

**How to keep your Strategic Plan from a Life in the Bottom Drawer  
The Benefits of Strategic Planning  
at the Departmental, College Level, University Level**

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**Abstract**

The ABET2000 (Accreditation Board of Engineering and Technology) accreditation process has gotten engineering faculty and administrators talking about vision statements, goals, missions, implementation programs and assessment models. There is another more amorphous entity looming over many departments, colleges, and universities - the strategic plan. What is a good strategic plan, who should develop the plan, and who uses the plan are questions many administrators secretly ask themselves, but rarely discuss in the open.

This paper presents one strategic planning approach used at New Mexico State University (NMSU) in the College of Engineering, the Department of Engineering Technology, the New Mexico Space Grant Consortium (NMSGC) program, and in the Manual Lujan Jr. Center for Space Telemetry and Telecommunications. Successes and achievements of the programs after using this type of planning may provide some encouragement to those universities, departments, and programs who are interested in a sensible process which creates a usable plan with a great deal of buy in from faculty, administrators, students, alumni, and industry partners.

Strategic planning is characterized by long term approaches to organizational planning. One great difficulty in developing long term plans in a complex environment, is determining how to assess for the future and its potential to positively and or negatively impact the organization? Organizations who understand their success depends, not only their ability to determine the impact of environmental forces, but also depends on the ability of their human resources to actively adapt to the future. Organizations which chose to recognize their success is directly related to the human resources and their productive activity on behalf of the organization, have made a significant shift away from scientific management and the bureaucratic view of people as instruments or components in the machinery of the system.

When administrators are given the task of developing a strategic plan, they often develop the plan in the absence of the people doing the work in the organization. Most strategic plans are not living documents which are used to guide organizational growth and development. The plan is the vision of one or two administrators, and as such, does not require any discussion or negotiation with workers. When administrators plan the future of the organization and exclude the people doing the work from the planning process, it is inevitable the plan will be less than successful. Many administrators have experienced the seemingly futile exercise of strategic planning, and as more of their plans fail, less attention is given to planning. There is a way to

stop the cycle of poor results from poor strategic planning processes.

## **Getting Results**

Participative strategic planning is a way for organizations to tap into their greatest potential given the complexity of the environment and the potential of the workers in the organization. Participative strategic planning is based on the principles of democratization, one person, one vote. It is a shift away from representative systems which can create feelings of exclusion and disenfranchisement. In reference to the workplace, democratization of the work place is a shift toward allowing the workers to share amongst themselves the requirements for control and coordination of the tasks related to their work activities. Workers not only take responsibility for their own tasks, but the related inter-dependencies(1). The model for strategic planning which provides a way for organizations to move toward this type of work environment is the Search Conference. This method of planning provides a structure for achieving organizational change which enables the members and the organization to adapt to the future the organization has designed for itself. This planning method can be used by any organization where worker centered planned change for the future is a critical component of their planning process. Additionally, organizations which recognize their future is tightly linked to the ability of their workplace to become a learning organization in order to actively adapt to the changing environment, are more likely to include workers in the planning process. A learning organization is one structured in such a way that its members can learn and continue to learn within it. The organizational structure itself is an environment for continuing education (1). Universities offer education as a product, yet they must be intentional about encouraging their faculty and staff to participate in the culture of a learning organization.

Recently, New Mexico State University concluded a year long strategic planning process which included input from students, staff, faculty, alumni, and other partners of the university. As a component of their strategic planning process, all colleges were requested to prepare their action plans for implementation of the university's strategic plan (2). As part of the follow-up activity in NMSU's strategic plan, the Dean of the College of Engineering requested faculty and staff give input to create the College's Action Plan. This is one way to increase the potential for success in implementation of a strategic plan. Yet, success is not assured just because the workforce has gotten involved in the planning decisions.

## **Critical Components for Successful Strategic Planning**

Involving workers in the development of plans for the future of their organization must include two other critical components, control of resources and skill development. The organizational resources must be available to self-managing groups who have responsibility for critical decision making around coordination and control of their own work. Without this crucial component, the involvement of workers in the strategic plan is token participation. When the strategic planning process becomes a way for members of the department or college to participate in planning their own future, the interest in having a useful plan emerges almost immediately. When administrators allow the creation and implementation of the plan to be in the hands of the employees, there is greater movement toward the future the plan holds for the organization. It then becomes a participative plan and a living document which changes because it is used. When the guiding vision of the strategic plan is finally arrived at, it is no longer

necessary for administrators worry about increased performance. The employees know what they are working for, it is the future they want for themselves, and their organization. They have a clear road map of where they want to go and what it will take to get there. Resources are truthfully discussed, skills currently held are freely acknowledged with an eye to training to acquire skills not currently held. Self-managing groups emerge naturally around work. As the work is accomplished the group disbands to re-form around the next project. Nothing is set in stone, work groups are encouraged to actively plan and adapt to the shifting environment without losing sight of their strategic goals.

### **Strategic Planning in the Department of Engineering Technology at NMSU**

In August of 1999, the Department of Engineering Technology at NMSU, embarked on a strategic planning effort using many of the techniques of the Search Conference. The participants in the Search Conference included all the faculty members, two students, and one staff member. The results of this conference included the mission, vision, goals and objectives clearly defined and collaboratively arrived at by all in attendance. In the case of the Department of Engineering Technology, the size of the group, approximately 22 participants, was an acceptable size for a Search Conference. Because the strategic planners for NMSU were a much larger number than could easily be handled by the Search Conference model, a different format was used for the entire campus at NMSU. Many of the necessary components to successful strategic planning have been incorporated into the NMSU strategic planning process. The stakeholders who have an interest in the outcome of the plan were involved, the planning process was intentional, and the results were available immediately after the conference and input from the entire university community was solicited.

Implementation of the NMSU strategic plan has been allowed to occur at the level where the work is being performed and input is being sought from members of the work force. Yet, there have not been strategic planning meetings in great abundance in this part of the planning process. Many organizations do not have the luxury of meeting for two days to do strategic planning. Yet, the benefits are so significant, hopefully, as more organizations realize the potential of focused strategic planning, more organizations will take advantage of this technology.

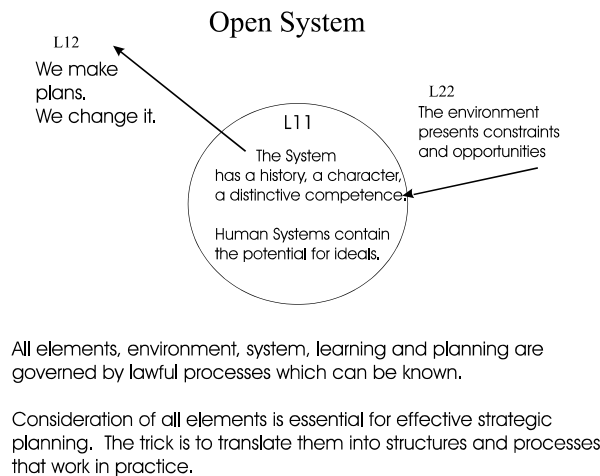
The participants in Engineering Technology agreed to meet as a group for two days. At no time during the two days did they ever leave the common room. All discussions were held in public, all questions and answers were heard by all participants. The immediacy of the work became commonly held, all understood by the end of the conference, no agenda or external force created their plan when they were absent, no one and no input was excluded. The function of meeting together is to build community. The group must learn how to figure out what they agree on, what information is commonly held, where they disagree, and what can be done to move forward. In most cases, organizations rarely meet in large groups to do strategic planning, yet, it is the work groups who implement the plan. The work groups begin to realize the benefits of system energy, which is greater than the sum of the individual energy in the work groups.

When the participants get the sense that the plan will be their plan, the meeting begins to come alive. Getting the group to the point where they understand, whatever is decided is what will be done, sometimes takes very intentional behavior on the part of the facilitators. The

authors were the designers and facilitators of this conference. External facilitators often are preferable during this type of planning. They have no agenda other than to keep the conference moving toward the completion of their client's strategic plan.

The facilitators discussed the principles of the conference and emphasized the work of the conference is clearly placed in the hands of the participants. The participants are briefed on what the agenda for the two days will be, what the ground rules are, and briefly told some of the principles guiding the work. The message is reinforced during this initial briefing, the group is in charge of coming up with the plan. The basis, or principles, behind this type of planning are derived from Open Systems Theory (OST). The basis of OST is the open, non-hierarchical system, and the relationship of the system to the larger environment.. At the heart of the open social system are purposeful people. An assumption of this type of planning is that people are purposeful and they want to do meaningful work. Therefore, if they are given a great deal of recognition for their contribution, and responsibility to implement their future, the plans they devise will directly impact their own well-being. Open systems social science has a clear purpose and some established means toward this clear purpose of involving people in the design and implementation of creating the system they desire (3). Figure 3 describes the relationship between the environment and the system. Essentially, the open lines indicate the free flow of information from the system to the environment, and from the environment to the system.

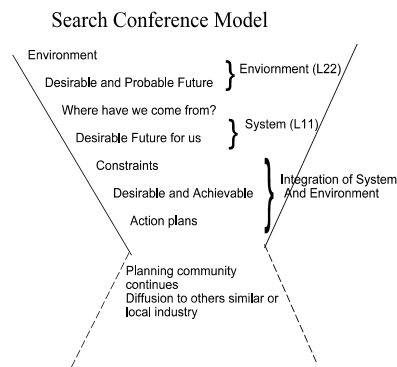
**Figure 1**



Early on in the meeting, the Department Head briefly discussed the purpose of the conference, the principles guiding the organization, and his expectations for the outcomes of the conference. One of the outcomes he clearly stated he hoped would emerge, was the creation of a collaboratively arrived at set of goals which all the members of the department were willing to work on. He also stated, he would support the work of the conference, and would allocate the departmental resources to support their work. For the next two days, all members were asked to commit themselves to the time it would take to create this plan. All agreed, all would stay, participate fully, all input would be valued, no one person was more or less important than another, all would accept the results of the conference for the agreed upon time frame for the strategic plan. In the case of the Department of Engineering Technology, the strategic plan would take them through the year 2005. This design was also used for the New Mexico Space Grant Consortium and the Manual Lujan Center for Space Telemetering and Telecommunications.

The components of the Search Conference design (Figure 2) require the participants agree to the ground rules regarding participation. Once this acceptance is acknowledged, the actual work of the conference begins. The framework essentially takes the common knowledge the group has about itself and its environment and creates a way to scan the environment for relevant elements which may impact the organization within the agreed upon time frame for the planning conference. The first part of the conference aims to take a snap shot of the environment as it is today. The focus of this exercise is to look at new or emerging systems which may be the forerunners of major social trends or movements. The next phase takes the group into examining the future. Figure 2 illustrates the way information is gathered at the beginning of the conference. As the conference participants go through the exercises, information is processed, synthesized, and becomes more focused until the plan is created. Once the plan is created, the funnel opens up again to illustrate the dissemination of the plan into the larger community.

**Figure 2**



The group then begins to examine the desirable and probable future of the world. They are then split into groups to create one list of desirable and probable futures. During this phase the group is beginning to gain confidence in its ability to self-manage, they are gaining confidence in their perceptions, and their experience. The groups report on their common understanding of probable and desirable futures, while learning to rationalize conflict. The facilitators keep this part of the conference moving to help the participants understand the techniques being used and the purpose of gaining skill at listening to each other, discovering how to deal with conflict, and how to create a collaborative work. Negotiating skills are learned here. The difference in the techniques used in rationalization of conflict versus the faddish concept of gaining consensus is that participants agree to differ about some things, while working together on those matters which form the common ground of the organization and their work(1).

Participants arrive at their final conclusions and all are asked to accept the results. This point in the process usually involves a lot of learning and may appear more difficult, however, no one is dismissed, no argument goes unheard. This is part of building community. Meaningful people care deeply about their work, their relationships, their environment, so there must be time in the beginning for these strong feelings to get heard. As the participants begin to understand how to use these strong feelings in creating a desirable future for themselves, they understand why strong feelings are important in the work place. Most of the affect during these conferences is positive and is expressed as relief, joy, and high interest in learning.

The group then examines where they came from, their history. The Department Head was the best person to give the history of the department which he did in the form of a twenty minute presentation. Participants were encouraged to add detail at any time. Then the group work to synthesize all the data that has been presented and created a list outlining their own desirable future for the Department of Engineering Technology. The desirable future was agreed upon by the entire group before the next step in planning could occur. This desirable future is what the department would look like in the year 2005 if the organization changed in a direction all agreed was best for the department. Constraints to the desirable future are examined and then a final desirable and achievable future is determined. This exercise is an integration of all the work that has gone on during the conference. It is an integration of the system and the environment. Finally, the action plans are developed to implement the desirable future. The Department of Engineering developed a strategic plan with a vision, mission, and goals Appendix A. Their implementation plan also included a Participative Design workshop which was held after the conference.

### **The Implementation Plan - Participative Design Workshop**

The fundamental assumptions of the Participative Design Workshop are that a learning organization is desirable. Therefore, the people within the organization hold as many relevant skills and functions as possible. It is a critical feature that responsibility is located where the work or planning is being done (1). This principle is critical for the redesign of the work place which will enable the implementation of the strategic plan. In the case of the Department of Engineering Technology, many faculty share teaching loads, so the concept of “cross-training” was already part of the culture. The participative design workshop reinforced the wisdom of multi-skilling and multi-tasking to ensure collaboration across disciplines. The Department has Mechanical, Electrical, and Civil Engineering programs within it. Cross collaboration is now a stated and valuable part of the culture of the department.

In order to begin to assess which of the goals and objectives could be met, the group began the process of skills assessment around each goal and related objectives. Once it became apparent which skills were needed, any member of the group who was willing, agreed to acquire the necessary skill. One of the most interesting part of this exercise as expressed by the participants, was around one of the objectives of departmental development. The group realized one of the reasons the development work of the department was going so slowly, was that no one in the department held the necessary skills. Very quickly it was determined the development office on campus was a good place to start. Two of the faculty members agreed they would work together with the development office on campus.

### **Dos and Don'ts for the facilitators**

It is useful to mention the facilitators must be vigilant against participants becoming dependant on the facilitators. The role of the facilitator is to move the group through the design to get to the final result, a strategic plan, with a set of realistic goals, and implementation plan. The assumptions of the plan are that the group has created their own plan and will implement it, given the resources and control to assure its completion. Therefore, it is counterproductive for the facilitators to intervene in any of the content of the conference. The group decides everything, once the conference begins. The facilitators watch for fight/flight behavior. Those

participants who are unable or unwilling to let other opinions or views be validated are encouraged to continue to participate. Their views are heard, others are heard. The work governs the results, not personalities or irrelevant agendas brought into the conference. This skill requires experience however, the design of the conference and pre-conference planning also helps to diffuse some of this potential behavior.

## **Conclusion**

The work of strategic planning can be very rewarding. However, the path is not a simple one. Nor is effective strategic planning done by only a few administrators. When a strategic plan is one with a vision for a future that catches the hearts and minds of the employees, there is an increase in creative production, a marked willingness to work for the betterment of the whole. These are symptoms of a future that has captured the imagination of the organization. Recently, the Vice President of New Mexico State University revealed his almost obsession with the vision Justin Merrill, the man who wrote the legislation establishing the Land Grant Institutions. This vision was such a powerful one, it has captured the heart of a man one hundred years later. There is no better advertisement for a vision than its ability to live beyond the life of its creators. The strategic plan which creates the way for an organization to reach its vision is well worth the time and effort. It will continue to guide the members who created it long after the ink is dry. It is sad to think of all the potential wasted on those strategic plans gathering dust somewhere in an obscure filing cabinet. I encourage those members of organizations who want more for themselves and their co-workers to advocate for collaborative planning similar to that discussed in this paper.

## Appendix A

### Engineering Technology - Strategic Plan

#### Mission Statement

Provide students with quality Engineering Technology education that links theory and application, which gives students enhanced career opportunity.

#### Goals

1. Provide educational and social environments that promote and facilitate student learning.
2. To have a highly respected and visible department.
3. To foster the development of the department.
4. To graduate students who are competent and sought after.

#### Goal 1

1. Provide educational and social environments that promote and facilitate student learning.
  - Appropriate use of new technologies
    - Faculty research
    - List serves
      - Students
      - Faculty
      - Graduates
  - Innovative, quality, competent, enthusiastic teaching
  - Modern and functional labs
    - Proposals
    - Donations
    - Effective utilization
  - Support student organizations
    - Faculty involvement
  - Advising and enrollment
    - Student mentoring
  - Administrative procedures
    - Balance teaching loads - option meetings

#### Goal 2.

To have a highly respected and visible department

- Graduate program
- Extension services program
- School of engineering
- International collaboration
- Faculty expectations
  - P & T
  - Mentoring

- Participate in decision making
- Team work
- Coordination
- Industry involvement
- Promotional activities

Goal 3.

To foster the development of the department

- Establish an academy
- Establish a well founded endowment
- Seek industry involvement
  - Summer activities/research
- Recruitment
  - Faculty
  - Staff
  - Students
- Middle school, high school, junior college

Goal 4.

To graduate students who are competent and sought after.

- Curriculum development
  - Senior project
  - Minors, emphasis, electives
  - Real world ethics
  - More design procedures
- Professional development of faculty and staff
- Facilitate placement
- Promote co-ops and internships

## Appendix B

### REQUIREMENTS FOR A MINOR IN MANUFACTURING

ET 111 Graphical Communications (or ME 159).....	2 cr
ET/IE 217/217L Manufacturing Process.....	3 cr
(Prerequisite: MATH 185, MATH 180 or MATH 230)	
ET 309G Manufacturing: History and Technology ( END. 301G).....	3 cr
ET 305 Production and Assembly.....	3 cr
(Prerequisite: ET/IE 217/217L)	
One of the following:	
ET 404 Quality in Manufacturing	
(Prerequisite: STAT 251 or EST 311G)	
ET 415 Manufacturing Management & Productivity	
(Prerequisite: STAT 251 or EST 311G)	
MGT 344 Production & Operations Management	
(Prerequisite: B.C.S. 338 and STAT 251 or EST 311G)	
.....	3 cr
ET 482 Computer Integrated Manufacturing.....	3 cr
(Prerequisite: ET 111 or ME 159 and ET/IE 217/217L)	
ET 400 Special Problems - Subtitle: Manufacturing Seminar.....	1 cr
(Prerequisite: Consent of Committee)	
Total.....	18 cr

## References

1. Emery, M. (1993). Participative design for participative democracy. Canberra: Center for Continuing Education.
2. New Mexico State University Strategic Directions. (1999). New Mexico State University strategic plan. Available on-line at <http://www.nmsu.edu/Administration/strategic.html>
3. Emery, M. (1999). Open systems is alive and well. Part 1. Canberra: Center for Continuing Education.