Sustainability Programs

How to Plan, Change, and Improve Environmental Sustainability Outcomes

Even unplanned transformations can be anticipated

By Daniel S. Fogel[1] and Mary E. House[2]

Abstract

Our main objective is to outline how to create effective change management programs while implementing environmental sustainability principles and practices in college and university environments. The need for this information is based on our survey of colleges and universities, which shows that environmental sustainability programs will increase at academic institutions over the next five years. We suggest four major principles that will contribute toward making planned change efforts effective. We have provided examples of each principle.

Major system-wide college or university change is one of the most difficult tasks one could pursue within academic organizations.

Introduction

Major system-wide college or university change is one of the most difficult tasks one could pursue within academic organizations. Unlike many other organizations, the decentralized nature of college or university departments and academic units, the inherent skepticism about change efforts, and the transient nature of one major stakeholder—students—often make university environments particularly challenging for sustainability efforts to truly become institutionalized. Yet, certain management principles still apply to major planned change efforts and can help overcome the inherent challenges in managing these difficult situations.

We conducted a survey at a recent session at the Smart and Sustainable Campuses Conference at the University of Maryland in College Park in March 2010.[1] We asked three questions of the session audience. (See box for summary of 63 responses received.)

These results show the need to address and implement planned change efforts, especially if change efforts related to sustainability will increase over the next five years. Our purpose is to describe what makes for effective change in colleges and universities and to illustrate our recommendations with examples from work completed with U.S. colleges and universities.

[1]Associate director of the Center for Energy, Environment and Sustainability and a faculty member in the School of Business at Wake Forest University in Winston-Salem, NC. Also, he is the chairman of the EcoLens Network in Cornelius, NC.
[2]Vice president at Woodard & Curran, an engineering, science, and operations company in Portland, ME.

Survey of Session Audience at Smart and Sustainable Campuses Conference

1. Compared to other activities on your campus, environmental sustainability is ___.

❑ 6%	very extensive
❑ 50%	extensive
❑ 28%	about the same
❑ 17%	less extensive
❑ 0%	much less extensive

2. I believe that our focus on environmental sustainability will _____ over the next five years as compared to other programs.

❑ 39%	increase dramatically
❑ 61%	increase
❑ 0%	stay the same
❑ 0%	decrease
❑ 0%	decrease dramatically

3. My biggest concern about environmental sustainability is ___:

- ❑ The vision
- ❑ Lack of student involvement
- ❑ Going beyond the status quo
- ❑ Cost, funding, economic
- ❑ Changing the president's mind
- ❑ Implementing real and lasting change
- ❑ Solid waste diversion
- ❑ Leadership role
- ❑ Academics
- ❑ People don't understand
- ❑ Systematic connectivity
- ❑ Community
- ❑ Transportation
- ❑ Water conservation
- ❑ Energy sources
- ❑ That (name of institution) will not take a leadership role in green development and sustainability and development will stagnate.

What Makes Effective Change Efforts?

We suggest four major ideas for effectiveness in planned change efforts: 1. Consider organizational change as a strategic initiative and as a portfolio of change programs; 2. Use stages of change to design change efforts; 3. Consider that not all elements of a change process can be planned; and 4. Use a unique organizational theory to guide your change programs.

Change as Strategy Execution

Organizational change should be considered and implemented as a strategic, university-wide initiative. When viewed in this light, strategy execution is part of a portfolio of change programs. This means that each strategy must be implemented purposefully and in conjunction with several planned change programs at one time. Each change program must be designed to ensure that its overarching goals are achieved while balancing day-to-day urgencies within the university organization.

With this in mind, we developed specific design principles based on research on this topic. Our first principle is to manage four change management areas: managing culture through authentic leadership, extensive communication and inclusion of key stakeholders, managing stress, and change management as a capability. Each of these areas calls for unique management skills and unique thinking about the organization.[2] Though each could be the focus of an in-depth study, we outline here only why each is important and include references for the reader who wants to learn more.

A supportive culture with authentic leadership is fundamental to any change effort because it's the way people discern acceptable from unacceptable behavior and assess the seriousness of the change effort. Administrative people must practice what they preach: People are always watching for clues, even subtle indirect ones, about what is acceptable and unacceptable behavior. For example, in one university setting, as part of an environmental baseline sustainability audit, the custodial staff were interviewed and asked about various sustainability efforts. When recycling was mentioned the custodial staff cited the university president as a repeat offender as noted by the materials discarded in his trash can. The conclusion drawn from this observation was that recycling could not be very important if it was not practiced at the highest levels of the organization. How can one expect a change program to succeed with these types of mixed messages?

A director of sustainability observed that goal achievement seemed to be greater when visual presentations of data were available to students. For example, this university invested in various web-based presentations of energy use that included options to see the data visually and in data chart formats.

A comprehensive university was looking for ways to reduce energy use. The campus faculty and staff decided to explore reorganizing campus teaching buildings so that all classrooms and faculty offices would be grouped together on different floors. This would allow teaching floors to be closed when the school was not in session. Resistance from faculty members, who did not want to be removed from labs and classrooms, prevented the concept from moving forward. This conflict could have been managed by including faculty in the decision and communicating how this change could enhance research and ensure more financial stability at the university.

As part of creating change as a capability, one university invested heavily in educating people about environmental sustainability, including case studies of large, systemic change in organizations—universities and business organizations among them—in their efforts. For example, one video case study featured Paul Levy at Beth Israel Deaconness Medical Center Boston and his six-month journey to change a hospital.[3] This case showed a progression of events that illustrated the change process Levy used and the challenges faced in addressing the important considerations outlined above. This case illustrates a change model that formed the basis of change programs at the target university. Levy used a systematic approach to the change process and was not thrown off-course by day-to-day challenges. The realism of the case was useful to the participants as they related the case to their situation. Also, they learned a great deal about a change process relevant to their situation.

Stage of Change

The considerations mentioned above will help with managing the change process. Yet, how should the change progress? We suggest that effective changes follow a similar path: in well organized, planned stages. The progression of change efforts is best accomplished when four major stages are observed: 1. establishing the need to change, 2. creating a vision and overcoming resistance to change, 3. punctuating the change, and 4. institutionalizing the change so that efforts are not reversed.[4,5] The prescription here is to emphasize these change stages in sequence, but not wait to complete one stage before engaging the next. For example, establishing the need for change may include communication about scientific studies, how environmental sustainability efforts fit with university strategies, and how efforts can save money. While this need to change is being established, change managers are advised to create vision statements and to identify resistance

A supportive culture with authentic leadership is fundamental to any change effort because it's the way people discern acceptable from unacceptable behavior and assess the seriousness of the change effort.

Creating a sense of urgency is probably the most important initial part of the change effort because it sets the tone for the entire change process.

points. One major way to overcome resistance to change is to show sure-wins in the early stages of the change program, euphemistically called low-hanging fruit.

Conceptualizing change efforts in terms of four stages is easily remembered. Yet, we recommended a slightly more complicated conceptualization, as follows:

Need for change: Set the target for change, create a sense of urgency, create a guiding team
Vision: Create a vision for change and develop ways to gain buy-in
Change: Take actions and communicate short-term wins; don't let up
Institutionalizing change: Making it stick!

As with any change model, the change progression is a set of stages that are best approached in order. Each stage has its own logic and its own impact on the organization. Following are examples of how we have used this model in various settings.

Creating a sense of urgency is probably the most important initial part of the change effort because it sets the tone for the entire change process. We used Sustainability Tracking, Assessment & Rating System (STARS) as a means of creating the urgency.[6] STARS is an extensive assessment tool intended to rate universities according to their environmental sustainability work. STARS is described as a transparent, self-reporting framework for colleges and universities to gauge relative progress toward sustainability. The tool was developed by the Association for the Advancement of Sustainability in Higher Education (AASHE) with broad participation from the higher education community. This small, liberal arts university used STARS as a means of gaining support for enhancing existing sustainability programs and adding resources to enhance the programs. Also, STARS was used as an educational tool for faculty, staff, and students.

Another medium-sized university used components of a new analysis tool, Baseline Assessment for Sustainable Environments (BASE), designed to offer a strategically relevant analysis of environmental sustainability. BASE builds on tools such as STARS yet provides an integrated view of the organization's strategic plan. BASE has seven major assessment tasks, including processes and outcomes (strategy, plans, education, research, operations, administration, and social). This tool's extensive analysis creates a prioritized plan for improving campus sustainability and using the sustainability programs to enhance the university's competitiveness. [7]

Creating a vision, the second stage, sets the tone for the end goal and creates excitement for the change program. The issue to be addressed, after establishing the need to change, is what story is to be told, what is the vision for the future? This story is often told by key administrators. In one organization, the vision included clear, one-minute or one-page statements that were inspiring, for example a commitment to improve the environment for all who touch the university. The strategies for change and the vision are probably best when they are bold.

The speed of change in this phase is important since it is at this time that resistance to change will be the most intense. Being overly analytical, emphasizing cost savings, giving people complicated reasons and plans for change may not be the best actions at this phase. Keep it simple, and gauge reactions to see where your reactions can help people buy into the change process.

At one university, the president created three scenarios of the future, each of which had the same probability of occurrence. The president followed the usual prescriptions for scenarios by picking some key success factors (how the university administration and faculty would satisfy students and other stakeholders and how they would compete) and creating various likely outcomes. He then used these stories to help university members to choose the future they wanted. The decisions were unanimous and served as a facilitating and a unifying mechanism for the change.

One idea to consider is to paint future pictures using a process called "seeing, feeling and changing."[8] This method means that behavioral change may occur when we recognize the feelings behind the behavior as much as the behavior. For example, at one university faculty and staff viewed a video of an angry student. The student was very critical of the university's lack of attention to environmental sustainability. Most faculty and staff were surprised about the intensity of the student's comments and the clarity of the commentary. This one case study prompted people to act and to discuss how they could collect more data and then respond to the data to create a more sustainable university.[9]

The next stage is to make the change and maintain the momentum. One tactic is to continually show commitment to the change. A Green Team, made up of faculty, staff, and students, developed ideas and initiatives that were taken to various entities on campus for their consideration and possible implementation. The continuous contact with the impacted people helped to maintain the momentum and to make mid-plan corrections.

Another university president created an Office of Energy Services and Sustainability to serve as a focal point for continuous energy conservation, education, recycling, and other sustainability initiatives. A similar effort at another university was the Conservation Council—a tripartite committee whose

primary concern was energy use and conservation on the campus, reducing energy consumption, with a combination of short-term, medium-term, and long-term goals. Both of these efforts established a focus for responsibility and applied pressure to maintain momentum for change efforts. Many universities establish an office of sustainability to help university efforts to implement their change programs. One group spent a year developing its expertise on change management, including participating in management development programs at its own business school and engaging a professor on change management to help the office think through change efforts.

Throughout the change effort, communication is critical. Most important for maintaining momentum on change is communicating actively about small wins and pursuit of goals. Several techniques have been used at colleges and universities, as follows:

- Dedicated Facebook page, Twitter account, and other social media
- Campus-wide newsletter and emails
- Information tables at events
- Sustainability themes on department websites
- Ongoing educational programs, including student orientation and public forums on hot topics
- Liquid crystal displays to show data on change efforts and communicate about data on energy and other resources
- Messages in president's public addresses mentioning sustainability as a critical initiative

Each of these communication methods is devised to help maintain awareness of environmental sustainability change efforts and to maintain the momentum of the change effort.

A final, yet difficult stage is to make the change stick so that it lasts for long periods of time. A large university interested in controlling its carbon footprint changed its policies and procedures for building. It decided that all new construction would take place in parking areas. The lack of parking forced the use of alternative transportation to and from campus. Also, this university put a policy in place that all new buildings would be at least Silver LEED certified.

Institutionalizing sustainability change programs starts day one. This means that orientating new students to sustainability makes for easier change efforts. As part of a new-student orientation at a small college, a new jump-start program was created called Sustainability Community Challenge. This program included a bus trip with various stops around a lake including two local farms (one small organic dairy and one large concentrated animal feeding operation dairy), a vineyard, a state park, and wildlife refuge, capped by a local food dinner. Another university developed Sustainability 101, a course held shortly after students arrived on campus. Focused on sustainable dorm living, it included dorm room audits and history lesson of past student accomplishments in improving the university's environmental footprint.

Another important aspect of institutionalizing environmental sustainability change efforts is the funding of the efforts. Without funding, the efforts will fail and be interrupted. We have seen several ideas for funding. Among some of the most effective mechanisms are:

- Grants for student and or faculty research and projects
- Institution-sanctioned programs and projects
- Green fees. Many schools across the country have increased the student general fees to create a sustainability fund that goes toward purchasing renewable energy produced off-campus, funding renewable energy and energy conservation projects on-campus, or a combination of off-campus purchases and on-campus projects.
- Private donations—a mainstay of universities.
- One school established a sustainability donor fund that directly supported the schools' sustainability program overseen by the special assistant to the president.
- Student fundraising
- Percentage of energy savings. Rather than have all of the savings go back to administration, a certain set percentage of the savings from environmental sustainability efforts is earmarked for funding environmental sustainability projects and programs.

Planned and Unplanned Components

Change efforts cannot be planned and executed without being sensitive to the inevitable unplanned elements, which include the reactions of affected people. Resistance to change, new priorities, economic changes, and so many other events can cause rethinking an otherwise excellent planned change effort.

Two prescriptions can help with this emergent characteristic of organizational life. First, consider that nothing should be funded without reviews. For example, it may help to view the change program as a real option, i.e., one that has periodic reviews to decide on future funding.[10] This process is like an option on the stock market in which investors buy the right but not the obligation to purchase or sell a stock. These reviews create benchmarks to programs and help to provide realistic checks on a program's effectiveness without allocating resources for indefinite periods of time.

Second, an effective way to create flexibility is to offer scenarios with equally likely future outcomes,

Resistance to change, new priorities, economic changes, and so many other events can cause rethinking an otherwise excellent planned change effort.

which can be used to see if a situation is changing. As described previously, creating scenarios for evaluating alternative futures for an institution is an excellent way to see if an alternative future is becoming a reality.

The real difficulty is to ensure flexibility without creating a sloppy and unfocused program. Techniques like those mentioned here help to create flexibility without losing focus.

Using the Right Organizational Model

A final idea for your change program is to select the right organizational theory and model. Organizations and their behavior have been a source of much discussion for years. Theorists refer to economic or behavioral models of organizations. Practitioners discuss organizational excellence in terms of "Good to Great" or "What Makes the Great Fall."[11] Yet, for our purposes one model creates an excellent basis for change in higher education. This model, referred to as the evolutionary perspective on firms, is ideal for understanding and carrying out small and large change efforts.[12]

Evolutionary theory has some appealing ideas to help us conceptualize change in higher education environments. Strategy is a complex process involving the thinking and action of key actors throughout the organization. From this viewpoint, strategy is an adaptive process—an organizational capability that highlights parts of strategic thinking that other perspectives do not address. It views each organization as an "ecology" within which strategic initiatives emerge in patterned ways. Top administrators do not exclusively drive initiatives.

Evolutionary organization theory uses four generic processes to gain a more realistic approach to strategy.

1. Variation. Individuals and small groups seek expression of their special skills and career advancement through different strategic initiatives. They draw on existing routines and resources and try to attract attention. For example, with this perspective the change manager solicits alternative views and encourages not efficiency but variation in ideas to obtain the best ideas for a given situation. Paradoxically, quantity of ideas trumps quality of ideas at this initial stage. Thus, during a time when change visions are being established or when involvement is being sought among university members, the change manager is best to be tolerant of lots of ideas and lots of involvement.

2. Selection. Selection processes are administrative and cultural mechanisms that regulate allocation of resources and attention to different initiatives. Ultimately, the organization needs to decide on its focus and what it will do to create change. A university had a set of criteria it used to determine what change initiatives it would pursue. These criteria were under constant review, yet they were made public so that those who submitted projects knew which criteria would be the basis of decisions. The criteria included university strategic priorities and principles of sustainability. New ideas and projects were compared against these criteria as a test of appropriateness and support for the overall strategic direction of the university.

3. Retention. Retention processes are used to retain the best ideas and to make change stick. Organization learning is evidenced about what makes for organizational success. This institutionalization was addressed previously in this article.

4. Competition. Competition arises from different strategic initiatives struggling to obtain resources necessary to grow and increase in importance. Competition can be linked to external factors that initiate encounters. For example, during every change initiative a director of sustainability considered ways to build in competition among students and faculty so that everyone was motivated to participate.

These four processes are the mainstay of evolutionary theory. For more information on this perspective, we have suggested further reading.[8] It is most important for supporting the aforementioned stages that these processes be evident throughout the change program. Thus, the change is not a matter of efficiency but one that achieves objectives and is realistic in terms of the unknown outcomes inherent in an evolutionary process.

Our experience shows that excellent environmental sustainability practices can fall flat without attention to some core organizational theory and practices.

Our experience shows that excellent environmental sustainability practices can fall flat without attention to some core organizational theory and practices. Marrying these ideas will make those responsible for college and university environmental sustainability more effective and valuable to the university.

References

1. Fogel DS and House M. Organizational Change and Environmental Sustainability. Smart and Sustainable Campuses Conference, University of Maryland, March 21-23, 2010.

2. Doppelt B. *The Power of Sustainable Thinking.* Earthscan, London, 2008.

3. Levy P. Taking charge of the Beth Israel Deaconess Medical Center. Harvard Business School. Product # 303-058.

4. Lewin K. *Field Theory in Social Science*. University of Chicago Press, Chicago, 1951; Kotter J. *The Heart of Change: Real-Life Stories of How People Change*

Their Organizations. Harvard Business School Press, Cambridge, MA, 2002.

5. Senge P, Kleiner A, Roberts C, Ross R, Roth G, and Smith B. *The Dance of Change: The Challenges of Sustaining Momentum in Learning Organizations*. Doubleday/Currency, New York, 1999.

6. STARS: Sustainability Tracking Assessment and Rating System. Last accessed May 15, 2010: http://stars.aashe.org/

7. Fogel DS. Baseline Assessment for Sustainable Environments (BASE™). Wake Forest University, Unpublished manuscript, 2010.

8. Kotter J. *The Heart of Change: Real-Life Stories of How People Change Their Organizations*. Harvard Business School Press, Cambridge, MA, 2002.

9. For more ideas such as this one, see: Brown T. *Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation*. HarperCollins, New York, 2009.

10. For an introduction to this concept, see: http://en.wikipedia.org/wiki/Real_options_analysis (Last accessed June 15, 2010.)

11. Simon HA. *Administrative Behavior.* Free Press, New York, 1945; Chandler AD, Jr. *Strategy and Structure.* MIT Press, Cambridge, MA, 1962; Collins J. *Good to Great: Why Some Companies Make the Leap and Others Don't.* HarperCollins, New York, 2001; Collins J. *How the Mighty Fall.* HarperCollins, New York, 2009.

12. Aldrich HE and Ruef M. *Organizations Evolving* (2nd Ed.). Sage Publiations, Thousand Oaks, CA, 2006.

Address correspondence to:
Daniel S. Fogel
Schools of Business
Wake Forest University
6805 Morrison Boulevard
Morrocroft Centre, Suite 150
Charlotte, NC 28211

Email: dan.fogel@mba.wfu.edu