

Helping First-Year Students Make the Transition to College through Advisor-Researcher Collaboration

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Most information advisors receive about first-year advisees pertains to students' academic achievement and high school courses. To assist students effectively with the transition to college, advisors need additional information. We describe a collaborative process used to develop a pre-matriculation, academic motivation instrument that provides important information for academic advisors and the whole institution. The collaborators included academic advisors, institutional research personnel, and a faculty member from the School of Education, all working together to create the instrument, examine its psychometric properties, and make decisions about how to use the data. The instrument shows promise as predictor of academic success in the early college years and could potentially assist advisors in identifying first-year students at risk for academic difficulties.

KEY WORDS: advising research, advising resource, entering student survey, instruments, motivation, predictors of academic achievement

Relative emphasis:* research, theory, practice

Introduction

Academic advisors serve an important role in the transition to college. They are generally the first adult contact that the student makes with the institution, and a positive connection with an advisor early in a student's college experience can greatly increase the student's likelihood of retention, satisfaction with the school, and overall success at the institution (Terenzini, 1993; Tinto, 1987). Human relationships take time to develop and mutually cautious give-and-take marks the bond formed between advisors and advisees. The bond-forming process is affected by individual personality traits, large caseloads for advisors, and students' general lack of understanding about the role of academic advisors at college (Smith, 2002). Another factor involves the types and quality of information provided to advisors. Although advisors are given information (SAT scores, high school transcripts, demographics) about students in admissions fold-

ers, advisors usually do not know much about how a student approaches or views the purpose of higher education. Research on academic motivation and college preparedness suggests that a complex pattern of academic and social development accompanies each student to college (Pintrich & Zusho, 2002). Although high school achievement is a predictor of academic success, research has shown that academic motivation and social adjustments are equally (or more) important predictors of academic achievement (Cote' & Levine, 2000; Gerdes & Mallinckrodt, 1994; Zheng, Saunders, Shelley, & Whalen, 2002).

Advisors whose philosophy leans toward the developmental side of the prescriptive-developmental continuum desire additional perspective from students about why they have decided to go to college, what drives them to study and work hard, and how they will modify their approach to meet the unique challenges of higher education. Such inside information on individual students could help advisors prepare to interact with, encourage, and possibly intervene for students at the beginning of their academic careers.

Beyond the lack of information, another challenge for academic advisors is the lack of a clear understanding of academic motivation. Theories of motivation have evolved from a dichotomy separating the motivated from the unmotivated to a continuum of internal versus external motivation toward a more complex construction of distinct but related concepts such as self-esteem and self-concept as well as intrinsic, extrinsic, and domain specific motivations (Breen & Lindsay, 2002). The trend toward a more complex definition of academic motivation requires that researchers and advisors reconsider how they measure academic motivation in higher education and how they intervene to promote multiple aspects of student motivation to learn.

One way to bridge the gap between the definition of motivation and advisors' measurement and facilitation of it involves advisors seeking out and sharing the intellectual and logistic expertise of others on campus (White, 2002). Collaboration among faculty members who study motivation and

* See note on page 4.

research design, along with staff from institutional research, helps bring academic advisors and other student affairs personnel into the research arena in higher education. Together these stakeholders can share their respective knowledge, learn from one another, and ultimately improve the quality of learning for students (Philpott & Strange, 2003).

In writing this paper, we strove to describe theoretically, empirically, and practically the professional collaboration across traditionally well-defined boundaries in postsecondary institutions. The goal of the collaboration was the development of a pre-matriculation instrument that could accomplish three interrelated and mutually reinforcing goals. First, data from the instrument could assist academic advisors in identifying areas of strengths and needs for the advisee, thereby reducing the time to make advisor-advisee connections. Second, stakeholders were interested in reviving the institution's long history of researching the factors associated with academic success, particularly for first-year students. Finally, an assistant professor in the School of Education wanted to further develop his research agenda in the area of student motivation. The process and products associated with this research highlight a) the importance of advisors consuming and producing academic research to improve their practices; b) the challenges of creating, administering, and interpreting a meaningful survey instrument that informs multiple constituencies; and c) the benefits to students when faculty members and staff in higher education combine expertise along common interests.

Defining Academic Motivation

From a social cognitive perspective, academic motivation refers to internal processes that instigate and sustain activities aimed at achieving specific academic goals (Pintrich & Zusho, 2002). The notion of academic motivation as a unidimensional, stable construct has been challenged in theory and with empirical evidence. According to Pintrich and Zusho, motivation is dynamic and multidimensional, involving both dispositional and situational factors. Academic motivation in higher education reflects both cognitive and behavioral processes as individuals interact with the teaching and learning environment. Rather than a single construct, it is informed by concepts such as intrinsic and extrinsic motivation, self-regulation and self-efficacy, and perceived support from significant others and the institution; these characteristics of academic motivation have both informative and motivational effects on the ways and extent in which a student

will engage in and sustain situational academic endeavors (Bauer & Liang, 2003). The current motivational research is guided by, among other models, expectancy-value theory (Wigfield & Eccles, 2000), attribution theory (Weiner, 2000), and achievement goal theory (Ames, 1992; Linnenbrink & Pintrich, 2002). Each theory posits a set of motivational constructs that are presumed to be used for predicting and explaining outcomes such as academic achievement or college retention.

In the context of young men and women coming out of high school and entering college for the first time, a very meaningful motivational perspective is provided by Ryan and Deci (2000). According to these researchers, motivation can be seen on a continuum ranging from no motivation (*amotivation*), to the most other-regulated motivation, and to the most self-regulated motivation. Other-regulated motivation means that sources of motivation come from external pressure, such as teacher or parental expectations. Students at this stage do not achieve full autonomy with regard to achievement motivation. The next level is called *introjected*, meaning that motivation is largely regulated by shame, anxiety, and worry. Self-regulation is characterized by *identification*, meaning the student fully identifies with academic tasks and understands their importance for one's educational and career development. Identification leads to full integration; that is, academic achievement becomes part of one's identity and value system. The highest form of self-regulation and autonomy is intrinsic motivation in which one engages in a learning task for its own sake. This model of motivation was based on a consideration of various dimensions of motivation that are related through a coherent framework.

Motivation Research in Higher Education

Applied research on academic motivation describes ways in which colleges, faculty members, and staff undermine or encourage student motivation or one or more of its related concepts. While much of the literature suggests that the school as a whole, and specifically the faculty, plays an important role in promoting academic motivation, the bulk of the research focuses on the individual student.

Following a goal orientation theory, Eppler & Harju (1997) defined academic motivation as two separate constructs: learning-goal orientation and performance-goal orientation. They recognized that a student can be motivated by external forces and a desire to outperform others and that the desire to

discover something new or to be successful without overt rewards can be equally satisfying. Students in the study who were low on both learning- and performance-goal orientations had the lowest first-year grade-point averages (GPAs), while students with high scores in both orientations achieved higher college GPAs.

Bauer and Liang (2003) proposed a path model describing the direct and indirect effects of academic motivation on student achievement. Motivation was measured using the *College Student Experience Questionnaire* (Betz, Klingensmith, & Menne, 1970), which is used to examine students' level of engagement, or quality of effort, in both the academic and social arenas. The instrument is used to measure the extent to which students are active and engaged in their classes and the social activities provided by the institution. This conception of motivation extends both beyond the academic realm and generalities of motivation toward a more complex, realistic measure of student experience in a particular setting. The results show that student personality traits such as openness and extroversion are related to quality of academic effort, which is in turn related to first-year GPA. Quality of effort in personal/social activities is negatively related to first-year GPA, suggesting that too much time spent on social activities negatively impacts achievement.

Struthers, Perry, and Menec (2000) used a structural equation model that included personality traits as factors influencing motivation and academic achievement. They found that coping strategies and academic motivation mediate the relationship between stress following poor academic performance and future academic achievement. The measure of motivation contained only three items that reflect the single continuum construct of motivation, and therefore the results should be considered in that context.

Research on motivation and involvement in college has revealed the problems associated with using high school achievement data as the sole indicator for identifying students at risk of failure (Fincher, 1984). Cote and Levine (2000) extended their study of the transition to college to include more than high school achievement. They looked at the relationships between high school achievement, aptitude and motivation (inputs), college environment (throughputs), and college achievement (outputs). The results of the longitudinal study show that students identified as bright on the basis of an IQ test did not perform as well as students who were classified with moderate or average aptitude. Higher scores on academic motivation and environment

fit emerged as significant predictors of skill acquisition and GPA in college.

Consistent with defining motivation as a dynamic, malleable, multidimensional construct, Wolters (1998) demonstrated how student self-regulatory behaviors are indicative of academic motivation. One hundred fifteen undergraduates were asked to discuss how they would approach academic tasks in a psychology course. Self-regulated learners modified their approach to the situation and tended to be learning-goal oriented rather than performance-goal oriented. That is, they tended to focus on self-improvement and understanding rather than striving for good grades. Learning-goal orientation was strongly associated with positive achievement in the sample. Performance-goal oriented students who self-regulated their cognitive approach also enjoyed high levels of achievement. The study was not designed to examine the causal relationships between self-regulation, motivation, and achievement, and therefore it is impossible to know the extent to which student traits are impacted by their college experience.

VanZile-Tamsen and Livingston (1999) examined the relationship between self-regulation and motivation orientation. Participants in the study were assigned a designation of *low achieving* or *high achieving* based on their college GPAs at the time of the study. The findings demonstrated that self-regulation is related to motivation orientation for both groups, and students considered low achieving had significantly lower self-regulation than did students identified as high achieving.

The strength of research in this area demonstrates that colleges need to be concerned about engaging students at all academic levels. Providing specialized courses and resources for students needing remedial skills or students needing honors sections is not enough. The faculty and staff should assess student academic motivation in the context of their high school achievement and design ways to work together to use that information to help students with the transition to college.

Professional Collaborations

For various reasons, faculty members and staff in higher education function territorially rather than collaboratively (Kezar, 2003), and therefore, relatively little empirical research on collaboration within higher education is available. This dearth of information and the territorial nature of collaborations are true both within student affairs departments and between offices of student affairs and academic affairs. Promoting collaborations within and

across these traditional boundaries can help the institution function more effectively (Kuh, 1996). For example, assessment initiatives have fostered some dialogue and have become the basis for cross-campus committees that examine instructional effectiveness. The empirical research on the effectiveness or results of such collaboration on student learning, faculty and staff satisfaction, or other outcomes is still in its infancy.

In a management sense, true collaboration is reflective in a participative system (McCaffrey, Faerman, & Hart, 1995). The participative system model holds promise for collaboration of faculty and staff in higher education, particularly in research universities. In this context, collaboration requires a recognition and appreciation of expertise for individuals and a willingness to identify common goals that can be met only by bringing together professionals with different skills (Philpott & Strange, 2003).

Collaboration at the University at Albany, State University of New York.

A rich history of research in higher education can be found in the Office of Institutional Research at the University at Albany. Twenty-four reports describing predictors of academic success, satisfaction with the institution, and assessment initiatives appear within institution documents and journals in higher education. Previous research was generally conducted within the office and information was shared within administration. In recent years, Institutional Research has formed partnerships or collaborations with student service offices and academic departments on assessment initiatives. This process provided opportunities for shared financial and human resources.

For the study on motivation presented here, the Director of Academic Advising approached the Director of Institutional Research and proposed a joint research project that would simultaneously help inform the university policy makers and assist academic advisors. Both parties brought together knowledge of research in college student personnel and college student development, which was supplemented with anecdotal evidence from academic advisors regarding student experiences at the University at Albany. Institutional Research provided a level of expertise with survey design and development as well as Web-survey administration, and its personnel acted as brokers with other relevant offices such as that of the Dean of Undergraduate Studies, Orientation, and Information Technology Services. The addition of an assistant

professor in Educational Psychology, with an expertise in academic motivation, strengthened the theoretical underpinnings of the research as he introduced a motivation model forged in the higher education literature. This researcher's quantitative-data analysis skills augmented those of the institutional researcher and an advisor with a quantitative research background.

In the remainder of the paper, we describe the methodological process of creating, administering, and interpreting a prematriculation inventory called the *Entering Student Survey* (ESS). The results of a pilot study, a test-retest study, and preliminary data on the predictive qualities of the subscales on first-year academic achievement are presented as evidence of collaboration.

Method

Survey Development

The ESS was created via a collaborative effort among the three researchers. Each member identified items previously used in research germane to their particular interests. A total of 60 items were included in the first draft of the survey. Approximately one half of the items related to academic motivation and included scales on self-concept, self-esteem, parental support, learning-goal orientation, performance-goal orientation, and self-regulation. Two main sources of the instrumentation for measuring academic motivation were Marsh's (1992) *Self-Description Questionnaire* and Pintrich, Roeser, and De Groot's (1994) self-regulation questionnaire. Both reported strong to adequate psychometric properties, and both have enjoyed wide use in the motivation research community. The remainder of the items measured student self-reported demographics, importance of specific college experiences, student receptivity to academic support, and student self-reported high school courses and study hours. See Table 1 for sample items. Items from this part of the questionnaire were adopted from a previously validated prematriculation survey (Gerken & Volkwien, 1999). We made some minor adaptation of specific items to render them suitable for the purposes of this study.

First Administration

The ESS was first administered to the fall 2002 freshman cohort. Via an E-mail from the Director of Assessment and the Dean of Undergraduate Studies, students were invited to participate in the study. In addition, advisors asked students in their first advisement meeting if they had completed the survey and provided them the Web link if the stu-

Table 1 Subscales and sample items for the 2003 survey of entering students*Potential Involvement*

- Join a student club (academic, political or recreational)
- Belong to a fraternity or sorority

Importance Issues

- To learn more about myself, my values, and my life goals
- To learn more about other cultures and groups of people

Self-regulation

- I do not give up easily when I have a difficult problem to solve
- I write down my thoughts
- If I study harder my academic abilities will improve

Performance orientation

- I do not really care how well I will do in college, as long as I can pass
- I study hard because I want to prove myself as capable as anyone else in class

Learning goal orientation

- Learning new things gives me a sense of accomplishment
- I feel successful when I learn something interesting

Receptivity to services

- Visit professors in their office hours
- Contact my academic advisor

dent had not taken the survey. A follow-up E-mail for nonrespondents was sent after the last orientation session. Approximately one half of the targeted student population ($n = 950$) completed the survey. Demographic data, including high school GPA, SAT scores, and gender, were obtained from institutional research data.

Test-Retest Study

Following the first administration, a test-retest study was conducted to examine the stability of the items. Forty students enrolled in an introductory educational psychology course completed the ESS as part of the content of the course on educational research. Students consented to participate in the test-retest study and were told the purpose of the study. The paper-and-pencil forms were given 2 weeks apart to reduce student memorization and because potential problems with the wording of the items were the impetus of the test-retest. Even though we reviewed the items independently and as a group, some items were unnecessarily complex. Otter, Mellenbergh, and de Gloppe (1995) said that such complexity affects the quality and stability of the item.

Second Administration

The second administration of the ESS, with minor revisions based on analysis of the first administration and the pilot study, was completed in the summer of 2003. To facilitate survey completion and increase return rates, we asked students to complete the survey as part of their computer training session

(registration and E-mail) during orientation. Students who were meeting with an advisor during the computer training were asked to complete the survey at a later time. Approximately 80% of the incoming class of 2003 completed the ESS during summer orientation, and another 50 students completed it after receiving a follow-up E-mail sent after the first week of classes ($N = 1,780$). Two hundred first-year students who were not advised in the Advisement Services Center were not included in the sample.

Results

The results are described according to the three distinct studies that comprise the collaborative process. The goal of the process was to test the usability of a survey that could assist advisors, administrators, and (eventually) students. Developing reliable and valid instruments of academic motivation and self-regulation for the designated purpose is a first step to achieve the goal of identifying at-risk students. The first administration served as a pilot for items and subscales; the test-retest helped clarify item wording and function; the second administration was intended to provide the first tangible use of data as feedback to advisors and students.

First Administration

The first administration served primarily as a pilot study. The properties and relationships among the subscales were of preeminent concern because they form the foundation for applying the research results to subsequent practice. Subscales generally reflected adequate internal consistency as mea-

sured by Cronbach's alpha coefficients. An exploratory factor analysis revealed that multiple factors emerged within the learning- and performance-goal subscales while the remaining subscales revealed one factor.

To test the predictive properties of a subscale, a linear regression analysis was performed. The average scores on the subscales were the independent variables, and the dependent variable was first-semester GPA. Students' pre-college academic achievement levels, as measured by high school GPA and total SAT scores, served as control variables. The variables in the equation significantly predicted first-year GPA, $F(11, 755) = 17.75, p < .001$, accounting for 20.5% of the variance.

According to Table 2, the largest unstandardized beta value was revealed in a simultaneous regression analysis in the self-regulation and receptivity to services subscales. These values were not statistically significant due to the relatively high standard error. High school GPA, total SAT score, course taking, and potential extracurricular involvement were significant predictors of first-year GPA. Potential involvement was negatively correlated with achievement.

Test-Retest

The results of the test-retest revealed varying levels of item and scale stability. Items with the highest correlation coefficients were in the receptivity subscale (.902–.571) and the self-reported course-taking subscale (.946–1.00). The importance of specific college experiences held moderate to high correlations (.637–.704), and the motivation items ranged from a low of (.302) for the item "I feel most successful if I learn something interesting" to a high of (.945) for the item "I can go to my parents

when I have a problem." Coefficients for the remaining items were in the .650 to .850 range.

A second aspect of the test-retest involved a class discussion on the items. Students provided insight into question clarity and meaning. Items with particularly low test-retest reliability coefficients were scrutinized for extraneous or confusing wording. Several items were reworded or removed from future administrations. For example, qualifiers such as *most*, *seldom*, or *always* were removed, allowing student selection on the Likert scale to determine relative strength of response. Student responses on the self-esteem items, although stable, were close to the highest possible score and did not differentiate. Finally, items referring to parents did not seem particularly relevant. Students could not understand why the items were useful for the research on motivation for college students. These items were removed from future administrations.

Second Administration

The results of the second administration were generally similar to the results of the first administration. Approximately 16% of the variance in first-year GPA was accounted by the variables in the model: $F(9, 1375) = 30.752, p < .001$. According to Table 3, high school GPA, SAT scores, self-regulation, and receptivity to services were significant predictors of first-year GPA. Potential involvement in extracurricular activities was negatively associated with first-year academic achievement. In one notable exception to the results of the first administration, students' self-reported high school courses was not associated with first-year GPA on the second administration. No statistical difference was found between the two cohorts on their course-taking scores: 2.17 (2002) and 2.28 (2003).

Table 2 Results of regression analysis predicting first-year GPA of 2002 cohort

Subscale	<i>B</i>	<i>SE</i>	<i>T</i>
High school GPA	.049*	.005	8.940
Total SAT score	.001*	.000	4.359
High school courses	.056*	.040	2.580
Potential involvement	-.069*	.033	-2.086
Receptivity to services	.073	.040	1.839
Self-regulation	.083	.049	1.685
Performance orientation	.070	.041	1.679
Self-esteem	.033	.029	1.126
Learning orientation	-.005	.052	-.094
Importance issues	-.020	.036	-.559
Parent support	-.021	.028	-.760
Intercept	-3.149*	.539	-5.845

Note. * $p < .05$.

Discussion

We discovered related challenges and opportunities of collaboration in higher education across personnel in academic services and student services and the academic faculty. The first lesson that emerged corresponded to the amount of time needed to bring together the team adequately and come to consensus on the project and the aspects of expertise needed to complete the tasks in the timely manner. Second, connecting items and scales from different surveys to design a cohesive in-house instrument that reflects the areas of concern and interest to the institution is more complex and tenuous than using nationally normed instruments. Finally, one of the original goals of the project has yet to come to fruition, and the team has cautiously settled on developing institution-wide profiles rather than using the individual-level data to assist advisors at this time.

The challenges of collaboration are formidable, but this project demonstrated that the opportunities and benefits outweighed the disadvantages. The main difficulty was identifying time to meet and discuss the project; some of the team members were working on an administrator's schedule and others were on a faculty schedule. Communication via technology facilitated item review and editing, but face-to-face meetings, in which related goals and logistical progress of the project can be discussed, is essential.

The multiple perspectives on the quality of items emerged in face-to-face meetings. Some of the original items appeared to be double-barreled (included two conditional statements) and therefore call into question how students were interpreting items in the first administration and test-retest study. Institutional research personnel were able to spot these inconsistencies in item development, an area of expertise that was essential to the project.

A theoretical-methodological debate on how to characterize academic motivation is ongoing. The single continuum construct appears to hold empirically for the sample, but the theoretical recommendations of Linnenbrink and Pintrich (2002) led us to perform multiple analyses using both the multidimensional and unidimensional measures as predictors of academic achievement. Although some might question the approach of exploring with the data, we agreed that the method makes sense for the long-term utility of the instrument and the predictive models.

The discussions about how to proceed reflect the commitment of the partnership and the power of intellectual consensus. If only one of us had undertaken the project, he may have proceeded without looking at alternative perspectives. The dynamic nature of collaboration may translate to slower progress or a more conservative outcome, but it has led to a most thoughtful methodological approach.

We learned that it takes a long time to create a meaningful instrument from multiple disciplines. In previous years, stakeholders at the University at Albany used the *College Student Inventory* (Strahil, 2001) to gain prematriculation information from students and to assist advisors in making early connections. Although some of subscales were found to be predictors of academic success and retention, the process that accompanied administration and dissemination did not fit with the approach of academic advisement. Advisors were burdened by the paperwork and were uncomfortable sharing the information with students.

Advisor involvement in the creation of the ESS and their input on ways to share the data with students have been beneficial. Advisors desire something tangible to initiate conversations that promote student responses. They are opposed to a laundry list of numbers or rankings on subscales and feel

Table 3 Results of regression analysis predicting first-year GPA of 2003 cohort

Subscale	<i>B</i>	<i>SE</i>	<i>T</i>
High school GPA	.049*	.005	10.655
Total SAT score	.001*	.000	5.716
Self-regulation	.021*	.006	3.782
Receptivity to services	.104*	.003	3.131
Potential involvement	-.084*	.028	-3.041
Performance orientation	.004	.003	1.087
High school courses	.015	.018	.813
Importance issues	-.017	.031	-.552
Learning orientation	-.003	.006	-.560
Intercept	-3.362*	.449	-7.489

Note. * $p < .05$.

that telling a student they are at risk of failure is counterproductive at the onset of an advisor-advisee relationship.

These considerations were further complicated when the results of the first administration did not produce overwhelming confidence in the subscales or individual items. The results of the first-year administration were consistent with other studies that show high school achievement to be a strong predictor of first-year GPA. Variation on learning- and performance-goal orientation did not provide additional insight into how students performed in their first year. Both administrations showed the relative importance of student receptivity to academic services and self-regulatory skills. Similar to the results obtained by Bauer and Liang (2003), higher scores on potential involvement in extracurricular activities were negatively related to first-year GPA. The finding may point to students' assumption that they can maintain the high levels of engagement they enjoyed in high school without experiencing achievement loss in their studies.

Implications for Practice

The findings from the current study have implications for advisors and advising units. We believe that advising units should partner with other services personnel and faculty members to facilitate better the student's transition to college. Particularly, institutional researchers and advisors must communicate about the types and quality of information available for advisors. In addition to obtaining demographic variables and achievement data from student application materials, colleges should be intentional about gathering data on student interests and expectations for social and academic experiences at college.

Advisors can use information on student interests and expectations in a variety of ways. On an individual basis, having in-depth knowledge about students' perceptions of their own strengths and weaknesses allows advisors to identify quickly areas for conversation and exploration. Having this insider perspective demonstrates to students that advisors are concerned about each student as an individual and that the advisor intends to understand the student's needs and aspirations. For example, if a student scores significantly low on intrinsic motivation, the advisor could engage the student in a conversation starter about why he or she decided to go to college. For a student who reported that she or he was unlikely to get involved in campus activities, the advisor could talk about various student clubs and try to understand better the student's rea-

son for potential disengagement. Conversely, a student who reports an expectation for being involved in multiple clubs, sports, and Greek activities can benefit from a discussion of time management and academic rigor in college. Finally, if a student presents with no self-regulatory skills, the advisor could recommend a targeted referral to study skills workshops, the writing center, or a freshman experience course or seminar.

At an institutional level, examining information in the aggregate can help policy makers decide on the types of student services that interest newly admitted students. Items on student receptivity should be specific to the institution for two reasons. First, the information can guide the development or modification of student services such as those offered at the writing center and career development center, among others, as well as student government opportunities. Second, the inclusion of various support and engagement opportunities as survey items provides students information about the services available at the institution.

The examples reflect a commitment of advisors and the institution to learn more about their students upon admission and to provide student-centered interventions that will assist with each student's unique transition to college. All colleges have some form of system-wide orientation and many have first-year courses, but this initiative provides advisors with an opportunity to use their skills to connect individually with each student at his or her current academic and social point of development.

Administering the surveys during orientation also allows orientation staff and academic advisors the opportunity to refer to themes of academic motivation and student services. In addition, administrators and staff can articulate that the college is interested in learning more about the students and will use the resulting data to help meet students' academic and social needs.

Unfortunately, academic advisement has generally operated in isolation from other units on campus. In addition to connecting to student services for referrals and coordinated efforts to assist students, advisors should make a concerted effort to connect with researchers in sociology, psychology, and education and to engage in collaborative research. Many of the studies of student development come out of these disciplines, and advisors have a wealth of information about students and their educational experiences. Partnering with faculty and institutional research around areas of transition, dropout, and program evaluation has mutual benefits for all stakeholders. As a starting

point, advisors can develop the areas of inquiry that will potentially benefit their students. For example, if advisors identify a disconnect in the practice and policy for the timing of students' declarations of a major, the director can invite institutional research or an educational or organizational psychologist to study jointly the effects of the timing of major declaration and its impact on retention across majors.

At the University at Albany, we have expanded the current investigation into a longitudinal study of student experiences. Institutional research piloted a *Student Experiences Questionnaire*, which includes several subscales from the ESS. Continued use of the both the ESS and *Student Experiences Questionnaire* will provide an opportunity to gather student data over time, further validating the ESS and helping the institution understand better how students' prematriculation perceptions impact their involvement in college.

Currently, we are developing general profiles of students using a logistic regression model based on that of Cabrera (1992). This approach allows advisors and advisees to see how students with low, average, or high scores on various subscales have performed in previous years. Administrators and advisors in the Advisement Services Center are discussing ways to share this information effectively with students. In the future, students could review their subscale scores in the context of the profiles and talk with advisors about ways to modify their self-regulatory skills. In addition, advisors could quickly identify appropriate academic supports for individual student needs and the campus as well as help students interpret their motivation in the context of their early experiences at the university.

References

- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*(3), 261–71.
- Bauer, K. W., & Liang, Q. (2003). The effect of personality and precollege characteristics on first-year activities and academic performance. *Journal of College Student Development, 44*(3), 277–89.
- Betz, E. L., Klingensmith, J. E., & Menne, J. W. (1970). The measurement and analysis of college student satisfaction. *Measurement and Evaluation in Guidance, 3*(2), 110–18.
- Breen, R., & Lindsay, R. (2002). Different disciplines require different motivations for student success. *Research in Higher Education, 43*(6), 693–725.
- Cabrera, A. F. (1992). Logistic regression analysis in higher education: An applied perspective. In J. C. Smart (Series Ed.), *Higher Education: Handbook of theory and research* (Vol. 10, pp. 225–55). New York: Agathon Press.
- Cote, J. E., & Levine, C. G. (2000). Attitude versus aptitude: Is intelligence or motivation more important for positive higher-educational outcomes? *Journal of Adolescent Research, 15*(1), 58–80.
- Eppler, M. A., & Harju, B. L. (1997). Achievement motivation goals in relation to academic performance in traditional and nontraditional college students. *Research in Higher Education, 38*(5), 557–73.
- Fincher, C. (1984). Educational quality and measured outcomes. *Research in Higher Education, 20*, 379–82.
- Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling and Development, 72*(3), 281–88.
- Gerken, J. T., & Volkwein, J. F. (1999). *Pre-college characteristics and freshmen year experiences as predictors of 8-year college outcomes*. (Assessment Report No. 22). Retrieved January 29, 2006, from www.albany.edu/ir/UAlb_24.pdf
- Kezar, A. (2003). Achieving student success: Strategies for creating partnerships between academic and student affairs. *NASPA Journal, 41*(1), 1–22.
- Kuh, G. D. (1996). Guiding principles for creating seamless learning environments for undergraduates. *Journal of College Student Development, 37*(2), 135–48.
- Linnenbrink, E. A., & Pintrich, P. R. (2002). Motivation as an enabler for academic success. *School Psychology Review, 31*(3), 313–27.
- Marsh, H. W. (1992). *Self-Description Questionnaire (SDQ)–II manual: A theoretical and empirical basis for the measurement of multiple dimensions of adolescent self-concept: A test manual and research monograph*. Macarthur, New South Wales, Australia: University of Western Sydney.
- McCaffrey, D. P., Faerman, S. R., & Hart, D. W. (1995). The appeal and difficulties of participative systems. *Organizational Science, 6*(6), 603–27.
- Otter, M. E., Mellenbergh, G. J., & de Glopper, K. (1995). The relation between information processing variables and test-retest stability for questionnaire items. *Journal of Educational Measurement, 32*(2), 199–216.
- Philpott, J. L., & Strange, C. (2003). "On the road

- to Cambridge”: A case study of faculty and student affairs in collaboration. *Journal of Higher Education*, 74(1), 77–95.
- Pintrich, P. R., & Zusho, A. (2002). Student motivation and self-regulated learning in the college classroom. In J. C. Smart & W. G. Tierney (Vol. Eds.), *Higher education: Handbook of theory and research* (Vol. 17, pp. 55–128). New York: Agathon Press.
- Pintrich, P. R., Roeser, R. W., & De Groot, E. A. M. (1994). Classroom and individual differences in early adolescents’ motivation and self-regulated learning. *Journal for Early Adolescence*, 14(2), 139–61.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54–67.
- Smith, J. S. (2002). First-year student perceptions of academic advisement: A qualitative study and reality check. *NACADA Journal*, 22(2), 39–50.
- Strahil, M. (2001). *College student inventory manual*. Iowa City, IA: Noel-Levitz Centers.
- Struthers, C. W., Perry, R. P., & Menec, V. H. (2000). An examination of the relationship among academic stress, coping, motivation, and performance in college. *Research in Higher Education*, 41(5), 581–92.
- Terenzini, P. T. (1993). *The transition to college: Easing the passage*. University Park, PA: National Center for Teaching, Learning, and Assessment Institute of Assessment.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: University of Chicago Press.
- Upcraft, M. L., & Gardner, J. N. (1989). *The freshmen year experience: Helping students survive and succeed in college*. San Francisco: Jossey-Bass.
- VanZile-Tamsen, C., & Livingston, J. A. (1999). The differential impact of motivation on self-regulated strategy use of high- and low-achieving college students. *Journal of College Student Development*, 40(1), 54–60.
- Weiner, B. (2000). Intrapersonal and interpersonal theories of motivation from an attributional perspective. *Educational Psychology Review* 12(1), 1–14.
- White, J. (2002). Student affairs scholarship: Reconsidering questions toward possibilities for liberation, collaboration, and innovation. *NASPA Journal*, 39(2), 158–65.
- Wigfield, A., & Eccles, J. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, 25(1), 68–81.
- Wolters, C. A. (1998). Self-regulated learning and college students’ regulation of motivation. *Journal of Educational Psychology*, 90(2), 224–35.
- Zheng, J. L., Saunders, K. P., Shelley II, M. C., & Whalen, D. F. (2002). Predictors of academic success for freshmen residence hall students. *Journal of College Student Development*, 43(2), 267–83.

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