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Program Review: A Tool for Continuous Improvement of Academic Programs

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Abstract

Program reviews became widely used as quality assurance activities in the United States beginning in the 1970s. Since then, they have evolved as an essential component in demonstrating institutional effectiveness to accrediting bodies. The paper discusses various approaches to reviews with a focus on a recently reengineered institutional program review process. The new process incorporates the traditional features of academic quality assurance as well as more recent accountability and assessment issues. An important feature of the reengineered program review is an increased emphasis on follow-up to ensure outcomes from the review that are designed to improve the academic programs.

Introduction

Program reviews serve an important function in assuring the quality and continuous improvement of academic programs. As such, they are now an expected component in demonstrating institutional effectiveness for regional accreditation. Many states mandate such reviews for their institutions of higher education. The paper discusses various approaches to program reviews and focuses on the reengineered methodology recently adopted by Florida A&M University (FAMU), which has conducted program reviews since the 1970s. The new methodology includes components of assessment of student learning outcomes, qualitative and quantitative information, and follow-up to ensure results. The observations and strategies discussed are also based on the author's experience in conducting and supervising program reviews in the State University System of Florida. The strategies and components for program reviews are common to many types of higher education institutions, although the emphases (such as considerations of research productivity) may vary depending on the institution's mission.

Purposes of Program Review

Program reviews became widely used as quality assurance activities in the United States beginning in the 1970's (Bogue and Saunders, 1992). The following examples of definitions of program review in the literature provide a sense of the general purposes of such reviews: "... a comprehensive evaluation of a curriculum leading to a degree. This review will ordinarily involve the acquisition of historic, current, and projective data on program purpose, resources used and needed, and an evaluation of performance" (Bogue and Saunders, 1992, p. 138); "[program review] ....seeks to evaluate all programs, or a selected group of programs,...against a standard set of criteria." (Barak and Breier, 1990, p. 2); and "the process of defining, collecting, and analyzing information about an existing program or noninstructional unit to arrive at a judgment about the continuation, modification, enhancement, or termination of the program or unit" (Conrad and Wilson, 1985, p. 10). With time, the purposes of program reviews reflect increased institutional aspirations, accountability, and a focus on student learning. For example: "Program Review is a process by which future directions, needs, and priorities of academic programs can be identified." (Iowa State University, 2002); "... a systematic review of academic programs, to address the quality, viability, and productivity of efforts in teaching and learning, scholarship, and service as appropriate to the institution's mission" (Board of Regents, University System of Georgia, n.d.); " Program reviews shall document how

individual academic programs are achieving state student learning and program objectives within the context of the institution's mission. The results of the program reviews shall inform strategic planning, program development, and budgeting decisions at the institutional level." (Austin, 2004). Program reviews are also included as a component in some performance funding models (Banta, Rudolph, Van Dyke and Fisher, 1996).

A study conducted by Moon-Hee Lee (1991), on the purposes of program reviews in 39 states which conduct statewide program reviews, found that the purpose most frequently identified was assessing and enhancing program quality. Although increasing efficiency and effectiveness of resources, providing optimum service and access, and eliminating costly duplication of programs were cited as purposes of program reviews, they were identified much less frequently than the purpose of assessing and enhancing program quality. In fact, some authors and institutions discourage the use of program reviews for the primary purpose of eliminating programs (California Community Colleges, 1996; Barak and Breier, 1990, pp. 7-8). In recent years, as assessing student learning has become a key component of accreditation reviews, it has also become a key feature of many program reviews, and the sole feature of program reviews at some institutions (North Carolina State University, n.d.). Continued changes in the purposes of program reviews are expected, as the postmodern age calls for ongoing reflection on evaluation itself and the standards for evaluation (Mabry, 1997).

Models and Structure of Program Reviews

The two basic bifurcations in program review models are the qualitative model and quantitative model (Finley, as cited in Satterlee, 1992; Wolf, 1990; Worthen, Sanders and Fitzpatrick, 1997, p. 68). Generally, a combination of quantitative and qualitative approaches is used, with emphasis on one over the other being determined by the appropriateness of the approach to indicators being evaluated. Conrad and Wilson (1985) found that the models most institutions utilize are often more implicit than explicit, and emphasize one of the following:

1. Decision-making model: emphasizes accountability and may be used to reallocate resources or decide on continuation of program.
2. Goal-based model: compares information gathered in the review to the program goals, objectives, and standards.
3. Responsive model: focuses on concerns and issues of stakeholders.
4. Connoisseurship model: depends on the expert judgment of an experienced individual in the discipline.

Of these, the first is more quantitatively oriented while the second and third generally combine both quantitative and qualitative aspects, and the fourth is more heavily qualitative.

Programs may be selected for review by several different methods, such as:

1. The screening method: All programs undergo an anual review of a handful of basic metrics.. Those that fall below a given threshold on critical measures are then selected for further review (Illinois Community College Board as cited in Satterlee, 1992; Florida Community Colleges and Workforce Education, 2004; Stroud and Brown, 2004; Board of Regents, University System of Georgia, n.d).
2. Cyclical review: All academic programs are reviewed on a cyclical basis (usually five or seven years, occasionally 10 years) according to a preset schedule. The program review process at Harvey Mudd (2000) is an example of this method. In Florida, state statute prescribes a seven year cyclical review (Florida Statutes, 2005); The Board of Regents, University System of Georgia, (n.d.) also prescribes a seven year review cycle.
3. Divisional model: the institution selects entire divisions rather than pre-selecting a number or percentage of programs to review each year. The primary responsibility for program reviews may lie either with a faculty body or with an administrative office.
4. Faculty-led: usually organized by the faculty senate or faculty committees (University of California, Berkley, n.d.; California Community Colleges, 1996).
5. Administration-led: housed in the Office of Institutional Research, if more quantitative, or the Office of the Provost, for more qualitatively-oriented reviews (FAMU, n.d.; Iowa State University, 2002; Stroud and Brown, 2004; University of Central Florida, n.d., University of Delaware, n.d.).

It is advisable to place the responsibility for the evaluation of the program in the hands of a team of evaluators within the institution or one or more external evaluators, rather than an individual within the institution. Generally, one of the following models is selected:

1. Use of external reviewers: follows the connoisseurship model and utilizes experts in the discipline from other institutions (FAMU, n.d., University of Central Florida, n.d.).
2. Use of a review team from within the institution: a team of faculty from outside the program make judgments and recommendations regarding the program under review.
3. Combination of reviewers from outside and within the institution (University of Delaware, n.d.).

In order to increase the likelihood of conducting

productive reviews that lead to positive outcomes, the model, method of selecting programs, and the organizational structure of the program review process should be carefully selected after considering a number of institutional factors. Program reviews led by faculty committees work best at institutions where faculty, as a whole, have a strong history of being engaged in discipline and curricular reform at the national and institutional levels, and collegial decision-making is the norm. At institutions with a hierarchical structure, program reviews led by the administration tend to be more effective. The use of external experts is recommended particularly at institutions where faculty may not have the opportunity to be engaged in their discipline at the national level; therefore lack perspective necessary to stay abreast of developments in the field. A heavily quantitative approach to program reviews is compatible with institutional cultures where data availability and usage throughout the campus is commonplace. An emphasis on accountability rather than program enhancement is more aligned with hierarchical rather than collegial environments, as well as resource-scarce environments. Quantitative approaches tend to be utilized more heavily when accountability rather than program enhancement is the focus.

An important benefit of conducting program reviews is that the undertaking itself could be utilized as one of several initiatives to help move an institution from one set of characteristics to another. The process here is as important as the outcomes. For example, an institution may start out with an administration-led model, but over time, the process of conducting the reviews could lead to greater communication between administration and faculty, develop the expertise of faculty in conducting objective evaluations, and ultimately lead to a more collegial structure. If an institution has a paucity of data, reviews may start out being qualitative, but the need for considering data in decision-making could become apparent over time, leading to an approach that combines both qualitative and quantitative aspects.

Phases of Program Reviews

Program reviews develop in a sequence of phases, each of which must be planned for, tended to and scheduled in a manner that moves the process inexorably forward.

Planning and Orientation. Meetings at several points in the review play a critical role in bringing individuals together to provide a common understanding and agreement on the process, and to move the review forward. The first of these, to initiate the review for a given year, is the orientation meeting for people responsible for the various reviews. At FAMU, these include the review contacts in each college or school, and the coordinators for the particular review. Designating a program review contact in each dean's office (typically an associate/assistant dean) is helpful for several reasons. This individual is the stable point in the college from one review to another and from one year to the next, enabling a cooperative relationship between the contacts and the individuals with overall program review responsibility at the institution to develop over time, for the contact to develop expertise in program reviews, and provide guidance and monitoring at the college level. The coordinator for a review is generally a chair or respected faculty member in the department being reviewed. At the orientation, providing a well-developed process and format engenders confidence among the participants that the expectations are clear and attainable. Equally important is providing for dialog and flexibility, so that the differences among the programs undergoing review can be accommodated with some changes to the format and process when necessary.

Self-study. Most self-studies, whether for accreditation or program reviews, have certain elements in common. These include a) the mission and goals, b) curriculum, c) administration and governance, d) faculty productivity and credentials, e) essential resources including a sufficient number of faculty, departmental support, library resources, equipment and space, f) plans for the future, and g) a more recent emphasis on assessment of learning outcomes, and outputs. A sample format used at FAMU appears in Appendix A.The specifics within this framework vary depending on the institution, the student population served, and the state context. In Florida, for example, where articulation between community colleges and universities is a key feature in the structure of higher education, program reviews typically include issues related to articulation (FAMU, n.d.; Florida Community Colleges and Workforce Education, 2004). Research universities will place more emphasis on graduate education and research than master's and baccalaureate institutions (Florida State University, n.d.) It is helpful to specify a format with the minimum elements expected so that there is some consistency in the reviews and the expectations are clear to all involved.

Data required to complete the self-study should be made readily available. These data, usually provided by the Institutional Research Office, typically include at a minimum, enrollment trends, graduation trends, class size, student:faculty ratio and credit hours generated. Other information includes faculty productivity; surveys of students, alumni and employers; assessment-related information; and peer comparison data in the areas of scholarly productivity, production of graduates, relative expenditures and faculty:student ratios.

One of the main challenges to a successful program review is the tendency for departments to postpone work on the self-study until a few weeks before the study is due, and then make it the sole responsibility of the coordinator with little assistance from other faculty. It must be clear

at the outset that the purpose of the self-study is to provide an opportunity for all members of a department to probe deeply into matters concerning the program, its current performance and vision for the future. The contact or the coordinator will need to schedule regular departmental meetings where such discussion takes place. At FAMU, a meeting is held a few months before the self-study is due, where individuals from the program, dean's office and provost's office meet so that faculty may present the implications of the data, and how they plan to incorporate these findings into the self-study. This forces dialog and a critical analysis of data well before the self-study is due.

Selecting evaluators. For a relatively modest investment, external consultants provide a wealth of information and insightful comments. This also promotes faculty buy-in to the process, because it is a respected member of their discipline, nominated by them, making the recommendations, rather than a university administrator. Administrators in turn, may place more credence in the recommendations of an outside evaluator than those of departmental faculty. A method of selecting consultants that worked well in many Florida universities is establishing criteria for selecting an evaluator, obtaining several nominees from the department, and making the final selection at the dean or provost level. One evaluator or a team of evaluators may be selected, depending on the program review budget and the nature of the discipline undergoing review. Criteria for an evaluator may include recognition and distinction in the discipline, professorial rank at associate level or higher, some administrative and or review experience, experience in a program to which the program under review aspires, and no conflicts of interest.

Site visits. Evaluators should be provided the self-study in advance of the site visit, and a visit schedule established in detail before the visit occurs. Typically, site visits by external evaluators include an entrance interview with the president and/or provost, meetings with the dean, faculty, students, employers and alumni (if available in the area), and a review of the library and facilities, culminating in an exit interview where preliminary findings are shared. With the recent emphasis on learning outcomes, evaluators may also be asked to comment on the appropriateness of the learning outcomes for the program and samples of student work.

Reports. It is recommended to have a format of the minimum elements required in a consultant's report. If information on specific issues is sought, this needs to be specified in the report format. Appendix B provides a sample consultant report format used at FAMU. Two to four weeks from the time of the visit is the usual time allotted for submission of a draft consultant's report. Once received, the draft report may be reviewed for factual errors or necessary clarification by both administrators and faculty involved in the review. Neither administrators nor faculty should attempt to change the substance of the consultant's recommendations to preserve the objectivity and credibility of the review and not compromise the integrity of the evaluation.

Action plans and follow-up. As noted by Barak and Breier (1990), in the past, program reviews tended to have poor follow-up and consequently review reports languished on shelves rather than becoming catalysts for change. Now, reviews at many institutions have built in a follow-up phase (FAMU, n.d.; Florida State University, n.d; Iowa State University, 2002). There is a tendency for all stakeholders in the process to move on to other matters once a program review report is finalized. Therefore, it takes considerable commitment, time and energy to ensure that a document such as a memorandum of understanding or action plan is developed and monitored after a specified interval of time. The document should include specific deadlines for addressing recommendations emanating from the review and individuals with primary responsibility for the action. Both faculty and administrators should come to agreement on the specifics delineated in the document.

Financial Considerations

Program reviews should inform resource decisions (Arns and Poland, 1980). Regional accreditors' expect institutions to systematically take evaluations such as program reviews into consideration when making budget allocations, as one component of institutional effectiveness. Some funds and faculty lines should be set aside to address needs revealed through program reviews. However, the reality is that many institutions have limited resources with which to address the recommendations. In past years, when program reviews were focused on inputs, almost all recommendations were predicated on new resources. When resources are scarce, this tends to limit the outcomes of program reviews. To counter this lack of outcomes, FAMU requests recommendations and plans in two categories: 1) those that are within the purview of the department, requiring no new resources, and 2) those that require action or resources from higher levels at the university. This has caused both evaluators and departments to consider issues of curricular revision, programmatic changes, policy changes and external funding more aggressively than in the past. The work of Ferren and Slavings (2000) explores means of improving academic quality with no additional financial resources. They advocate efficiency by examining negative factors that drive up instructional costs, such as course proliferation, under-enrolled classes, course repeats, and lack of course sequencing, and redirecting cost savings efforts to positive factors that enhance student learning including regular

feedback on learning performance, increased student:faculty interaction, and active learning (pp. 14-15). Comparing revenues generated by the program (e.g. tuition, state funding for enrollment, contracts and grants) to expenditures in the program can yield important information for decision-making. Peer-comparison data on expenditures in similar programs at other institutions are very informative as well.

The costs of conducting program reviews can be modest and the returns considerable. Apart from faculty and staff time expended in the review process, the only cost is engaging a consultant. Consultants may receive honoraria of $1,000-$2,000 for conducting the review, plus travel expenses. One faculty member may be provided a one course release for a semester to coordinate the writing of the self-study.

The Role of Institutional Research

Offices of institutional research can either drive or at least facilitate program reviews through the following activities:

- Provide data for self-study, such as enrollment trends, graduation trends, class size, student:faculty ratios, credit hours generated versus expenditures, surveys, research productivity and assessment information.
- Build comparator groups and provide peer comparison data
- Schedule and monitor program review activities
- Manage follow-up activities
- Monitor any changes in critical indicators including accountability measures, peer comparison data and student learning outcomes through assessment data.

Critical Elements

The success of program reviews hinges on carefully planning and implementing all of the phases outlined in the previous section. In addition, there are some critical elements that can make the difference between a review that results in meaningful positive outcomes and one that is an exercise of little consequence.

Faculty. Involvement and buy-in of the faculty is critical to the success of program reviews that are aimed at improving academic programs. If faculty see the review as merely an administrative requirement or means of terminating programs, it is unlikely they will engage in genuine reflection for the self-study or put forth effort to make the changes recommended as a result of the review.

Administrators. The visible involvement of administrators, including the dean, provost and president, is essential to faculty's perception that this is a meaningful endeavor with outcomes. Ideally, evaluators' findings should be reported to the president, provost, and dean in a face-to-face meeting so that they have the opportunity to hear the findings and pose questions. Knowing the meeting occurs is also a more powerful indicator to the faculty that this is an important activity, rather than simply submitting a written report which may not be read.

Students. As both the consumers and the products of the academic program, students are a critical component of a valid program review. Student input may take several forms such as student surveys, the results of which are included in the self-study; focus groups; and an interview period with the evaluator. Students often provide a fresh perspective with frank comments that contribute to the authenticity of the review's findings.

Timelines. From start to finish, establishing and meeting deadlines is key to moving reviews forward in a timely manner. The precise time frames will depend on the culture of the institution and the nature of the reviews. It is important to set precise timelines at the outset so that all participants understand and adhere to the schedule. FAMU's "MOSAIC" program review cycle, with some of the major milestones, appears in Appendix C. It is sometimes advisable to schedule face-to-face meetings when certain products are due, such as the action plan; we tend to pay more attention to deadlines with meetings scheduled. The dialog at meetings is also important in promoting change through the very process of conducting program reviews. Such meetings can open communication between various stakeholders and offer the opportunity to value various perspectives on what constitutes important quality indicators for a program, and how to improve performance on the indicators.

Conclusion and Implications

Program reviews have proved useful for decades in assuring the quality of academic programs, and demonstrating accountability. Reengineered program review processes include features that make them relevant to today's needs for accountability and institutional effectiveness, such as assessment of student learning outcomes, making improvements based on the findings, and taking the findings and recommendations of reviews into consideration when allocating resources.

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Appendix A
Sample Format for Self-Studies

1. Status of the Discipline
   - Brief description of the national status of the discipline, including emerging issues and trends

2. Program
   - Brief overview of program
   - Mission statement for the program: Reference its relationship to college and institutional mission, state priorities and Board of Governors strategic plan as appropriate.
   - Goals and objectives of the program relative to teaching, research and public service, and assessment of program performance in relation to them
   - Student Learning Outcomes of the program: Student learning outcomes should identify in behavioral terms the broad skill areas students should master as a result of the program by the time they graduate. A matrix indicating which courses address each of the outcomes identified should be included. Attach a copy of the Academic Learning Compact for each reviewed baccalaureate degree program.
   - Governance structure of the program
   - Admissions requirements (including limited access requirements if applicable)
   - Degree requirements (including credit hours to degree)
   - Curriculum (including common prerequisites)
   - Associated institutes and centers
   - Involvement of business and industry in establishing goals, objectives, learning outcomes and curriculum (this item is required for science and technology programs, recommended for others)
   - Community college articulation (in the case of baccalaureate programs)

3. Program Evaluation
   - Describe briefly the means of assessing student learning outcomes, and recent improvements based on the results of such assessment. Means of assessing outcomes may include but are not limited to standardized tests, capstone course/ program examinations, analyses of theses, portfolios and recitals.
   - Describe briefly the continuous improvement plan utilized to assess and improve the program on an on-going basis. Summarize improvements made as a result of the continuous improvement plan.
   - Provided a brief analysis of the grade patterns of courses with high failure rates or withdrawals and delineate an action plan for student improvement in these areas.

4. Students
   - Enrollment
   - Degree productivity
   - Student services
   - Outcomes information including student performance on licensure/certification exams, job placement of graduates, student, alumni and employer surveys

5. Faculty
   - Teaching productivity and activities designed to enhance teaching and the curriculum
   - Research productivity
   - Service, including service to public schools
   - Faculty development plans

6. Facilities and Resources

Address the adequacy of resources and support services to address the goals and objectives of the program.
   - Library
   - Laboratories
   - Equipment
   - Space
   - Support personnel

7. Responses to Previous Program Review Recommendations
   - Itemize each major recommendation and state the response.
   - Summarize how previous program review results have been used to inform any of the following that apply: The refinement of mission and goals/ objectives; program planning, development and improvement; and budgeting decisions.

8. Strengths, Weaknesses, Opportunities and Threats (SWOT)
   - Identify the strengths, weaknesses, opportunities and threats that support or impede achievement of program goals, objectives and expected outcomes.

9. Vision and Plans for the Future of the Program
   - Provide a vision statement of what the department would like the program to be in six years, assuming only costs to continue, with no additional state resources. In order to reach this goal, state the plans for the next three years and the next six years, including actions that need to occur.

- Provide a vision statement of what the department would like the program to be in six years, if additional state resources are available. In order to reach this goal, state the plans for the next three years and the next six years, including actions, which need to occur, and resources required at each stage.

10. Unit Recommendations

- Identify recommendations for improvement of the program
  a) Recommendations for changes, which are within the control of the program, including curricular changes if appropriate
  b) Recommendations for changes that require action at the Dean, Provost or higher levels

Appendix B

Consultant's Report Sample Format and Coverage

I. Title Page

II. Table of Contents

III. Introduction

IV. Status of Discipline (national perspective)

V. Program
- Overall comments regarding existing program
- Appropriateness of program goals and objectives, and student learning outcomes
- Adequacy of program's self-evaluation mechanisms
- Appropriateness of admissions and graduation requirements
- Appropriate number of credit hours for degrees;
- Appropriateness of curriculum; suggestions for improvement of existing programs
- Involvement of business and industry in establishing goals, objectives, learning outcomes and curriculum (this item is required for science and technology programs, recommended for others)
- Articulation with Community colleges (AA and AS) for bachelor's programs

VI. Students
- Adequacy of enrollment, retention and graduation
- Adequacy of advising and other student support services
- Evidence of student learning and achievement of program outcomes
- Career options
- Outcomes, placement and satisfaction of graduates

VII. Faculty
- Quality and productivity in teaching
- Faculty productivity in basic and applied research
- Quality of departmental leadership
- Appropriate workloads
- Adequacy of faculty to deliver program (number and qualifications of faculty)
- Use and integration of adjunct faculty
- On-going professional development

VII. Resources
- Effective use of resources
- Adequacy of access to library resources
- Adequacy of equipment for existing and proposed programs
- Appropriateness of space for existing and proposed programs
- Exploration of alternative funding sources (contracts and grants, etc.)

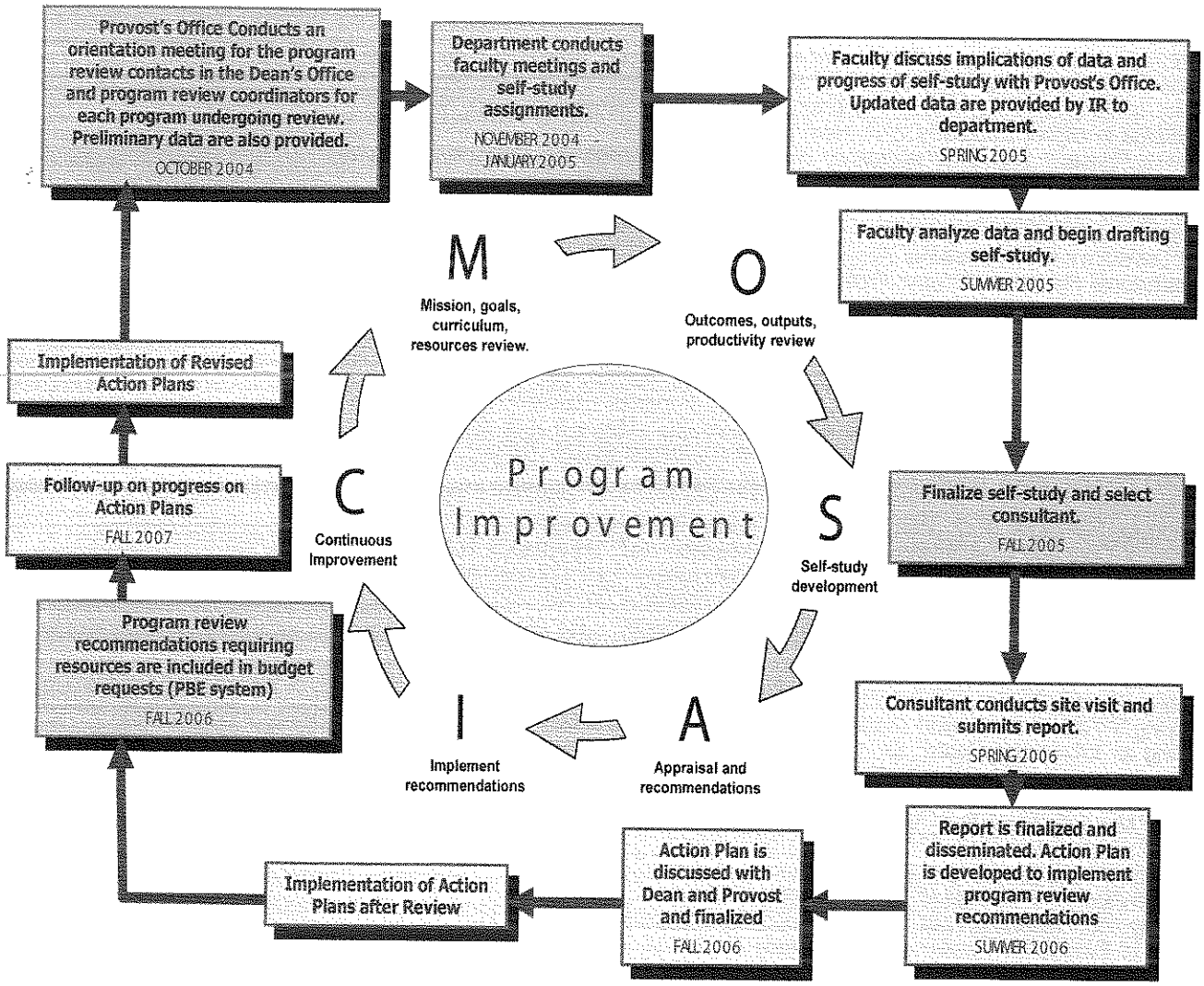
VIII. Responses to Previous Program Review Recommendations

IX. Strengths

X. Needs and Recommendations:
1) Recommendations that require no new resources, and 2) recommendations that require new resources

Appendix C

FAMU's Academic Prgram Review Cycle
(Each Program is Reviewed on a Seven-Year Cycle)



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Dealing with Information Systems: The Institutional Researcher's Problems and Prospects (L.E. Saunders; 4 pp; No. 2)
Formula Budgeting and the Financing of Public Higher Education: Panacea or Nemesis for the 1980s? (F.M. Gross; 6 pp; No. 3)
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A Methodological Approach to Selective Cutbacks (C.A. Belanger & L. Tremblay; 7 pp; No. 14)
Effective Use of Models in the Decision Process: Theory Grounded in Three Case Studies (M. Mayo & R.E. Kallio; 8 pp; No. 15)
Triage and the Art of Institutional Research (D.M. Norris; 6 pp; No. 16)
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