

Managing the system of higher education: The case for collaboration

Ben A. Maguad
Andrews University

ABSTRACT

Education remains a challenging area for the adoption of the total quality philosophy. Nevertheless, efforts have been made to define and improve quality in higher education. Despite some improvements, higher educational institutions are still plagued by the climate of competition that takes place between people, teams, departments, divisions, schools and universities. What is needed is an environment where everyone is working together as a system to achieve the aim of that system.

Keywords: system, total quality, optimization, collaboration, competition

INTRODUCTION

Over the years, many colleges and universities have made substantial commitments to the total quality effort. However, the percentage of higher educational institutions engaged in long term efforts to measure and improve quality seemed to be relatively small (Evans and Lindsay, 2011). From 2001 to 2008, only three institutions have received the Baldrige Award: University of Wisconsin-Stout (2001), Kenneth W. Monfort College of Business (2004), and Richland College (2005). It could be that educators, political groups, and even the public have often been slow to address the problem of educational decline on a systematic basis. Also, academia has seen many management fads come and go that it is not surprising for faculty and staff to be skeptical of any new management approach that comes their way.

In 1993, Deming (p. xi) has lamented the “climate of competition that takes place between people, teams, departments, divisions, pupils, schools, universities”. This situation still exists today. Contrary to popular opinion, competition as it exists in organizations and industries is destructive. The preferred environment is where everyone works together as a system to achieve the aim of that system. Furthermore, what is needed is collaboration and transformation towards a new style of management. The management and improvement of education can benefit from the application of the same principles that are used to improve any process in manufacturing or service sector.

APPRECIATION FOR A SYSTEM

A system is a network of interdependent components that work together to accomplish the aim of the system (Deming, 1993). The apostle Paul in the Bible understands the meaning of a system. “The body is a unit, though it is made up of many parts; and though all parts are many, they form one body” (1 Corinthians 12:12). The systems view states that the quality of a product or service depends on the “interactions of several variables, such as machines, labor, procedures, planning, and management” (Foster, 2010, p. 11). The system cannot be managed well by simply managing the parts in isolation. Management should therefore “focus on the interactions of parts and of the system with other systems, rather than the action of parts taken separately” (Evans and Lindsay, 2011, p. 50).

Developing the Aim of the System

A system must have an aim that is clear to everyone in the system. The absence of an aim precludes the existence of a system. An example of an aim is the institutional mission. With respect to the aim, Deming calls for a “constancy of purpose toward improvement of product and service with the aim to become competitive, stay in business, and provide jobs” (Foster, 2010). When this constancy of purpose is understood, everybody gains, whether they are stockholders, employees, suppliers, customers, community, environment, etc. The aim of the system must also include plans for the future. The administration may alter the course of the institution in anticipation of the needs of customers for new products or services. The institution needs to continually scan the environment for innovation opportunities: new product, new service, or a better method. Where will the institution be five or ten years from now? The administration must be willing to commit resources over the long term to ensure that the quality job is completed. Preparing for the future also includes lifelong learning

for employees for quality improvement will not happen overnight. It requires time to be effectively in place in the educational institution.

Collaboration and Aim Optimization

The management of the system requires knowledge of the interrelationships between all the components within the system and of the people that work in it. The obligation of every component is to help optimize the aim of the system. The efforts of all components of the higher educational system must be orchestrated or managed towards achieving its stated aim because, left to themselves, components tend to become selfish, competitive, independent profit centers. It is important for people within the college or university to know what their jobs are and how they should interact with one another as part of a system. It is important for them to see how their work fits in with the work of others in the system.

The greater the interdependence between components, the greater will be the need for communication and cooperation between them. It is important for the administration to recognize and manage the interdependence between these components. It is the responsibility of the administration to resolve conflicts and remove barriers to cooperation. Take for example the efforts of the various schools or faculties in a college or a university. These efforts are not additive but interdependent. One school, in order to achieve its goals (which may require a bigger slice of the institutional budget) may, left to itself, kill off another school. The obligation, therefore, of every component in the college or university is to contribute its best to the optimization of the aim of the higher educational system. For example, when schools or departments plan for the next fiscal year and send in requests for budget allocations, they should take into account how their plans can help advance the mission of the college or the university as a whole instead of simply catering to the narrow interests of their respective units. Simply focusing on their own narrow interests (e.g. fighting for a bigger slice of the budgetary pie to support new programs) can lead to in-fighting and result in eventual loss to all the components of the said institution.

The principle of a system calls for collaboration between people in the institution and between institutions. A system of education, for instance, may include pupils from pre-school on up to the university. Various groups in academia should work together to achieve its aim which is to help children grow and develop and prepare them to contribute to the prosperity of society. When institutions as well as institutional participants work together to optimize the aim of the system, everybody wins. The principle of a system also applies to joint efforts by competitors to expand the market and to provide better service to customers. When competitors, for instance, join hands to lower costs and to protect the environment, among others, everybody wins. If competitors expend their time and energy trying to expand the market (and not merely worrying about market share) by serving untapped segments or niches, they would all gain.

THE SYSTEMS VIEW OF THE PRODUCTION PROCESS

The system of production can be viewed by the use of a simple flow diagram (Deming, 1993). The flow diagram begins with predicting the need of the customer. This prediction leads to the design of the product or service then to actual production and then the observation of the use of the product in the hands of the customer. Feedback data obtained from this observation leads to redesign. The cycle goes on and on resulting in a process of continual learning and adjustment.

The flow diagram describes the flow of materials and information from the beginning of the system to the end where they emerge as a usable product or service. As they flow through the system, these materials and information must match the input requirements of the stages down the production line. The flow diagram shows how each one's work fits with the work of others in the system. It also shows how a proposed change in one or more components affects other parts of the system. In some cases, the effect of a proposed change may not be felt until months or years later. The immediate net effect may be zero or even negative. A good example would be training. Its cost immediately shows up in the ledger. Its benefits, however, may not be realized for some time in the future. Nevertheless, the company still invests in training because they believe that in the future the benefits will outweigh the costs. Management, in this case, is guided by theory, not by figures. Another example is the attempt to cut costs by unscrupulously firing employees. This action may immediately yield results in the positive direction by lowering costs but in the future it may have adverse consequences such as low employee morale and lack of competent and experienced employees to take on new positions when the company is poised for expansion.

DESTRUCTION OF A SYSTEM

If each component in Figure 1 becomes competitive with the others, the system will be ruined causing loss of unknowable magnitude to the entire system and subsequently to all the components that comprise it. Left to themselves, individual components will tend to advance their own interests at the expense of the entire system. To achieve its own goals, one department may, left to itself, kill off another department.

Table 1 shows how plans developed in one school may affect other schools and the entire college or university. Plans are developed without any regard to how they may affect other schools. Plans that are beneficial to one school may be detrimental to other schools. In this example, the net effect on the entire institution is negative.

This illustration shows a net effect on the entire institution of two negatives. If this is interpreted in monetary terms, this will represent a loss of \$2 million. If this amount were to be distributed equally, each school would suffer a loss of \$670 thousand.

Table 2 illustrates how a college or university can maximize benefit to itself by acting only on those plans that have predicted positive impact on the institution as a whole. In this case, everybody wins including schools that take a loss for the benefit of the whole institution. Of course, this requires enlightened top administration. In Table 2, the net effect on the whole institution is three positives. This can translate to a net benefit of \$3 million for the institution. Assuming that the benefits are distributed equally, each school would receive a benefit of \$1 million. Table 2 shows that some schools can operate a loss to themselves in order to optimize the aim of the entire institution, including the schools that take a loss. This requires collaboration among schools.

CONCLUSION

Managing the institution as a system requires that the efforts of all components be orchestrated toward achieving the stated aim of the institution. This process of optimization is the responsibility of the administration. When the aim of the institutional system is optimized, everybody wins. Anything less than the optimization of the whole system will bring eventual loss to the every component in the system. Every component should have as its aim the optimization of the larger system the component

operates in. The obligation then of schools or faculties in the institution would be to contribute their best to the system, not to maximize their respective interests. This requires communication and cooperation among them. Every worker needs to understand that what is best for the institution as a whole is in the long run the best for everybody.

REFERENCES

Deming, W. E. (1993). *The New Economics for Industry, Government, Education*. Cambridge, MA: Massachusetts Institute of Technology Center for Advanced Engineering Study.

Evans, J. R. and Lindsay, W. M. (2011). *The Management and Control of Quality* (8th ed.). Cincinnati, OH: South-Western College Publishing.

Foster, S. T. (2010). *Managing Quality: Integrating the Supply Chain* (4th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Figure 1

The Systems View of Production

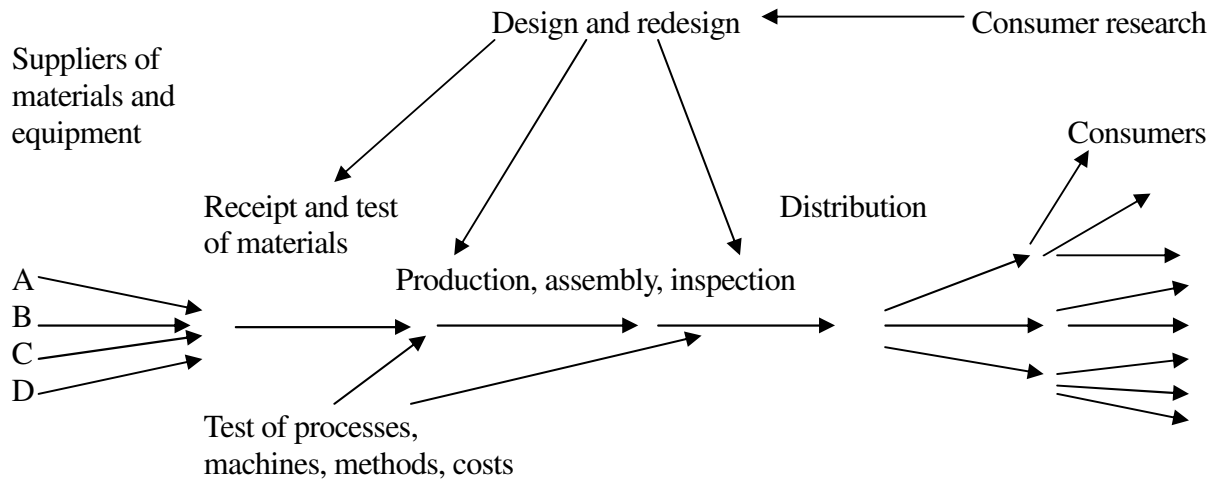


Table 1

The Effect of Plans Developed in One School on Other Schools and the Entire Institution

Schools and Their Plans	Effect on School A	Effect on School B	Effect on School C	Net Effect on the Institution
School A				
Plan 1	+	-	-	-
Plan 2	+	-	+	+
Plan 3	+	-	-	-
School B				
Plan 1	-	+	-	-
Plan 2	+	+	-	+
School C				
Plan 1	+	-	+	+
Plan 2	-	-	+	-
Plan 3	-	-	+	-
Net Effect of Adopted Plans	++	----	0	--
Distribution of Benefits	-0.67	-0.67	-0.67	-2

Table 2

The Effect of Plans Developed in One School on Other Schools
And the Entire Institution under Enlightened Administration

Schools and Their Plans	Effect on School A	Effect on School B	Effect on School C	Net Effect on the Institution
School A				
Plan 1	+	-	-	-
Plan 2	+	-	+	+
Plan 3	+	-	-	-
School B				
Plan 1	-	+	-	-
Plan 2	+	+	-	+
School C				
Plan 1	+	-	+	+
Plan 2	-	-	+	-
Plan 3	-	-	+	-
Net Effect of Adopted Plans	+++	x-	+	+++
Distribution of Benefits	1	1	1	3