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ABSTRACT

The academic program review process that accounts for conceptual properties of loose coupling is analyzed, and organizational theory literature is reviewed with regard to program review and loose coupling. In addition, the academic program review process used at Ohio State University is described in detail, and the elements of loose coupling evident in that process are examined. Loosely coupled systems are organizations or organizational elements that are tacitly related to one another. Loosely coupled review processes typically have comprehensive purposes, variable review procedures, and program specific review criteria. Distinctions between tightly coupled and loosely coupled review systems are summarized. Program review at Ohio State University is a comprehensive, faculty-based process; all aspects of academic programs are reviewed: teaching, research, and service activities, and graduate and undergraduate components. There are commonly four parties to each review: the program itself (faculty, students, and program administrators), the college to which the program reports, the graduate school, and the Office of Academic Affairs. A coordinating committee composed of senior faculty members outside of the program being reviewed assist self-study committees plan the review, manage the external review, and bring reviews to closure. Nine characteristics form the conceptual bases of program review at the university: flexibility, program definitions, self-study, parties to the review, openness, feedback, external review, peer coordination, and closure. It is concluded that when program review is structured so that the process accounts for the university as an "organized anarchy," the functions of loose coupling are apparent. (SW)

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Title . . . . . Academic Program Review in a Loosely Coupled System

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ABSTRACT

This paper concerns the concept of loose coupling. It contains an analysis of an academic program review process that accounts for several conceptual properties of loose coupling. Organizational theory literature is presented in order to clarify why program review is an especially appropriate activity in today's higher education milieu and to define the concept of loose coupling. A detailed description of the academic program review process in use at The Ohio State University is also presented. Finally, the elements of loose coupling evident in that process are described. The analysis demonstrates the value of structuring program review activities within educational organizations taking assumptions of loose coupling into account.

Compared to a decade ago, academic program review in American higher education is receiving increased attention. More institutions now conduct reviews; the reviews are more comprehensive; and they tend to have a greater impact on institutional planning and budgeting (Engdahl and Barak, 1980). The prominent role give to academic program review activities in recent years has also increased scholarly interest in the subject. Studies have focused on institutional-sponsored review (McMichael, 1973), state agency-sponsored review (Barak and Berdahl, 1978), and legislative committee-sponsored review (Berdahl, 1977). National study commissions, too, have examined and have made recommendations about program review (Carnegie, 1975; Carnegie, 1980; Sloan, 1980).

Despite this scrutiny, available knowledge about program review in higher education is rudimentary. Heldman (1975) recognized a need for more program review information and emphasized that optimal mechanisms for program review have not evolved. Also, Craven (1980) urged that program review information be made more readily available:

> A number of institutions currently have exemplary approaches to academic program evaluation. The concepts, guidelines, and operating experience that accompany these approaches should be shared more widely with other institutions (p. 452).

If program review processes are shared and critically examined, "effective methods can be identified and frequent mistakes avoided" (Wilson, Poland, and Seagren, 1981, p. 11K). Most investigators discuss operational elements of review systems in use, but few pursue theoretical or conceptual dimensions of program review. We attempt to do so.

In this paper organizational characterisitics of a particular program review process are explained (Note: program review is defined as a process of institutional-sponsored review involving a "searching, comprehensive evaluation of an existing or a proposed program" (Arns and Poland, 1980b, p. 65)). More specifically, the paper concentrates on a review process that reflects features of loosely coupled systems. Briefly defined, loosely coupled systems are organizations or organizational elements that are tacitly related to one another. Data from a case study of program review at The Ohio State University are used to understand better the concept of loose coupling in a research university (DiBiasio, 1982).

This paper is organized in three sections. In the first section, organizational theory literature is presented in order to clarify why program review is an especially appropriate activity in today's higher education milieu and to define the concept of loose coupling. The second section contains a description of Ohio State's program review process, and the third section explains the elements of loose coupling evident in that process.

Organizations as Open Systems

Environmental Influence, Uncertainty, and Feedback. The open systems view of organizations can aid in understanding why colleges and universities have increased their program review activities in recent years. A basic assumption of the open systems perspective is that organizations are dependent upon inputs from their environment

for survival (Katz and Kahn, 1966). Under stable environmental conditions, organizational behavior is relatively consistent, and the flow of inputs remains fairly constant. Tomorrow is likely to resemble today (Hedberg, Nystrom, and Starbuck, 1976). However, when environmental conditions become less stable, organizational functioning is threatened. Unstable environments are problematic because they leave organizations more vulnerable to external influence and create uncertainty (Thompson, 1967). Increasingly, the environments of organizations, particularly educational organizations, have become unstable, evolving toward turbulent field conditions "characterized by complexity as well as rapidity of change" (Terreberry, 1968, p. 59).

Rapidly changing demands and resource fluctuations contribute to environmental uncertainty for many colleges and universities today. In this dynamic state, educational organizations need sensitive feedback mechanisms that are "informative in character and furnish signals to the system about its environment and about its own functioning in relation to the environemnt" (Katz and Kahn, 1966, p. 22).

Program review can provide that kind of feedback. Rippey (1973) underscored the importance of evaluation as a feedback mechanism; he noted that such feedback should "provide the information and intelligence necessary for institutional survival" (p. 11). Mandelbaum's (1979) discussion of the "intelligence of universities" also suggests a key role for program review. In his view, "intelligence, as it is applied to learning, depends on the ability of

major instructional units to measure, understand, and manipulate their own behavior and its impact on students" (p. 27). In the same vein, Seagren and Bean (1981) wrote:

> Higher education can ill afford to ignore the changing environment, consequently, colleges and universities must now, more than ever, be concerned with developing coherent strategies for academic program development. These strategies must provide opportunity for faculty and administration to document the rationale, impact, and results for programmatic decisions. The documentation, in turn, can serve as a vehicle for communicating between internal and external constituencies (p. 2).

Effective program review can help universities cope with environmental uncertainty.

Yet, due to the nature of educational organizations, implementing useful feedback mechanisms is difficult. Cohen and March (1972) explain that educational organizations, more than other types of organizations, require rather elaborate structures to provide information on their behavior and on the behavior of their subsystems. In their view, elaborate feedback mechanisms are needed because educational organizations are "organized anarchies" characterized by unclear goals, unclear technologies, and fluid participation.

Loosely Coupled Systems. "Open systems theorists," said Scott (1981), "are also attempting to recognize that organizations are loosely coupled systems" (p. 53). The terms "loosely coupled systems" or "loose coupling" mean that organizational elements can be joined without tight and rigid connections (Weick, 1976). Essentially, the

view of organizations as loosely coupled systems comes from the imposition of the three characteristics of organized anarchies on the open systems perspective.

Organizational tasks are tightly coupled when "goals and technologies are clear and participant involvement in decision making is predictable and substantial" (Ecker, 1979). According to Weick (1976):

> . . . preoccupation with rationalized, tidy, efficient, coordinated structures has blinded many pratitioners as well as researchers to less tightly related clusters of events . . . . By loose coupling, [I] intend to convey the image that coupled events are responsive, but that each event also preserves its own identity and some evidence of its physical and logical separateness. . . . Loose coupling also carries connotations of impermanence, disolvability, and tacitness all of which are potentially crucial properties of the "glue" that hold organizations together (p. 3).

Weick insists that loose coupling in structural arrangements of organizations can be highly adaptive for the system as a whole. Moreover, Scott (1981) pointed out:

> The concept of loose coupling can also be applied to the relationship among structural units such as work groups or departments. Inspection of official organizational charts may lend the impression that these units are all highly interrelated and closely coordinated, whereas observation of their actual behavior may reveal that they are only slightly and occasionally connected (p. 108).

Educational leaders and administrators trained in the more conventional literature on organizations and administration may look on loose coupling as dangerous and defective, something to be remedied. However, Weick has noted that the concept of loose coupling need not be used normatively (Weick, 1976, p. 6). Educational leaders

might instead explore what advantages there are in loosely coupled systems. What appear to be organizational liabilities from a traditional point of view may, nevertheless, present important opportunities.

Regarding those opportunities:

> Weick notes a number of ways in which loose coupling . . . may be highly adaptive for the organization, particularly when confronting a diverse, segmented environment. To the extent that departmental units are free to vary independently, they may provide more sensitive mechanisms to detect environmental variation. Loose coupling also encourages opportunistic adaptation to local circumstances; and it allows simultaneous adaptation to conflicting demands. Should problems develop with one departmental unit, it can be more easily sealed off or severed from the rest of the system. Moreover, adjustment by individual departments to environmental perturbances allows the rest of the system to function with greater stability. Finally, allowing local units to adapt to local conditions without requiring changes in the larger system reduces coordination costs for the system as a whole (Scott, 1980, p. 248).

Broad distinctions become apparent when program review processes are placed along a tightly coopled/loosely coupled continuum. Tightly coupled review processes are likely to stress efficiency. They can be characterized by their narrow purposes, uniform review procedures, and centrally prescribed review criteria. In contrast, loosely coupled review processes typically have comprehensive purposes, variable review procedures, and program specific review criteria. Table 1 summarizes these distinctions between tigthly coupled and loosely coupled review systems. Examples appear in parentheses.

Table 1

A Contrast of Tightly Coupled and Loosely Coupled Program Review Processes

Characteristics	Tightly Coupled	Loosely Coupled
1. Purpose	Limited (program elimination, accountability)	Comprehensive (program improvement)
2. Procedure	Uniform (standard questionnaire)	Variable (no fixed format)
3. Criteria	Prescribed and Centrally Determined (productivity measures)	Program Specific (multiple measures)

The Operations of Program Review

To demonstrate that program review at Ohio State is compatible with the concept of loose coupling, it is necessary to know how the process works. The following section contains a description of the process. It begins by presenting a general, map-like view of the review system. Next, conceptual characteristics are explained. Following that explanation is a more detailed account of the procedures for review.

An Overview

Program review at Ohio State is a comprehensive, faculty-based process. The process is comprehensive because all aspects of academic programs are reviewed, teaching, research, and service activities and

graduate and undergraduate components alike. It is faculty-based because responsibility for review resides with faculty members, not administrators. The purpose of program review is simply, solely, and explicitly program improvement (Ohio, 1978).

There are commonly four parties to each review: the program itself (faculty, students, and program administrators), the college(s) to which the program reports, the Graduate School, and the Office of Academic Affairs.

For every program review, a self-study committee composed of program faculty and, occasionally, students is formed. The self-study committee generates a report based upon a searching examination of the program, giving particular attention to quality, value, and effective use of resources. This report forms the background for a site visit by external reviewers.

The external review committee visits the campus after having received the self-study report. It meets with faculty, students, and administrators and submits a report of its own about the program's strengths and weaknesses and with recommendations for improvement. The members of the committee are senior faculty from other universities or accomplished practitioners from professions.

The self-study report and the external review report are instrumental to:

> the development of a plan of action, called a memorandum of understanding, which sets forth the agreements of all parties with respect to what will be done over a given period, typically five years, who will do it, and how it will be known to be completed. The memorandum of understanding serves as a basis for checking subsequent progress and is updated and monitored by the coordinating committee (Arns and Poland, 1980a, p. 280).

The organizational key to the review process is the coordinating committee. Each program review has its own coordinating committee composed of senior faculty members from inside the university but from outside the program being reviewed. Its members assist self-study committees plan their investigation, manage the external review proceedings, keep lines of communication open, and bring reviews to closure (Ohio, 1978, p. 4).

Conceptual Characteristics

Nine characteristics form the conceptual bases of program review at Ohio State and undergird the entire process. They include flexibility, program definition, self-study, parties to the review, openness, feedback, external review, peer coordination, and closure (Arns and Poland, 1980a, 1980b).

Flexibility. Program review at Ohio State was designed so that individual reviews could accommodate to unique aspects of particular programs. This type of flexibility led to the rejection of protocols and standard forms to be filled out. Instead, the review process was constructed with the recognition "that no two programs are alike." In this way it is possible "to tailor individual reviews to the nature of the program" (Arns and Poland, 1980a, p. 278-9).

Program Definition. Program is defined as "a coherent set of academic activities with specified goals" (Ohio, 1978, p. 3). This broad definition makes it possible for a variety of academic program configurations to be the focus of review. For example,

> . . . a program may be a traditional department, or parallel components of several departments, or coherent sets of departments, or an entire college or some other activitiy -- such as the University's Basic Education Requirement -- which involves many departments and colleges (Ohio, 1978, p. 3).

A flexible definition of program implies that its boundaries are permeable.

Self-Study. Program review has encouraged:

> a form of self study that is self-generative rather than reactive. The purposes of self-study are (1) to increase the consciousness of program participants concerning what they are doing and what they ought to be doing; and (2) to provide a basis for later steps in the process by communicating, via a written report, facts about the program and the perception of the participants (Arns and Poland, 1980a, p. 279).

The self-study committee members are responsible for writing that report, "in which the emphasis ought not be on data but on what the data mean" (Arns and Poland, 1980a, p. 279). The size and composition of the self-study committee depends on the program under study.

An important feature of the self-study committee is its independence. It may make use of whatever resources are necessary and appropriate to complete its task. The committee is free to draw its own conclusions and is not obliged to seek consensus on issues or recommendations. Throughout its investigation, the program faculty, students, and alumni are involved in ways that foster a searching investigation. As a result, self-studies proceed differently for different units of review.

Parties to the Review. The concept of parties to review underscores interdependence among academic programs and administrative units within the university. This characteristic, in the way that it

is applied, distinguishes Ohio State's program review process from many others. Arns and Poland (1980a) explained:

> We have insisted that the process of review includes not only those within the program but all who are in some way responsible for it. A typical review of a department involves four parties: the program, the college dean, the chief academic officer of the university, and the graduate dean (p. 279).

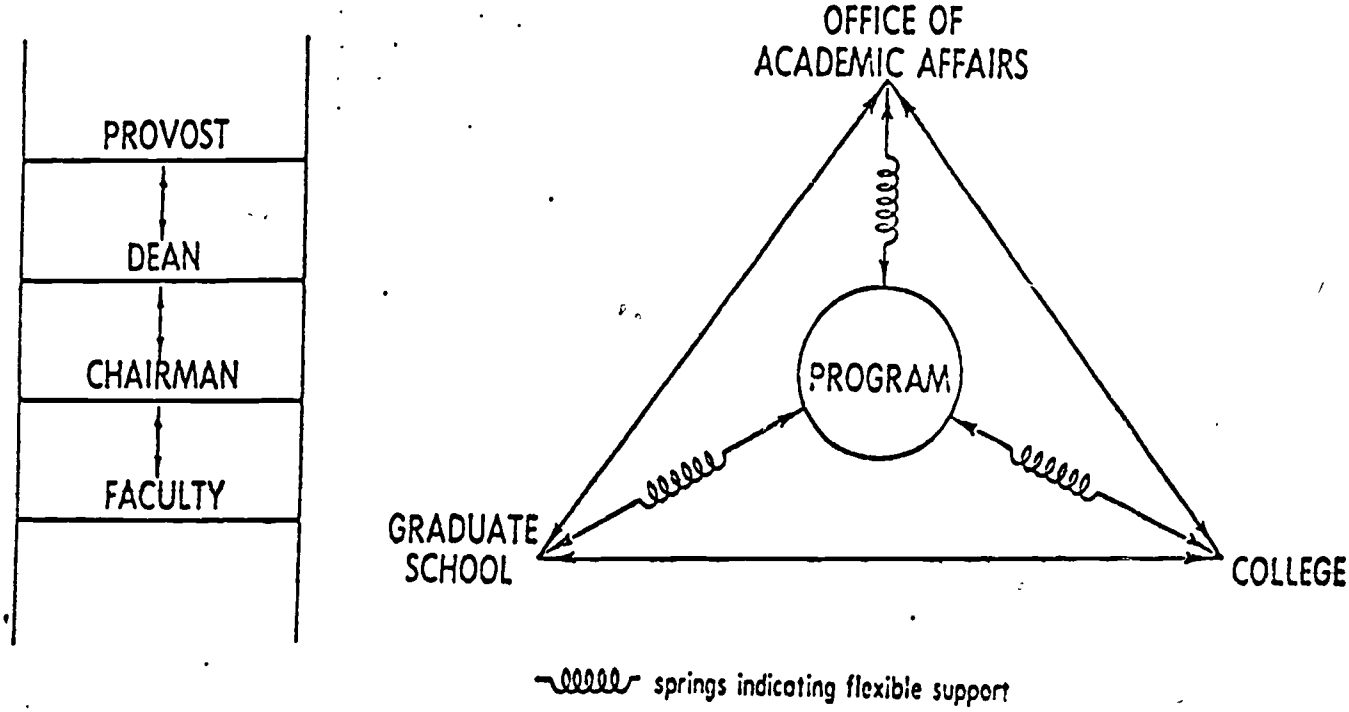
The concept of parties to review is critical to program review at Ohio State.

Poland (1981) used graphic illustrations to depict the concept of parties to review. Figure 1 on page 12 is an adaptation of two of those illustrations. To clarify the meaning of parties to review, Poland explained that:

> The Ladder (in Figure 1) is a . . . good representation of the worst aspects of most review or evaluation systems we studied. In review, it represents a standard set of questions, based on a standard set of data, couched as a standard set of forms to be filled out. These forms start at the top of the Ladder and filter down to the chairman -- one may never know whether they reach the faculty beyond a request for up-to-date vitas. The completed forms are passed back up the Ladder and then those at the bottom wait to hear what the people at the top of the Ladder have decided. . . [In contrast] . . . our programs , . ., viewed comprehensively, exist in a triangular relationship rather than a ladder-like administrative support structure. The Office of Academic Affairs, the Graduate School, and the colleges exist because academic programs exist, and their combined purpose is to provide flexible support for these programs. In the triangle, the lines represent all lines of support, responsibility, and communication as they relate to that program and its relation to these supporting administrative units (p. 2-3).

Figure 1

Fig. 1: A schematic representation of the concept of parties to review contrasted to an administrative hierarchy.[1]



1. Adapted from Poland, W. "Program Review at The Ohio State University. In D. DiBiasio (Chair), Perspectives on Institutional Program Review: Alternative Methods and Models. Panel presented at the National Conference on Higher Education of the American Association of Higher Education. Washington, D. C., March 6, 1981.

Therefore, "the program is the focus of the review, but in every program review, each party -- the program, the college, the Graduate School, and the Office of Academic Affairs -- may find something to improve" (Poland, 1981, p. 3).

Openness. Mims (1978) discussed the dimensions of choice that emerge when considering the design and implementation of program review. One dimension she listed was "confidentiality vs. openness." The designers of Ohio State's program review process opted for openness. A concern for openness is seen in the expression that "each of the parties is expected to be candid in communication concerning the program with other parties, coordinating committees, and external reviewers" (Arns and Poland, 1980a, p. 279). Moreover, the process is designed to permit any party to ask questions or state propositions, to make all documents available to all of the parties, and to have open committee selection procedures (Ohio, 1978; Arns and Poland, 1980b).

Feedback. Feedback has been encouraged throughout the program review process by inviting transactions among the parties and by offering other academic support units an opportunity to provide input. Specified feedback loops occur during review. When a report is drafted, comments are made by all parties and distributed to all parties. As a result, reports may be revised, with successive iterations continuing until an acceptable report emerges. In addition, academic support units are notified when each program begins

review; they are requested to submit questions, provide data, or raise pertinent issues. The following supervisors of academic support units are routinely notified:

--the Vice Provost for Arts and Sciences,

--the Vice Provost for Continuing Education,

--the Vice Provost for Minority Affairs,

--the Vice President for Regional Campuses,

--the Vice President for Health Sciences,

--the Director of University Libraries,

--the University Honors Director,

--the Office of Campus Planning Director,

--the Ohio State University Research Foundation Director, and

--the Instruction and Research Computer Center Director.

External Review. A common characteristic of program review and evaluation in higher education is peer review. The Ohio State review process provides for external review by disciplinary or professional peers. In most reviews, experts from outside the university make a site visit and prepare a report. The external review stage normally follows self-study.

Peer Coordination. Unlike program reviews that are conducted by either a central faculty committee (Wilson, 1981b) or an administrative office staff (Freeman, 1981), Ohio State's program reviews are conducted by faculty and coordinated by separate groups of faculty peers. Each review has its own coordinating committee, a name derived from its principal task. Coordinating committees are responsible for managing reviews and have five specific tasks:

> They (1) work with the Self-Study Committee to outline the self-study issues; (2) work with all parties toward a mutually acceptable design for external review; (3) design additional studies when needed to reconcile differences between the self study report and the report of the external reviewers; (4) foster open communication and feedback throughout; and (5) see that the process is brought to closure and that changes are implemented (Arns and Poland, 1980a, p. 280).

Closure. Ultimately, the success of a review depends on the results it produces. Therefore, it is important that a review process has provisions for meaningful results to occur. Ohio State's process includes a mechanism for closure designed to insure that results do occur.

Closure is reached when the parties to a review agree on a course of action and embody their agreements in a document called the memorandum of understanding. The memorandum of understanding spells out a mutual understanding of the objectives to be pursued by programs, the steps to be taken to achieve those objectives, and the time frame and estimated costs for completing them. Accomplishments completed during the course of program review are also recorded in the memorandum of understanding. Above all, the document serves as a basis for measuring subsequent progress.

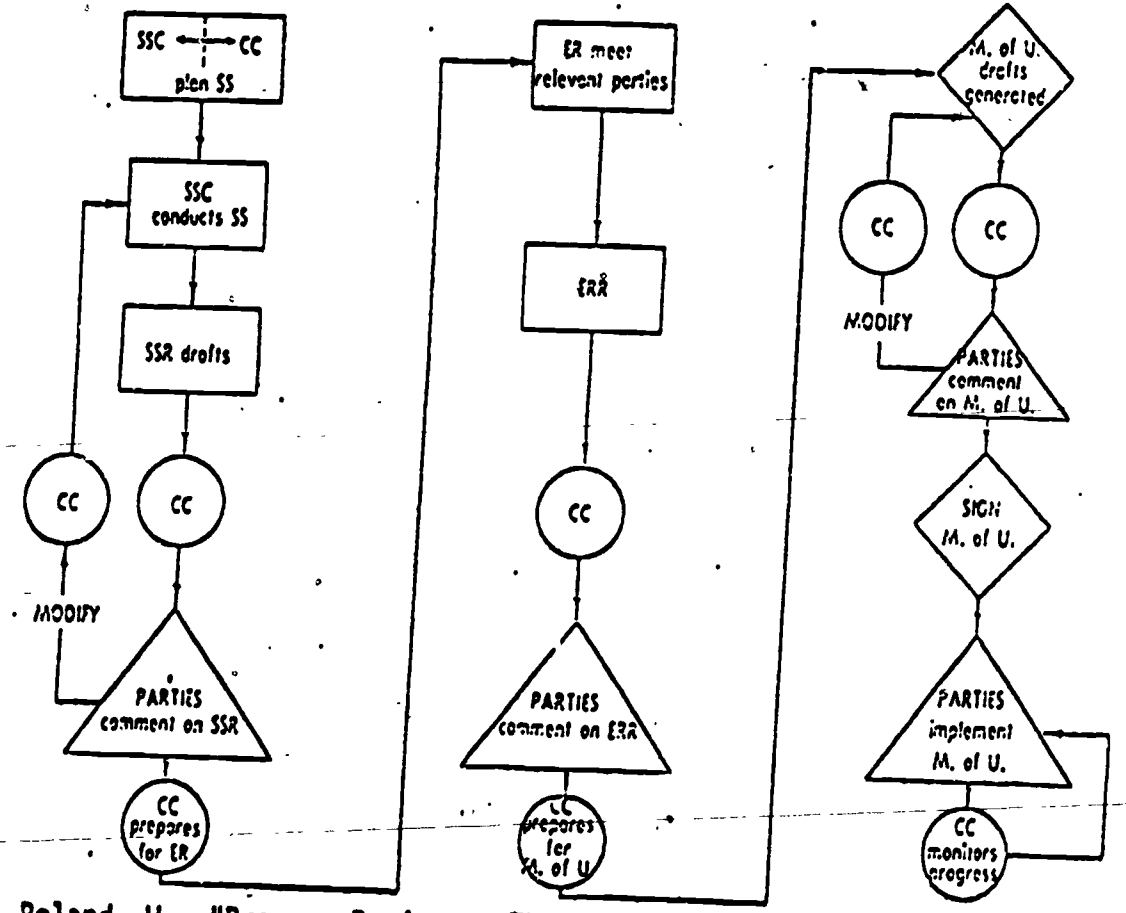
Program Review Procedures

Figure 2 on page 16 illustrates how Ohio State's program review system works. Poland (1981) has explained:

> ". . . in this Figure, the rectangles represent work done by the Self-Study and External Review Committees. Circles represent the Coordinating Committee. The lines with arrows show the

Figure 2

Fig. 2: A schematic representation of the sequence of events in the program review process at Ohio State.[1]



1. Poland, W. "Program Review at The Ohio State University. In D. DiBiasio (Chair), Perspectives on Institutional Program Review: Alternative Methods and Models. Panel presented at the National Conference on Higher Education of the American Association of Higher Education. Washington, D. C., March 6, 1981.

> direction of flow. The triangles carry the relational meaning [depicted in Figure 1]. . .The diamonds represent the four parties, with all lines of communication open, planning together in light of the results of the review (p. 7).

The three columns delineate the three major phases of review: self-study, external review, and closure.

Before the self-study committee and the coordinating committee meet to plan for self-study (upper left-hand box of Figure 2), a number of preparation activities take place. For the most part, these preparation activities are coordinated by a program review staff.

The program review system is coordinated by a staff of four persons. They include the associate provost for instruction, the associate dean of the Graduate School who chairs the Policy and Standards Committee, the program review administrator, and a graduate research associate. The program review administrator is the only staff member assigned full time to program review. He serves as the common contact point for all programs in review and performs valuable services in fulfilling that role.

Most programs are selected for review by college deans who propose programs to the Office of Academic Affairs. Deans create their own criteria for selecting programs. They may propose a program based on an impending accreditation review; they may use the occasion of a new department chairman appointment to select a program for review; or they may use other methods. One dean proposes programs in alphabetical order. Regardless, nominations are normally accepted so long as the total number of reviews in the system remains at a manageable number.

With the acceptance of a new program for review, other preparation activities are triggered. One of those activities is an orientation session. The program review staff meets with program participants to set the context for the review procedure, to discuss benefits, expectations, and procedures for review, and to answer questions.

Committee selections are another preparation activity. College deans appoint a self-study committee for each review. Normally, they make recommendations and ask the appropriate program head for nominations before making the official appointment. The provost appoints each coordinating committee, after receiving the recommendations of the program, the college dean, and the Graduate School. The principle of preemptory challenge applies during the selection of a coordinating committee. All coordinating committee members must be accepted unconditionally by all parties. Membership typically includes four to six faculty members whose combined characteristics are knowledge of the unit in review but no formal affiliation with the unit, university statesman qualities, and unfamiliarity with the unit of review. The latter characteristic permits the innocent but sometimes seminal question.

Once the college dean appoints the self-study committee and the provost appoints the coordinating committee, the program review staff meets with their members. Special features of the review, logistical support, a timetable for review, and other procedural matters are discussed at these meetings. Also, it is common at this meeting to provide the self-study and the coordinating committee members time to begin their planning. This planning is depicted in the upper left-hand rectangle of Figure 2.

Self-Study Phase. The left-hand column of Figure 2 shows that after plans for self-study have been laid, the self-study committee begins its investigation. In short, the committee collects, analyzes, and explains relevant data about its program. To assist programs with self-examination, a section of the Guide for Program Reviewers (Ohio, 1978) contains questions for possible consideration. About these questions, Poland (1981) has noted:

> We do not represent them to be all possible questions, nor do we prejudge their pertinence to a particular review. We present them as a useful checklist and as a device to generate thought (p. 10).

In addition, the Guide (Ohio, 1978) presents, "in the form of a logical progression," nine fundamental questions "about programs and their components. . ." that should be answered:

1. Who are we?
2. What do we do?
3. How much does it cost?
4. Why do we do it?
5. What do we seek to accomplish?
6. How does what we do related to why we do it?
7. What difference does it make whether we do it or not?
8. How well do we do it?
9. What is needed to make what we do more valuable? to help us do it better (p. 2)?

Once a draft self-study report exists, the coordinating committee makes sure that the parties to review and the program's participants receive the draft. Furthermore, the coordinating committee requests

written comments from the parties. Comments are shared with all parties, sometimes in raw form, sometimes the coordinating committee prepares and distributes a codified summary of the comments (Poland, 1981, p. 8).

Reading a draft self-study report and making comments about it is an activity that may be reiterated, as Poland (1981) pointed out:

> On the basis of these comments and with the counsel of its Coordinating Committee, the Self-Study Committee may do more work, may revise the Self-Study draft, or may ask for editorial assistance. There may be no or several modification cycles.
> . . . it is never the case that anyone has to approve the Self-Study Report formally. Rather, at some point, it is agreed that the document has laid the basis for:
> 1. Defining the characteristics needed by the External Review Committee;
> 2. The selection of that Committee
> 3. Setting its schedule; and
> 4. Having the Coordinating Committee prepare a letter of charge to the External Reviewers (p. 8).

External Review Phase. The middle column of Figure 2 depicts the external review phase of program review. Including an external review phase in the program review process rests on the premise that independent observers can identify strengths and weaknesses and can evaluate projected courses of actions from a different perspective than program participants. Further, it is believed that their perspective can contribute to program improvement.

The external review committee is composed of three or more scholars or practitioners. Among the external reviewers are persons knowledgeable in their discipline as well as at least one person familiar with the role of similar programs in institutions like Ohio State. If the program has a professional dimension, one or more of

the external reviewers may come from the ranks of practitioners. External reviewers are appointed by the provost upon the recommendation of the other parties, and all members must be accepted by all parties without reservation.

The purpose of the external review committee is to conduct an investigation of the issues identified in the letter of charge proposed by the coordinating committee. Along with the letter, they are sent the self-study report, with attendant comments, appropriate bulletins and other University publications, and a copy of the Guide for Program Reviewers. The coordinating committee plans the external review and serves as host to the reviewers, and the external reviewers make their report to the coordinating committee.

At an initial meeting, external reviewers are welcomed to campus and are given an opportunity to ask questions about the review system and their role. During their visit, they meet with the appropriate persons, and, at the end of their visit; there is a closure meeting. Once the coordinating committee receives the external reviewers' report, it is distributed to the program faculty and to all parties for written comments.

The Closure Phase. Receipt of the external review report and the attendant comments signifies the beginning of the closure phase of review. The right-hand column of Figure 2 illustrates the closure phase. The major task in this phase is to generate and to sign a memorandum of understanding. A signed memorandum of understanding represents a multi-lateral commitment on the part of the parties to

review. Emerging from the substance of previous review documents, it is an evolutionary agreement subject to change as events unfold, but only with the consent of all parties directly involved in such changes.

Preparation of the memorandum of understanding involves the parties reaching agreement on the nature of the issues to be included in the document and on the appropriate actions that are needed to address those issues. Reaching this agreement entails the parties meeting together to discuss the issues and actions. Based on these discussions, a draft memorandum of understanding is written and cycled through iterations where modifications may be made. Finally, the document is signed by all parties.

The memorandum of understanding is bound along with the self-study report, the external review report, and other necessary documents such as addenda to any of the reports generated during the review or responses to any of the documents from parties to the review that bear on the memorandum. Copies are then distributed: one for each party to the review (four in most cases) and one for the coordinating committee chairman, who is responsible for conducting the followup review.

Although signing a memorandum of understanding signifies that the major task of the closure phase of review is complete, the review process itself is not completed. Periodically, the coordinating committee will monitor progress and make a report to all parties. The memorandum of understanding serves as the basis for measuring progress. Once a followup report has been issued, the parties reconvene to determine what, if any, new recommendations should be

implemented and to decide which, if any, phases of the review process should be repeated. It is not anticipated that the entire process will need to be reiterated.

Program review at Ohio State has three major phases: self-study, external review, and closure. The process is non-linear and involves complex transactions between interlocking committees. Above all, it is managed by faculty members.

Program Review in a Loosely Coupled System

Program review at Ohio State takes account of the nature of the university as a loosely coupled system. Findings from a case study of program review at Ohio State suggest that six propositions about loose coupling are evident (DiBiasio, 1982). The six propositions are described below.

First, Weick proposed that loose coupling permits identity and separateness among elements to persist. The Ohio State University program review process preserves identity among program units by not relying on standard forms and protocols in review. Instead, the process relies more on face to face communication among the parties to review so that qualitative dimensions of programs can be understood. In this way, units can convey their own identity, complexity, and idiosyncratic qualities and not merely react to a set of forms. A study by Hall (1978) concluded that "limited communication occurred when standard protocols reduced the need for contact between evaluation units and the departments being investigated" (p. 22). It is difficult to preserve identity under those circumstances.

Preservation of separateness among units is evident in the way that "program" is defined in the Ohio State review system. The definition is broad and thus contributes to retaining separateness among different types of academic units. By stating that a program is "a coherent set of academic activities with specified goals," a diversity of program configurations can be reviewed (Ohio, 1978, p. 3). Ohio State's system has reviewed entire colleges, schools, research centers, departments, and interdisciplinary programs. In contrast, a number of review systems review only degree programs or programs with budgetary lines, excluding other kinds of academic entities.

A second proposition is that loose coupling provides a sensitive sensing mechanism. Weick (1976) said "that loosely coupled systems preserve many independent sensing elements and therefore 'know' their environments better than is true for more tightly coupled systems" (p. 6). Findings from this study demonstrate that better understanding of programs and of the university has occurred. Interviews with 71 program reviewers indicated that 48 per cent of them learned more about programs in review and 39 per cent of them learned more about the University. Occasionally new problems were discovered, but more often old issues were cast in new light. Moreover, program review has also been a good medium for exploring issues that lie beyond a program's boundaries.

That loosely coupled systems are good systems for localized adaptation is a third proposition. Localized adaptation means that if elements in a system are loosely coupled to each other, then

adjustments in a single element can occur without adversely affecting the whole system. In program review this has occurred. For example, in two program reviews the self-study committee and the coordinating committee were collapsed to form a single comprehensive committee. In another, three academic units involved in biochemical instruction were reviewed as a single program. Each program conducted its own self-study with a single coordinating committee for the entire review.

By definition, localized adaptation is the opposite of standardization. Although the program review process has a general framework for review, it is a framework that is flexible and adaptable. The ability to make adaptations provides an opportunity to experiment and to adjust to local needs. In one of the instances cited above, consolidating two committees into one appears not to have worked well. The other adaptation was effective; it laid a basis for program consolidation. In fact, when the review system was designed, adaptability was an important consideration. In this way, program review at Ohio State permits experimentation to occur without affecting the entire process.

A fourth proposition is that a loosely coupled system can potentially retain a greater number of mutations and novel solutions than would be the case with a tightly coupled system. In other words, evolutionary and revolutionary changes may occur. Program review at Ohio State has produced both.

Most of the changes in programs have been evolutionary. Moderate adjustments in curriculum, operations, physical resources, and human resources have been identified and carried out.

In addition to the programs in review, the other parties to review have made evolutionary changes as well. For example, the Graduate School has changed its data collection processes and data presentation format as result of program review.

Revolutionary changes have been less frequent. The initiative now underway to examine the range of statistical and quantitative courses taught across the university can be viewed as a revolutionary solution to an entrenched problem.

Fifth, it has been proposed that breakdowns in one portion of a loosely coupled system can be sealed off from affecting other portions of the system. Evidence to support this proposition can be drawn from the case study as well. Ohio State's review system currently has 48 programs that have completed or are in some stage of review. A few of them have been problematic. One in particular has had difficulty coming to terms with its self-study. Others had difficulty at the memorandum of understanding preparation phase. Yet these idiosyncratic problems have not posed a threat to program review in general or to other reviews. The remaining reviews continue to make progress while trouble spots are isolated and resolved.

The establishment of a separate coordinating committee for each review makes the sealing off of breakdowns possible. A coordinating committee can devote itself to resolving difficulties that arise in the review for which it has responsibility. On the other hand, reviews managed by a central committee lack this flexibility. Poland and Arns (1978) discussed how one central review committee became the victim of its own unrealistic timetable.

A sixth proposition is that in loosely coupled systems there is more room available for self-determination among actors Weick (1976) argued that "a sense of efficacy might be greater in a loosely coupled system with autonomous units than it would be in a tightly coupled system where discretion is limited" (p. 8).

The openness found in the Ohio State process creates the possibility for self-determination among actors. For example, it has already been noted that great discretion and autonomy are given to self-study committees. With the coordinating committee, they devise their own plan for self-examination.

Self-study chairmen have recognized the value of their independence. One said," . . . I've been impressed all along with the willingness of Academic Affairs to meddle as little as possible with the process . . . ." Another wrote, "In general, the faculty appreciated the privacy of the reviews - both the room and the absence of administration".

Nothing inherent in the openness of program review at Ohio State insures that actors will probe deeply and will use wisely the discretion they have. Arns and Poland (1980a) explained that "it is difficult for them [program faculty] to understand that they can pose and respond to their own questions and that we care about the meaning of data" (p. 281).

To summarize, the concept of loose coupling can be usefully applied to program review at Ohio State. The findings from the case study indicate that program review: (1) permits identity and separateness among units of review to persist; (2) provides a

sensitive sensing mechanism; (3) permits localized adaptation; (4) retains mutations and novel solutions; (5) seals off breakdowns; and (6) provides room for self determination. Therefore, these findings show that when program review is structured so that the process accounts for the university as an organized anarchy, the functions of loose coupling are apparent.

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