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## Case Studies as a Supplement to Quantitative Research: Evaluation of an Intervention Program for High Risk Students

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A current challenge to higher education is the development and implementation of programs and services designed to meet the educational needs of a growing population of students with divergent and ever-changing characteristics. These variations are noted in many demographic categories but are particularly apparent in academic skill levels among students. This skill diversity, along with the evident high rate of adult illiteracy in the United States (Richardson, Martens and Fisk, 1981), indicates that the academically under-prepared student is, and will continue to be, a significant segment of the higher education population (Hodgkinson, 1983). Even allowing for projected declines in the pool of available students (El-Khawas, Carter and Ottinger, 1988), any surge of new enrollments is expected to consist of these under-prepared students, who according to research studies have the highest attrition rate of any group in American higher education (Roueche and Kirk, 1973; Cross, 1971, 1981; Astin, 1975; Zwerling, 1976). According to El-Khawas, Carter, and Ottinger, first-time entering community college students, on the average, do so with lower levels of academic preparation and achievement than those students who attend four-year colleges and universities. Past attempts to remedy academic deficiencies and reverse the corresponding high rates of attrition among this student cohort population have been among the most complicated, time consuming, labor intensive, and costly objectives higher education and community colleges, in particular, have undertaken (Cohen and Brawer, 1982).

Extensive efforts on the part of colleges to counter the effects of under-preparedness resulted in a plethora of academic and student support services (Noel, Levitz and Saluri, 1985). Although the major goals of these programs (i.e., to enhance student learning and personal development) have remained constant, institutions are being called upon to provide accountability in terms of identifiable student outcomes (Bowen, 1977). Although there is little argument about the social and philosophical value of developing human potential via involvement in education, the funding levels currently available require institutions to prioritize services and programs based on accurate and institutionally specific information regarding student experiences and the value of educational outcomes as they relate to the overall college mission.

This study describes the methodological approaches employed by one community college to measure and understand the reasons for the success and failure of identified high-risk students. Particular focus is on case studies conducted to ascertain the impact of academic and social integration (Tinto, 1975) in terms of success as defined by both the students and by institutional standards. As the traditional community college emphasis on "access" has shifted to student "achievement," academic and social integration has taken on a new relevance. Down played in the past due to the heterogeneous nature of students and their interests, it is the contention of the authors that academic and social integration can be a primary key in the efforts of community colleges to demonstrate and document their effectiveness.

**Why the Case Study Approach**

The diversity of community college students and the variation in their enrollment patterns and educational goals does present significant obstacles in drawing definitive conclusions from attrition patterns. Much of the original, classical research on attrition assumes that all students intend to earn a degree; such an assumption can result in misleading conclusions about the causes of student attrition. If a student's intent to attend is based on a short-term goal of gaining employment skills, and the student enrolls for a one-term computer applications class and exits at the end of the term with basic computer skills, it is apparent that goal attainment was achieved.

Controlling for student differences becomes problematic within the nomothetic, quantitative approach which seeks to understand principles and theories that relate to large numbers of people, institutions, or events. For most community colleges, it is simply not practical to collect the large amount of student background and attitudinal data needed for a nomothetic design. The case study or idiographic method does allow for extensive data collection on a sample of students and the opportunity to use multiple sources of evidence (Guba, 1978; Yin, 1984). This approach is an acceptable research alternative when attempting to study process and when it becomes statistically and perhaps physically impossible to account for or control all pertinent variables (Guba, 1978, p. 24). The limitation of case studies is that the findings often cannot be generalized back to the larger population. In this study, an effort is made to combine the elements of both a nomothetic and idiographic design, with the results of the latter hopefully providing insights that can be employed for refining the continuing analysis of student attrition patterns.

**Conceptual Framework and Initial Quantitative Findings**

The setting for this study is a medium-size comprehensive community college located on the periphery of a large metropolitan area, serving primarily a white, middle-class suburban population. The average age of the over 27,000 annual unduplicated student population (approximately 6,200 FTE) is 33. Only 30 percent attend full time, 57 percent are female, and 69 percent work full or part time.

Typically, as many as 60 percent of all entering students test below established college standards on the initial skills assessment inventory, resulting in mandatory advising and placement. The enrollment options of these students are restricted to developmental education classes and a few selected courses identified by the faculty as appropriate for students with some or all identified academic deficiencies. Successful completion of the prescribed remedial courses allows the student to move into regular student status. Failure to remediate academic deficiencies within two or three terms can result in probation and eventual suspension from the college.

Mandatory placement was initiated in the fall of 1984 and involved 563 first-time enrolled students who were tracked through the spring of 1988 (Walleri, 1987). Based on a comparison with a similar group of academically deficient students entering prior to mandatory placement, the two-year persistence rate of the fall 1984 group increased by eight percent. For some subgroups (e.g., vocational majors) the persistence rate increased as much as 15 percent. Of the fall 1984 students, approximately 60 percent successfully completed their developmental coursework, with about 40 percent of those requiring two or more terms to do so.

During 1986-87, a follow-up survey was conducted of the original fall 1984 students to evaluate their experiences, rate their satisfaction with the institution and its staff, and assess, from their perspective, attainment of academic goals. Approximately one quarter of the original 563 students responded. The survey results were consistent with the persistence findings in that more than 80 percent of the respondents expressed satisfaction with their course placement and the services rendered through Student Support Services and Developmental Education. A majority of these students had earned less than a 3.00 GPA in high school and reported that their high school preparation for college was adequate at best. The fact that most of these students remediated successfully within a relatively short period of time suggests that the discipline and attention provided through specialized developmental courses was equally or even more important than the remediation itself. In terms of their status in 1987, almost half were still attending college, with an equal number employed full-time. Less than half of the respondents indicated that they had achieved their academic or personal goals. Family and work responsibilities were cited most frequently as the obstacles to goal fulfillment.

The research results, although favorable in terms of intervention, were cause for administrative concern, since the program was extremely labor intensive and required a major philosophical commitment on the part of the institution. Implementation received strong administrative support but required college-wide involvement and participation. Therefore, a clearer, more definitive description of the institutional factors that contributed to student success or failure was needed to provide guidelines for future decision making regarding utilization of this program as an effective intervention strategy.

Of particular concern were the results from the 1986-87 student follow-up survey in which less than half of the respondents indicated that they had achieved their personal and academic goals. These same students had responded inconsistently when linking goal attainment with success or failure. Analysis of student records and transcripts of these respondents did not clearly identify what factors the students were associating with success

and failure. For instance, some students indicated on their survey that they did not feel their time at the college was "successful," yet their student transcripts showed a satisfactory grade point average. Conversely, some student records showed poor academic performance, yet their corresponding survey results indicated goal attainment and personal satisfaction with their educational experiences.

Based on these puzzling reports and to remedy this information gap, Bentler and Speckart (1981) recommend that retention rates be examined from the student's attitudinal viewpoint. They hypothesize that attitudes as well as intentions have a direct effect on student behavior. As described above, a selected case studies approach was chosen in an attempt to shed light on the various factors that students associated with their perceived outcomes of success or failure. This approach allows for the use of a "responsive evaluation model" (Stake, 1975) which addresses both the *worth* (extrinsic values relating to institutional goals) and *merit* (intrinsic value relating to an individual student's need) of the program. A responsive evaluation model is appropriate when more information about a program is needed and where the intent is to understand the various perspectives and values of the participants (Smith and Glass, 1987).

**Tinto's Model.** The construct of academic and social integration developed by Tinto (1975) has provided one of the most helpful and widely used of the conceptual models for exploring and attempting to understand persistence patterns, and thus, this model became the theoretical basis upon which to conduct the case studies. Tinto specifies that students entering college bring with them a variety of attributes and characteristics that influence the expectations they have toward the college experience. These characteristics change over time and lead to different levels of commitments, during the student's stay in college, which are a direct result of the student's integration into the academic and social systems of that institution. Tinto includes grades and intellectual development in the academic system and student-to-faculty and student-to-student interactions in the social system.

The level to which a student integrates into those systems is the primary determinant of choosing to stay and meet objectives, or to drop out of the institution. A major implication derived from Tinto's work, and related research by Bean (1980, 1983) on levels of student satisfaction with the institution, is not only the comprehensive nature of the variables influencing student persistence but the significance of relationship issues: relationships between students; between students and faculty; and between students, faculty, and institutional systems.

A considerable body of research, primarily quantitative, has tended to confirm Tinto's model, especially for traditional college-age students at four-year institutions (Pascarella and Chapman, 1983; Terenzini, Pascarella, Theophilides and Lorang, 1985). However, subsequent research on nontraditional student populations in general (Pascarella, Duby and Iverson, 1983; Metzner and Bean, 1987) and community college students in particular (Pascarella, Smart and Ethington, 1986; Voorhees, 1987) has resulted in some variations and inconsistencies. The findings that are at variance suggest that student persistence is independent of, or only minimally impacted by, academic and social integration.

Several studies have attempted to link these variations in results to the unique characteristics and attendance patterns of nontraditional students (broadly defined as older, commuting, and/or part-time students to whom education is not as central to their lives as for traditional full-time students). Specifically, the findings regarding academic and social integration as a predictor of persistence in community college students only became evident when students were tracked for a much longer period of time than in traditional settings (Pascarella, Smart and Ethington, 1986).

Many of the studies on student retention are theoretical, and the techniques employed to test these models have been primarily quantitative and predictive. Voorhees (1987) contends that virtually no conceptual model of student persistence behavior has been designed specifically for community colleges that would provide information on how students interact within that particular environment. Due again to the diversity of the community college student population, there probably is no *single* conceptual model. Rather, multiple models are likely to emerge based on the typology of these students.

**Methodological Design**

The goal of this phase of the research is to develop in-depth information to explicate the quantitative results and test the applicability of Tinto's model within the community college environment.

As depicted in Table 1, the 173 respondents to the 1987 follow-up survey were divided into four subcategories. The categories were based on a combination of college-defined success and student-reported success. Student-reported indicators of success or failure were based on self-reports from the 1987 follow-up. For the purpose of this study, the college-defined academically successful student is one whose grade point average is 2.00 or above. Although using grade point averages is imprecise and arbitrary, other criteria such as degree completion or credit hours accumulated are also inappropriate for this student population.

Group 1 consisted of 83 students who were identified as successful by the college's standards of academic progress and whose self-report on the survey indicated they experienced personal and academic success while enrolled at the college. Group 2 consisted of 44 students who were unsuccessful by institutional standards (less than a 2.00 grade point average) and whose self-report indicated a lack of personal and academic success. Group 3 was made up of those 37 students who were successful by institutional standards but whose self-report indicated a lack of academic and personal success. Group 4 consisted of nine students who were unsuccessful by institutional standards but who reported academic and personal success. Since it was not feasible to conduct personal interviews with all the students, a stratified random sample of twenty students, as noted in Table 1, was selected to participate in the interviews.

Using the case study approach as a research methodology requires that data collection follow three basic principles—the use of multiple sources of evidence, the development of a case study data base, and the linking of one piece of information to another (Yin, 1984, p. 85). Records indicating and tracking a student's initial placement, courses taken, and subsequent grades

**Table 1**

**Categories, Sample Size, and Selected Characteristics of High-Risk-Student Case Studies**

**Group #1—College-Defined Success/Student-Defined Success (N = 83)**

| Sample | Sex | | Age | | Persistence* (since fall 1984) | |
|---|---|---|---|---|---|---|
| 7 | Male | 3 | 21 or less | 2 | Six or more Quarters | 4 |
| | Female | 4 | 22 or more | 5 | Five Quarters | 0 |
| | | | | | Four Quarters | 3 |
| | | | | | Three Quarters | 0 |
| | | | | | Two Quarters | 0 |
| * terms of continuous attendance | | | | | One Quarter | 0 |

**Group #2—College-Defined Non-Success/Student-Defined Non-Success (N = 44)**

| Sample | Sex | | Age | | Persistence* (since fall 1984) | |
|---|---|---|---|---|---|---|
| 5 | Male | 2 | 21 or less | 1 | Six or more Quarters | 0 |
| | Female | 3 | 22 or more | 4 | Five Quarters | 0 |
| | | | | | Four Quarters | 2 |
| | | | | | Three Quarters | 1 |
| | | | | | Two Quarters | 0 |
| * terms of continuous attendance | | | | | One Quarter | 2 |

**Group #3—College-Defined Success/Student-Defined Non-Success (N = 37)**

| Sample | Sex | | Age | | Persistence* (since fall 1984) | |
|---|---|---|---|---|---|---|
| 5 | Male | 3 | 21 or less | 4 | Six or more Quarters | 2 |
| | Female | 2 | 22 or more | 1 | Five Quarters | 1 |
| | | | | | Four Quarters | 0 |
| | | | | | Three Quarters | 2 |
| | | | | | Two Quarters | 0 |
| * terms of continuous attendance | | | | | One Quarter | 0 |

**Group #4—College-Defined Non-Success/Student-Defined Success (N = 9)**

| Sample | Sex | | Age | | Persistence* (since fall 1984) | |
|---|---|---|---|---|---|---|
| 3 | Male | 1 | 21 or less | 3 | Six or more Quarters | 0 |
| | Female | 2 | 22 or more | 0 | Five Quarters | 0 |
| | | | | | Four Quarters | 0 |
| | | | | | Three Quarters | 1 |
| | | | | | Two Quarters | 0 |
| * terms of continuous attendance | | | | | One Quarter | 2 |

provided the first link in the chain of evidence, followed by the 1987 follow-up survey and the case studies conducted in 1988.

Data collection for the case study included information from the following sources: archival data and student records on each respondent from the follow-up survey, individual survey results, a standardized questionnaire measuring social and academic integration, and a personal, structured interview session.

**Interview Procedures.** Identified students were invited, via personal phone calls, to participate in an interview. They were told that the interview would take approximately forty-five minutes and that it would take place in the counseling center and be conducted by a professional counselor. All those students who were contacted agreed to participate. Students were informed openly, both on the telephone and again at the time of the interview, how they had been identified. They were told that their input would be used to help the institution to further develop or refine programs to assist students in achieving their goals and examine their potential. At the conclusion of the interview, all participants were given a $5.00 honorarium and a letter thanking them for their time and contributions.

The interview protocol was organized under six major headings:

1. Initial Rapport
2. Academic Background and Performance
3. Employment Patterns and Career Goals
4. Family and Socioeconomic Factors
5. Ratings of College Experiences
6. Suggestions (open-ended)

The protocol used for these interviews was adapted from Kinnick and Kempner (1988). The interviews focused on both factual information (e.g., change of major) and subjective experiences of the participants. The probes elicited comments that shed light on the theoretical construct used in this study and, at the same time, provided an opportunity for participants to share unanticipated responses that led to new and clearer understandings of student perceptions of the concepts of success and failure. All the interviews were conducted by one individual trained in interview techniques, and

written transcripts of all responses and comments were compiled.

The interviews played a critical role in this case study approach since they provided subjective insights into the subjects' individual experiences. However, because of the human nature of the endeavor, it may be subject to bias (Marshall and Rossman, 1989; Yin, 1984). Reliability was strived for in this segment of the study through careful documentation, adherence to standardized procedures, and by relying on the other sources of information to provide collaboration. The interviewer also attempted to acknowledge and limit personal biases and opinions and attempted to use the same verbal cues in each interview. Complete transcripts and narrative summaries were made of all interviews.

**Social and Academic Integration Questionnaire.** Immediately preceding the interview session, each participant was asked to complete a questionnaire addressing aspects of academic and social integration. According to Tinto's model, academic and social integration consists of several basic components. In Tinto's conceptual framework, academic integration is determined by the student's academic performance and by the student's level of intellectual development. Social integration is determined by the quality of the interactions among a student's peer-group and the quality of student interactions with the faculty. Tinto suggests that these faculty-student interactions, although included in the social integration category, may also enhance academic integration as well. The various levels of social and academic integration lead to another aspect of the theoretical model which is termed "commitments." This part of the model is composed of commitments to the institution and to goals associated with degree completion and career aspirations. As these commitment levels increase, there is a corresponding increase in the likelihood of persistence at the institution (Pascarella and Terenzini, 1980).

The questionnaire, adapted from Pascarelle and Terenzini, was constructed to tap various aspects of social and academic integration as defined by Tinto. For example: An item under peer-group interaction reads, "It has been difficult for me to meet and make friends with other students." Each item has a five-choice response, coded from 5 (strongly agree) to 1 (strongly disagree). This instrument was modified to include interactions with members of the counseling staff.

**Categories of Analysis.** Coding and organization of the interviews and questionnaire results involved ten broad topical categories. The first dealt with a student's declared major and change in major during the student's attendance (Bers, 1988). This category allowed for exploring the student's own clarity of intention with regard to educational goals.

The second category covered high school background and preparation for college. This category was less relevant to older students because of the long break between high school and college. It was used to probe for the student's expectations and sense of self-esteem.

Categories three and four focused on the student's perception of the degree and quality of assistance received from counselors and faculty advisors. Examples included "the accuracy and quality of information received" (from counselors) and "availability of instructors for out-of-class contact."

The fifth category had to do with individual student motivation and quality of effort (employment, study habits, etc.).

The most diverse segment, in terms of student responses, from the interview narrative concerned the pre-specified sixth category of "goals." Not surprisingly, the responses indicated a broad range of goals: academic, personal, vocational, and various combinations of long term, short term, general and specific goals, goals based on individual value judgments (intrinsic as well as extrinsic), and goals that changed over time. Although most of the literature on college student goals seems to consider reasons for attendance as having fixed attributes, it is clear from the interviews that confusion exists among the participants as to the difference between goals, values, attitudes, and objectives.

The seventh and eighth categories covered current activities and future plans with regard to employment and further education. The utilitarian job-related goals of many community college students frequently do not fit the pattern of degree-seeking students. Thus, even in cases of poor academic performance, the college success report for students who simply want a job may be high if a job was, in fact, obtained and if the student perceives the job as an outgrowth of his/her college experience.

Category nine coded information regarding college activities and close personal relationships with peers. Elements included the variety and satisfaction with friends, participation in campus-sponsored activities, etc.

The final and tenth category offered students the opportunity to identify and discuss factors that could or would improve the college experience. These included suggestions for improvement of college services as well as self-examination on the student's part with regard to self-improvement.

**Data Analysis.** Consistent with a descriptive paradigm, data were reviewed, analyzed, and coded according to emerging patterns, repetitions, and contradictions within each category. Miles and Huberman (1984) suggest that the analysis of qualitative data should include three procedures: data reduction, data display, and conclusion drawing and verification. Data reduction was used to simplify and focus the raw interview data. This process aided in the organization of data so that conclusions could be drawn. Data display allowed the researchers to systematically assemble the information gathered via charts, matrices, and tables. Conclusion drawing and verification was the third component of the qualitative data analysis process. The purpose of this activity was to derive meaning from the reduced, displayed data (Patton, 1980). It involved the noting of irregularities, patterns, and possible explanations contained within the data.

The interview protocol was developed with the intention of using probes that would target pre-specified elements from Tinto's theoretical model of social and academic integration and to elicit description data supporting or refuting the working hypothesis of the study.

The questionnaire was utilized as a form of triangulation, an external check (Smith and Glass, 1987) in an attempt to corroborate evidence previously generated from the follow-up survey and the current body of information gathered in the interview process. Previous research on persistence has relied heavily on questionnaires and surveys as the primary data collection tools;

however, by using structured interviews, a more comprehensive picture of persistence variables among this specific population develops, and the questionnaire plays a secondary, supporting role.

The interview process allows researchers to link the individual program participants' subjective "meanings" (largely unobtainable through most quantitative data collection processes) to objective facts. The clearest example of the discrepancy between student perception and observable fact is the use of GPA criteria as a measurement of academic success. Although most institutional standards list a 2.00 GPA as a minimum acceptable performance level for college freshmen, the students in Group #4 (Table 1) reported experiencing success *without* achieving such minimal standards. The criteria for success obviously vary, depending on the purposes for enrolling, the values linked to the educational experience, and the general satisfactions derived from being a college student.

**Summary Results**

Table 2 summarizes the results from the academic and social integration instrument completed by the students prior to the in-depth interview. The instrument employed a five-choice scale, from "strongly agree" to "strongly disagree," but the choices shown on the table are collapsed into agree/disagree categories for the sake of brevity. The results cover student perceptions of relations with fellow students, faculty, and counselors.

Those students who were defined as successful, by both college standards and self-report (Group #1), had several experiences in common: Most reported good relationships with other students, faculty, and counselors. During the in-depth interview and to a greater degree than the other three groups, these students tended to list availability, encouragement, and personalized attention by their instructors as key factors that contributed to their success as students. The results with regard to interactions with counseling staff may be especially telling, since such interactions would define initial contact with the college for many of these students.

The results with regard to Group #2 (lack of college-defined and self-reported success) reflect the other end of the continuum. Their collective response pattern across the indicators of social and academic integration was more negative on selected items than those from Group #1 (friendships positive for growth, strong relationship with at least one faculty member, etc.). The in-depth interviews confirmed these differences and identified "student effort" as a key additional factor. Pace (1984) discusses the level and extent of student effort as

**Table 2**

**Results of Social and Academic Integration Questionnaire**

| | Group #1 College and Self-Defined Success | Group #2 College and Self-Defined Non-Success | Group #3 College Success/ Self-Non-Success | Group #4 College Non-Success/ Self-Success |
|---|---|---|---|---|
| | Agree/Disagree | | | |
| **Student Relationships** | | | | |
| Close relations with other students | 5/2 | 2/3 | 4/1 | 2/1 |
| Friendships satisfying | 7/0 | 4/1 | 5/0 | 2/1 |
| Friendships positive for growth | 6/1 | 1/4 | 3/1 | 2/1 |
| Difficult to make friends | 3/4 | 1/4 | 0/5 | 2/1 |
| Few students willing to help | 2/5 | 2/3 | 2/3 | 3/0 |
| Other student values different | 3/4 | 2/3 | 2/2 | 2/1 |
| **Faculty Relationships** | | | | |
| Non-class faculty interaction positive for growth | 7/0 | 3/2 | 4/1 | 2/1 |
| Non-class faculty interaction positive for career | 6/1 | 2/3 | 4/1 | 1/2 |
| Strong relationship with at least one faculty member | 5/2 | 1/4 | 4/1 | 2/1 |
| Satisfied with informal faculty contacts | 7/0 | 4/1 | 5/0 | 2/1 |
| Few faculty are interested | 1/6 | 3/2 | 0/5 | 3/0 |
| Few faculty are good teachers | 3/4 | 2/3 | 3/2 | 1/2 |
| Few faculty willing to give time | 2/5 | 3/2 | 2/3 | 2/1 |
| Most faculty help students grow | 5/0 | 4/1 | 3/1 | 2/1 |
| Most faculty interested in teaching | 7/0 | 4/1 | 5/0 | 3/0 |
| **Counselor Relationships** | | | | |
| Counselor positive for growth | 6/0 | 3/2 | 3/2 | 3/0 |
| Counselors positive for career | 5/1 | 2/3 | 2/2 | 2/1 |
| Strong relationship with at least one counselor | 2/5 | 2/3 | 2/3 | 1/2 |
| Satisfied with access to counselors | 5/1 | 2/3 | 4/1 | 0/3 |
| Counselors are interested | 7/0 | 4/1 | 4/1 | 2/1 |
| Counselors give accurate information | 6/1 | 4/1 | 4/1 | 3/0 |

a factor in the persistence patterns of students. He maintains that education is not only a product but a process, and that the effort a student puts into that process should be considered as a contributing factor in the outcome of the educational experience. He further contends that the quality of the experience is not only a responsibility of the institution and its staff, but that students have an obligation to take advantage of the entire collegiate opportunity and can do so by their willingness to commit to the process itself. All the students in Group #1 indicated a positive interest and commitment to their classes. Conversely, the students in Group #2 responded negatively when probed about their level of interest and commitment in classes for which they were enrolled.

The students in Group #3 (college-defined success, but not personal success) and Group #4 (lack of college-defined success, but self-reported success) reflected a similar level of academic and social integration as to those in Group #1. The basic difference between Group #3 and #4 appears to be the intrinsic value placed on the educational experience. When probed, the students in Group #3 revealed a high level of concern with degree completion as a criteria for success, whereas the students in Group #4 perceived their college experience as worthwhile, in and of itself, and did not link success to grades or degree completion.

The research findings indicated that success or failure was, in large part, based on (1) the interactions between faculty and students, (2) the perceptions, attitudes, and values of the students regarding their experiences at the college, and (3) student goals and "intentions" for attending college.

Students, in their own words, were identifying for the college variables that made a difference. Students reported benefits from their experience at that college far beyond the narrow parameters imposed by the earlier quantitative study. However, the institution had no vehicle by which to be apprised of those positive benefits and, therefore, remained unable to reinforce them. Conversely, if students were thwarted by aspects of their college experience, the institution had no way of knowing and taking corrective action.

## Implications

Although the results of the case studies were not conclusive by themselves, combined with the larger tracking analysis and follow-up survey, they did provide insight and stimulation for further analysis. Out of this project emerged a renewed interest in the quality of student interactions with faculty and counselors. In turn, this interest merged comfortably with two recent institutional initiatives. One focuses on faculty development and the relationship between faculty effectiveness in the classroom and student success. The other deals with enhancing faculty and counselor advising, especially with regards to consistency and standards. The project described here, and the results of the case studies in particular, have acted to stimulate discussion across campus on these and other issues.

In terms of future research efforts, the project has stimulated a greater interest in the potential of qualitative inquiry. Possible applications include segments from the broader community district (i.e., business and civic organizations) as well as targeted student populations where both breadth and depth of information are frequently needed to make decisions regarding institutional offerings and services. The experience gained from using a case study approach in this project suggests that a similar approach can be applied to other issues. For example, community colleges often conduct community surveys to assess perceptions of the institution's performance and responsiveness to community needs. Issues identified from such surveys could then be further analyzed through other qualitative techniques, such as focus groups, to probe and uncover attitudinal factors associated with the positions adopted by different groups. As institutions struggle to meet the demands and needs of multifaceted communities and populations, the data obtained from quantitative research, combined with the insights gleaned from qualitative inquiry, provide educational planners with a comprehensive approach to problem solving and decision making.

## Note

Further presentation and details with regard to the intervention and mandatory placement program can be found in an article by the same authors (1989), Case Studies of Community College High Risk Students: Does Social and Academic Integration Apply?, *Community College Journal for Research and Planning, 7* (1).

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