Declining funds, declining test scores, declining standards, declining quality of products, declining resolve of legislators, state and local boards to fully fund programs without clear-cut objectives and documented outcomes" (Smith, 1984) have created a need for institutional assessment that will continue unabated into the 1990's. Thoughtful, well-planned and systematic reviews of both instructional and non-instructional programs provide community colleges with a way of determining whether programs are meeting stated objectives and what standards of performance should be maintained. Programs that need improvement or should be eliminated can be identified, and fiscal accountability can be achieved.

APPROACHES TO PROGRAM REVIEW

Program reviews generally have qualitative and quantitative components. For the most part, the quantitative component utilizes the types of numerical data that are collected and reported to state agencies (e.g., student enrollment, weekly student contact hours, percentage of students completing the program, numbers of degrees granted, and numbers of students transferring to four-year institutions). Other categories for which data may be gathered include weekly student contact hours per full-time faculty equivalent, percentage of students obtaining jobs in their field of study, number of job openings in the service region, and full-time to part-time faculty ratio.

In gathering qualitative data, students, faculty, advisory committee members, and other members of the college community who have knowledge of or experience with a program are asked to share their perceptions and judgments. Question may be open-ended, requiring the respondent to assess aspects of the program in his or her own words. However, most surveys depend heavily on ordinal or rank-order measures. Respondents are asked to rate aspects of a program's effectiveness as poor, below expectations, acceptable, good, or excellent—or some variation thereof. The evaluations typically focus on goals and objectives of the program, processes used in program implementation, and resources available for the program.

Qualitative and quantitative components are integrated into an institution's overall plan for program review in various ways, ranging from heavily qualitative to heavily quantitative.
THE QUALITATIVE APPROACH

Voluntary self-studies conducted by internal review committees, augmented through validation studies by external review teams, lie at the qualitative end of the continuum. One example, Michigan's Program Review in Occupational Education (PROE), which was developed by a steering committee of local and state community college professionals and sponsored by the Michigan State Department of Education, includes:

- selection of a self-study coordinator and committee, and
- orientation meetings and announcements.
- completion of self-study instruments to determine faculty members' perceptions of program standards, strengths, and weaknesses; students' assessments of how well the program meets their needs; and advisory committee members' opinions of the occupational preparation of program graduates.
- organization and presentation of tabulated and correlated responses into an understandable format.
- preparation of a written report summarizing the program's strengths and weaknesses to assist decision making about the need to modify or redirect a program.
- preparation of an action plan for occupational program improvement. (Michigan Community Colleges, 1980).

The colleges arrange for validation of the self-study by an outside team from other two-year colleges, industry, and the community. The team members, selected on the basis of their expertise and trained in applying the evaluation system, develop a consensus profile of the program, identifying where and why they agree or disagree with the self-study profile.

These validation studies play an important role in lending credibility to voluntary, qualitative self-assessments, which are sometimes criticized as overly intuitive and self-serving (Rasor, 1983). In Michigan, concern for objectivity and credibility is addressed by the other components of the state's comprehensive evaluation system. These components--the Michigan Student Information System, Financial Information System, and Management Plan--provide quantitative data to supplement the qualitative findings.
THE QUANTITATIVE APPROACH

Maryland's program review process stands on the quantitative side of the qualitative/quantitative continuum. Under the direction of the Maryland State Board for Community Colleges, the colleges conduct annual reviews of both transfer and occupational programs. The Maryland program evaluation process begins with a quantitative review by the State Board of program data reported by the community colleges in the following categories:

- Name, status and code numbers of the program
- Enrollment and awards data for the last six years
- Enrollment and awards in similar programs at other colleges
- Graduate follow-up data
- Annual job openings in the Baltimore area and statewide
- Discipline cost analysis data

Each May, student, cost, and manpower information from the Program Data Monitoring (PDM) system is distributed to academic and occupational deans, and institutional research directors for verification. The State Board then identifies programs at each college that appear to be in difficulty and should be evaluated qualitatively. The identification process is assisted by "flags" in the PDM, indicating that a program has experienced declining enrollment or awards, low job placement or transfer rates, higher than average costs, or low student satisfaction levels. On the basis of these quantitative criteria checks, the Board develops questions about the identified problems, which are forwarded to the college president for response. The questions are designed to determine why a program is in trouble and ways in which problems can be identified and addressed. The resulting program validation process may involve mail or telephone surveys of students, analyses of student transcripts, and assistance by the program advisory committee. The college must submit a written response to the State Board. On the basis of the program review, the Board may suggest the discontinuation or inactivation of a program.

A study conducted at Pasadena City College (Carvell Education Management Planning, 1982) represents a further step on the continuum toward quantification of the program review data. This program review model is based on six criteria:

- Trends in weekly student contact hours (WSCH)
- Faculty loads (WSCH/full-time equivalent faculty)
- Class size
- Student grade petitions
- Student retention
Programs are assessed in terms of how well they are performing currently in comparison with how well they performed in the past. Data for individual program performance are also compared with college-wide averages. The final aspect of program review at PCC is a qualitative assessment conducted by outside consultants based on personal interviews, a tour of the facilities, a review of records, and a written survey of faculty and administrators.

Another model of quantitative program evaluation is provided by Foothill College in Los Altos, California. The two-part model was designed to examine instructional programs in relation to program effectiveness, cost effectiveness and relation to the college mission (Lowe, 1983). Program and cost effectiveness are measured in terms of quantifiable, weighted criteria. For example, in assessments of program effectiveness, the number of students enrolled in relation to enrollment capacity is assigned a weight of 17 (the highest), while future employment outlook is given a weight of 6 (the lowest). In assessing cost effectiveness, average daily attendance has a weight of 25.5 (the highest), while the ratio of part-time to full-time instructors has a weight of 8 (the lowest).

Through a formula based on percentile scores and the weights assigned each criteria for both program and cost effectiveness, a single score is obtained for each program evaluated. Programs are then ranked according to their overall scores. Finally, the programs are reviewed by the college president and the president's cabinet to judge their relation to the overall mission of the college. From this evaluation, decisions are made regarding the status of each program. During 1981-82, six of the ten lowest ranked programs were eliminated from the curriculum.

Program reviews that rely heavily on quantitative analysis can be extremely threatening to staff members, particularly if declining enrollments or severe fiscal constraints mandate the elimination of programs and therefore reductions in teaching and support staff (Rasor, 1983). Both the Maryland State program review process and the Pasadena City College model provide recourse for those involved in programs that do not rank well on quantitative measures. These two systems address such issues as the need to provide general education courses for transfer students, the importance of responding to specific, but not necessarily quantifiable local community needs, and the need to provide a comprehensive curriculum through the qualitative component.

The Foothill College model, which is heavily dependent upon quantitative data, provides almost no channel of response for the faculty and support staff in poorly rated programs, since the assessment of the programs’ intangible and unquantifiable value rests solely with the president and members of the cabinet.

Reviews of instructional programs require a balance between qualitative and quantitative components to ensure both accountability and fairness.

FOR FURTHER INFORMATION

Carvell Education Management Planning, Inc. "A Comprehensive
Review of Credit Instructional Programs Offered by Pasadena City College." Los Angeles,

Carvell Education Management Planning, 1982. 116 pp. (ED 237 126)


