BEYOND SURVIVAL - A REENGINEERING CASE STUDY IN ACADEMIA

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Introduction

Hammer and Champy define reengineering as “the fundamental rethinking and radical redesign of business process to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed.” It is an innovative and radical concept that touches core culture of an organization. It is not meant to fix short term problems or improving a particular aspect of an organization. The definition of reengineering points out four keywords for reengineering. They are Fundamental, Radical, Dramatic, and Process.

In doing reengineering, organizations must ask the most fundamental questions about the organization’s basic reason of existence. The Latin word “Radix” means root. Radical redesign means getting to the root of things and not just making superficial changes. Reengineering isn’t about making marginal or incremental improvements but achieving radical or quantum leaps in performance. The fourth key word in the definition is “process.” Most of the organizations are organized as “task-based.” To make the reengineering work an organization must shift to “Process-based” format. Consideration of the “Whole” rather than “Part” is one of the prerequisites to be successful in a reengineering effort. A few of the major organizational elements that must be effected along with many other parts of the organization are: governance and management structures, organizational culture and climate, quality initiatives, measurement of customer satisfaction and overall service delivery.

Reengineering is distinctly different from traditional total quality management and continuous quality improvement. Reengineering triggers changes of many kinds -- anything associated with the process must be refashioned in an integrated way.

There are no industries today as difficult to change as in academia. In academia shared governance structure, faculty unions, accrediting agencies, student-faculty-industry--each-claiming-customership, and taxpayers interests makes reengineering confusing, difficult and interesting. Before examining the reengineering effort at the State University of New York, Farmingdale campus we need to look at the history of the college to understand the need and impact of reengineering.
Background

The State University College at Farmingdale, which was established by the New York State Legislature in 1912, was originally known as the New York State School of Agriculture. Initially, the College offered a four-year agricultural program. In the decade following its founding, additional courses and programs were added in agriculture and ornamental horticulture. In 1920, the regular four-year offering was limited to a three-year program. During the depression years, the curriculum was reduced to two years. In 1946, to fulfill the increasing need for technically trained men and women during the post-war period, industrial-technical programs were added. In 1948, the college became a unit of the newly established State University of New York. In the 1950’s the curricula of the Industrial-Technical Division emphasized practical aspects of the various technologies. Learning by doing was the dominant philosophy. Support courses in mathematics, the physical sciences, English and the social sciences were directly and specifically related to the student’s major field of study and future employment. In the 1960’s, the college began a decade of rapid expansion by tripling its enrollment and staff. In 1965, seven technology curricula achieved ECPD accreditation. In the 1970’s unlike many other colleges, Farmingdale continued to experience growth in demand for its program. The freshman class was increased by 30% between 1970 and 1974. However, due to abrupt cancellation or indefinite postponement of the planned building program, combined with shortage of state funds in all other areas, the college was forced to reduce the size of its entering class by 22% between 1974 and 1976. In 1985, the SUNY Board of Trustees approved the addition of two upper division Bachelor of Technology degree programs.

Initiation - Change in Missions

Frank Cipriani first came to SUNY Farmingdale in 1964. He was named President in 1978. One of President Cipriani’s major priorities was raising the college’s classification from an essentially lower division institution to a specialized four year college. The administration believed that change in mission will offer a way to differentiate Farmingdale from other institutions on Long Island. It was also an opportunity to define and focus the college’s institutional niche.

Any change in the institutional mission would require approval from the SUNY Board of Trustees, the New York State Board of Regents, and ultimately the Governor. Changes in mission are very rare. In fact, there had been only one other such request in the past decade.

The college consulted with various representatives from business and industry who served on Farmingdale’s dozens of Advisory Committees. The other SUNY campuses on Long Island - Stony Brook, Old Westbury, and the community colleges were kept fully informed from the early stages. Old Westbury expressed some concerns about the proposal since it was also re-evaluating its identity. All other campuses supported the mission charge.
President Cipriani made an initial proposal for the new institutional mission to the SUNY Board of Trustees in the fall of 1990. The main theme of the new mission was stated as: “Within SUNY, Farmingdale has the distinct mission of serving the traditional and non-traditional student through a balanced combination of associate and upper division baccalaureate degree programs; curricula awarding the bachelor’s degree resemble in purpose those traditionally found at Polytechnical Colleges in their application orientations but also reflect the newly emerging fields of the applied sciences and technologies.” After considerable discussions and waiting, at the end of Fall 1991 the mission change was approved.

**Budget Situation -- Incentive for Change**

At the same time that senior administrators were fashioning an expansive and forward looking vision for SUNY Farmingdale, the institution was facing some significant and persistent budgetary problems. Farmingdale had been forced to endure several years of budget reductions. Specifically, the college’s 1989-90 base budget had been permanently cut by 14 positions. The 1990-91 base budget was permanently cut by an additional 7 positions. In September 1990, the college had submitted and original FY 1992 budget request of $34,741,700 to SUNY’s Central Budget Office. The New York State Legislature reduced this original request to $33,543,000 in January 1991. In March, 1991, a finalized base budget of $32,576,600 was approved for SUNY Farmingdale by the SUNY administration. (Table 1). The unions representing faculty, professional, and classified staff developed the term “creeping workload” to characterize complaints from members who felt that they were working beyond and/or beneath their stated position description. Some faculty and administrators were answering their own telephones, typing their own grant proposals, and assuming other extra duties. Some interdepartmental hostility also began to surface as some departments lost staff positions through attrition, while other departments kept their full number of professional and support staff.

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget Appropriation From State</th>
<th>Employee FTE</th>
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<tbody>
<tr>
<td>1987-88</td>
<td>$28,900,900</td>
<td>720</td>
</tr>
<tr>
<td>1988-89</td>
<td>30,251,100</td>
<td>721</td>
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<tr>
<td>1989-90</td>
<td>32,325,800</td>
<td>706.9</td>
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<tr>
<td>1990-91</td>
<td>33,219,200</td>
<td>696.9</td>
</tr>
<tr>
<td>1991-92</td>
<td>32,576,600</td>
<td>667.3</td>
</tr>
<tr>
<td>1992-93</td>
<td>32,692,100</td>
<td>667.3</td>
</tr>
<tr>
<td>1993-94</td>
<td>32,535,800</td>
<td>659.43</td>
</tr>
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</table>

Table 1
Enrollment and Budget Data - FY 1988- FY 1994

1996 ASEE Annual Conference Proceedings
In a letter dated August 5, 1992, the SUNY System Provost Joseph Burke wrote to Farmingdale’s President Cipriani “All of us in the Central Administration are convinced that Farmingdale needs a total restructuring of its image, programs, enrollments, faculty, facilities and budgets in order to support its substantial mission change.” The college was already ahead in the game. A plan was submitted to reduce full time equivalent (FTE) enrollment (Table 2). Burke stated that Farmingdale will have to share in any expenditure reductions that the SUNY System must absorb during 1992-93, 1993-94, 1994-95; however, to assist in the restructuring and the reallocation of funding and positions to areas of primary need, Central Administration will hold in escrow approximately $3.5 million in funds that would normally be withdrawn through the bench mark process based on an enrollment reduction of 1,104 FTE. Based on trends and comparative data, most SUNY campuses are underfunded. Allowing Farmingdale to have the opportunity to retain funds that would have been lost due to a large enrollment reduction is unusual, and it places a special responsibility on Farmingdale for effective use of the resources. The SUNY Central Administration made these funds available to give Farmingdale time to implement a reallocation plan that supports the new mission. These funds, along with campus reallocations will allow to do the following:

- recruit new faculty
- update equipment required for existing and new programs; and
- implement a salary adjustment plan.

The salary plan is intended to eliminate the practice of faculty using teaching overload as a means of supplementing relatively low comparative salaries, thereby, allowing them to engage more in applied research and service activities compatible to the new mission of the college.

Table 2

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Original Plan</th>
<th>Revision Proposed by Campus July 29, 1992</th>
<th>Difference from Original Plan</th>
<th>Difference from Planned 1992-93</th>
</tr>
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<tbody>
<tr>
<td>1992-93</td>
<td>6,281</td>
<td>5,746</td>
<td>-535</td>
<td>-535</td>
</tr>
<tr>
<td>1993-94</td>
<td>6,149</td>
<td>5,177</td>
<td>-972</td>
<td>-1,104</td>
</tr>
</tbody>
</table>

Provost Burke’s letter also stated: “The teaching load and salary adjustment plan for faculty should reflect the individual contribution necessary to make a successful transition to a highly respected institution recognized for quality throughout all of its programs and services, especially in centers of excellence in the applied sciences and technologies.
"The salary plan developed must be selective and it should not include across-the-board salary increases. For the restructuring to be successful, the salary adjustment plan must provide the means to enable participating faculty to make a full commitment to the total mission of Farmingdale."

**Downsizing Continues: Next Step in Reengineering**

To support the new mission, the college needed further downsizing. Parallel cuts do not help the reengineering process. So decisions were made for vertical cuts or elimination of some programs. All the departments were asked to submit immediately departmental revised goals and objectives and a plan for implementation for the next five years. All departments and programs were evaluated on the basis of 1) Centrality to the mission of the college, 2) Enrollment trends, and 3) Cost of the program. On the basis of these three criteria the administration decided to eliminate 1) the department of Early Childhood, 2) the department of Office Management, 3) the department of Veterinary Science, and 4) a program called Automotive Service in the department of Automotive Technology. A total of twenty three faculty and staff positions were eliminated.

**Reinvestment Plan: A Step towards a Cultural Change**

A major step in a reengineering process is to change the culture in an organization. Farmingdale being a two-year college for such a long time - the organizational culture resembled more of a community college than a four-year college. Faculty used to teach overload course(s) to supplement their income. The commitment towards scholarly pursuit was less than desirable because of a number of reasons. The administration along with faculty governance and the faculty union drew up a plan to address the cultural change in Farmingdale. This reinvestment plan meant for Farmingdale's faculty and professional staff to implement a salary adjustment plan so that faculty will no longer have to depend and extra service assignment freeing them to engage more fully in the total mission of Farmingdale.

**Reinvestment Process: Implementing Reengineering**

All full-time academic and professional employees were eligible to participate in the reinvestment plan. Those who wished to participate in this plan developed proposals which outline a commitment to Farmingdale consistent with accepted definitions of scholarship. The proposal described broad areas within the proposer's discipline that might be both multi-faceted and flexible in nature. Proposals were reviewed by a departmental committee whose membership included the chair of the department and one elected member for each three faculty or fraction thereof. The departmental committee verified, but did not rank, the scholarly nature of a proposal. This committee returned to the originator any proposal deemed not scholarly with advice on improving the proposal. Proposals submitted followed a standardized format. These proposals were then submitted to a school committee. The School Committee consisted of the dean and one departmentally elected representative from each academic department.
The School Committee reviewed and ranked them and forwarded to the academic vice-

president. The academic vice president identified all accepted proposals. Academic and 

professional employees whose proposals were accepted for implementation were no 

longer able to earn extra-service pay at Farmingdale through additional class 

assignments. The participants received a permanent adjustment to their annual base 

salaries from $7,200 to $8,000 depending upon their rank.

Conclusion

The effects of the reengineering effort can be felt in every aspect of campus life 

at Farmingdale. A center of excellence in technology transfer was established. 

Farmingdale subsequently won over two million dollars in a grant from NSF under 

advance technology reinvestment program. A part of the fund is being used to 

experiment with distance education and other modes of technology education delivery 

system. A group of faculty members is experimenting with “process” education. Another 

group is deeply involved in enhancing the core curriculum. The college tenure 

committee is looking at the criteria and procedure in the new light of a four-year college. 

These are just some of the examples. A small college like Farmingdale cannot be all 

things to all people. One needs to focus on a well articulated mission and needs to 

believe in that mission. The University and its Trustees allowed Farmingdale to develop 

new opportunities and a blueprint for growth. Farmingdale is the only state-operated 

campus within the last four decades to have gone from a two-year college to a four-year 
college. The college currently offers eight Bachelor degree programs along with 

associate degree programs and half a dozen Bachelor level programs are in various 
stages of preparation/approval.

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Biography

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