

# Style Over Substance in Interventions for At-Risk Students: The Impact of Intrusiveness

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*Academic advisors charged with developing and implementing student success strategies should ask: To what extent is the process of intervention, rather than the nature of any specific intervention, responsible for an influx in at-risk student performance and persistence? Students in varying degrees of academic probation were randomly assigned to one of three intervention strategies that incorporated controlled content but divergent levels of intrusiveness. The most intrusive intervention resulted in higher cumulative grade-point averages and higher retention rates for all students. Students with the highest risk of academic dismissal were the most responsive to the most intrusive intervention.*

An estimated 30% of entering freshmen are deficient in college-level reading, writing, and math (Fielstein & Bush, 1998), and evidence suggests that academic skills are declining among the overall population of secondary school students (Jones, Slate, Blake, & Holifield, 1992). In addition to being academically unprepared, many students enter college with a low level of parental support, parents with limited postsecondary education, and a sense of disillusionment (Arbona & Novy, 1990; Chizhik, 1999; Richardson & Sullivan, 1994) all of which are potential barriers to academic progression, retention, and success (Pickering, Calliotte, & McAuliffe, 1992). Approximately 40% of all students who enroll at 4-year institutions fail to earn a degree, and nearly 57% of this group leave before the start of their second year (Brooks-Harris, Mori, & Higa, 1999; Geraghty, 1996; Tinto, 1996).

The retention of college students at the freshman and sophomore levels has been a top priority in higher education since the 1980s when fiscal concerns shifted administrative philosophies from survival-of-the-fittest competitiveness toward the desire for student continuance (Earl, 1988; Noel & Levitz, 1983; Russell, 1981). Institutions across the country have become increasingly proactive in mediating student performance to mitigate academic risk and attrition. At a time when financial and personnel resources are in limited supply and traditionally earmarked for academic programs, colleges and universities have made academic advising a pre-ogative. Elaborate freshman orientations (Murtaugh,

Burns, & Schuster, 1999; Pascarella, Terenzini, & Wolfe, 1986), first-year seminars and freshman-year experience programs (Fidler, 1991; Hyers & Joslin, 1998; Lipsky & Ender, 1990; Micceri & Wajeeh, 1999), and academic- and counseling-based workshops (Brooks-Harris & Stock-Ward, 1999; Kriner & Shriberg, 1992) have been developed, implemented, and supported. Professional and peer advising strategies, policies, and procedures have been revisited (Gray-Shellberg & Standing, 1990), revised (Garing, 1992; Glennen & Baxley, 1985), and infused with information technologies (Hesterman, Hargrave, Heiber, & Treuer, 1998; Kramer & Childs, 1996) to promote the effectiveness and efficiency of advising.

National publications on the impact of these innovative interventions fill the journals, reporting that each performance and persistence program has successfully met institutional goals and warrant additional funding and staffing. The Association of American Higher Education (Kramer, 1995) and professional academic advising associations, including NACADA, regularly devote conference sessions, workshop space, and teleconferences to a wide range of advising interventions, each advocating a different strategy for adoption. From advising offices around the country, a plethora of resource materials is readily available that allows others to generate programs in the image of the original intervention.

With a growing literature advocating the crucial role of academic advisors in developing and implementing unique, often costly and time-consuming strategies for student success, a fundamental question must be raised: To what extent is the process of intervention, rather than the nature of any specific intervention, responsible for an influx in at-risk student performance and retention? In this investigation we explore the potential impact of style over substance in academic interventions for academically at-risk students.

## Intrusive Advising

An early indicator that the style of, or approach to, academic intervention may be as or more important than substance can be found in the classic article by Crookston (1972). The author called for a

shift in focus from what he termed “prescriptive advising” to the more intrusive developmental advising. Under a prescriptive advising approach, advisors are in the position of authority: “The advisor is the doctor and the student is the patient” (p. 12) in which the former makes a diagnosis and prescribes information and the student follows the advice. Under a developmental advising approach, advisors establish a relationship that fosters and generates student responsibility through personal interaction with the advisee. Crookston argued that those using developmental advising are concerned not only with specific personal or vocational decisions but also with facilitating the student’s rational processes, environmental and interpersonal interactions, behavioral awareness, and problem-solving, decision-making, and self-evaluation skills.

According to Earl (1988), advising is intrusive if it results in an academic adjustment; that is, the adjustment involves the student’s ability to self-refer and assume responsibility for academic performance, and it is not solely the result of advisor provisions of specific information about academics and performance. To a great extent, intrusive advising is also invasive in that it is personal rather than merely professional, and it is dependent on how information is relayed rather than on the information itself. Creamer and Creamer (1994) suggested that intrusive advising is process oriented and conducted by collaboration rather than by mandate.

Kelly (1996) noted that at-risk students have a universal negative affective reaction to the news of their academic probation and the suggestion that an academic adjustment is needed. Following their initial reactions, the probation students are typically motivated to understand the causes of their poor academic performances through a cognitive, or attributional, response and may attribute several factors to their poor performances. Building on the work of Weiner (1985), Kelly (pp. 29–30) presented a four-factor structure into which the perceived causes of poor academic performance and the resultant probation may be best categorized:

1. Internal-uncontrollable factors: These factors are characteristic of the individual and difficult to change. They include but are not limited to health problems, learning disabilities, and an inability to master college-level course work.
2. Internal-controllable factors: These factors are intrinsic to the individual but can be changed with relative ease. They are within the student’s control and are the result of

behavioral choices, such as poor time management or lack of attendance in class.

3. External-stable factors: Factors falling into this category are unlikely to change quickly. Examples may include unhealthy family or social environments that prevent students from adequately performing in their courses.
4. External-unstable factors: Factors of this type are transient in nature. For example, when students change courses and instructors, student performance is often improved in a relatively short period.

According to Kelly (1996, p. 31), students’ understanding of the causes of their poor academic performances is crucial for intrusive developmental advising because it deeply influences the behavioral response and subsequent academic adjustment:

If a student attributes failure to an internal-uncontrollable cause (such as ability), she or he can reasonably predict continued failure. On the other hand, if failure were attributed to internal-controllable causes (effort), future performance would then be dependent on that student’s behavior.

Kelly also explained that students’ immediate cognitive, affective, and behavioral reactions may lead them to attribute wrong factors to their academic failures. He pointed out that students may feel that they can “avoid esteem-damaging consequences of failure by denying responsibility” and externalizing “causality in an attempt to protect self-image” (p. 31). This mismatch of cause and effect has serious negative consequences because it can undermine intervention efforts by obscuring the nature of a student’s academic deficiencies. Thus, overcoming attributional mismatch is an important component of academic advising and may be best achieved through the implementation of highly intrusive interventions.

Although the concept of developmental advising has been met with general approval, Laff (1994) contended that scholars and practitioners have yet to demonstrate how advisors were to move from the theoretical notion of advising as teaching to the practice of intrusive advising. Developmental academic advising has been characterized as being primarily focused on creating specific goals for student growth (Miller & Alberts, 1994), but how are those goals to be articulated? In addition, Creamer and Creamer (1994, p. 17) noted, “Little experimental or quasi-experimental research exists

[and] reflects an over-dependence on student satisfaction as the dependent variable in the research design.” According to Laff (1994), if they are to implement developmental advising as a practical technique for promoting student learning and development, advisors must have a concrete tool that can facilitate the process needed for successful execution of developmental advising.

### The Role of Operant Conditioning

If academic difficulties are often a consequence of a student’s behavior or if the outcomes are within the student’s control, identification and modification of the negative behavior may improve academic performance. Operant conditioning theory (Arkava, 1974) reveals that any behavior may be either strengthened or weakened by controlling the conditions that follow the behavior. In the case of academic performance, behaviors that lead to academic success are reinforced by higher grades. Thus, if students discover that they can improve grades by studying, they are more likely to study. However, if students believe some other factors are causing their failures, they are unlikely to make the connection between studying and higher grades. According to O’Banion and Whaley (1981, p. 14):

The concept of the contingency of reinforcement involves the interrelationships between antecedent stimulus conditions, the response, and consequent stimulus conditions and has been largely developed through the experimental analysis of behavior. Each of these three components involves a complexity of events that can dramatically influence the probability of behavior.

O’Banion and Whaley stressed the importance of a behavioral contract in determining and implementing relevant contingencies of reinforcement for behavior change. They argue, “Behavioral contract helps determine and is part of effective contingencies of reinforcement, through its specification of important events that lead to a modification of behavior” (p. 22). Therefore, one can conclude that within the context of intrusive developmental academic advising an “academic success contract” would be effective in defining the contingencies of academic success.

The utilization of behavioral contracts in academic advising is not an entirely new practice. For example, Santa-Rita (1997) used counselor-mediated contracts as part of an academic intervention strategy. To determine their barriers to success, students were first asked to engage in self-assess-

ments. The students’ grades, time management skills, study skills, and goals were then analyzed in prelude to an intervention that led to a counselor-mediated contract. Santa-Rita, citing Vriend and Dyer (1983, p. 7), suggested that mutual agreement on the goals specified in the contract is vital because “An imposed goal, one originating in the mind of the counselor, is inappropriate. . . . [I]t excludes the student from the decision-making process and places responsibility for change in the counselor thus encouraging greater dependence rather than independence.”

In summary, many have argued that developmental advising is more effective than prescriptive advising at facilitating at-risk student performance and fostering retention. In particular, advising interventions that are more intrusive (that is, include personal contact), generate student responsibility for problem solving and decision making, assist the student in identifying resolvable causes of poor academic performance, and offer negotiated agreements or contracts for future actions outperform interventions that are impersonal, prescriptive, and nonnegotiable (Garing, 1992; Glennen & Baxley, 1985).

Unfortunately, these points of comparison are primarily theoretical and descriptive, and have not undergone the rigor of empirical verification. In addition, no one has determine when an intrusive intervention is too intrusive or not intrusive enough. These omissions in the literature raise several research questions that are directly addressed in the presented research:

1. Will an at-risk student’s academic performance increase exponentially with the level of intrusiveness (that is, nonintrusive, moderate intrusive, full intrusive) of an academic intervention?
2. Will an at-risk student’s academic persistence increase exponentially with the level of intrusiveness of an academic intervention?
3. Will at-risk students engaged in different levels of intrusive advising identify divergent causes of poor academic performance?

### Level of Probation

Kelly (1996) suggested that once students understand the controllable causes of their poor academic performances and are presented with plans to improve performance, they are typically motivated to address those causes and resolve their dif-

faculties. However, he does not specify whether probation students in varying degrees of academic risk are equally motivated and responsive. The positive impact of advising interventions for at-risk probationary students (Heerman & Maleki, 1994; Steinmiller & Steinmiller, 1991), high-risk students (Garnett, 1990), and dismissed students (Hall & Gahn, 1994; Kinloch, Frost, & MacKay, 1993) has been well established in the literature. However, the following research question remains unaddressed: Will students in varying degrees of academic risk respond in a similar or divergent manner to different levels of intrusive intervention?

Through this study, we sought to determine whether the manner of presenting the intervention led to divergent results in at-risk students' academic performances and retention rates when the content of the intervention was held constant. Because the personal contact in the most intrusive intervention will afford the greatest opportunity to identify problems, generate student responsibility for problem solving and decision making, and offer negotiated agreements or contracts for future actions, the following hypotheses are presented:

1. The most intrusive form of the intervention will result in higher cumulative grade-point averages (GPAs) and higher retention rates for all at-risk students.
2. The more intrusive the intervention, the more likely students will identify internal and external contributors of academic probation that are controllable and manageable.
3. Students at the highest degree of academic risk will be the most responsive, in terms of GPA and retention rate, to the most intrusive form of the intervention.

## Methods

### *Participants*

The research study was conducted at a mid-western, open-enrollment, urban university with a total student population of approximately 17,000. A sample of 150 probationary students was randomly selected from the population of 500 students in the College of Arts and Sciences who were subject to academic probation at the end of the fall semester 1998 (approximately 10% of the college's population). A student is placed on academic probation if his or her term or cumulative GPA falls below 2.00 (on a 4.00 scale). A student may be

placed on one of two levels of probation. A student on "may result" probation is at minimal risk of dismissal and is informed that failure to achieve a specified GPA (calculated from credit earned) in the subsequent term may result in dismissal. Typically, students who receive this warning are new to probationary status. Students who receive "will result" probation notices are at maximum risk of dismissal, suggesting that failure to achieve a specified GPA (calculated from credit earned) in the subsequent term will automatically cause dismissal. May-result students are subsequently placed on will-result status if they fail to achieve the specified GPA. During any given term, approximately twice as many students are placed on may-result probation than will-result probation in the college.

For this investigation, may-result ( $n = 75$ ) and will-result ( $n = 75$ ) sophomore and junior students were selected, with 25 of each randomly selected for each of the nonintrusive, moderately intrusive, and fully intrusive interventions. In addition, a sample of nonprobation classmates ( $n = 100$ ) was randomly selected so that their GPAs and retention rate changes could be compared to those of the probation students. The student sample composition was as follows: nonintrusive participants (1.45 mean cumulative GPA, 58% female, 25.9 years average age [ $SD = 4.3$ ]), moderate-intrusive participants (1.49 mean cumulative GPA, 53% male, 26.8 years average age [ $SD = 3.9$ ]), full-intrusive participants (1.65 mean cumulative GPA, 50% female, 25.4 years average age [ $SD = 4.7$ ]), and nonprobation control group (2.53 mean cumulative GPA, 63% female, 26.3 years average age [ $SD = 5.2$ ]). Approximately 54% of the overall undergraduate student population of the institution is female and the average age is 28 years.

### *Measures*

*Mean GPA.* The cumulative GPA for each student was calculated by the university registrar. The mean sample GPAs for fall 1998 and spring 1999 were obtained and employed as the pre- and post-intervention performance criteria.

*Retention Rate.* The sample mean retention rate was measured by the number of students who enrolled in spring 1999, the term immediately following the intervention. Comparisons were made within probationary status samples and across assignment to intervention strategies.

*Precursors to Probation.* Students were asked to identify the factors they believe impacted their academic performances and ultimately led to their probations. If multiple factors were identified, the

students were then asked to select the one dominant factor. The single or dominant factor was then categorized for analysis in accordance with Kelly's (1996) four-factor structure: internal-controllable, external-stable, internal-uncontrollable, and external-unstable. Intercoder reliability for factor classification exceeded 0.95.

The existence of the expected relationship between the interventions and academic performance and persistence was examined using a correlated *t* test and chi-square test of marginal homogeneity. In addition, to assess those main effects and interactions not directly testable by the *t*-test and chi-square methods, the Grizzle, Starmer, and Koch (GSK) (1969) approach was employed on all data. GSK analysis is a procedure for fitting categorical data, such as GPA, into linear models. It allows for the exploration of underlying parameters that are incorporated into, but frequently obscured by, the overall chi-square analysis. Unlike a multiple regression or analysis of variance approach, the GSK method of analysis does not allow the researcher to analyze the variances of individual responses. Rather, the GSK procedure is used to apply the method of weighted least squares to the probabilities obtained from the traditional cross-classification matrix. This approach has the potential to explain the main effects and interactions of specific probabilities rather than merely describe the variance of a dependent variable (Johnson & Koch, 1970; Reynolds, 1977). All significance tests were conducted with alpha set at 0.05.

### The Interventions

Students in each category of probation were randomly assigned to one of three intervention strategies that incorporated controlled content but employed a divergent style of presentation.

#### *Nonintrusive Control Group*

The 50 students included in the nonintrusive group (25 who received may-result and 25 who received will-result notifications) received a letter from the Academic Advising Office informing them of their probationary status and the minimum GPA that must be achieved in their next term of enrollment (based on earned credit to date). The letter identified various student service resources at the university that were available to the students, such as the Writing Center, the Math Tutoring Center, advising services within their major, and the Counseling Center. The letter also included a brief report of the student's academic standing, progress toward graduation, outstanding requirements that

required immediate attention, and recommendations on actions that needed to be taken. Consistent with the existing policies of the Arts and Sciences Advising Office, no other intervention was undertaken with the student. Consistent with nonintrusive intervention strategies, no effort was made to generate student responsibility for problem solving or the identification of resolvable causes of academic probation.

#### *Moderate-Intrusion Group*

The 50 students who were selected to receive a moderate academic intervention were also sent the Academic Advising Office letter that informed them of their status. However, within 3 days of receipt, the letter was followed by a phone call from the Coordinator of Academic Advising, who reviewed the letter with the student. In addition to identifying student service resources at the University, the advisor had the students identify those resources most relevant to their academic problems and develop a plan of action. The brief reports of the students' academic standing, progress toward graduation, outstanding requirements, and individual course responsibilities were reviewed and the students were queried with regard to their actions to maintain satisfactory academic progress. In the course of the conversation, the students were asked a series of questions intended to identify internal and external factors potentially impacting academic performance. The precursors to probation were categorized for analysis. The phone calls were conducted, on average, for 20 minutes.

#### *Full-Intrusion Group*

Within the customary letter received by the students who received full-intrusive treatment was notification that the recipient was required to meet with the Coordinator of Academic Advising for an "academic interview to discuss your probation." This letter was followed by a phone call to the student from the Coordinator of Academic Advising for the purpose of scheduling an appointment. The student was made to understand that the interview was largely a self-assessment of academic performance, and based on this self-assessment, the student and the Coordinator would develop a strategy that would lead to the return to good academic standing.

The 30–40 minute interview began with a review of the letter. The students identified those resources most relevant to their academic problems, developed a plan of action, and appointments with counselors and tutors were formalized as part of a written

contract. Brief reports of the students' academic performances and progresses were reviewed, and the students and advisors negotiated strategies for maintaining satisfactory academic progress. To identify internal and external factors potentially impacting their academic performances, students were then asked a series of questions regarding their study habits and practices. The precursors to probation were categorized for analysis.

To arrive at a set of expectations that would lead to improved academic performance and achieve a good attributional fit, the advisor and advisee negotiated the contingencies of reinforcement. For example, if students indicated that they attended classes infrequently and failed to read the course materials, their causal attribution ought to reflect factors related to poor class attendance. The probationary student and the advisor are likely engaging in an attributional mismatch, and through a reevaluation of causality, a mutually agreed upon attributional fit can be found.

Once a proper attributional fit was achieved, the negotiation of the contingencies of reinforcement became a simple exercise in logic. If the student and advisor mutually agreed that the student's poor academic performance could properly be attributed to a failure to attend classes and read assignments, reinforcement (improved academic performance) was clearly seen to be contingent upon the student regularly attending classes and reading assignments. Once the contingencies of reinforcement were agreed upon, they were articulated in an academic success contract. Both the student and the advisor signed the contract, a copy was given to the student, and a copy was retained in the Advising Office.

## Results

The first two research questions were designed to discern whether an at-risk student's academic performance and persistence would increase exponentially with the level of intrusiveness of an academic intervention. Students who received a fully intrusive intervention had a cumulative mean GPA of 1.655 at the end of the fall semester and a 1.799 GPA at the end of spring semester, which represents an increase of 8.8%. By comparison, students who received a moderate-intrusive intervention had a cumulative mean fall GPA of 1.480 and a spring GPA of 1.535, which is an increase of 3.6%. These findings are in contrast to the improvement in GPA among students assigned to the non-intrusive intervention and those students who were not on probation. Students who participated in the

nonintrusive intervention were found to have a mean cumulative fall GPA of 1.454 and a spring GPA of 1.496, which is a 3% percent increase. The mean cumulative fall and spring GPAs for non-probationary students were 2.531 and 2.534 respectively—an increase of only 0.12%.

A *t* test was performed so that we could examine the difference in the GPA increase between students who received full- and moderate-intrusion interventions. The difference was statistically significant ( $t = 1.75$ ,  $df = 41$ ,  $p < 0.001$ ). A similar test was performed to determine whether the difference in the increase in GPA between students receiving the nonintrusive and moderate-intrusion interventions was significant. The difference was not statistically significant. Figure 1 graphically represents the differences in each group.

The spring semester 1999 enrollment status of the sampled students served as the measure of retention. As can be seen in Figure 2, approximately 68% of students who were not subject to probation at the end of the fall semester returned the following term. This exceeded the retention rate of students in the nonintrusive intervention (53%) and those who participated in the moderately intrusive intervention (60%). However, 73% of students participating in the fully intrusive intervention were found to return for the spring semester. A chi-square analysis reveals these differences to be statistically significant:  $\chi^2(3, N = 50) = 13.715$ ,  $p < 0.05$ . The more specific GSK analysis suggests that the retention rate was significantly higher for at-risk students participating in the fully intrusive intervention than for those participating in the moderately intrusive ( $\chi^2(1) = 7.813$ ,  $p < 0.01$ ) and nonintrusive ( $\chi^2(1) = 9.46$ ,  $p < 0.002$ ) interventions. Mean GPA and retention rates were not significantly different between males and females, sophomores and juniors, or across age levels in any of the intervention groups. Collectively, these findings support the first hypothesis, which stated that the most intrusive form of the intervention would result in higher cumulative GPAs and higher retention rates for all at-risk students.

In the third research question, we asked whether the level of intervention would impact the student's identification of contributors to probationary status. No students in the moderately intrusive intervention group attributed academic difficulties to internal-controllable factors. Six percent attributed academic problems to internal-uncontrollable factors; 6% pointed to external-stable factors; and 88% cited external-unstable factors. The response from the students who received full-intrusion interventions

Figure 1 Increase in mean GPA for students receiving intervention

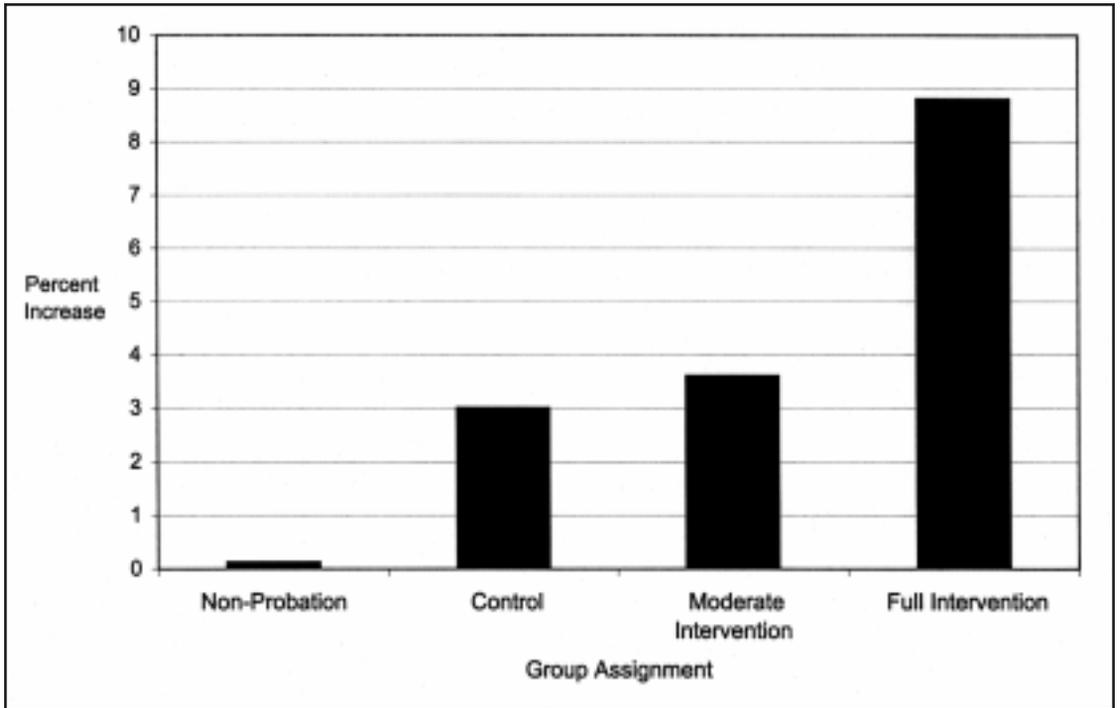
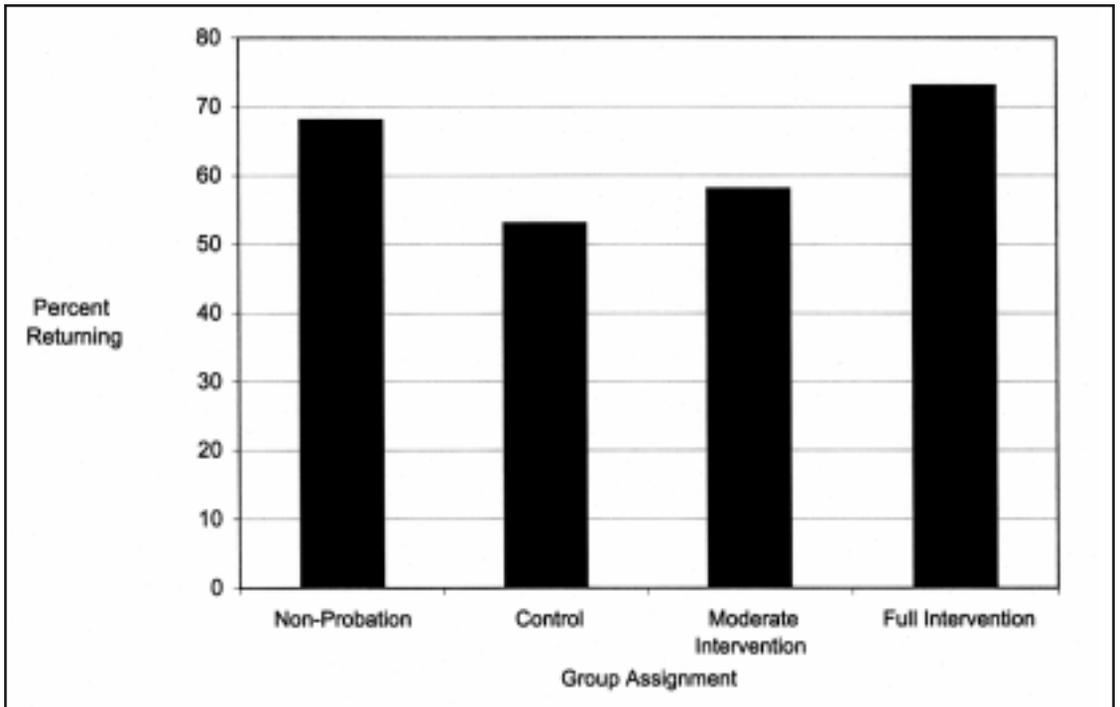


Figure 2 Rate of return for spring semester



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was nearly inverse: 63% attributed internal-controllable factors to academic difficulties; 8% cited internal-uncontrollable factors; 21% referred to external-stable factors; and 8% ascribed external-unstable factors. Table 1 illustrates the contrasts between these two groups, which is statistically significant:  $\chi^2(3, N = 100) = 24.34, p < 0.0001$ . In particular, those students participating in the fully intrusive intervention identified more internally controllable,  $\chi^2(1, N = 50) = 3.76, p < 0.05$ , and externally stable,  $\chi^2(1, N = 50) = 14.58, p < 0.0001$ , contributors to probationary status, and fewer externally unstable contributors,  $\chi^2(1, N = 50) = 18.32, p < 0.0001$ , than did students participating in the moderately intrusive intervention.

These findings support the second hypothesis, which stated that the more intrusive the intervention, the more likely students will identify internal and external contributors of academic probation that are controllable and manageable. The precursors to probation identified by students were not significantly different between males and females, sophomores and juniors, or across age levels in any of the intervention groups.

The third research question was used to address the issue of responsiveness to academic intervention by students at different levels of academic probation. The less at-risk may-result students who received a fully intrusive intervention had a pre- and postintervention cumulative mean GPA of 1.80 and 1.86, respectively. In contrast, the more at-risk will-result students had a pre- and postintervention cumulative mean GPA of 1.53 and 1.75, respectively, which is an increase of 13%. A *t* test was performed to examine the difference in the GPA increase between may-result and will-result students in the fully intrusion interventions. The difference was statistically significant ( $t = 1.78,$

$df = 12, p < 0.001$ ). No significant difference in the pre- and postintervention GPAs was found for may-result and will-result students for the nonintrusive and moderately intrusive interventions; each sample demonstrated a 3–4% increase in cumulative mean GPA across semesters. No gender, class standing, or age differences were identified.

Table 2 demonstrates that student retention rates differed significantly based on level of intervention intrusiveness and the degree of probation status severity:  $\chi^2(2, N = 150) = 10.04, p < 0.0069$ . A GSK analysis suggests that the retention rate was significantly higher for will-result students participating in the fully intrusive intervention (92%) than it was for those participating in the moderately intrusive (63%;  $\chi^2(1) = 5.67, p < 0.01$ ) and nonintrusive (28%;  $\chi^2(1) = 9.53, p < 0.003$ ) interventions. In a similar pattern, the retention rate was significantly higher for may-result students participating in the fully intrusive intervention (81%) than it was for those participating in the moderately intrusive (55%;  $\chi^2(1) = 7.74, p < 0.05$ ) and nonintrusive (59%;  $\chi^2(1) = 8.21, p < 0.05$ ) interventions. No significant difference exists between retention rates of may-result students engaged in moderately intrusive and nonintrusive interventions. In an interesting GSK result, the retention rate was higher for may-result students participating in the nonintrusive intervention (59%) than for will-result students participating in the same intervention strategy (29%;  $\chi^2(1) = 9.20, p < 0.0042$ ). No gender, class standing, or age differences were identified.

These findings lend strong support to the third hypothesis, which stated that students at the highest degree of academic risk will be the most responsive to the more intrusive forms of the intervention. Although each form of intervention improved “may result” and “will result” student performance, the

**Table 1** Causal attributions of academic probation

Attribute	Full Intervention (%)	Moderate Intervention (%)
Internal-Controllable	63	0
Internal-Uncontrollable	8	6
External-Stable	21	6
External-Unstable	8	88

$p < 0.0001$

**Table 2** Retention rates by probationary status

Treatment	May-Result Probation (%)	Will-Result Probation (%)
Fully Intrusive	81	92
Moderately Intrusive	55	63
Nonintrusive	59	28

$p < 0.0069$

most significant increase (and the only statistically significant increase) in GPA was found among students at the highest degree of academic risk engaged in the most intrusive of interventions. Similarly, the retention rate was highest among will-result students engaged in the fully intrusive intervention.

### Discussion

The field of academic advising is in a state of flux as prescriptive models of academic intervention give way to developmental methodologies. Numerous authors have attempted to make sense of the changing advising environment, with some supporting one innovation or intervention theory over another (for example, Ruddock, Hanson, & Moss, 1999). Others have simply argued, "People do not learn or change in one way, and it may well be that no one framework can [*best*] inform good advising" (Hemwall & Trachte, 1999, p. 8). Our investigation brings to the table the notion that the manner of presenting information, not the intrinsic nature of the information, is a contributing, potentially consequential factor to the success of any advising intervention.

When substance is held constant, findings suggest that the manner in which the information is relayed significantly impacts the academic performances and persistence rates of at-risk students. The more intrusive the intervention—that is, if it includes personal contact, generates student responsibility for problem solving and decision making, assists the student in identifying resolvable causes of poor academic performance, and offers negotiated agreements for future actions—the more it outperforms interventions that are impersonal, prescriptive, and nonnegotiable. In addition, each of the interventions offered to at-risk students resulted in a greater increase in mean GPA than they did in the GPAs of the nonprobationary and nonparticipating students. This result suggests that any amount of intrusion is better than none.

We also found that not all probationary students are equally motivated and thus not equally responsive to academic interventions. The positive impact of advising interventions for at-risk probationary students has been well established in the literature (Garnett, 1990; Heerman & Maleki, 1994; Steinmiller & Steinmiller, 1991). However, in this study we found that students in the most severe state of academic risk were the greatest beneficiaries of the more intrusive academic intervention. They were best positioned to understand and assume responsibility for the causes of their poor academic performances, engage in appropriate academic

adjustments, and improve their academic performances and persistence rates. Of course, we only assessed short-term benefits. Whether or not a one-time intervention, such as the one employed in this study, has long-term effects on GPA and retention has yet to be determined. A follow-up investigation is currently underway.

The possibility that style may complement or even supercede substance is not a recent revelation and has been convincingly argued by Crookston (1972), Earl (1988), and others. However, Creamer and Creamer (1994, p. 17) noted, "little experimental or quasi-experimental research exists" to support this claim, and others (Laff, 1994) contend that scholars and practitioners have yet to demonstrate the means advisors should use to practically implement theoretical concepts. The research reported here provides some direction. Of course, the generalizability of this study is potentially limited by the nature of the institution and the composition of its students. Still, age, gender, and class standing did not appear to have any impact on the effectiveness of the interventions. If style is more important than substance, similar findings will surface in studies replicated at different institutions.

### References

- Arbona, C., & Novy, D. M. (1990). Noncognitive dimensions as predictors of college success among Black, Mexican-American, and White students. *Journal of College Student Development, 31*(5), 415–22.
- Arkava, M. L. (1974). *Behavior modification: A procedural guide for social workers*. Missoula: University of Montana Press.
- Brooks-Harris, C. N., Mori, V. G., & Higa, L. M. (1999). Don't drop out, drop in: A workshop for at-risk students. *NACADA Journal, 19*(1), 50–53.
- Brooks-Harris, J. E., & Stock-Ward, S. R. (1999). *Workshops: Designing and facilitating experiential learning*. Thousand Oaks, CA: Sage.
- Chizhik, E. W. (1999). The relationship between pre-matriculation college knowledge and disillusionment: Was college what people expected? *NACADA Journal, 19*(1), 12–21.
- Creamer, D. G., & Creamer, Elizabeth G. (1994). Practicing developmental advising: Theoretical contexts and functional applications. *NACADA Journal, 14*(2), 17–24.
- Crookston, B. B. (1972). A developmental view of academic advising as teaching. *Journal of College Student Personnel, 13*(1), 12–17.
- Earl, W. R. (1988). Intrusive advising of freshmen in academic difficulty. *NACADA Journal, 8*(2),

- 27–23.
- Fidler, P. P. (1991). Relationship of freshman orientation seminars to sophomore return rates. *Journal of the First-Year Experience*, 3(1), 7–38.
- Fielstein, L. L., & Bush, L. K. (1998). Remedial students' perceptions: Pre-college decision making, satisfaction with the freshman year, and self-perception of academic abilities. *Journal of the First-Year Experience*, 10(2), 41–55.
- Garing, M. T. (1992). Intrusive academic advising. *New Directions for Community Colleges*, 21(2), 97–104.
- Garnett, D. T. (1990). Retention strategies for high-risk students at a four-year university. *NACADA Journal*, 10(1), 22–25.
- Geraghty, M. (1996). More students quitting college before sophomore year, data show. *The Chronicle of Higher Education*, 42, A35–A36.
- Glennen, R. E., & Baxley, D. M. (1985). Reduction of attrition through intrusive advising. *NASPA Journal*, 22(3), 10–14.
- Gray-Shellberg, L., & Standing, G. R. (1990). Building relationships. Approaches to enhancing retention and advising. An addendum to the report of the retention and advising task force. *Faculty involvement in student retention: A report of the task force on retention and advising*. Long Beach: The California State University, Office of the Chancellor.
- Grizzle, J. E., Starmer, C. F., & Koch, G. G. (1969). Analysis of categorical data by linear models. *Biometrics*, 25, 489–504.
- Hall, K. M., & Gahn, S. W. (1994). Predictors of success for academically dismissed students following readmission. *NASPA Journal*, 14(1), 8–12.
- Heerman, C. E., & Maleki, R. B. (1994). Helping probationary university students succeed. *Journal of Reading*, 37(8), 654–61.
- Hemwall, M. K., & Trachte, K. C. (1999). Learning at the core: Toward a new understanding of academic advising. *NACADA Journal*, 19(1), 5–11.
- Hesterman, P., Hargrave, O. T., Heiber, D., & Treuer, P. (1998, October). *Using PeopleSoft to support academic advising*. Paper presented at the NACADA National Conference, San Diego, CA.
- Hyers, A. D., & Joslin, M. N. (1998). The first year seminar as a predictor of academic achievement and persistence. *Journal of the First-Year Experience*, 10(1), 7–30.
- Johnson, W. D., & Koch, G. G. (1970). Analysis of qualitative data: Linear functions. *Health Science Research*, 5, 358–69.
- Jones, C. H., Slate, J. R., Blake, P. C., & Holifield, S. D. (1992). Two investigations of the academic skills of junior and senior high school students. *The High School Journal*, 76(1), 24–29.
- Kelley, K. N. (1996). Causes, reactions, and consequences of academic probation: A theoretical model. *NACADA Journal*, 16(1), 28–34.
- Kinloch, G. C., Frost, G. A., & MacKay, C. (1993). Academic dismissal, readmission conditions, and retention: A study of social science majors. *NACADA Journal*, 13(1), 18–22.
- Kramer, G. L. (Ed.). (1995). *Reaffirming the role of faculty in academic advising* (NACADA Monograph Series No. 1). Manhattan, KS: National Academic Advising Association.
- Kramer, G. L., & Childs, M. W. (Eds.). (1996). *Transforming academic advising through the use of information technology* (NACADA Monograph Series No. 4). Manhattan, KS: National Academic Advising Association.
- Kriner, L. S., & Shriberg, A. (1992). Counseling center interventions with low achievers. *NASPA Journal*, 30(1), 39–42.
- Laff, N. S. (1994). Reconsidering the developmental view of advising: Have we come a long way? *NACADA Journal*, 14(2), 46–49.
- Lipsky, S. A., & Ender, S. C. (1990). Impact of study skills course on probationary students' academic performance. *Journal of the Freshman Year Experience*, 2(1), 7–15.
- Micceri, T., & Wajeel, E. (1999, May–June). *Evidence supporting a university experience course's efficacy at a metropolitan university, and associated effective processes*. Paper presented at the Annual Forum of the Association for Institutional Research, Seattle, WA.
- Miller, M. A., & Alberts, B. (1994). Developmental advising: Where technology and learning intersect. *NACADA Journal*, 14(2), 43–45.
- Murtaugh, P. A., Burns, L. D., & Schuster, J. (1999). Predicting the retention of university students. *Research in Higher Education*, 49(3), 355–71.
- Noel, L., & Levitz, R. S. (1983). *National dropout study*. Iowa City, IA: Centers for Institutional Effectiveness and Innovation.
- O'Banion, D. R., & Whaley, D. L. (1981). *Behavior contracting: Arranging contingencies of reinforcement*. New York: Springer Publishing Co.
- Pascarella, E. T., Terenzini, P. T., & Wolfe, L. (1986). Orientation to college and freshman year persistence/withdrawal decisions. *Journal of Higher Education*, 57(2), 155–75.
- Pickering, J. W., Calliotte, J. A., & McAuliffe, G. J. (1992). The effect of noncognitive factors on

- freshman academic performance and retention. *Journal of the First-Year Experience*, 4(2), 7–30.
- Reynolds, H. T. (1977). *The analysis of cross-classification*. New York: Free Press.
- Richardson, S. M., & Sullivan, M. M. (1994). Identifying noncognitive factors that influence success of academically unprepared freshman. *Journal of the First-Year Experience*, 6(2), 89–100.
- Ruddock, M. S., Hanson, G., & Moss, M. K. (1999, May–June). *New directions in student retention research: Looking beyond interactional theories of student departure*. Paper presented at the Annual Forum of the Association for Institutional Research, Seattle, WA.
- Russell, J. E. (1981). Problem areas for the student on probation: The role of the academic advisor. *NACADA Journal*, 1(2), 56–58.
- Santa-Rita, E. D. (1997). *Counselor mediated contracts in self-management for students in the New Start Program*. (ERIC Document Reproduction Service, No. ED 416 912)
- Steinmiller, R., & Steinmiller, G. (1991). Retention of at-risk students in higher education (ERIC Document Reproduction, No. ED 342 527)
- Tinto, V. (1996). Reconstructing the first year of college. *Planning for Higher Education*, 25(1), 1–6.
- Vriend, J., & Dyer, W. W. (1983). Counseling the reluctant client. *Journal of Counseling Psychology*, 42, 240–46.
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92, 548–73.

#### Authors' Notes

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