported that their advising fell on the “developmental” end of the continuum.

The other approach to establishing the validity of the DPA was to correlate it and its subscales with the Activity Scales in Part II of the *Inventory*. Table 3.6 reports those correlations.

Relationships Among Scales and Satisfaction with Advising

The activity scales were correlated with the scales from Part I of the AAI (Developmental-Prescriptive Advising) and with the five items in Part III, which pertain to students' reported satisfaction with the academic advising received during the current year. The results of those correlations are reported in Table 3. It is particularly interesting to note that students' overall satisfaction (item 45) is most highly correlated with PDIR, followed by TPS and RCS. The highest correlations (.59 and .49 respectively) were found between the overall Developmental-Prescriptive Advising Scale and the Personalizing Education (PE) Subscale (from Part I) and PDIR. PE was also relatively highly correlated (.49) with Academic Majors and Courses (AMC) from Part II. It is significant to note that overall satisfaction with advising (item 45) is most closely related to the nature of the advising relationship (that is the DPA Scale); the more "developmental" students perceive the relationship to be, the higher the level of satisfaction students report (Winston & Sandor, 1984, p. 31).

Table 3.6**Correlation of Activity Scales, Developmental-Prescriptive Advising Scales [Part I], and Satisfaction with Advising Items [Part III]***(n = 642)*

Item No. or Scale	Activity Scales				
	PDIR	AMC	EIP	RCS	TPS
45	.51	.30	.25	.40	.45
46	.38	.26	.25	.27	.36
47	.27	.15	.12	.17	.22
48	.30	.19	.13	.21	.29
49	.36	.22	.19	.27	.31
DPA	.55	.51	.24	.23	.43
PE	.59	.49	.31	.24	.47
SC	.24	.26	.05	.10	.16
ADM	.27	.33	.05	.11	.20

Note. DPA = Developmental-Prescriptive Advising, PE = Personalizing Education, SC = Selecting Courses, ADM = Academic Decision-Making, PDIR = Personal Development and Interpersonal Relationships, AMC = Academic Major and Courses, EIP = Exploring Institutional Policies, RCS = Registration and Class Scheduling, TPS = Teaching Personal Skills

Activity Scales (Part II)

Following the initial work on the AAI, additional research was conducted on Part II (Activity Scales). Data were collected from over 600 students enrolled at 4 geographically diverse liberal arts colleges. The demographic characteristics of the sample is reported in Table 3.7.

Table 3.7**Demographic Characteristics of Sample Used to Development Advisor-Advisee Activity Scales**

Variable	n	Percent
Gender		
Male	286	45
Female	347	55
Racial/Cultural Background		
Black	37	6
Hispanic	9	1
Asian	26	4
White	532	83
Other	12	2
Decline to Respond	24	4

Table 3.7 Continued

Variable	n	Percent
Age		
18 or younger	204	32
19	188	29
20	71	11
21	86	13
22	30	5
23	12	12
24	3	1
25 or older	46	7
Marital Status		
Never married	592	92
No longer married	32	5
Married	11	2
Class Standing		
Freshman	358	56
Sophomore	74	12
Junior	65	10
Senior	136	21
Type of Advising Received		
Assigned advisor in a center	315	49
Any available advisor in a center	57	9
Individual, not in a center	139	22
Group advising	29	5
Student peer advisor	10	2
Advising in conjunctions with a course	34	5
Advised in some other manner	35	5
Received no advising	19	3
Approximate length of most advising sessions		
Less than 15 minutes	197	31
15 to 30 minutes	326	51
31 to 45 minutes	78	12
46 to 60 minutes	22	3
More than 1 hour	13	2
Number of advising sessions in current Advising situation this year		
None	37	6
One	129	20
Two	203	32
Three	127	20

<i>Table 3.7 Continued</i>		
Variable	n	Percent
Four	68	11
Five	33	5
Six or more	42	7
Total number of advising sessions this year		
None	21	3
One	77	12
Two	185	29
Three	141	22
Four	80	13
Five	51	8
Six or more	78	12

Scores for the Advisor-Advisee Scales (Part II of the AAI) are computed by summing the total number of times a student reported dealing with an advisor across items and then dividing the sum by the total number of items in the scale. In other words, individuals' scores are the mean number of times the student and advisor dealt with the activities within a given scale during the current academic year. Means, standard deviations, and factor loading are reported in Table 3.8. Scale means and standard deviations are reported in Table 3.9.

Table 3.8
Means, Standard Deviations, and Factor Loadings for Advisor-Advisee Activity Scales
(n = 642)

ITEM No.	Mean	SD	Activity Scales Factor Loadings				
			PDIR	AMC	EIP	RCS	TPS
15	1.28	1.39	.29	.23	.20	.05	.60*
16	2.16	1.31	.08	.02	.21	.71*	.08
17	1.23	1.26	.11	-.06	.41	.51*	.11
18	1.07	1.48	.68*	.19	.16	.09	.23
19	1.76	1.48	.27	.66*	.07	.14	.21
20	0.75	1.45	.57*	.16	.37	.02	.16
21	2.07	1.48	.31	.47*	-.06	.37	.38
22	2.13	1.37	.23	.28	.07	.79*	.04
23	1.86	1.32	.19	.23	.13	.75*	.08
24	0.68	1.19	.12	.04	.61*	.23	.27
25	0.57	0.98	.03	.18	.64*	.17	.29
26	1.10	1.40	.45	.59*	.26	.07	.05
27	0.28	0.80	.09	.04	.69*	.11	.04
28	0.55	1.12	.28	.25	.52*	.10	.04
29	0.98	1.22	.33	.43*	.30	.10	.22
30	1.02	1.38	.42	.16	.17	.11	.60*
31	2.08	1.43	.36	.63*	-.01	.32	.22
32	1.01	1.32	.66*	.14	.24	.18	.24
33	0.65	1.13	.38	.43	.44*	.08	-.10
34	0.73	1.28	.49*	.34	.46	-.03	.00
35	1.09	1.39	.58*	.31	.12	.08	.46
36	1.70	1.47	.46*	.36	.05	.24	.42
37	1.65	1.68	.73*	.13	.01	.23	.26
38	1.19	1.47	.75*	.12	.10	.24	.14
39	0.87	1.32	.60*	.37	.33	.06	.00
40	0.88	1.29	.52*	.25	.23	.09	.43
41	0.69	1.10	-.02	.63*	.27	.06	.25
42	0.82	1.20	.40	.14	.24	.12	.64*
43	1.35	1.46	.64*	.26	.02	.16	.34
44	1.36	1.55	.79*	.13	.10	.20	.25

Note. PDIR=Personal Development and Interpersonal Relationships, AMC = Academic Majors and Courses, EIP=Exploring Institutional Policies, RCS=Registration and Class Scheduling, TPS=Teaching Personal Skills. [*Indicates item assigned to Scale]

Activity Scale Means

The means and standard deviations for the five Advisor-Advisee Scales are reported in Table 3.9. It is interesting to note that students reported dealing with an advisor an average of 1.85 times on matters related to class scheduling and registration, the most frequently reported activity. The least frequent group of activities reported was exploring institutional policies (.55 times during the academic year). This is understandable when one looks at the items in this scale, such as explaining transfer credit policy or academic

probation and dismissal policy. These activities often need to be dealt with only once, if at all; for example, students who have attended no other college may have little need to know about the institution's transfer credit policy.

Table 3.9
Means and Standard Deviations for Activity Scales
(n = 647)

Scale	Mean	Standard Deviation
Personal Development and Interpersonal Relationships	1.14	1.07
Exploring Institutional Policies	0.55	0.73
Registration and Class Scheduling	1.85	1.00
Teaching Personal Skills	1.04	1.09
Academic Major and Courses	1.45	0.98

Satisfaction with Advising (Part III)

Part III of the Academic Advising Inventory is designed to assess students' satisfaction with the advising received during the current academic year. Each of the five items addressed somewhat different aspects of that satisfaction. In Table 3.10 are reported correlations of the satisfaction items with each other.

Table 3.10
Intercorrelations Among Items in Part III
(n=499)

	Item 46	Item 47	Item 48	Item49
Item 45	.67	.47	.55	.54
Item 46		.57	.45	.49
Item 47			.37	.33
Item 48				.59

In Table 3.11 correlations between overall satisfaction with advising received during the current academic year and DPA (and its subscales) and Advisor-Advisee Activity Scales (Part III) are reported. As can be seen, there is a relatively high correlation between overall satisfaction and how developmental the advising relationship is perceived by students—the more developmental, the greater the satisfaction. Moderately high correlations (.40 or higher) were found between overall satisfaction and the frequency of Providing Information, engaging in activities associated with Personal Development and Interpersonal Relationships and Teaching Personal Skills.

Table 3.11
Correlations between Overall Satisfaction with
Advising and DPA and Activity Categories
(n=499)

	Overall Satisfaction with Advising
Developmental-Prescriptive Advising	.62
Personalizing Education	.57
Academic Decision-Making	.39
Selecting Courses	.16
Exploring Institutional Policies	.39
Providing Information	.45
Personal Development and Interpersonal Relationships	.50
Registration and Class Scheduling	.31
Teaching Personal Skills	.41

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