ED 368 270   HE 027 286

AUTHOR   Losak, John; Scigliano, John
TITLE   Total Quality Management and Institutional
                Effectiveness: Synergy through Congruence.
PUB DATE   Jan 94
NOTE   20p.
PUB TYPE   Reports - General (140)

EDRS PRICE   MF01/PC01 Plus Postage.
DESCRIPTORS   College Administration; Decision Making; Higher
                Education; *Institutional Administration; Models;
                *Organizational Effectiveness; Policy Formation;
                Program Development; *Self Evaluation (Groups);
                *Total Quality Management
IDENTIFIERS   Southern Association of Colleges and Schools

ABSTRACT
        This paper provides a framework for an institutional
self study integrating total quality management (TQM) and
institutional effectiveness (IE) models within the context of
standards of the Southern Association of Colleges and Schools. It
highlights the common dimensions in general management principles
between TQM and IE and the strategies for handling differences or
areas of uniqueness in their approaches and philosophies. A TQM/IE
model is presented within a work flow context that covers the setting
of priorities, decision and policy making and development of
benchmarks for interpreting standards, synchronizing work, obtaining
feedback for evaluation, and crafting formats for communication and
reporting. Problem analysis, performance, and support and enabling
processes are discussed as well as the existing barriers to TQM, such
as the costs associated with installing TQM within an organization
and the problems associated with implementing TQM recommendations,
including psychological barriers. Contains 21 references. (GLR)

TOTAL QUALITY MANAGEMENT AND INSTITUTIONAL EFFECTIVENESS:

SYNERGY THROUGH CONGRUENCE

By: John Losak and John Scigliano

Nova Southeastern University
January 1994

This paper is an attempt to provide a framework for an institutional self study that integrates total quality management and institutional effectiveness. Self study is a process by which the workings of an institution are illuminated and brought forward in a manner that makes each of the components much more visible than is the case without focused self study. The Southern Association of Colleges and Schools as a voluntary organization has focused in the last decade on the question of effectiveness as outcomes rather than, as previously, on processes. Total Quality Management is a process that is also a part of a self-study effort. Each of these terms is presented and relationships described:

> *TOTAL:* One aspect of the term "total" can be understood through the word "pervasive." In this case the institution is seen as being totally immersed from top to bottom, from the President's Office to the custodial function. Another view of "total" describes the thoroughness with which the quality of the outcome is ensured. It is important to note that perfection is an ideal and by definition not obtainable. Therefore, to have a product or an outcome that is perfect is not attainable over the long run. Even in business and industry the ultimate goal is to attain "six sigmas" or achieving the probability of 3.4 errors in a million. In educational institutions the error rate is obviously going to be a great deal higher, and would most likely require a tolerance for error at a level different from that found in manufacturing businesses.

> *QUALITY:* The Southern Association of Colleges and Schools has, in effect, permitted operational definition of quality by indicating that effectiveness is defined and determined by each institutional unit or subunit. The focus of self monitoring is to ensure three results: 1.) that the self study process as a continuous ongoing endeavor is in place, 2.) that it is pervasive in the institution, and 3.) that substantial efforts are made toward achieving the outcomes that are defined by each unit. It is quite easy to see that this notion has many similarities to that of total quality management. It is also obvious that the word "total" as it applies to "error free" has a wide range of applicability. Tolerance will vary considerably depending on the particular outcome that is desired by the unit. For example, in the registrar's area at most universities the least tolerated error has to do with recording of grades on the student transcript. It is obvious that all efforts should be made to strive for near perfection in this product. On the other hand, long lines in the registration process may be undesirable, and may be due to some error, but this has been more

tolerable for an institution than transcript errors. Therefore, particular objectives that the registrar's office may set for minimizing errors that generate long lines will result in fewer errors but not a totally error free environment.

MANAGEMENT: Management may be viewed as a process by which resources, including material and personnel are organized and distributed to achieve a particular task. This is accomplished through a structure that is designed to achieve organizational effectiveness. Structure is concerned with the formal aspects of work, including plans, policies, rules, and procedures. Effectiveness is seen in management as the attainment of organizational goals and objectives. As Peter Drucker says, in management the term effectiveness is doing the right things whereas "efficiency" is doing things right. A manager's job is to be effective. In TQM, effectiveness is satisfying the customer's needs and in IE it is producing predetermined outcomes.

There are many common elements to be found in the institutional effectiveness model and the TQM paradigm. Also, there are several key differences between the two. The commonalities and the differences will be considered in depth. Taken as a whole, these two approaches to organizational effectiveness can be made to reinforce each other and lead to a synergistic effect. In order for synergy to take place, several events must occur. The conceptual foundations of each must be made explicit and melded into a cohesive framework where the strengths of each are used. Work that goes on exclusively within one of the domains must be carefully coordinated through communication links to the other. This is particularly important in areas involving the setting of priorities as well as in making the many decisions that must be made about what work should be accomplished. Otherwise, duplication of effort could waste resources and create confusion among those working in the various domains.

HIGHLIGHTING THE COMMON DIMENSIONS

The areas of congruence between TQM and IE involve general management principles that all effective organizations exploit. In the self-study process for colleges and universities, it is critical that the entire institution be involved. In this sense the word "total" is appropriately used This is in-keeping with both SACS and with TQM theory and practice. Statements of goals, procedures to achieve them, and measures to demonstrate the achievement level of the goals, are regularly accomplished in higher education. An annual report on institutional effectiveness reflects these. All of these are each is not only required but all are viewed as important in making an institution competitive in today's market environment. There are many other common aspects of TQM and IE that will help to promote synergy. These are summarized in Table 1. at the end of this document. Each of the common dimensions of the two systems is highlighted below.

1. Executive Leadership, Direction, and Ownership:

Another way to state this is that each system is driven "topdown." Basically this means that direction is given to executives at every level from the CEO or the college president regarding the necessity of implementing each system throughout the organization. Each system is dependent on this leadership from the college president or CEO in order that the energies that are required to implement the process be fully integrated. It can be safely assumed that without this direction and commitment neither system will work effectively.

2. Understanding the System:

Each of these systems has a vocabulary that is somewhat unique and requires all persons who work within the system to become familiar with not only the terms themselves, but the meaning of the terms and how they facilitate the search for quality and continuous improvement. It is essential to realize that an attempt to implement the system when understanding is either lacking or incomplete is likely to lead to breakdown at just those points where the understanding is requisite.

3. Systematic Data Collection and Data Driven Decisions:

Both systems require extensive data collection, feedback into the system, and decisions that are generated by the data. If either system is implemented in a manner such that data collection becomes pro-forma or is not fed back into the decision-making process, then neither can succeed.

4. Statistical Analysis:

Both systems are highly dependent upon numerical analyses in order to analyze growth and movement toward the accomplishment of the established goals and objectives. It is not useful to deal in generalities or to make statements that are vague and that may lead to a wide array of interpretations. Statistical analyses form the foundation upon which the data collection process rests and can provide insight for decision makers when directions the organization should take are considered.

5. Effective Coordination and Communication:

If each unit is working independently of the other with little or no communication between and among the units, the effectiveness of both TQM and Institutional Effectiveness diminish, often to the point of becoming totally burdensome. It is critical to each process that the total organization be involved and empowered to act, and this certainly can not occur without effective communication up and down.

6. Regular Reporting:

There must be a balance between reports that are too frequent and too elaborate and reporting that is so infrequent that the communities affected are not apprised of the progress they are making. Toward this end each system should be devised so that reporting is regular and sufficiently brief that people will both read and take action on the contents of the report.

7. Change Orientation:

Unquestionably the primary assumption of both TQM and Institutional Effectiveness is that change is useful, needed, and important for the institution or organization and the systems can work effectively as change agents. It is obvious to many that maintenance of the status quo is a primary reason that many organization and institutions fail to satisfy their customers and their students.

8. Ensure Quality Outcomes:

Under the purview of institutional effectiveness the term "quality outcomes" is a pervasive aspect of the literature.   This is also true in the case of Total Quality Management. Business and industry have focused on quality outcomes by using TQM to minimize errors and to try to assure customers that the products they receive will be at the highest quality possible.

9. Improve Programs and Services:

Although much like Item 3, the next point of similarity is the need to measure improvements in programs and services. This suggests that each system should periodically review not only the findings (results) and the decisions made based on results, but whether or not decisions improved both programs and services.

10. Long Term Effort:

Institutional effectiveness as put forth by the Southern Association of Colleges and Schools emphasizes throughout that putting a system in place to determine and use materials generated by measures of IE is a long term endeavor. It is not something that will occur in three to six months. This is also the case for TQM. Although the time horizons may be different depending upon the products and the services, there is little question but that everyone in the organization needs to be aware that each of these processes requires a concerted effort for five to ten years be realized.

11.   Productivity Increases:

Productivity, of course, is much easier to measure in a TQM system. Although productivity increases are harder to measure in higher education than in service organizations at large, there is a continuing search for processes that will enhance productivity. IE tends to focus on those areas within an institution that have explicit goals, that although not directly related to productivity, will hopefully enhance productivity as a by-product.

12.   Achievement of Goals:

Total Quality Management and Institutional Effectiveness can be viewed as processes that are put in place by organizations in order to ensure the attainment of specified goals. There are numerous processes that have been used over the years to help institutions achieve goals. However, the common elements suggested in this brief overview of TQM and IE suggest that each may be extremely useful in helping organizations not only to attain goals, but to gain insight into those factors that need attention in the future, while diminishing work on activities that appear least useful.

STRATEGIES FOR HANDLING DIFFERENCES:

There are significant differences or areas of uniqueness in the approaches and philosophies contained in Total Quality Management (TQM) and institutional effectiveness (IE). These do not have to keep us from working with the two domains in an integrated environment. However, we should do several things where the differences exist:

1. Justify the differences where we cannot change one or the other.

2. Qualify the differences whenever the need arises to clarify assumptions, restate conditions or givens, or explain the roles that each will play.

3. Rectify the differences by making changes in our approach to one or the other where these changes will increase effectiveness.

4. Unify differences by merging attributes to reinforce opportunities for synergy.

Illustrates an application of the first situation noted above on the first item in Table 2 at the end of this document. In this situation the two approaches are vastly different and neither can take much dilution or both could lose their distinctiveness. TQM rests on a bedrock of the customer's needs and the requirement that those providing services in an organization understand those needs completely. This cannot be compromised or TQM does not exist. In the case of institutional effectiveness, focus on outcomes must be safeguarded and not be recast to a "process mode" as stipulated in TQM. Institutional effectiveness derives its uniqueness through a focus on outcomes. This strength must be maintained. In Table 2, items that serve to make up the kernel of TQM are marked with an asterisk. At times, some changes may have to be made in one or the other processes. Where we reach an impasse, IE concerns must have priority.

A MODEL OF THE INTERFACE BETWEEN TQM AND IE:

In order to explore the unique contributions of IE and TQM, as well as to contrast the differences between them the various generic activities and processes of both IE and TQM in three dimensions of context, structure, and performance are shown in Figure 1. The assumptions are that work begins with a high-level commitment from top-management of the institution that leads to assigning responsibility through staffing, proceeds according to a conceptual framework and a set of policies that shape the structure of problem analysis and implementation activities, and concludes with the reporting and dissemination of results. To ensure that work within the structure is both effective and efficient there is a need for contributions from two special functional areas: one consists of decision making and control activities, and the other is formed of support and enabling components. Each of these elements is discussed below from both the IE and TQM perspectives.

STRUCTURE

DECISION MAKING AND CONTROL

Throughout both the IE and TQM processes there is a need to maintain a structure for decision making and to control operations in a systematic manner. This involves setting priorities, making policy, developing benchmarks or interpreting standards, synchronizing work, obtaining feedback for evaluation, and crafting formats for communication and reporting.

FLOW OF WORK

CONTEXT

Top-Level Management Commitment:

In both IE and TQM the commitment to achieve results comes from the top, with the President and the Trustees. Without this authentic support people will not be motivated to make a concerted effort to achieve excellence. The lack of commitment from top management will eventually show up in missed deadlines and poor morale as participants sense that resources are not provided adequately or the rewards for hard work never come.

Staffing and Assigning Responsibility:

It is essential in the early stages of any program that attempts to link IE and TQM that responsibility be assigned to appropriate individuals. Since both processes tend to be controlled initially in a top-down fashion, the overall responsibility for managing the two processes is best assigned to a member of the President's staff. Broad distribution of work and decision making will occur as the process unfolds but the need for a skilled individual at a high level in the institution is vital to the effective linking of the two efforts.

Conceptual Framework:

In linking two complex processes like IE and TQM it is essential that the various requirements of both systems are made explicit under a single conceptual framework. Through the successful blending of the detailed aspects of both systems the potential for synergy will be realized. Both IE and TQM can make significant contributions to performance of an institution, but the greatest gains will come when the unique contributions of each are enhanced through a common interface containing statements of philosophy, policy, and expectations.

PROBLEM ANALYSIS:

The term "problem analysis" is used to refer to the total life-cycle of work on a problem. Since most of the activities in bringing about improvements come from solution of the "right" problems, it is important that a systematic problem analysis process be in place. This includes methods for identifying customer educational needs, a mechanism for finding or diagnosing problems, data collection and analysis, appropriate group methods for brainstorming or working creatively toward solutions, tools and techniques for treating data, communication among all members of teams, and the effective implementation of solutions.

Customer Educational Needs:

The customer must be the focus of all work on problems. In order to achieve effectiveness, the educational needs of the customer must be used in the entire problem analysis cycle, beginning with the identification of the problem.

Problem Identification:

Problem diagnosis is a critical step in problem analysis. Without an adequate way of finding the "right" problems to work on the institution can never achieve effectiveness in a systematic manner. TQM accomplishes this task through numerous teams that in many cases are cross-functional. Teams must be trained in problem finding techniques so that alternative ways of looking at any problem are considered. In TQM, the initial stimulus for any problem is the needs of the customer; in most cases this will be student oriented. In IE, the various MUST statements from the Southern Association of Colleges and Schools are useful in pointing to potential areas of weakness that will have to be improved. Through team efforts, consideration of the needs of students, and the standards of accreditation, can be coupled to raise quality and improve services to students.

Data Collection and Analysis:

Data collection and analysis are in the mainstream of both IE and TQM. In IE, the Institutional Research Office is usually closely tied into these processes. The information systems of the institution also provide support. The key differences between IE and TQM in this dimension concern the intensity with which data are used as the problem analysis process unfolds. Generally, IE is outcomes oriented, although inputs and resources are crucial too. In TQM, the focus is on the critical processes that institutions install to get things done. TQM relies heavily on successful work on these processes with a continuous eye on the needs of the customer. The joining of the two models in the data collection and analysis areas produces heightened opportunities for synergy since the blend will help ensure that both outcomes and process will be accounted for in a framework that keeps the needs of the customer at the forefront.

Group Methods:

Much of the work completed in IE is geared to demonstrating that an institution is in compliance with set standards of accreditation. The vehicle for providing evidence in most cases is a self-study process and a document that unfolds over a period of two or three years. The self study is valuable for many reasons but its vital contribution is that it helps mobilize all of the human resources of the institution in a coherent process that hopes to make all facets of the institution's strengths and weaknesses explicit. There is no counterpart to the monolithic self-study in TQM since TQM is in a continual state of revision and implementation. However, the need to muster the efforts of the human resources of the institution in a cyclical and concerted effort can be beneficial to the TQM process. It can counter any tendency to fall into a groove or develop habits that may lower effectiveness.

Tools and Techniques:

Both IE and TQM make extensive use of statistical tools. IE applies many of the techniques of quasi-experimental design through the help of the Institutional Research office or faculty classroom outcomes studies. TQM relies on the Seven Basic Tools made popular in Japan through quality control programs. These tools consist of flow charts, control charts, scatter diagrams, histograms, cause and effect diagrams, Pareto charts, and run charts. Most of these tools depend on the graphical presentation of results and the charts are used to communicate among team members and appropriate agencies within the institution.

Communication:

Effective two-way communication is important not only within the IE and TQM processes but between them as well. Communication about the nature of the problems being addressed by teams must be shared on a regular basis. This will reduce duplication of effort and enhance opportunities for synergy. In making IE and TQM work harmoniously a variety of communication mechanisms can be used including newsletters, online bulletin boards, memoranda, and overlapping membership by individuals involved in the two areas.

PERFORMANCE:

Implementation of Solutions:

The performance dimension of the model in Figure 1 contains an item concerning the implementation of solutions to problems addressed by the teams in the structural dimension. Both IE and TQM have a stake in implementation because of their focus on using results to make continuous improvement.

The expectation exists in IE that results will be applied through the decision-making process to make changes to raise effectiveness. In TQM, each process studied is

reviewed continually for opportunities to improve it. So in a sense there is never a "permanent" fix or solution provided for any problem or process. This is the essence of continuous improvement that is the heartbeat of TQM. Through combining the two orientations, using results to make changes in decision making, and at the same time realizing that change is never absolute, we can produce a system that is much more responsive to the customer and the demands of the workplace.

Reporting:

IE relies on a series of reports based on goals and outcomes. Prior to the year in which the visiting team arrives to a campus, reports are generally made annually to the accreditation agency. In the year of the self study, the major activity leads up to the publishing of the self-study document itself. In TQM, reports are made on a continuing basis showing progress made by various teams. Charts posted on the outside of participants' office doors make the results of team efforts visible to the external world. No monograph is published that tells the whole story of the work in TQM. Through regular posting of charts showing progress of team efforts it is possible to enhance the self-study process and in general the entire IE system. The work of individual teams can be summarized in the self-study document to give a more detailed picture of the change process in action. This should lead to a self study that is more closely related to the needs of the customers, be they students, employers, or other publics.

Dissemination:

In IE, dissemination is accomplished through formal channels as the self-study process unfolds through the publication and distribution of the final document. Ideally, the final self- study document should serve as a basis for improvement in the institution's effectiveness. To ensure that this does in fact happen, the TQM effort can use the document as a basis for further studies and team efforts. This could be especially helpful to institutions that are just beginning the TQM process. By designing TQM operations around the self-study effort, an institution can maintain a high-level commitment to continuous improvement and constructive change.

SUPPORT AND ENABLING PROCESSES

To ensure that adequate human and material resources are provided to individuals working in IE and TQM, it is important that certain support and enabling functions be considered. These involve information systems, documentation (manuals and guidelines), training, staff assistance, ongoing research to improve the entire process, and the actual resources themselves. A sound information system is the essence of any IE or TQM effort since the effective collection and use of data determines the outcome. The appropriate documentation is also needed to inform individuals of the nature of the tasks as well as to link work going on simultaneously in both IE and TQM. Training is needed to ensure that all participants know their jobs and is especially important when IE and

TQM coexist within an institution. Adequate staff support is necessary to follow-up on solutions and to identify resources needed to make the solutions work effectively.

A NEW PARADIGM:

TQM has been labeled by some as a new paradigm. That is, the models, concepts, and principles that undergird TQM are significantly different from the long established methods of management. The attributes of TQM that make the difference involve an emphasis on understanding and pleasing the customer, world-class benchmarking, empowerment of employees, team rewards and incentives, the internal customer concept, and the focus on prevention rather than testing or inspecting.

These essential functions form a gestalt, and in the continuing search to improve quality performance, parts of TQM cannot be arbitrarily altered without changing the nature of the whole. Many college and university administrators are heard to say that they have focused on quality for decades and are therefore using TQM. Without world-class benchmarking, focus on both the internal and external customer, and extensive training and monitoring, TQM can be implemented in name only.

Numerous assumptions are used in TQM to support the paradigm. Primary among these is at the very foundation laid for TQM by W. Edwards Deming. This assumption is that the system is the problem and not the employees. Deming teaches that only management can change the system, and management must act on accurate and timely data, not on guesses or whims. While in TQM the focus is on the process the outcomes are not ignored; both are monitored in a systematic fashion.

The construct of both the internal and the external customer is significant where the internal customer is the next person in line. The assumption is that everyone in the organization has a customer. The cost of quality is another important concept that has at least three components: the cost of designing for prevention including quality improvement planning and training, the cost of fixing errors internally including rework and downtime, and the cost of repairing, servicing, fixing or correcting errors or rejects that surface externally. Finally, TQM involves a long-term commitment to continuous improvement where all employees are involved in making the improvements a permanent part of the organization.

CHECKLIST TO ENSURE IMPLEMENTATION:

In order to assist with implementation of a program that integrates Total Quality Management with Institutional Effectiveness, a checklist that can be used in the early stages of development is presented. The checklist is an attempt at providing a vehicle to ensure appropriate elements of the Model in Figure 1 are considered as well as to help monitor opportunities for synergy. The check list is shown in Figure 2. The checklist can also be used by an external evaluation unit that reviews an institution's efforts in blending the best of TQM and IE.

BARRIERS AND ROADBLOCKS:

The costs of installing TQM can be substantial, even though these costs should result in savings in the long run. Training is one of the biggest costs to an institution. Training must be provided throughout the organization, with many organizations giving as much as six days training to each individual. Training costs to World Class organizations can run as high at 5% of the budget. Those not willing to make this commitment to training may be wise to not install a TQM system.

An organization can run into trouble if it tries to fund recommendations of TQM teams for major changes in the organization. It may not be feasible to implement recommendations that require major expenditures of operational dollars. Some institutions have coped with this by establishing rules to temper expectations of team members. The costs of implementing solutions to problems and changes in processes do not have to be a burden to an institution. In Oregon State University's TQM system, teams are told not to recommend solutions that require new personnel or additional funds to implement. This puts greater burdens on team members but has led to many novel solutions at OSU.

Once TQM is started, an organization will find it very difficult to return to a pre-TQM state--the bell cannot be unrung. The commitment needed to launch an effective TQM effort will generally change the culture of an organization so much that internal relationships take on an entirely new form--more religious than bureaucratic, more spiritual than political. The way of doing business is drastically changed under TQM.

The greatest barrier of all may be psychological, and successful implementation could hinge on the perception of individuals concerning the way each perceives his or her role. Since TQM tends to be a top-down process, it's difficult to build a sense of ownership at lower organizational levels. The attitude of "it's not my job" is always a potential threat to TQM efforts. Manufacturing firms are using a process called "concurrent engineering" in which all members of the key functional areas in an organization work together through the life-cycle of development. Those that use concurrent engineering say that in the old way of doing things, the product was thrown over the wall from marketing to engineering, and from engineering to manufacturing, and so on. The new way is referred as throwing the engineer over the wall. For the psychological barriers to be eliminated, cross-functional cooperation is required.

It will not be easy for many people in an organization to drop what they are doing and convert to the new demands of TQM, especially in making the extra effort to link it to institutional effectiveness. Old habits are difficult to change. In TQM, individuals must accept the condition that TQM is not an add-on to a job, but an organic part of their existing job. New strategies for time management could be helpful to those that have trouble in meeting all the demands of the new responsibilities. Training will again play a significant role in meeting this challenge. Considerable effort must be made within an organization to help people perceive their roles differently and make the changes that will lead to effective coupling of TQM and IE.

	Table 1
Common Dimensions of TQM and Institutional Effectiveness	

- Driven top down

- Necessary to understand the system

- Systematic data collection and data driven decisions

- Statistical analysis

- Two-way communication is at the core

- Regular reporting

- Change oriented

- Ensure quality outcomes

- Improve programs and services through use of results

- Long term (5-10 yrs.)

- Raise productivity

- Achieve effectiveness (attain goals)

Table 2 Dimensions that are Different Between TQM and Institutional Effectiveness Models	
Total Quality Management	**Institutional Effectiveness**
* Focus on customer needs	Focus on outcomes
* Benchmarking world class	Minimum standards
* Empowerment of employees	Cooperation among units
Forging a vision	Clarifying a mission
Paradigm shift	Existing models
Information system intensive	Computer support of data
* Focus on critical processes	Focus on outcomes and MUST statements "bean counting"
* Internal customer concept	Communication among units
* Continuous improvement	Continuous planning and evaluation
* Training essential	Skills are assumed
* Teamwork and team rewards and incentives	Institutional and departmental rewards and incentives
* Prevention	Monitoring and testing outcomes
Non-academic units	Emphasis on academic issues

* Items marked by an asterisk define the heart of TQM and must not be modified to any great extent

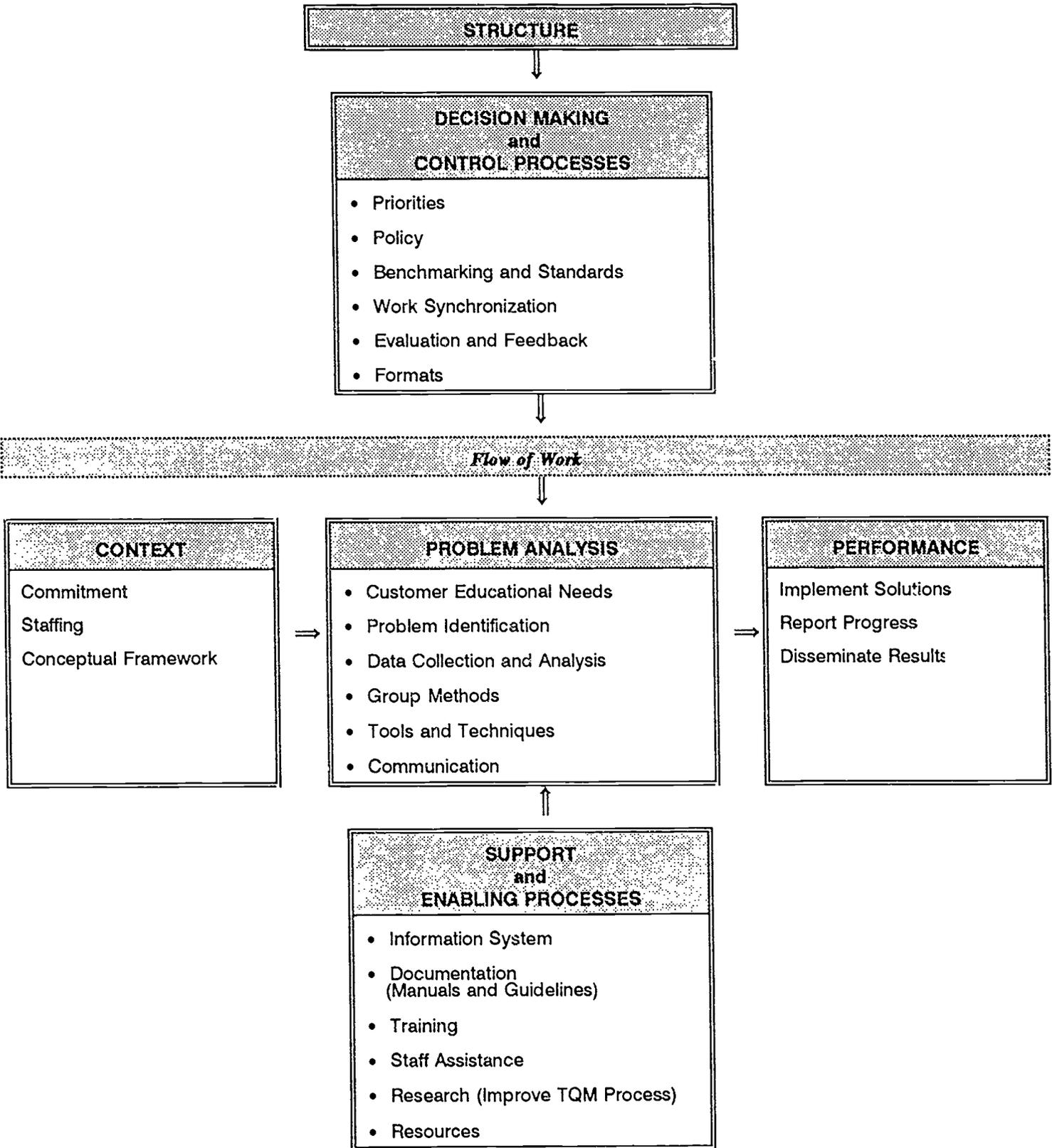## Total Quality Management and Institutional Effectiveness Interface Model

Figure 1

STRUCTURE

↓

DECISION MAKING and CONTROL PROCESSES

- Priorities
- Policy
- Benchmarking and Standards
- Work Synchronization
- Evaluation and Feedback
- Formats

↓

Flow of Work

↓

CONTEXT		PROBLEM ANALYSIS		PERFORMANCE
Commitment	⇒	• Customer Educational Needs	⇒	Implement Solutions
Staffing		• Problem Identification		Report Progress
Conceptual Framework		• Data Collection and Analysis		Disseminate Results
		• Group Methods		
		• Tools and Techniques		
		• Communication		

⇑

SUPPORT and ENABLING PROCESSES

- Information System
- Documentation (Manuals and Guidelines)
- Training
- Staff Assistance
- Research (Improve TQM Process)
- Resources

Figure 2
Checklist for Linking Total Quality Management and Institutional Effectiveness

CONTEXT	
COMMITMENT:	Has a written statement been prepared by the President or CEO demonstrating his or her commitment to linking TQM and IE in the overall institutional review process? Have the trustees gone on record as supporting efforts in linking TQM and IE?
STAFFING:	Have the appropriate staff members been assigned to all aspects of the process including training.
FRAMEWORK:	Has a document been prepared that shows the overall conceptual framework for working with TQM and IE? Has a glossary been written that contains definitions of all terms that will be used in TQM and IE? Have the opportunities for synergy been made clear?

STRUCTURE: DECISION-MAKING AND CONTROL PROCESSES	
PRIORITIES:	Has a mechanism been developed for setting priorities for work involving the two systems?
POLICY:	Has a set of policies for the system been published in a policy manual?
BENCHMARKING AND STANDARDS:	Has the process for benchmarking been identified? Is it clear when minimum standards will be in effect and when the institution will use benchmarking of the excellent models that exist?
WORK SYNCHRONIZATION:	Is there a linking mechanism that ensures proper timing of the work in TQM and IE? Has an office or an individual been given responsibility for synchronization activities?
FORMATS:	Is there a set of procedures in place for ensuring common formats in communication and reporting?

STRUCTURE: PROBLEM ANALYSIS	
PROBLEM IDENTIFICATION:	Are teams required to consider alternative interpretations of problems? Are appropriate "problem finding" methods used by teams? Are MUST statements used as sources of potential problems?
DATA COLLECTION AND ANALYSIS:	Is the Institutional Research Office involved in the TQM effort? Is the method for identifying critical processes in the TQM effort made clear? Are responsibilities for data collection and analysis assigned to appropriate individuals?
GROUP ACTION:	Is there a distinct list of group methodologies that will be used in problem analysis? Is there a diagram that clearly shows the flow of the self study process and the work of groups?

TOOLS AND TECHNIQUES:	Are the exact tools and techniques to be used in both TQM and IE clearly identified? Is there a schedule for using the tools of TQM so that optimal benefit is achieved?
COMMUNICATION:	Is there a publication such as a newsletter (hard copy or electronic) that is used to facilitate communication?
STRUCTURE: SUPPORT AND ENABLING PROCESSES	
INFORMATION SYSTEM:	Is the computer or data center involved in both the TQM and IE processes? Has a system been designed specifically for giving online access to members of teams to needed information concerning the institution?
DOCUMENTATION:	Do the staff members and teams have adequate documentation about the expectations and requirements for their work?
TRAINING:	Has a plan for training been designed? Are skilled individuals assigned to training for both TQM and IE?
STAFF ASSISTANCE:	Are staff persons available to follow-up on team results?
RESOURCES:	Is the institution prepared to allocate needed resources to implement team solutions or are teams required to recommend only those solutions that do not require additional staff or funds?
PERFORMANCE	
IMPLEMENT SOLUTIONS:	Are teams required to recommend solutions that will not require more staff and funds?
REPORT PROGRESS:	Has the structure of reporting been made clear (types of reports, timing, and content)?
DISSEMINATE RESULTS:	Are the routing procedures for documents or reports clear?

Bibliography

Bemowski, K. (1991, October). Restoring the pillars of higher education. *Quality Progress,* 37-42.

Chaffee, E.E. & Seymour, D. (1991, November-December). Quality improvement with trustee commitment. *AGB Reports,* 14-18.

Chisholm, A.W. (1990). New Perspectives on manufacturing science and engineering education. *Computers in Industry, 15,* 149-159.

Cuttance, P. (1990, December). *Performance indicators and the management of quality in education.* Paper presented at the third National Conference on Indicators in Education, Canberra, South Australia. ERIC Document Reproduction Services No. ED 333 575.

Harrington, W. (1992, January). *Total quality management at Nova University.* Unpublished manuscript, Nova University, Fort Lauderdale, Florida.

Hau, I. (1991, February). *Teaching quality improvement by quality improvement in teaching.* (CQPI Report No. 59). Madison: University of Wisconsin, Center for Quality and Productivity Improvement.

Hendley, V. (1962). TQM: Colleges waging 'quality' war to improve education. *AACJC: The Times, 4(7),* 1, 6.

Higgins, R.C., Jenkins, D.L., & Lewis, R.P. (1991, January-February). Total quality management in the classroom: Listen to your customers. *Engineering Education,* 12-14.

Hudgins, J.L. (1991, September). *Institutional effectiveness: A special inservice session for members of the board and representatives of independent colleges.* Unpublished manuscript, Midlands Technical College, Columbia.

Keller, G. (1992, May-June). Increasing quality on campus: What should colleges do about the TQM mania? *Change,* 48-51.

Krone, B. (1990, Fall). Total quality management: An American odyssey. *The Bureaucrat,* 35-38.

Lee, C. (1991, July). The customer within. *Training,* 21-26.

Marchese, T. (1991, November). TQM reaches the academy. *AAHE Bulletin,* 3-9.

Placek, C. (1991, September). Academe, industry seek approaches to teaching and researching TQM in business and engineering schools. *Quality,* 11-12.

Reis, F.W. & Taggert, M.C. (1992, February). *Building excellence through total quality management:* A report on preparation for the implementation of Total Quality Management at Cuyahoga Community College. Ohio: Cuyahoga Community College, Unified Technology Center.

Robinson III, J.D., Akers, J.A., Artzt, E.L., Poling, H.A., Galvin, R.W., & Allaire, P.A. (1991, November-December). An open letter: TQM on the campus. *Harvard Business Review,* 94-95.

Seymour, D.T. (1991, November). TQM on campus: What the pioneers are finding. *AAHE Bulletin,* 10-13, 18.

Seymour D. & Chaffee, E.E. (1992, January-February). TQM assessment for student outcome assessment. *AGB Reports*, 26-30.

Tenner, A.R. (1991). Quality management beyond manufacturing. *Research Technology Management*, *34(5)*, 27-32.

Wachel, W. (1991, September-October). An interview with the college's chairman, Paul Ellison. *Healthcare Executive*, 19-22.

Zemke, R. (1991, February). Bashing the Baldrige, *Training*, 29-39.