



Key Strategies for Making New Institutional Sense: Ingredients to Higher Education Transformation

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Transformational change forces institutions to adopt new conceptual frameworks, beliefs and meanings. This study investigates the strategies used to bring about institutional change that likely leads to new organizational sense-making. Through a qualitative investigation at six US colleges and universities, it identified key strategies that led to the adoption of new mental models, including ongoing conversations, processes to develop a set of concrete concepts, the use of cross-departmental working groups, public presentations, faculty and staff development opportunities, and the involvement of outsiders.

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Introduction

Changing state support, growth in technology, public scrutiny, changing demographics and massification, competing values, and the rapid rate of social change in the world both within and beyond national borders make change an imperative for much of higher education (see, for example, Duderstadt, 2000; Peterson and Dill, 1997).¹ Some observers say these challenges suggest that institutions of higher learning can no longer afford to operate in familiar ways and conduct business as usual (Guskin, 1996; Levine, 1997) and institutions may well likely have to undertake significant change, or transformation (Clark, 1995; Dill and Sporn, 1995). Transformational change is a type of change unfamiliar to most institutions (Duderstadt, 2000). It alters organizational structures, affects organizational assumptions and ideologies, and is a collective, institution-wide undertaking (Johnson, 1987), although some link it to improved institutional effectiveness (Astin *et al.*, 2002). However,



transformation is not revolutionary change, and most likely will occur through incremental processes over significant time (Eckel *et al.*, 2001). A characteristic of lasting transformational change is the alternation of institutional culture and ways of thinking (Gioia *et al.*, 1996). As Schein (1992) notes, 'Behavior change can be coerced, but it will not last once the coercive force is lifted unless cognitive redefinition has preceded or accompanied it.' (p 302).

This study explores the institution-level strategies that university leaders can use to create new mental models important to transformational change. Having people collectively think differently about important institutional activities, reinterpret central goals, forge new identities, and develop new meanings and beliefs is the process of organizational sense-making (Bartunek, 1984; March, 1994; Smircich, 1983; Weick, 1995). Transformation creates opportunities and problems that call for collective interpretation: What are we about? Who are we? What is important? What are our priorities?

The link between major organizational change and sense-making has been established (Bartunek, 1984; Eckel, 1998; Gioia and Chittipeddi, 1991; Gioia *et al.*, 1996; Johnson, 1987), as well as how it occurs among senior university administrators (Gioia and Thomas, 1996). However, we do not know if particular change strategies facilitate sense-making across the institution, or how leaders might structure sense-making into their change processes. The questions guiding this study are: In periods of intentional transformation, what processes and activities (also termed strategies) facilitate collective sense-making within colleges and universities? What can leaders do to stimulate sense-making as part of the change process?

This paper is based upon secondary analysis of a project on institutional transformation in US higher education, where earlier findings suggest that sense-making played a central role in effecting transformation (Eckel and Kezar, 2003).

Theoretical Framework

The concept of organizational sense-making comes from an interpretive conceptual understanding of organizational behavior, where organizations are viewed as ambiguous, and actors create meanings and construct realities that shape actions. Organizations are not static entities to be understood; rather people spend their time gathering information, interpreting meaning, negotiating importance, and evoking symbols to create organizational realities (Bolman and Deal, 1991; Birnbaum, 1988; March, 1994). Through ongoing meaning making, leaders address questions such as what is happening in the world and why, what is truth, what is important to the organization, and what behavior is proper (March, 1994; Weick, 1995). From this understanding,



decisions become important because they create opportunities to focus attention and establish meaning, not because they maximize results (March, 1994). What people *do* helps them create interpretations and meaning. Thus, in times of change, strategies and activities help new meanings become ascribed to changing organizational phenomena (Gioia *et al.*, 1996). This study concentrates on those activities.

Sense-making is difficult to capture directly (Weick, 1995). However, it is possible to identify activities in the change process where sense-making is likely to occur. Weick (1995) offers a set of seven sense-making properties that can be used as a template to identify sense-making activity. Weick's seven properties include:

Grounded in identity construction

People ask themselves, 'what implications do these events have for who I will be?' (Weick, 1995, 23–24). Individuals explore their identities in relation to the organization. Identity construction occurs at the individual and the institutional level, where people redefine who they are collectively.

Retrospective

Sense-making is retrospective because people can only make sense from what has already occurred. 'Actions are known only when they have been completed, which means we are always a little behind or our actions are always a bit ahead of us.' (Weick, 1995, 26). For example, categorizing an emerging issue as either a threat or an opportunity is dependent upon sense made from past experiences.

Enactive of sensible external environments (bracketing)

People bracket and segment a socially constructed environment in ways that make sense to them. Sense-making is influenced by the noticing, manipulation, interpretation, and framing of the changing and uncertain environment.

Social

Sense-making is about talk, discourse, and conversation, and it is based upon collective action. It is dependent upon the interactions of people to create meaning by working together, obtaining information from one another, acting, and reacting.

Ongoing

Sense-making is continuous as people are constantly engaged in sense-making. However, it is dependent on the ways in which people 'chop moments out of



the continuous flows and extract cues from those moments.’ (Weick, 1995, 43). The ongoing flows of everyday life are interrupted, causing people to become highly aware of both those flows and their disruptions.

Focused on extracted cues

Sense-making is dependent on the cues people extract from the flow of activities and events, and their embellishments of those extractions. ‘Extracted cues are the simple, familiar structures that are seeds from which people develop a larger sense of what may be occurring.’ (Weick, 1995, 50). The cues provide points of reference that further shape the sense-making process. Context affects what is noticed and how it is interpreted.

Driven by plausibility rather than accuracy

‘Accuracy is nice but not necessary’ in sense-making (Weick, 1995, 56). However, the sense made must seem plausible and reasonable to those in the organization. Sense-making is not about being right; rather it is about acceptability and credibility.

Weick (1995) views sense-making as an important element of ongoing organizational life. However, this study specifically focuses on a specific organizational activity, transformational change, and not all of his properties may be equally applicable; some might occur somewhat differently. (However, the authors acknowledge that sense-making is constantly happening and change is ongoing, much of which is unintentional.) Here, the focus is on understanding how intentional, large-scale change is related to sense-making. A potential key difference is that a particular transformational change agenda is bounded in time. For instance, the property of being ongoing might have limits because each institution’s change efforts have a recognizable (and socially constructed) launching period. Within the change process, Weick’s concept of ongoing might be better thought of as threads occurring through numerous activities.

We use Weick’s seven properties to identify the strategies that shape the creation and adoption of new sense related to the process of institutional transformation.

Research Design and Criteria

This study is based on six US institutions that undertook transformational change efforts around teaching and learning. These institutions participated in the ACE Project on Leadership and Institutional Transformation, a five-and-a-half-year initiative on institutional transformation funded by the WK



Kellogg Foundation. The intent of the project was to help institutions effect large-scale change rather than engage in disinterested research.

Twenty-six institutions were selected purposefully through a national competition from a pool of 110 applicants (Yin, 1994). Institutions were selected with different missions (community colleges, liberal arts colleges, and universities) and that had a good chance of effecting large-scale change. For the analysis in this paper, a sub-set of six institutions was identified from the 23 institutions that elected to continue in the final 2 years of the project. These institutions (1) made the most progress toward their intended transformation objectives, (2) were working on similar agendas centered on teaching and learning and represented different types of institution, and (3) provided well-detailed descriptions of their change processes to discern activities that facilitated sense-making, providing the thickest descriptions of complicated processes from which to draw conclusions. The six institutions represented a range of organizational complexity from a small liberal arts college with 72 faculty to a four-campus community college serving over 50,000 students.

Over the life of the project, each institution and the project staff interacted 24 times. A project consultant — who was a former college president or experienced higher education management consultant — or an ACE staff member visited each campus twice during the first 3 years. During the last 2 years, a two-person team of project consultants and ACE staff who had not been affiliated with that particular institution during the first phase visited each campus once. For the first 3 years, ACE held two project meetings a year for campus leadership teams of faculty and administrators, and obtained two written self-evaluations each year. During the final 2 years, ACE convened institutional project teams annually and requested a written report prior to each meeting.

For each institution, the researchers created a case portfolio of all sources of data. Within the portfolio were the institution's application for the project, eight written reports from the institution, eight campus visit reports by project staff, notes from phone calls, summaries of project meeting discussions, and other documents produced by the institution relating to the transformation effort.

Data analysis was conducted through a two-stage process that focused on organizational level (not individual) sense-making. First, we used Weick's seven properties of sense-making as the template to identify opportunities for sense-making. We identified change strategies as sense-making opportunities if they had a majority of the seven properties. Because of the nature of the properties and because of the type of data sources, identifying all seven properties was difficult. For example, we might only determine the presence of retrospection if we had meeting agendas or summaries that illustrated a discussion of the past. Second, we focused on discrete activities related to effecting change, and gave special attention to the discussion of identities and



cues relating to Weick's sense-making questions of 'what is 'out there,' what is 'in here,' and who must we be in order to deal with those questions?' (p 70). We additionally focused on elements that reflected social interactions, a changing environment, and discussions of plausibility and coherence with institutional purposes, expectations and values.

The second process, to identify likely strategies for sense-making, adopted a three-step qualitative approach: (1) categorical analysis; (2) memoing; and (3) narrative analysis (Miles and Huberman, 1994). Categorical analysis was used to identify strategies and outcomes of sense-making. We created a set of emergent labels to catalog these activities. Second, memoing, a process of writing up ideas of the pattern coded data, helped to identify interrelationships among identified elements (Miles and Huberman, 1994). Lastly, the themes were illuminated through narrative analysis.

To ensure rigor, we (1) used multiple sources of evidence to create converging lines of inquiry, (2) constructed a database of information for each case, and (3) developed a logical chain of evidence that linked the analysis to specific instances in the case database and to the research questions (Yin, 1994). To ensure trustworthiness, we independently reviewed the data and drew conclusions, engaged in peer debriefing, and used a participant check (Lincoln and Guba, 1985). This research is not without limitations. Institutions were not selected in the ACE project for their representativeness, but rather with the likelihood of making progress. The project, because it sought to help campuses make progress toward goals, consisted of consultations and activities intended to foster transformational change that may have effected sense-making, particularly national project meetings, campus site visits, and report writing that all asked people to reflect on the change process.

Findings

The findings describe the common change strategies that facilitated sense-making across the studied six institutions. For each of the six strategies below — widespread conversations, cross-departmental academic teams, staff training, outsiders and their ideas, concrete ideas and guiding documents, and public presentations — select examples from the studied institutions illustrate how institutions accomplished these tasks. Their specific approaches varied because of their size, complexity, and institutional cultures (Eckel and Kezar, 2002). In addition, each change strategy is linked to Weick's various sense-making properties. Tables 1 and 2 illustrate as examples the change activities at a community college and a research university related to sense-making.² For a more detailed explanation of the change processes at these institutions, please see the larger study presented in *Taking the Reins* (Eckel and Kezar, 2003).

Table 1 Blooming Community College activities by sense-making properties

	<i>Identity</i>	<i>Retrospect</i>	<i>Environ</i>	<i>Social</i>	<i>On-Going</i>	<i>Cues</i>	<i>Plausible</i>
1996 campus roundtable	X			X		X	X
Transformation workshop	X	X		X	X	X	
2nd roundtable action teams	X	X		X	X	X	
Staff welcome back retreat	X	X		X	X	X	
Staff professional development	X	X		X	X	X	X
Reference guidebook	X	X	X			X	X
Staff presentations at conferences and outsider speakers	X	X	X	X	X	X	X

Table 2 Central State University activities by sense-making properties

	<i>Identity</i>	<i>Retrospect</i>	<i>Environ</i>	<i>Social</i>	<i>On-going</i>	<i>Cues</i>	<i>Plausible</i>
Year-long academic staff seminar	X		X	X	X	X	
Campus-wide symposium	X		X	X	X		X
2nd seminar	X			X	X	X	X
Revamped center for academic excellence					X	X	X
Academic working groups	X	X		X	X	X	X
Guiding document	X	X		X			X
Participate in national projects	X	X	X	X	X		X



Numerous, continuous and widespread conversations

At all six institutions leaders held ongoing and widespread campus conversations that helped people recast key concepts to fit new realities and to explore ways in which they fit in the emerging future. Through conversations held at campus retreats, seminars, roundtables, and symposia, academic staff and administrators developed a new common language and a consensus on ideas; they helped to reframe key core concepts. For example, at one community college, administrators and academic staff collectively addressed: what would it mean for them to become a learning-centered institution? At another university, the question pursued was what does it mean for us to be an urban public university?

These conversations were multiple and ongoing. The community college developed a series of structured roundtable conversations, held three times over a 2-year period, which involved anywhere from 150 to 300 people. Another institution developed a seminar to bring 30 academic staff and senior administrators together to over the courses of the academic year to intellectually explore the history of higher education and put the institution's current challenged in an intellectual and historic context. After the first seminar was completed, the participants identified five key themes and created working groups to intellectually explore each, widening the circle of participation. Many of the institutions developed a set of retreats and working groups that fostered communication and exploration.

Leaders at each of the three institutions created multiple opportunities for participants to wrestle collectively with ideas and new ways of thinking. The conversations occurred serially, with each conversation built upon its predecessor. A one-time conversation was insufficient to work through issues as difficult and complex as creating new cognitive frameworks. The conversations were inclusive and were scheduled to ensure maximum participation. For example, one set of the community college's roundtables occurred prior to the beginning of the academic year to ensure widespread faculty involvement.

The ongoing conversations reflected Weick's sense-making properties in the following ways. The conversations allowed people to construct *new identities* collaboratively and openly (i.e., they were *social*). In many cases, they were *retrospective* as participants discussed current challenges and future directions in comparison to past beliefs and activities. They frequently started from commentaries on the *changing environment*. They focused on particular elements of the change process (*bracketing*) and, oftentimes, were about what is *plausible* for the institution given its history, norms, and social functions.



Cross-departmental teams

Institutions found ways to bring together people (particularly academic staff) who typically did not work together. These working groups brought together different combinations of academic staff and administrators (and sometimes students) who had different perspectives and different assumptions. Many institutions conduct most of their work through departmental ‘silos’ with little cross-unit interaction. The cross-fertilization of ideas and the challenges associated with bringing together people with diverse perspectives and beliefs helped to encourage the exchange of ideas and loosened tightly held assumptions that helped facilitate sense-making.

For example, a liberal arts college developed faculty working groups to visit a set of peer institutions to study their approaches to general education. Later the president developed eight task forces, each responsible for implementing a portion of the new academic plan. At the conclusion of the task forces, institutional leaders estimated that 50–60% of the academic staff had participated. A community college developed a set of academic-led working groups. One group focused on core processes, another on core competencies, a third on institutional vision and character, and a final one on short-term accomplishments. In another example, one of the research universities created cross-college academic teams to work on issues such as learning outcomes and assessment, writing and communication, numerical literacy, and other goals of their change agenda.

Their links to the Weick sense-making properties were as follows. These working groups were *social*, in that they brought together people to work on a set of concrete tasks. They touched upon *identity* and *plausibility* as ideas were tested to determine their fit with the institution and its goals. They focused on smaller *cues* associated with the change agenda that provided the ‘seeds’ of sense-making. They were *ongoing* in that teams met many times to continue previous conversations. It is difficult to tell the extent to which cross-departmental groups discussed the environment and if retrospective.

Staff training

Institutions developed comprehensive faculty development programs to support their change agendas. Many institutions created orientation programs for new academics, helping to shape their socialization into the institution. Other institutions developed centers for teaching excellence or for faculty development that sponsored an ongoing set of workshops and seminars aimed toward academic staff. Some institutions identified off-campus development opportunities and sent teams of faculty to participate. One community college purchased a nearby building and turned it into a full-time training center that



offered a variety of programs directed toward academic staff, administrators, and support staff. This institution also developed summer workshops for faculty who teach under-prepared students, and an informal discussion group for faculty at different campuses who all taught common courses, such as mathematics and writing. One research university provided deans with substantial money for each individual college to develop its own staff development program.

Many institutions ran ongoing brown-bag lunch discussions that focused on topics such as student assessment, portfolio development, etc.

The links to Weick's sense-making properties are as follows. Development opportunities brought together people in a *social* way to learn new skills and gain new knowledge related to the unfolding changes. Many of these activities were *ongoing*, including brown-bag discussions, seminars, and faculty discussion groups. They focused on adapting ideas from elsewhere (portfolio assessment) and making *them plausible* to fit local contexts and challenges.

Outsiders and their ideas

The change processes at these six institutions benefited from the ideas, comments, suggestions, and challenges from interested outsiders who challenged key institutional beliefs and assumptions. In many instances, these outsiders had latitude to ask challenging questions difficult for campus leaders to raise, particularly when they were invited speakers or paid consultants. The institutions also benefited by sending staff and senior administrators to off-campus activities. Institutions participated in a variety of national and regional projects with other colleges and universities. They also sent groups of academics and administrators to regional and national conferences. Leaders additionally frequently distributed key readings and developed ways in which to discuss those readings at retreats, during regularly scheduled meetings, or through reading groups specifically organized as professional seminars. However, leaders did not simply distribute readings; they developed mechanisms to actively engage the campus in a discussion of the ideas from people beyond the campus borders.

For example, at one research university, the Center for Teaching Excellence sponsored a symposium that brought together 200 academic staff and administrators and featured a set of national experts discussing key themes related to the institution's transformation agenda. The afternoon consisted of faculty reacting to the ideas presented by the speakers and a set of small group conversations to explore the implications of the early topics for the institution. At a different research university, administrators sponsored a set of public lectures by nationally renowned experts. Each lecture was linked conceptually



to the others and introduced different perspectives on related topics. A community college identified a set of common readings that it widely disseminated on its campuses. It then organized facilitated discussions to explore the article, argue with its thesis, and explore potential implications for the college. A liberal arts college, in addition to a highly publicized speaker series, sent teams of academics to numerous conferences and site visits. Each visiting team was given a concise set of questions to explore during its time away from campus. The institution, because of its small size and rural location, believed it needed to expose faculty to new ideas by sending them off-campus and giving them the responsibility of engaging colleagues upon return. This same institution was able to forge a partnership with a well-known professional development seminar. It sent any willing faculty and staff to a week-long seminar run by the group and held a 2-day workshop for the entire university staff.

The connections to Weick's sense-making proprieties include the following. Outsiders and their ideas challenged current ways of knowing and perceiving, helping the institution to consider what is *plausible* and to reflect *collectively* (*socially*) upon past ways of operating and thinking (*retrospective*). They provided *cues* and brought perspectives on the *changing environment*. The influence of outsiders may not have been ongoing, except where institutions used readings as part of continuing faculty development opportunities.

Concrete ideas and guiding documents

Change leaders organized processes to develop a guiding document (or set of documents) or craft a set of concrete ideas that would shape the direction of the change agenda and connect it to important institutional values. Although the document(s) themselves were important, the *process* of creating, drafting, circulating, discussing, rewriting, presenting, and polishing the document may have been the larger contribution to making new sense. Writing down important ideas got people to talk about their assumptions and leaders engaged the campus continuously at faculty retreats, cabinet meetings, and campus forums.

A liberal arts college developed an open and inclusive process to create a campus compact, a document that would help the college 'articulate its most basic values' and set the institutional vision. After an initial retreat involving over 250 people, including academic staff, administrators, students, community members, and trustees, a working group developed numerous drafts, vetted them with different stakeholder groups, debated their suggestions, and then sought the endorsement of student and staff senates, the entire academic staff, and the board of trustees. At a different institution, academic staff created a



document that reflected a set of guiding education principles to shape the new general education curriculum. However, rather than create a traditional planning document, the faculty working group instead presented multiple and conflicting viewpoints about what a general education curriculum might be. They then sought feedback on the variety of options presented. They took the feedback and created narratives to reflect the ongoing debate over key curricular issues. Through this dialectic, institutional leaders were able to identify potential conflicts and points of departure and surface implicit assumptions that might create future stumbling blocks.

The process of creating documents and developing a set of guiding ideas involved many people (*social*). Documents were not drafted alone, but by groups of people. In the process of writing, debating, and rewriting, those involved re-examined key assumptions, and their roles in light of the issues being explored. The content typically brought into relief questions about their *identities*. These documents talked about what the institution was becoming, thus acknowledging past ways of operating (*retrospective*). The documents tended to be inward focused and not talk about the environment, except in prefatory comments.

Public presentations

Institutions created numerous opportunities for people involved in the change efforts to give public presentations about the institution and its change agenda. The practicality of putting together and delivering presentations may have helped unfreeze mental frames and begin to develop new models. First, organizing and creating a presentation demands that people think about their ideas and assumptions. Second, hearing their own presentations and speaking aloud creates another opportunity for an individual or group to catalyze thoughts. Finally, the presenters have an opportunity to hear and respond to questions from the audience.

All of these institutions were involved in at least one other national or regional project in addition to the ACE project, and a couple were involved in numerous projects on a range of related topics. Each project was intended to advance a different part of the institution's transformation agenda and each provided a different avenue to speak publicly about the institution and its transformation efforts. As one administrator from a research university noted, 'the national discussion regarding issues and problems in higher education sustains the change. Faculty exposure to and participation in this discussion increases their interest and understanding of our change process.'

The connections to Weick's sense-making properties include the following. The process of putting together public comments was rarely a solo activity; instead it was *social* and collective. The public presentations tended to focus on



what the institution had become or had accomplished and, thus, was *retrospective*. It reinforced what was *plausible* within the institution's culture and built upon ongoing work, ideas, and accomplishments. These presentations told audience members who the institution was and what it was becoming, and why. It placed the institution's effort in an *environmental* context needed to explain why the institution was undertaking large-scale change. These presentations brought together discrete elements of the change process and placed them in a larger perspective.

A chronology of sense-making strategies

In addition to the specific change strategies that facilitated sense-making, the finding suggests that these activities are clustered chronologically, depending on the stage of the transformation agenda. One set occurred at the beginning and middle of their efforts — engaging in continuous, widespread conversations, developing working groups, benefiting from outsiders and their ideas, and sponsoring faculty and staff development opportunities. At later stages, the sense-making activities switched to preparing and giving public presentations and creating documents or concrete sets of ideas. This evolution does not suggest that institutions stopped their earlier sense-making activities; however the amount of time and attention spent on them did change.

Implications

The results from this study suggest a series of implications. First, effecting transformational change is as much about ideas and thinking as it is about action. Getting people to adopt new mental models is a cognitive and intellectual process, and implementing transformation is not simply dependent upon changing structures, policies, and reward systems. New pay systems alone do not induce new sense.

Institutional change leaders should intentionally design change strategies that facilitate new sense, leaving behind old ideas, assumptions, and mental models. Leaders at these institutions asked themselves questions early in the transformation process that initiated sense-making. Blooming Community College asked itself, 'What does it mean for a community college to put learning first?' By intentionally developing sense-making activities in an institution's change processes, institutions might effect change more quickly and more smoothly than institutions where sense-making strategies are accidental.

The findings suggest that transformation is an open-systems process, as outsiders play important roles in facilitating institutional change and in adopting new sense. Institutional leaders should not adopt an isolationist attitude if the outsiders are selected intentionally for their challenging and different views.



Additionally, higher education transformation, from a sense-making perspective, requires more leaders and participants, not fewer. No heroic leaders who independently will effect transformation need apply. Keeping the responsibility for leading change to a few high-level administrators does not create the widespread opportunities for participation and interaction needed for collective, institution-wide sense-making. Revealing a final product or a well-crafted plan produced by a few does little to encourage sense-making and does not allow for a large number of individuals to participate in making new meaning.

Finally, a few words about Weick's (1995) sense-making framework, which was developed to explain ongoing organizational life, not a specific process. The results suggest that his elements do not fit evenly across the change strategies and that sense-making, as it relates to institutional transformation in higher education, is dependent more on some properties than on others. For example, the elements of identity and plausibility, its social nature, and the use of extracted cues were readily observable in most of the strategies. On the other hand, change strategies that fostered sense-making were not uniformly retrospective or connected to the environment. One might conduct future research on the variation in sense-making principles as they pertain to institutional transformation, investigating the ways in which sense-making properties vary, when they vary, and the extent to which that unevenness affects sense-making.

Notes

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2 The names of the institutions are pseudonyms.

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