GENERAL EDUCATION REFORM AS ORGANIZATIONAL CHANGE: INTEGRATING CULTURAL AND STRUCTURAL CHANGE

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"I died on the hill of general education reform." This adage repeatedly heard from faculty and administrators who have fought t bring a renewed vitality to undergraduate education but who wer defeated by the process. The reform of general education is one c the most prevalent and complex challenges facing colleges an universities. General education is embedded in the culture of th institution. Its meaning and symbolism permeate the organizatio and extend beyond to external constituencies. Yet the task of refor is often assigned to a faculty committee or task force made up o individuals from a variety of disciplines who have little experienc in examining institutional-level issues or in examining such issue from an organization-wide perspective. Faculty members focused on research, teaching, and service are often not aware that genera education reform thrusts them into the unfamiliar role of agents o cultural change.

A significant impediment to effective organizational change including general education reform, is failure to recognize the exten to which the change process is vulnerable to powerful cultural influ ences (Dooley, 1995). Information that assists faculty and adminis trators who are charged with general education reform to understanc the nature of the issues, problems, and resistances that they wil encounter—within the academic community and among them selves—can help them to work more effectively. This paper exam ines how higher education administrators and faculty can obtain more successful and sustainable reform outcomes by applying knowledge derived from literature and research on organizationa change and by recognizing the importance of systematically integrating cultural and structural approaches to change.

An overview of the evolution of general education in the United States provides a backdrop for the discussion. The advantages of including the cultural perspective in change initiatives are identified and a model of organizational culture change is introduced and illustrated through application to the process of general education reform. The relationships of culture to learning and of learning to continuous institutional improvement are described. The paper concludes with the theoretical and practical integration of cultural and structural change processes.

The Changing Landscape of General Education

General education was not always a part of higher learning in the United States. When universities were first founded in the United States, classical education provided unity and coherence within the confines of a single canon. However, as the curriculum changed, faculty faced the challenge of integrating new forms of knowledge with older forms and defining what is essential to the education of undergraduate students. One of the first attempts to define what general education should be took place at Yale in 1828 (Kanter, Gamson, & London, 1997). The evolution of general education continued with the Harvard model and later with the rise of research institutions. But the development of general education did not unfold smoothly (Rudolph, 1977). In 1977 the Carnegie Foundation for the Advancement of Teaching (1977) issued a report that called general education a disaster area. This report gave impetus to a new and intense round of general education reform during the 1980s. Numerous national associations received funding for the study and improvement of general education and also issued reports during the mid-1980s indicating that undergraduate education had lost its liberal arts roots and that "students lack exposure to fundamental subjects and . . . basic intellectual skills" (Kanter et al., 1997, p. 9).

Gamson, Kanter, and London (1992) identified internal and external catalysts leading to general education reform during the 1980s. According to these authors, internal catalysts for change included: changes in academic leadership and vision, declining or under-enrollment, sagging university reputations, faculty dissatisfaction with

current working conditions, faculty desire to educate students in way that reflects faculty views, and departmental competition External catalysts included the impact on reputation of declinin enrollments, drops in the academic ability of students, and meetin accreditation standards.

Gaff & Wasescha (1991) studied 305 colleges and universitie that underwent general education reform during the 1980s. The found that 67% of the institutions under study increased interdisci plinary coursework, 68% tightened their distribution requirement; 73% added upper division courses, and 93% increased writin, across the curriculum requirements. In addition to programmati changes, some institutions reported that the process focused the col lege's identity, brought people together from across the institution and made faculty more aware of the environment beyond the con fines of their department. However, potentially damaging effects o unsuccessful general education processes were also reported, includ ing deeply divided and embittered faculty and increased tension between faculty and administration (MacDonald, 2003).

Johnson (2002) studied how general education changed betweer 1989 and 2000 in a national survey of over 500 chief academi officers and directors responsible for general education at variou: Association of American Colleges and Universities institutions. He found that "the majority of reform activities consisted of changes tc structural aspects of general education programs. Furthermore, insti tutions did not often assess broad aims for general education nor dic they involve students in forming these aims" (p. 121). He notes tha some of the primary strategies for changing curricula included more prescription of general education courses, the addition of interdisci plinary sequences, and thematic organization of general educatior programs. Although one of the major reasons for undertaking general education reform during the 1990s was to increase program coherence, Johnson found that the structural strategies used to create more coherence had not "achieved their aim of a more coherent cur riculum." He concludes that "achieving coherent curricula may require more than academic planning and structure reorganization" (p. 109).

Results of a survey on the status of general education in 2000 con ducted by Ratcliff, Johnson, La Nasa, and Gaff (2001) indicated that

57% of the institutions studied were engaged in the process of reviewing general education and that many more were planning to begin the process. Nevertheless, the authors indicate that "despite the high level of interest in general education from campus and external sources, there is little evidence that academic leaders have made much advancement in the science or art of developing shared educational values and embedding them in the life of institutions" (sp.18).

Depth of Change

A mistake that faculty and administrators sometimes make when beginning the reform of general education is to believe that they are simply engaged in the overt structural task of curricular reform. Yet general education change is not just a task of curricular change: it is also cultural change. As Ratcliff writes, "The educational program of the institution reflects the norms, values, and behavior of the organizational culture" (Ratcliff, 1997b, p. 9). Fuhrmann and Grasha concur that what is or is not thought to be quality curriculum "is largely the result of our educational philosophies, beliefs, values, and normative positions (Cited in Ratcliff, 1997b, p. 152)." Although campus-wide general education efforts may focus on what is best for students, recognizing why faculty hold the beliefs they do about what is best is a much deeper task that involves systematic examination of the cultural context in which the change is taking place.

Regarding organizational change as involving just the task at hand is not unique to higher education. Selfridge and Sokolik (1975) have described this organizational problem as the iceberg phenomenon. The tip of the iceberg is the everyday, apparent operations of any organization. These include elements that are observable, rational, and related to the structure of the organization, including span of control, hierarchy, mission, goals, objectives, operating policies, procedures, programs, and practices. This is the formal, visible organization. It is in this realm that organizations focus most of their time and energy when dealing with change.

However, Selfridge and Sokolik note that there is a deeper, covert level of the iceberg that is crucial to the success of systemic

organizational change. This level is made up of elements that ar affective and that relate to the psychological and social characteris tics of the organization. This is the informal organization that i made up of elements such as power and influence patterns, persona views and interpretations of the organization, interpersonal relation ships, norms, trust, risk-taking, values, emotions, and needs. It is th level at which institutional culture operates. It is necessary t address this deeper level if change is to succeed and be maintaine (Farmer, 1990). Organizations are not just operations: they hav meaning for the individuals who inhabit them (Smircich, 1983b) an understanding the meaning that the organization has for its member is critical to facilitating successful change. Organization member enact shared meaning as culture (Morgan, 1986).

Defining Organizational Culture

The role of culture in organizations has long fascinated researcher: from many disciplines both as a description of the life of the organi zation and in relation to an organization's effectiveness (Kezar & Eckel, 2002; Smircich, 1983a). There is no one definition of organi zational culture. Many definitions reflect Peterson and Spencer': view that culture consists of "deeply embedded patterns of organiza tional behavior and the shared values, assumptions, beliefs, or ideolo gies that members have about their organization or its work" (1991 p. 142) or Farmer's conception that it is "what is done, how it is done and who is doing it" (1990, p. 8). Anthropologist Clifford Geertz views culture as a web of significance—"a pattern of meanings embodied in symbols" (1973, p. 89). Culture has also been defined a: the way organizational members enact shared reality (Morgan, 1986) J. Steven Ott notes that organizational culture "provides organization members with a way of understanding and making sense of events and symbols" and that "organizational culture is a powerful lever fo guiding organizational behavior" (1989, p. 52).

Within higher education, early explorations of culture focused on describing the culture of specific segments of higher education such as students and faculty (Becker 1963; Bushnell 1960, Clark 1963) and on institutional distinctiveness (Clark 1970, Reisman

Gusfield & Gamson, 1970). Subsequent works focused on institutional improvement (Chaffee 1984; Freedman 1979) and on categorizing types of academic culture (Bergquist 1992; Cameron and Ettington 1988).

Tierney's work identifies the advantages of becoming aware of organizational culture. He notes that the cultural perspective encourages members of academe to: (1) consider conflicts "on the broad canvas of organizational life"; (2) recognize how tensions in the organization are played out in operational and structural issues; (3) make decisions with "keen awareness" of their impact on groups within the institution; (4) understand the symbolic nature of seemingly instrumental actions; and (5) consider why different groups in the organization have different perspectives on how the organization is performing (1988, p. 6). Having this deeper recognition also allows faculty and administrators to approach change initiatives such as general education reform with greater understanding of how the change process can best be facilitated and how the implementation of change can be sustained.

A Model of Organizational Culture

Given the amorphous nature of organizational culture, how can faculty and administrators form a useful picture of institutional culture? Based on decades of research, organizational theorist Edgar Schein developed one of the most useful models for cultural inquiry. Schein identifies three levels of organizational culture: artifacts, values and beliefs, and basic assumptions (Schein, 1984, 1985).

Level 1: Artifacts

Artifacts are visible behavior patterns and the results of behaviors, including language, jargon, programs, and policies. Because these elements are tangible and it is possible to "get your arms around them," so to speak, change strategies are often focused on changing artifacts, for example, changing policies or changing operational systems (Ott, 1989). However, artifacts are symbols of the deeper level of "the values and beliefs that lie behind" (Davis, 1984, p. 12)

If artifacts are changed without likewise reaching to the values an beliefs that give them meaning, the change is unlikely to be lasting

Level 2: Values and Beliefs

The second level of Schein's model involves organizational value and beliefs, "how people communicate, explain, rationalize, and jus tify what they say and do as a community—how they make sense o the first level of culture" (1985, p. 10). This level also includes ele ments such as philosophies, ideologies, ethical codes, and attitude that help the individual make interpretations (Ott, 1989).

However, Schein acknowledges that the values that peopl espouse are not always the values that they enact in everyday life which are called values-in-use (Argyris & Schon, 1978). Values-in use actually guide everyday behavior, whereas espoused values ar symbolic. Vision is the embodiment of our values. When we creat a vision we are abstracting an ideal derived from our view of curren reality. However, if that abstraction is not used to do something t improve reality it can become a utopian idealization, an idol that w espouse but fail to act upon.

Unfortunately, we often inhabit organizations that do no encourage us to disclose or discuss discrepancies between espouse values and those we actually use to guide our actions (Bergquist 1993). Under conditions of uncertainty or threat, such as those tha occur in times of change—including the reform of general educa tion—individuals are more likely to use hidden value systems tha are not aligned with the values they espouse (Dooley, 1995).

Level 3: Basic Assumptions

The final level of Schein's model involves basic assumptions. Basi assumptions are beliefs that are tacit—no longer fully consciou because they are so taken for granted (Schein, 1985). They are use to guide behavior without reflection and represent the deepest leve of culture.

Change is more likely to be lasting if it reveals and reflects o the basic values and assumptions actually used to guide behavior— if it arises from examination of one's personal constructs or menta

models of the world. Altering the basic beliefs and assumptions of organizational members can actually change their internal images of what the organization is and its purpose. Smircich has stated that "the success of strategic change efforts depends not only on the organization's ability to undergo a significant shift in direction, vision, and values, but also the ability of stakeholders to understand and accept a new conceptualization of the organization " (quoted in Gioia, Thomas, Clark, & Chittipeddi, 1994, p. 363). Barnett translates this view to higher education when he states, "What we mean by, and intend by, 'quality' in the context of higher education is bound up with our values and fundamental aims in higher education . . . what we take higher education ultimately to be" (quoted in Ratcliff, 1997a, p. 152).

Applying Schein's Model to General Education Reform

Schein's three-level model can help to illustrate how academic culture interacts with change initiatives such as general education reform. The following illustrates how deeper levels of cultural change may be achieved by examining the values, beliefs, and assumptions of the reformers and their decisions about general education.

Level 1: Artifacts

The general education literature discussed above shows that much of the focus of general education reform has been on overt, structural changes at the program level. Reforms such as tightened distribution requirements, addition of upper division courses, increased interdisciplinarity, and increased writing across the curriculum represent Level 1 artifact changes. They are structural and observable, often taking place within a specific accepted model of general education. When change takes place within the prevailing model of general education, reformers sometimes grapple with cultural issues as an aside or miss the step of examining the values and assumptions that underlie structural changes. This paper encourages reformers to systematically unveil cultural perspectives prior to undertaking discussion of structural change.

Level 2: Values and Beliefs

Although implementations vary widely, Newton (2000) described th
three dominant models of general education in the United States a
the *great books model,* the *scholarly discipline model,* and the *effec
tive citizen model.* It is important to note that the adherents of eac
model hold a different set of values and beliefs about what it mean
to be an educated person and about the purpose of higher educatior
Newton's descriptions of the models illustrate the tensions and diffe₁
ences that derive from their underlying values and beliefs. Accordin
to Newton (2000), the great books model defines an ideally educate
person as someone who is familiar with classic works and who ha
struggled with fundamental questions of human existence. This mode
strives to provide a context within which students confront funda
mental questions of life, the perennial questions of humanity. Thes
questions are introduced through "in-depth historical review of th
works of thinkers whose ideas changed human history" (p. 170)
Criticisms of this model include the lack of attention to curren
knowledge and the heated debate over what the canon should contaiı
in order for it to represent cultural heritage. This model focuses on th
unity of knowledge within a single framework, and those who tak
issue with this model point to its lack of diverse voices. The belief:
that underlie the great books model include the importance of intro
ducing students to questions that transcend the disciplines and inte
grating knowledge through discussion of fundamental question:
viewed from the perspective of Western civilization.

In Newton's description of the scholarly discipline mode
(Newton, 2000), the ideally educated person is a beginning practi-
tioner of the basic disciplines who has an understanding of the key
concepts and the methods of inquiry that scholars use. In its pures
form, this model is an introduction to the separate disciplines. I
views scholarly disciplines as the developers and "storehouses o:
human knowledge" (p. 172), and it focuses on the importance o
specialization. According to Newton, this model became popula₁
with the advent of the research universities where undergraduate stu-
dents were viewed as novice practitioners of the disciplines. Its
greatest advantage is that it offers a rigorous introduction to the basic
concepts of the chosen discipline and the methods by which scholar:

analyze and solve problems in the discipline. Major criticisms include its fragmentation, the absence of an attempt to effectively communicate the relevance of the disciplines to students and society, and its focus on what is taught instead of what is learned. The scholarly discipline model is still the dominant model of general education among liberal arts faculty in universities in the United States.

Newton (2000) writes that an ideally educated person in the effective citizen model of general education is someone who is familiar with the important ideas and discoveries of the disciplines *and* who also understands their relationship to and implications for society. The effective citizen model focuses on the student and what the student should learn in order to live well and engage fully in society. Its major advantage is the combined focus on understanding important ideas and approaches of the disciplines and their social implications: it makes relevancy pivotal. This model is becoming more prevalent because of its focus on student learning. According to Newton, there are two roots of the effective citizen model. The first grows out of the assessment movement and the desire for accountability through student learning outcomes. It is based on development of the competencies needed to become a productive member of society. The other stems from the philosophy of John Dewey, which links theory and practice. It is based on learning the competencies needed to lead societal change.

There are several drivers that are moving higher education toward the effective citizen model. The focus on relevance to the "real world" makes the effective citizen model attractive to external constituents and to faculty within community colleges. Administrative culture favors the accountability of the model and marketability of the model to external constituencies. The effective citizen model also appeals to faculty concerned with giving voice to segments of academe previously marginalized by the Western intellectual tradition. The model supports the integration of multiculturalism and diversity into the curriculum.

The effective citizen model is often favored by external higher education accrediting agencies. Cecila Lopez (1999) completed a study of 100 randomly selected reports written by North Central Association (NCA) Evaluation Teams for comprehensive institutional reaccredidation visits from 1994–95 to 1997–98. These teams used

regional accreditation standards to examine general education in eac of their visits. The teams identified elements of good genera education practice with a "high level of agreement." These include elements such as coherence, common learning experiences, integra tion and application of information, inclusion of multiculturalism an diversity, inclusion of skills and values, ongoing assessment an review, learning outcomes, and interdisciplinarity. Such elements c good practice are based on the values that underlie the effective citizer model of general education. The NCA's Higher Learning Commissior Statement on General Education (2003) declares: "Understanding an appreciating diverse cultures, mastering multiple modes of inquiry effectively analyzing and communicating information, and recog nizing the importance of creativity and values to the human spirit no only allow people to live richer lives but also are a foundation for mos careers and for the informed exercise of local, national, and interna tional citizenship" (2003, p. 3–4–3).

The major criticism of the effective citizen model has been hov it has been implemented. In many cases, programs teach only abou the disciplines rather than rigorously teaching the substance of the disciplines. The effective citizen model is designed to develoj values and teach skills in addition to knowledge. This has raisec fears among adherents of the discipline-based model that only one particular set of values will be taught. Within the Western intellec tual tradition that underlies the discipline-based model there is alsc a separation between theory and practice, where practice is seen a: a more base pursuit. Skills equate to practice and applied knowledge is seen, in this view, as a lesser form of education. Thus, the empha sis on relevance in the effective citizen model is seen as suspect by many adherents of the discipline-based model of general education.

A fourth, less researched model of general education is emerg ing (Ratcliff, 2000; Stark & Lattuca, 1997). The *communicative model* focuses on the relationship between student and instructor and the connection between general and specialized education.

Level 3: Basic Assumptions

Underlying the models of general education are the basic assump tions that guide behavior and actions. This is the deepest level of

culture. Judgments about what constitutes the "core" knowledge every educated person should know are based on paradigms that define what can be known and how we develop knowledge (Toma, 1997). Such paradigms also determine how higher education institutions are structured to pursue knowledge.

During the Renaissance, the well-educated person was defined as someone who was not only learned in one particular specialization, but who was also conversant within a broad range of knowledge, that is, a generalist. Renaissance assumptions regarding the unity of knowledge are foundational to the Great Books model of general education.

Since Descartes, the dominant inquiry paradigm has been positivism (Guba, 1990, pp. 19–27). Positivism subscribes to a realist ontology that believes reality is "out there" and is governed by natural laws. Positivists take an objectivist epistemological stance, whereby the appropriate methodology for inquiry is empirical experimentalism. The Industrial Revolution, the rise of science, and advent of research institutions have led to the development of specialization and the disciplines. The positivist paradigm underlies the discipline-based model of general education and also the departmental structure of research universities, making a shift away from the discipline-based model difficult. General education, when viewed from the discipline-based perspective, is often seen as a set of service courses that are delivered by individual departments or a set of courses with individual purposes (Levine, 1978). This can lead faculty to a course-by-course view of the change needed to revise general education rather than an overall assessment of general education as a curriculum. Agreement within this context of general education is often difficult because disciplines impart their own individual processes for inquiry, norms, and modes of learning.

Positivism has now been challenged by a resurgence of pragmatism, which values relevance, by critical theory, which seeks to eliminate "false consciousness" through "ideologically oriented inquiry" whereby values mediate inquiry (Guba, 1990, pp. 23–25), and by constructivism, in which "inquirer and inquired into are fused into a single entity—reality is created through their interaction" (p. 27). These are the paradigms that undergird the effective citizen and communicative models of general education.

Discussion of the major inquiry paradigms provides a lens fc understanding the tacit underlying assumptions that shape the value and beliefs of academic culture. These paradigms help us to undei stand faculty adherence to the various models of general educatior along with the corresponding resistances to change.

Learning to Change

The sustainability of change initiatives for an organization is related t the depth of self-examination and learning that takes place within it culture. Learning within organizations has been studied extensivel (Argyris & Schon, 1996; Crossan & Guatto, 1996; Dodgson, 1993 Easterby-Smith, Snell, & Gherardi, 1998; Miller, 1996). Still, there ar disagreements about whether learning is an individual process or car take place in groups (Brown & Duguid, 1991; Burgoyne, 1976 Elkjaer, 1999; Jones & Hendry, 1994; Pedler, Burgoyne & Boydell 1991). Nevertheless, many scholars do agree that there are differen levels of organizational learning (Argyris, 1991; Argyris & Schon 1978; Bateson, 1972; Hawkins 1991, 1994; Swieringa & Wierdsma 1992.)

Level 1 learning has been variously termed single-loop learn ing, adaptive learning, assimilation, or first-order learning (Perir & Sampaio, n.d.) This level of learning adds to knowledge but does not alter the values, beliefs, or rules that underlie i (Dodgson, 1993). Level 2 learning, which Argyris calls double loop learning, is reflective. It reshapes patterns of thinking anc reorganizes mental models and examines values and beliefs tc reframe the situation (Probst & Buchel, 1997). Finally, Argyris anc Schon (1978) extended Bateson's (1972) idea of deutero learning which they term triple-loop learning. This is Level 3 learning which shifts how organization members view themselves and how they view the organization. It restructures the context and creates new environments that allow both Level 1 and Level 2 learning tc take place. The three-level model of learning is analogous tc Schein's model of culture.

Table 1. Levels of Organizational Culture and Learning

	Cultural Levels (Schein)	Learning Levels (Argyris)	Organizational Levels (Adapted from Selfridge and Sokolik)
Level 1	Artifacts	Single Loop Adaptive	Formal Organization
Level 2	Values and Beliefs	Double Loop Reflective	Informal Organization
Level 3	Tacit Assumptions	Triple Loop Transformational	Informal Organization

The deeper the learning reaches, the more profound and lasting is the change it elicits (Boyce, 2003). Thus, change that reaches only to the formal, operational level of the organization usually involves only single-loop learning and is often short-lived. Change that is deeper, that involves examining the values and beliefs of the partic- ipants through interactive dialogue, and that fits better with the orga- nization's culture and sometimes changes the culture (Farmer, 1990) involves double-loop learning. Change that is transformative, that changes both the structure of the organization and the way the organization is conceptualized by its members, involves triple-loop learning (Gioia et al., 1994). As members of the organization reach deeper levels of learning, they are more open to self-examination and the change they initiate becomes more lasting and sustainable because it is embedded in the culture through dialog. In this view culture is not something an organization has—it is something an organization is (Smircich, 1983a), and sustainable change is not something that is imposed on the culture—it emerges from the culture's self-examination.

Potholes on the Road to General Education Reform

The various ways that general education initiatives can get off track and end up in failure are described by Gaff (1980) as potholes in the road to change. He identified 47 such "potholes." If Gaff's potholes

are examined in light of the above discussion, most can be shown t
have cultural roots. For example, a disregard for cultural fit can lea
to searching for the one best general education program, attemptin
to borrow a program whole-cloth from another institution, reforr
committees that work in isolation, or assuming that any oppositio
to attempted change is irrational. Miscalculating the depth of chang
that is needed can lead to beliefs that general education change i
only curricular change, that general education change should be rev
olutionary, that change should take only a short time, or that th
resources needed to support the change process will be minimal. Nc
reflecting on the underlying values of the culture and the model o
general education that the institution embodies can result in a failur
to understand the source of problematic beliefs, for instance, tha
there is only one true meaning of general education, that genera
education deals only with knowledge and not skills and values, tha
general education is only cognitive, that integration of what i
learned is the responsibility of the students, and that general educa
tion reform is a strictly rational process. Engaging the organization':
culture and attempting to understand it can help to steer the proces:
of general education reform around Gaff's potholes.

Resistance is a normal part of the change process (Keup, Walker
Astin, & Lindholm, 1997; Simsek & Louis, 1994.) Individuals engage
in active or passive forms of resistance. Trader-Leigh (2002) identifie:
several factors that contribute to resistance to change, including: (1
change threatens perceived self-interest; (2) changes in status anc
security have negative psychological impacts; (3) ingrained tradition:
present barriers; (4) fear of loss of job responsibility; (5) destabilizatior
of the status quo; (6) change doesn't fit the organization's values anc
beliefs; and (7) change threatens individuals or groups with a loss o:
power.

Cultural inquiry helps those involved in reform to recognize tha
resistance can also exist as a group phenomenon and that it can oper
ate below the level of conscious awareness resulting in what Argyri:
terms "organizational defense mechanisms" that are designed tc
sustain existing cultural norms. Organizational defense can manifes
itself as rejection, procrastination, indecision, sabotage, and regres
sion (Argyris, 1990). Understanding the values, beliefs, and assump
tions that underlie the culture and dominant subcultures of ar

organization can assist in understanding the institution's patterns of resistance to change.

Culture can also create or reinforce structural problems. Organizations that do not reach the levels of double- and triple-loop learning can maintain organizational structures that pose barriers to change and to further learning. For example, faculty may support the discipline-based model of general education not only because they agree with its underlying paradigm and assumptions, but also because of the practical barriers presented by the structure of the university. Resources flow to departments based on credit-hour delivery. Change that affects credit hour delivery elicits fears about the survival of the department. These concerns may make it hard for faculty worried about department survival to focus on student learning, to consider the value of interdisciplinary courses, or to consider models of delivery other than the dominant discipline-based model on which much university structure is founded.

A Call for Integrative Change Process

Ultimately, effective change cannot be achieved by replacing structural change with cultural change. The goal is to overcome the penchant for seeing change as an either/or process, either structural or cultural. Schein's model illustrates that structure (artifacts) and culture are parts of the same whole. It focuses on the variables (artifacts, values and beliefs, and assumptions) that make up that whole, but it does not address the dynamic interaction between the variables. Hatch (1993) extended Schein's model by adding a fourth variable, symbols, and by describing the dynamic processes that take place between the variables. These processes include:

> *manifestation* (assumptions manifested in beliefs and values), *realization* (values materialized into artifacts), *symbolization* (artifacts acquiring surplus meaning and coming to stand for something more than they actually are), and *interpretation* (acting back upon and changing the initial assumptions). (Bates, Khan, & Pye, 2000, p. 198)

Based on Hatch's work, Bates, Khan, and Pye (2000) created a fou
phase change process that integrates cultural and structural chang
Phase I, cultural framing, involves mapping out the culture and hic
den challenges by examining people's expectations and aspiration
regarding the subject of change. Phase II, soft structuring, involve
building new connections and trust between groups involved in th
change. It involves overcoming the tensions identified in Phase I tha
exist between groups. This phase constructs a social foundation fc
the new program that will result from the change process. Phase II
hard wiring, brings together the expertise of relevant specialists t
create a single, integrative design for the new program. Phase IV, ret
rospecting, is reflecting on what was learned, reexamining assump
tions, and reconceptualizing—consciously creating new assumptions

Applying Bates, Khan, and Pye's process to general educatio
reform involves consciously unveiling the cultural frame and build
ing a social foundation for the change prior to undertaking discus
sions of changes in program structure. It involves systematicall
reflecting on what has been learned and reconceptualizing genera
education once the renewed program is in place.

Conclusion

Making a conscious effort to undertake cultural inquiry and to inte
grate cultural and structural change from the outset of a systemi
change initiative such as general education reform can lead to th
possibility of implementing a more sustainable change. Structura
change and cultural change are not separate, but are two parts of
whole. Administrators and faculty attempting to facilitate organiza
tion-wide change will be more likely to be successful and to develo
sustainable change if they recognize that all members of the organi
zation, including those attempting to make change, have values
beliefs, and tacit assumptions that guide their behaviors
Organization-wide change, such as the reform of general education
is not just a change in the operations of the institution. It is cultura
change that is rooted in the meaning that the organization has for it
members—including its students

Cultural aspects of change are often overlooked in systemic change initiatives such as general education reform because of the time that it takes to unveil the values, beliefs, and assumptions of the institution's members and to engage in dialogue that leads to reflective, deep-level learning. It is estimated that successful, deep-level systemic change takes three to five years (Dooley, 1995). Nevertheless, it is this deeper change that fosters future growth and development, and that can open the institution to continuous learning and improvement. Therefore, the success of initiatives such as general education reform should be assessed not only by the structural, operational changes achieved but also by the cultural change and learning that takes place within the organization. The deeper the level of cultural awareness and learning, the richer the change process and the more likely the organization is to continue learning.

References

Argyris, C. (1990). *Overcoming organizational defenses*. Boston: Allyn and Bacon.

Argyris, C. (1991). Teaching smart people how to learn. *Harvard Business Review, 69*(3), 99–109.

Argyris, C., & Schon, D. A. (1978). *Organizational learning: A theory of action perspective*. Reading, MA: Addison-Wesley.

Argyris, C., & Schon, D. A. (1996). *Organizational learning II: Theory, method, and practice*. Reading, MA: Addison-Wesley.

Bates, P., Khan, R. & Pye, A. (2000). Towards a culturally sensitive approach to organizational structuring: Where organizational design meets organizational development. *Organization Science, 11*(2), 197–211.

Bateson, G. (1972). *Steps to an ecology of mind*. New York: Ballantine.

Becker, H. S. (1963). Student culture. In T. F. Lumsford (Ed.), *The study of campus cultures*. Boulder, CO: Western Interstate Commission for Higher Education, 11–26.

Bergquist, W. H. (1992). *The four cultures of the academy: Insights and strategies for improving leadership in collegiate organizations*. San Francisco: Jossey-Bass.

Bergquist, W. H. (1993). *The postmodern organization: Mastering the art of irreversible change*. San Francisco: Jossey-Bass.

Boyce, M. E. (2003). Organizational learning is essential to achieving and sustaining change in higher education. *Innovative Higher Education, 28*(2), 119–136.

Brown, J. S., & Duguid, P. (1991). Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization Science, 2*(1), 40–57.

Burgoyne, J. (1976). The nature, use, and acquisition of managerial skills and other attributes. *Personnel Review, 5*(4), 19–29.

Bushnell, J. (1960). Student values: A summary of research and future problems. In M. Carpenter (Ed.), *The larger learning*. Dubuque: Brown, 45–61.

Cameron, K. S., & Ettington, D. R. (1988). The conceptual foundations of organizational cu ture. In J.C. Smart (Ed.), *Higher education: Handbook of theory and research*, vol. New York: Agathon Press, 356–396.

Carnegie Foundation for the Advancement of Teaching. (1977). *Missions of the college cu riculum: A contemporary review with suggestions.* San Francisco: Jossey-Bass.

Chaffee, E. E. (1984). *After decline, what? Survival strategies at eight private college* Boulder, CO: National Center for Higher Education Management Systems.

Clark, B. R. (1963). Faculty culture. In T. F. Lumsford (Ed.), *The study of campus culture* Boulder, CO: Western Interstate Commission for Higher Education, 39–54.

Clark, B. R. (1970). *The distinctive college: Antioch, Reed, and Swarthmore.* Chicago: Aldin

Crossan, M. M., & Guatto, T. (1996). Organizational learning research profile. *Journal Organizational Change Management. 9*(1), 107–112.

Davis, S. M. (1984). *Managing corporate culture.* Cambridge, MA: Ballinger.

Dodgson, M. (1993). Organizational learning: A review of some literatures. *Organization Studies, 14*(3), 375–394.

Dooley, J. (1995). Cultural aspects of systemic change management. Retrieved March 4, 200: from http://www.well.com/user/dooley/culture.pdf

Easterby-Smith, M., Snell, R., & Gherardi, S. (1998). Organizational learning: Divergin communities of practice? *Management Learning, 29*(3), 259–272.

Elkjaer, B. (1999). In search of a social learning theory. In M. Easterby-Smith, L. Araujo & J. Burgoyne (Eds.), *Organizational learning and the learning organization Developments in theory and practice.* London: Sage.

Farmer, D. W. (1990). Strategies for change. In D. W. Steeples (Ed.), *Managing change i higher education* (pp.7–18). (New Directions in Higher Education No. 71). Sa Francisco: Jossey-Bass.

Freedman, M. (1979). *Academic culture and faculty development.* Berkeley: University c California Press.

Gaff, J. G. (1980). Avoiding the potholes: Strategies for reforming general educatior *Educational Record, 61*(4), 50–59.

Gaff, J. G., & Wasescha, A. (1991). Assessing the reform of general education. *Journal c General Education, 40*, 51–68.

Gamson, Z., Kanter, S., & London, H. (1992). General education reform: Moving beyond th rational model of change. *Perspectives: The Journal of the Association of General and Liberal Studies, 22*(1), 58–68.

Geertz, C. (1973). *The interpretation of cultures.* New York : Basic Books.

Gioia, D. A., Thomas, J. B., Clark, S. M., & Chittipeddi, K. (1994). Symbolism and strategi change in academia: The dynamics of sense making and influence. *Organizatior Science, 5*(3), 363–383.

Guba, E. G. (Ed.). (1990). *The paradigm dialog.* Newbury Park: Sage Publications.

Hatch, M. J. (1993). The dynamics of organizational culture. *Academy of Managemen Review, 18*(4), 657–693.

Hawkins, P. (1991). The spiritual dimension of the learning organization. *Managemen Education and Development, 22*(3), 166–181.

Hawkins, P. (1994). Organizational learning: Taking stock and facing the challenge *Management Learning, 25*(1), 71–82.

Higher Learning Commission, NCA. (2003). *Handbook of accreditation.* Chicago: Highe Learning Commission.

Johnson, D. K. (2002). *General education 2000—A national survey: How general educatio changed between 1989 and 2000.* Ph.D. dissertation, Pennsylvania State University

Retrieved March 10, 2005, from http://etda.libraries.psu.edu/theses/approved
WorldWideFiles/ETD-201/thesis.pdf

Jones, A. M., & Hendry, C. (1994). The learning organization: Adult learning and organizational transformation. *British Journal of Management, 5*(2), 153–162.

Kanter, S. L., Gamson, Z. F., & London, H. B. (1997). *Revitalizing general education in a time of scarcity*. Boston: Allyn and Bacon.

Keup, J. R., Walker, A. A., Astin, H. S., & Lindholm, J. A. (1997). *Organizational culture and institutional transformation*. ED464521.

Kezar, A. & Eckel, P. (2002). The effect of institutional culture on change strategies in higher education. *Journal of Higher Education, 73*(4), 435–460.

Levine, A. (1978). *Handbook on undergraduate curriculum*. San Francisco: Jossey-Bass.

Lopez, C. (1999). General education regional accreditation standards and expectations. *Liberal Education, 85*(3), 46–51.

MacDonald, W. B. (2003). *Trends in general education and core curriculum: A survey*. Retrieved January 28, 2003, from http://www.erin.utoronto.ca/~w3asc/trends.htm

Miller, D. (1996). A preliminary typology of organizational learning: Synthesizing the literature. *Journal of Management, 22*(3), 485–505.

Morgan, G. (1986). *Images of organization*. London: Sage Publications.

Newton, R. R. (2000). Tensions and models in general education planning. *Journal of General Education, 49*(3), 165–181.

Ott, J. S. (1989). *The organizational culture perspective*. Chicago: Dorsey Press.

Pedler, M., Burgoyne, J., & Boydell, T. (1991). *The learning company*. London: McGraw-Hill.

Perin, M. G., & Sampaio, C. H. (nd). *The relationship between learning orientation and innovation*. Retrieved April 4, 2003, from http://read.adm.ufrgs.br/read36/artigos/Article%2006.pdf

Peterson, M., & Spencer, M. (1991). Understanding academic culture and climate. In M. Peterson (Ed.), *ASHE reader on organization and governance* (pp. 140–155). Needham Heights, MA: Simon & Schuster.

Probst, G., & Buchel, (1997). *Organizational learning*. London: Prentice-Hall.

Ratcliff, J. L. (1997a). Quality and coherence in general education. In J.G. Gaff, J. L. Ratcliff & Associates (1997). *Handbook of the undergraduate curriculum: A comprehensive guide to purposes, structures, practices and change* (pp.141–169). San Francisco: Jossey-Bass.

Ratcliff, J. L. (1997b). What is a curriculum and what should it be? In J. G. Gaff, J. L. Ratcliff & Associates (1997). *Handbook of the undergraduate curriculum: A comprehensive guide to purposes, structures, practices and change* (pp. 5–29). San Francisco: Jossey-Bass.

Ratcliff, J. L. (September 2000). A model for understanding curricular coherence and transparency. Paper presented at the Annual European Association for Institutional Research Forum, Freie Universitat, Berlin, Germany.

Ratcliff, J. L., Johnson, D. K., La Nasa, S. M., & Gaff, J. G. (2001). *The status of general education in the year 2000: Summary of a national survey*. Washington, DC: Association of American Colleges and Universities.

Reisman, D., Gusfield, J. & Gamson, Z. (1970). *Academic values and mass education: The story of Oakland and Monteith*. New York: Doubleday.

Rudolph, F. (1977). *Curriculum: A history of the American undergraduate course of study since 1636*. San Francisco: Jossey-Bass.

Schein, E. (1984). Coming to a new awareness of organizational culture. *Sloan Management Review, 25*(2), 3–16.

Schein, E. (1985). *Organizational culture and leadership: A dynamic view*. San Francisc Jossey-Bass.

Selfridge, R. J. and Sokolik, S. L. (1975). A comprehensive view of organizational develo ment. *Business Topics, 47*.

Simsek, H., & Louis K. S. (1994). Organizational change as a paradigm shift: Analysis of tl change process in a large, public university. *Journal of Higher Education, 65*(6 670–695.

Smircich, L. (1983a). Concepts of culture and organizational analysis. *Administrative Scien Quarterly, 28*(3), 339–358.

Smircich, . (1983b). Organizations as shared meanings. In L. R. Pondy, P. Frost, G. Morga and T. Dandridge (Eds.), *Organizational Symbolism* (pp. 55–65). Greenwich, CT: JF Press.

Stark, J. S.,& Lattuca, L. R. (1997). *Shaping the college curriculum: Academic plans . action*. Boston: Allyn & Bacon.

Swieringa, K., & Wierdsma (1992). *Becoming a learning organization: Beyond the learnir curve*. Wokingham: Addison-Wesley.

Tierney, W. G. (1988). Organizational culture in higher education: Defining the essential. *Journal of Higher Education, 59*(1), 2–21.

Toma, J. D. (997). Alternative inquiry paradigms, faculty cultures, and the definition of aca demic lives. *Journal of Higher Education, 68*(6), 679–705.

Trader-Leigh, K. E. (2002). Case study: Identifying resistance in managing change. *Journal c Organizational Change Management, 15*(2), 138–155.