
James J. Kelly

A REPORT ON THE 1988 NACADA RESEARCH AWARD WINNERS

NACADA launched its inaugural Research Support Program this year by announcing *award-winning proposals* at the Chicago National Conference in October. Earlier in the year five thousand copies of the research *announcement* had been printed and distributed individually to NACADA members, to regional representatives and to attendees at NACADA regional conferences. Notices of the Research Support Program had been printed in the Newsletter and the Journal. As a result of promotional activities, seventy requests were received for the Application for Research Support. Requests came from sixty-one institutions located in thirty states. ~~The~~ yield of completed proposals from the application *mailout* amounted to sixteen: *fourteen* in the practicing professional *category* and two in the dissertation research *category*. From this pool of ~~sixteen~~, six proposals were selected for *funding* in 1988. *Overviews* of the six winning proposals appear in this report.

Jim Kelly, **Chair**
NACADA Research Committee

Developmental Advising Inventory

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This project is the construction of an assessment instrument—the Developmental Advising Inventory (DAI)—for use in a developmental approach to academic advising. The concept of developmental advising in general is not new, but the need for an inexpensive instrument, based on developmental theory, that can be used by faculty and other advisors without extensive orientation serves as the justification for this proposal.

The nature of the study is classified as "developmental" in the construction of an assessment device. The specific purpose of the instrument is twofold: 1) to identify issues that may become obstacles to academic success, and 2) to assess academic advising outcomes that are consistent with the goals of higher education. The DAI could be used by faculty, academic advisors, developmental counselors, and educational programming staff. It is anticipated that the instrument will require minimal orientation for staff professionals or students. It is also expected that the DAI could be especially useful on campuses whose academic mission includes human development as an important objective.

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The setting for implementing this project is the Department of Residence Life and Housing at Washington State University, a residential land-grant institution of 16,000 students. Most applications of the DAI would be by residence hall staff with students as a basis for floor or “house” programming efforts; and individual advising where appropriate with faculty-in-residence. However, some students identified as high risk for academic success and retention may also be targeted.

The following outcomes are anticipated from a successful completion of this project in its intermediate stage:

1. A refinement of the pre-pilot edition of the Developmental Advising Inventory according to clearly delineated psychometric procedures for instrument design. The intermediate stage would seek to establish the appropriateness of the respective scales, the validity of the items on the scales, and the format of the instrument.
2. Additions to the preliminary version of the DAI of sections dealing with 1) development of the instrument, 2) interpretation of the scores, 3) uses of the instrument, etc.
3. An **initial** determination of the value of the DAI for use with students identified as high risk for attrition.
4. An initial determination of the value of the DAI for general academic advising.
5. An initial determination of the value of the DAI for developmental programming on a group basis.
6. An easy-to-use self-assessment device that allows faculty advisors and student development staff to connect student life with academic life in a proactive manner that respects the privacy of the student.

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Reinstatement Profile

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High risk students such as those who have been academically dismissed and reinstated present a challenge to the academic advisor. Identifying empirically demonstrated variables has great potential for directing the advisor in assisting these students toward academic success. In addition to the humanistic goals inherent in advising, administrative goals can also be met. Also, by retaining these students, the advisor gains credibility as an integral part of an institution's management program.

The study would seek to identify factors affecting academic success for this high risk group. Data relevant to these students are accessible, but have not been researched in great depth. Quite often ACT scores are not available for these students. The study would seek to discover the impetus of additional factors as contributors to the success or failure of the student in

higher education. Files, both computer and paper, need to be reviewed to establish factors pertinent to these students.

Records for students reinstated in the College of Business Administration in the last five years will be examined and tabulated according to independent variables that will include ACT, sex, number of times in the advising office, number of hours accumulated before being placed on dismissal, similar timing on official entry into major field, age, conditions set by the reinstatement committee, inappropriate courseload size and makeup, successful return to college. These factors will be analyzed with a **stepwise** multiple regression to determine which are the most significant determinants and whether or not a profile can be established. The same variables will be investigated for a randomly selected group of students from the ongoing population during this time period and matched on number of hours completed before the students were placed on dismissal. Once this is completed, a discriminant analysis can be utilized to determine additional information for the profile. In other words, identify the variables that separate reinstated students from ongoing students and create a **profile**. Use a multiple regression to determine if those variables that appear in the profile should be weighted or should appear at random within the group of reinstated students.

Significant variables do exist between reinstated students and ongoing students that are not relevant to GPA or ACT scores. Common sense assumes that inappropriate courses, courseload mismanagement, and lack of support coursework would be primary determinants. However, number of times in the advising office, sex, age, and number of hours accumulated may be even more important. The study could support the importance of academic advising for all students and identify it as a critical factor for reinstated students. A profile would help advisors focus on issues that were primary for the reinstated student. It has the potential for identifying high risk with indicators other than ACT, indicators that can be determined after the student begins a college career.

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Ego-Identity Status of Undecided Students and Their Perceived Advising Needs

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This investigation will focus on undecided students and their advising needs. It is generally assumed that students who say they are undecided when they enter college have made no commitment to an educational **and/or** occupational direction. Some researchers have found, however, that undecided students are at varying levels of commitment to a major and career field. Many ostensibly decided students entering college later change their majors.

These students are also at different levels of commitment to an educational or career direction. This suggests that undecided and decided students not only have different academic and career advising needs but different advising approaches must be used within these groups as well.

Marcia (1966) proposed that ego-identity statuses are modes of resolution of the identity crises occurring in late adolescence. Through self assessment of self-reported exploration and commitment to occupational and ideological decisions, adolescents can be categorized into four developmental identity statuses: diffusion (no commitment), moving through exploration (moratorium) and ideally into achieving identity status. Less ideal development occurs when an individual moves from an uncommitted status to a commitment without experienced crises (foreclosure). Foreclosure implies the individual has conceded to socially acceptable pressures to make a career decision before working through the normal developmental tasks of identifying and clarifying needs and values.

Since the concept of ego-identity statuses is developmental in nature, the possibilities of affecting change have implications for advising. Can students who are diffused, for example, be advised in ways that can enhance movement to moratorium by encouraging and supporting exploration, or supplying information about occupational and educational alternatives? Are the perceived advising needs of foreclosed students different from those in moratorium?

This investigation will examine the advising needs of undecided students in each of Marcia's statuses of commitment and compare them with the advising needs of decided students.

A sample of 400 students will be asked to volunteer for this study. Two-hundred will be students who have chosen to be undecided as they enter college; 200 will be students who are decided about engineering. Engineering students were selected to represent the decided group because a previous study found freshman engineering students to be the most decided about a major and career when compared to students in eighteen other academic programs (Gordon, 1984). Undecided students will be those who enter college selecting a program to be undecided. All will be enrolled in a freshman orientation course and will be given the opportunity to obtain the results through individual advising sessions. Each student will be asked to complete a perceived advising need questionnaire, an instrument identifying identity status and one measuring degree of decidedness about a major and occupation.

Overall, this investigation will provide a clearer picture of both decided and undecided students' varying states of commitment to an occupational and educational decision through the assessment of ego-identity statuses. Advising needs will be ascertained in relation to these various statuses. Possible advising models and approaches can be proposed for both decided and undecided students based on the results of this investigation.

Possible outcomes of this investigation are:

1. The identity statuses of undecided and decided freshmen as well as differences, if any, between the two groups will be determined.
2. Levels of decidedness about a major and occupation as they relate to the four identity statuses will be ascertained.
3. Tailoring advising approaches to individual students may be indicated. For example, an undecided student who is at the diffused status may have advising needs different from the student in moratorium. A decided student who is foreclosed may perceive to have different advising needs than one who has achieved identity.
4. Advisor training programs could be designed to help advisors learn specific skills related to advising students with various statuses of commitment to major and career.

The results of this investigation will help in understanding the complex advising needs of undecided students and how they differ or are the same as decided students. Academic advisors and career counselors need to understand the nature of every facet of decision making. This study can hopefully provide one more **insight** into this complex developmental process.

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Integrating the Academic, Residential, and Advising Environments

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We have four **major** hypotheses:

- 1) Complementary matching of roommates, hallmates, and advisors should increase the probability of academic success.
- 2) Complementary matching should increase the student retention rate.
- 3) Complementary matching should lower the anxiety level of students.
- 4) The more a given program is tailored to a particular learning style as defined by Myers Briggs type, the greater the probability of the student's achieving success as measured by anxiety reduction, academic achievement, development along the advising taxonomy articulated by Kramer, and persistence in college.

The basic design is a two-group experiment, with supplemental control group comparisons based on data from a previous year. The experimental group will be matched using **MBTI** scores with roommates, hallmates, and advisors. The control group will be assigned roommates on the basis of interests and background, hallmates on the basis of random draw, and advisors on the basis of academic interests—in short, the college's current methods of roommate, hallmate, and advisor selection. Supplemental control comparisons will be based on the 1987-88 freshman class, admitted prior to the beginning to the grant period.

Several measures of the effects of the matching manipulation are planned:

- 1) **Academic achievement** . . . several measures of student performance would be collected, including performance in several core courses, writing skills performance at the beginning and at the end of the freshman year and grade point at the end of each of the three terms.
- 2) **Interaction evaluation** . . . the nature of the relationship between roommates would be studied in depth both by advisor interviews and by student self-report measures. The nature of the influences of each student on the other would be specifically probed during the interviews. The specific nature of conflicts between roommates and their intensity would be included on the questionnaire measures.

3) **Advising relationship . . .** the nature of the relationship with the advisor would be assessed by means of an evaluative survey of advising regularly used by the college to evaluate freshman advising. (We have some comparison data from previous years.) In the study, an additional measure would be given to the advisor to complete concerning his or her relationship with the advisee, including advisor perceptions of rapport, liking, visit frequency, and ease of communication.

4) **Anxiety measures . . .** two different measures of anxiety would be given to students. These measures are the state-trait anxiety inventory and the cognitive-somatic anxiety scale. These would be given during fall orientation, midway through the first term, and at the end of all three terms.

5) **Study Skills monitoring . . .** a study skills questionnaire would be administered at the beginning of the first term, and at the end of the first and third terms. In addition, students would be asked to complete a study log for the first six weeks on which they indicate the number of hours studied per day and week.

6) **Taxonomy of Advising . . .** a simple survey instrument would be developed to assess development along Kramer's taxonomy. Students would give self-reports, advisors would provide their own assessments, and all groups would be compared.

This experiment should allow us to shed light on the following questions:

- 1) Does the roommate-matching procedure lead to lower levels of anxiety **and/or** improved achievement and satisfaction?
- 2) Are there significant increases in rapport in advisor-student matched pairs?
- 3) Are there consistent relationships between particular personality patterns and needs for particular skills?
- 4) Do students who live in matched **hallmate** dorms show awareness of improved hall relationships?
- 5) Does the interaction of the controlled residence hall environment interact with the advising process in positive ways?
- 6) Are there changes in study skills and habits which occur as a result of exposure to someone with a similar but not identical personality profile?
- 7) Do different personality types show different patterns of change in the mediating variables thought to affect scholastic achievement (e.g., cognitive or somatic anxiety or study habits)?

This program could offer a significant contribution to the advising research literature. It will provide systematic data on the effects of roommate matching on anxiety levels, satisfaction and a number of other variables of interest to advisors. It will examine the ways in which the relationships among anxiety and study time and academic achievement are affected by roommate matching.

This study may also help in the understanding of the relationship between advisor and advisee. It not only expands our understandings of the special roles advisors can play in interacting with learning environments and learning styles, but it also emphasizes the special nature and needs of the small college atmosphere. It not only allows us to apply previous personality and advising research findings in new ways, but also establishes the legitimacy of that research in the educational world since it provides links with both the academic and student affairs arenas. And, the bonus will be the opportunity to solidify those advising programs

that are consistent with the ethnography of our particular campus with a well-supported, empirically sound project.

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Identification of Predictors of Persistence and Success in Baccalaureate Engineering

The Sophomore Year: Implications for Academic Advising

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The focus of this research is to develop models that predict persistence and success in baccalaureate engineering programs of study. This is empirical research designed to support the practice of academic advising for students considering engineering.

The study statistically analyzes student intellectual and non-intellectual variables as they relate to persistence and success in engineering. The findings will provide a research base that can be used to inform the practice of academic advising, especially for students considering engineering.

The outcome models of this study will be uniquely suited for advising purposes because of the following attributes: **1)** predictive statements can be made for students on an individual basis because individual student characteristics will be analyzed by the models; **2)** students and advisors together can examine the likelihood of a variety of predictive outcomes depending on the relevancy of the outcomes to the students. These models will also readily lend themselves to the development of interactive computer-assisted advising.

As a result of this study, students will be more likely to function well academically and make sound educational decisions because they will clearly understand which of their personal characteristics pose possible risks with respect to persistence and success in their chosen fields of study. By being well informed, students will be better able to choose, early in their college careers, those cumulative paths that best fit their personal characteristics. Such informed decision making will lead to improved student retention.

The outcome models of this study will be uniquely suited for advising purposes because of the following attributes: **1)** predictive statements can be made for students on an individual basis because individual student characteristics will be analyzed by the models; **2)** students and advisors together can examine the likelihood of a variety of predictive outcomes depending on the relevancy of the outcome to the student; and **3)** the models will provide results that are easily interpreted by advisors and understood by students.

To further elaborate on the usefulness of the models, it should be noted that the models will allow students, via the advising process, to understand the extent of risk involved in their educational plans, and to make decisions regarding risk levels that may be personally acceptable. This is possible because students will be able to identify the way their personal characteristics contribute to the predicted outcome. This allows the student to engage in an ideal educational planning process in which "students should be encouraged to consider an early decision as tentative, a choice to be tested, confirmed or disconfirmed" (Berger, 1967, p. 888).

By isolating those personal characteristics that either reduce or increase their level risk, students may plan appropriate actions to maximize their strengths and minimize their weaknesses. Such implications for advising were not outcomes of previous studies, e.g., the concept of "risk" typically was used only to identify groups of students as being at high or low risk with no advising applications to the individual student (Hayden & Holloway, 1985).

In addition, these models will easily lend themselves to the development of interactive computer programs to assist in the advising process.

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*Training Model for Developmental Academic Advising
Based on Empirical Examination of
Perry's Theory of Cognitive Development*

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This exploratory study is based on the perception, revealed in the scarce literature on strategies for doing developmental advising, that Perry's theory of cognitive development needs further translation in order to be internalized by advisors. While Perry's theory is well accepted within the profession of academic advising, there has not been a corollary development of training techniques which would operationalize the theory. Perry, however, has well-developed procedures for in-depth interviewing in assessing the individual's position in the developmental process. The central concept of this study is that his methodology is appropriate as a means of acquainting academic advisors with developmental positions, particularly in view of the listening mode inherent in advising.

The study draws on the extant literature on Perry's methodology to derive a field-theory approach to training developmentally sensitive advisors. This approach juxtaposes Perry's developmental theory, the identification of student positions in the Perry scheme, and the techniques of Perry interviews. The purposes of the study, then, are:

- to identify the components of a training program for developmental advising;
- to devise and implement a pilot training program for developmental advising;
- to conduct a preliminary assessment of the training program.

The overall aim of the study is to explore whether a training program which combines Perry's theory with training in interview skills based on his methodology and feedback of the rating of student developmental position will improve the advisor's sensitivity to developmental issues in advising and provide more effective advising. The results of this study will lead to the development of a refined model of training and assessment which can be tested for its efficacy with other training models. The overall conceptualization which informs this study is that training which combines Perry's theory with strategies derived from his methodology will result in a measurable enhancement of the advisor's skills in developmental advising.

Because few training procedures now exist which operationalize Perry's theory, and which define how developmental advising can be measured (or indeed, clearly defines what such advising is, and how we know when it happens), this study is exploratory in nature. Without a clearly defined existing methodology for training, it is not yet appropriate to test the efficacy of the method being developed against other methods, or to use a control group in this preliminary research. This research, thus, consists of the development of a training model, and the assessment of the impact of the model on the advising skills of a small group of counselors. Once the impact of the method is assessed, the training model will be refined, and a control-group study with developed, testable hypotheses will take place. This refinement and testing will take place after the current project period.

This exploratory research takes a step in translating theory into everyday practice. It builds training directly out of Perry's methodology, and uses that training as a means of putting his theory into the everyday practice of advising. In doing so, a number of specific outcomes are expected. This research will

1. serve as the basis for development of programs for training advisors in developmental advising;
2. identify characteristics of developmental advising;
3. increase understanding measurement of developmental advising;
4. lead to a better understanding of strategies for developmental advising and how they can be applied.

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