

Institutions of Higher Learning and Learning Organizations

Annotated Bibliography

Research question: What can “learning organization” literature tell us about how institutions of higher learning might better support student achievement?

Literature search emphasis: The annotated bibliography that follows includes both conceptual and empirical literature exploring learning organizations and related concepts. I placed a priority on locating articles that discuss application of the learning organization concept to higher education. However, to understand how this concept evolved from a corporate context, key business management articles are also included (e.g. Senge, 1990a; Garvin, 1993).

Conceptual frameworks: To investigate the definition, rationale, and differing perspectives on learning organizations, scholarly texts discussing the nature and application of the learning organization to higher education and business were located (e.g. Angelo, 2000; Birnbaum, 2000).

Empirical research: To investigate the empirical basis for learning organizations, research reports on learning organizations and related constructs (e.g. collaboration) in higher education were also located (e.g. Harman, 2005; Kezar, 2006).

Summary of findings:

Conceptual frameworks:

Definition: Garvin (1993) argues that abstract, inconsistent conceptualizations of the learning organization, such as those advanced by Senge (1990a), contribute to the confusion regarding what a learning organization is and how it comes to be.

Nevertheless, there is some consensus in the literature that what constitutes a learning organization is its ability to improve performance by collecting and sharing information within and between organizations. Senge (1990b) defines a learning organization as one in which “people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (p. 3). Garvin similarly emphasizes innovation and collaboration in his definition of a learning organization as one

that is “skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights” (p. 80). Garvin explains that Senge’s definition emphasizes abstractions like personal transformation, while his emphasizes the concrete processes in which learning organizations engage.

Characteristics: Birnbaum (2000) claims that amorphous descriptions of management models allow advocates to discuss them in self-serving ways. According to Dill (1999), learning organization literature is “eclectic, evaluating ideas and concepts according to their applicability rather than through theoretically rigorous and grounded research studies” (p. 129). Some authors characterize this lack of conceptual clarity in terms of flexibility. For example, Hodgkinson and Stewart (1998) explicitly avoid identifying any concrete processes in favor of the notion that learning organization cultures should be cultivated organically. Their assertion that processes, rather than products should be emphasized in this transformation “deliberately avoids any sort of ‘misplaced concreteness.’” Senge (2000) similarly avoids offering a specific blueprint, claiming that “the Learning Organization is a vision. It is not a model. It is not a summary of practices” (p. 277). Despite such flexibility, the learning organization literature frequently presents frameworks, tool sets, and strategies for transformation, such as those discussed below.

Many learning organization authors reviewed here focus on identifying characteristics of successful learning organizations and developing conceptual frameworks from these examples. For example, Senge (1990a, 1990b) outlines “disciplines” that characterize a learning organization; Angelo (2000) seven “transformative ideas,” Dill (1999) five characteristics of academic learning organizations, Garvin (1993) “five main activities,” of business learning organizations, Marsick and Watkins (2003) “seven dimensions” that facilitate change, and Watkins (2005) nine implications for institutions of higher education becoming learning organizations. Many of these frameworks bring an existing theoretical perspective to a formal (e.g. Kumar & Idris, 2006) or informal (e.g. Senge, 1990a) analysis of successful learning organizations.

Though conceptual frameworks vary depending on the type of organization being described, they all emphasize intra and inter-organizational collaboration. Intra-organizational collaborations involve the establishment of both formal and informal structures to promote a culture of collaboration. For example, Kezar (2006) finds that “highly collaborative

universities” tend to establish both formal structures such as cross-disciplinary centers, and informal strategies such as networking events. In addition, discussions of inter-organizational collaboration emphasize the importance of establishing formal and informal partnerships between institutions. For example, Patterson (1999) identifies ten integrating models for university collaborations, while Borzsony and Hunter (1996) describe their university’s partnership model and its underlying philosophy.

Learning organization literature also frequently emphasizes a model of collaboration in which boundaries within and between organizations are blurred. For example, Borzsony and Hunter (1996) highlight the inclusion of students as equal decision-making partners in their university partnership model. Such blurring has even been inscribed in national policies promoting increased permeability between institutions. In fact, external pressures on institutions of higher education to collaborate toward realizing national economic priorities are frequently cited in arguments for organizational reform. Patterson’s (2005) description of the “commitment of governments to reduce academic elitism and privilege by raising the status of vocational-sector education to that of equal partner with university education” is one example of government calls for inter-organizational permeability.

Institutional collaboration also provides a means of assessment. First, collaborative goal-setting helps organizations identify shared criteria. Second, organizations provide one another with external assessments. Third, organizations engage in “benchmarking,” or identifying processes that make other institutions effective, and adapting these processes to their own purposes (See Garvin, 1993, for a precise account of benchmarking). Fourth, organizations participate in vertical partnerships that help them reassess their goals. For example, K-16 partnerships help to promote better college preparedness and to reduce overlap between institutions. Last, organizations self-assess by communicating across levels. If universities want to assess how students are learning, for example, they should ask students to provide feedback and to participate in reform efforts.

Rationale for universities becoming learning organizations: There is serious disagreement over whether universities can become learning organizations. The development of the learning organization concept and its corresponding models can be traced to business reform efforts. This has led a number of scholars to question whether the learning organization concept can be applied to educational institutions. Accordingly, much of the conceptual

literature addresses this question. The concept of the learning organization developed out of concern over businesses' ability to adapt in a rapidly changing, increasingly competitive environment. Senge (1990a) begins with the question of why, on average, individuals live longer than businesses. He proposes that businesses die because they are stuck in old models that emphasize reactivity and top-down decision making. What is needed, he argues, is a systems approach in which the focus shifts to shared responsibility and pro-activity. Organizations' main focus should be on innovation, not just problem-solving, and this requires a highly collaborative, creative organizational model. The learning organization embodies this model.

Are universities analogous to businesses? Garvin (1993) argues that universities do not fit the criteria of learning organizations; however, as Dill (1999) points out, this does not mean that they cannot. Birnbaum (2000), a former promoter of business management models in universities (now an "apostate") argues that the analogy doesn't hold because each institution serves a fundamentally different purpose, a distinction that reformers fail to seriously consider. He compares the question of why universities can't be more like businesses to the question, "Why can't a cat be more like a dog?" (p. 215). While businesses are motivated by profits and must continually adapt to changing customer tastes, universities are motivated by a core set of principles that must be conserved if they are to maintain their social significance. He raises a host of questions about the business-university analogy including the issue of what "product" educational institutions deliver. Is the student the product or the consumer? Because universities "produce" something intangible—individual transformation—Birnbaum argues they can't be assessed in the same way businesses assess profits.

Much of the learning organization literature assumes that universities exist to promote student achievement. However, skeptical academics argue that taking student learning as the university's primary objective would erode its core research mission. Accordingly, two titles included here take the form of questions: "The academy as learning community: Contradiction in terms or realizable future?" (Senge, 2000) and "Can universities become true learning organizations?" (White & Weathersby, 2005). These questions become increasingly urgent as the application of business models to institutions of higher learning becomes a key feature of national educational reform policies elsewhere. For example, Harman (2005) discusses the effects of a Commonwealth Government higher education policy that resulted in "the dramatic transition of Australian universities to a more entrepreneurial, commercial

and managerial character” (p. 80). Similarly, Patterson describes government pressures for institutions of higher learning to meet national economic needs “through the pursuit of a highly-skilled work force.” If these policy trends continue, universities may come under increasing pressure to adopt business models.

Another recurring feature of attempts to transform universities into more business-like institutions is the use of crisis rhetoric. Authors promoting the application of business models to education invariably describe the need to survive increasing competition and an accelerated pace of change. In order to survive, the argument goes, institutions of higher learning must adapt in the same way that businesses adapt. Birnbaum, however, questions whether the U.S. higher education system, widely recognized as the best in the world, is truly in crisis.

Despite these reservations, Birnbaum ultimately argues that reform efforts are invaluable because they help universities consider themselves from other perspectives. Though the authors described here frequently raise questions about the direct applicability of business models to institutions of higher learning, they nevertheless conclude that it is both possible and beneficial to reform. For such reform efforts to be effective, business models will need to be adapted to the purpose and culture of institutions of higher education. Accordingly, several of the articles included here discuss what adaptations are necessary. For example, Kezar (2006) suggests that personnel characteristics, such as faculty’s intrinsic motivation, mean that less formal structures for training people to collaborate are more effective than the formal training called for in business models.

Many authors included here note the irony that institutions centered on learning may have difficulty becoming learning organizations. After all, many of the features described by Garvin (1993), including skepticism, scientific method, and quantitative data analysis, are central to university research. Then what features of institutions of higher learning make this transformation especially difficult? Among those most frequently identified are tenure, departmentalization, scholarly skepticism, weak management, competitiveness, and acute specialization. Because learning organizations depend on inter and intra level communication, such features are often characterized as obstacles to collaboration that must be overcome if universities are to adapt to fast-paced change.

Also frequently characterized as an obstacle is the inherently conservative nature of universities. Birnbaum goes so far as to claim that “It is as difficult to change a university as it is to change a religion” (p. 222). Part of a university’s role is the conservation of academic values, which, some claim, are at risk of eroding under the pressures imposed by economically oriented business management models. Despite these “obstacles” to reform, the literature reviewed here consistently suggests that, as long as change agents are mindful of universities’ legitimate concerns, change efforts can succeed in promoting organizational learning.

Empirical research:

Critics and advocates alike frequently discuss the dearth of empirical research supporting the learning organization concept. The literature reviewed here includes few empirical studies, and the majority of these are based on formal or informal case study methods. Though some studies are transparent and rigorous about their case selection (e.g. Kezar, 2006), none include performance measures other than self-reports. This means that we essentially have to take learning organization promoters’ (many draw from experience as consultants) advice that their models will work. Despite the calls for assessment inherent in learning organization literature, there is little evidence that this concept improves organizational efficacy. In fact, Birnbaum argues, there is no means for providing such empirical support, since the business management models are often poorly defined.

As a result, most promoters of business reform models rely on anecdotal evidence from success stories, and little research examines failures or the negative effects of reform efforts. Birnbaum’s criticism seems to be validated by the prevalence of case studies and other illustrations of successful organizational learning in this collection of literature. Because advocates wishing to transform institutions of higher learning into learning organizations often call for “radical” (e.g. Senge, 2000) change, this lack of empirical support is of particular concern.

Practical Implications:

Despite these concerns, there is a growing trend toward more collaborative and assessment-driven organizational models across organization types (e.g. business, education, non-profit). Even the most skeptical literature reviewed here suggests that universities can become more like learning organizations and might benefit from doing so. Transforming universities into

learning organizations is possible when change leaders address legitimate reservations regarding differing institutional purposes, when they reward and facilitate change, when they sustain their efforts, when they establish formal and informal structures to promote collaboration, and when they implement change at a judicious pace. Because universities can be expected to resist the changes described here as a threat to their core values, change agents should also expect this resistance and be proactive in responding to it. If they are empowered and supported in change efforts, department chairs can play a key role in facilitating change. The best advice for those seeking to transform institutions of higher learning into learning organizations may be to start small and to proceed with caution.

References

Angelo, T. A. (2000). Transforming departments into productive learning communities. In A. F. Lucas (Ed.), *Leading Academic Change: Essential Roles for Department Chairs* (1st ed., pp. 74-90). San Francisco: Jossey-Bass.

Summary: Angelo identifies department chairs as key players for implementing change. He outlines seven change guidelines that are based on the assumptions that 1) academic departments exist chiefly to deliver high-quality instruction, and 2) the collaboration necessary for meeting this primary goal is not the norm in institutions of higher education. He proposes that change efforts frequently fail because change agents typically do not acknowledge faculty's legitimate reservations about making student learning a primary department objective. In his view, faculty fear that this priority will "undermine scholarship and academic freedom, two deeply held values in academic literature" (p. 75)

Practical implications: Many of the seven guidelines hinge on team-building and communication: 1) build trust; 2) build motivation for change; 3) build a shared language; 6) practice what you preach; and 7) do not assume; ask. The remaining guidelines emphasize goal-setting and assessment: 4) design backward and 5) think and act systematically. Also provided are specific activities chairs can use to implement the guidelines in their departments.

Birnbaum, R. (2000). *Management fads in higher education: Where they come from, what they do, why they fail*. San Francisco: Jossey-Bass.

Summary: This book contains a rich account of attempts to apply business models to higher education from 1960 to 2000. Birnbaum focuses on recurring patterns in these attempts, including education crisis rhetoric, lack of supporting empirical data, non-falsifiability of claims, and failure to seriously address differing institutional purposes. The author sharply questions several assumptions underlying attempts to make institutions of higher learning run like businesses, particularly the assumptions that education is in crisis and that businesses are run more effectively. He then discusses why these reform efforts fail, their positive and negative consequences, and how these efforts can be engaged in constructively.

Practical implications: Despite his trenchant criticisms of management fads, Birnbaum concludes that, "the process of adopting and then abandoning fads may be seen as essential to the survival of the higher education system" (p. 197). Though they have lasting negative consequences, such as "measurement mania" and reduced commitment to education, fads also have lasting positive effects, including recognizing the importance of data and

emphasizing alternative values. University administrators can maximize the benefits and minimize the costs associated with fads when they 1) "consider fads with skeptical interest," 2) "invest in knowledge," 3) "avoid the bandwagon," 4) "anticipate resistance," 5) "start small," 6) "do not overpromise," 7) "culturally customize," 8) "adopt experimentally," 9) "do not relax commitment or support," and 10) "build in assessment."

Borzsony, P., & Hunter, K. (1996). Becoming a learning organization through partnership. *The Learning Organization*, 3(1), 22.

Summary: The authors describe a partnership designed to help a Scottish university become a learning organization. They emphasize the benefits of collaborating with students, who learn transferable skills, help the university develop programs, and teach as well as learn from faculty.

Practical implications: This article provides an example of a university applying the typical advice that traditional hierarchical organizational structures must be transformed into more flexible, collaborative structures. The authors provide both a theoretical framework and specific examples of implementation that universities might replicate elsewhere.

Dill, D. D. (1999). Academic accountability and university adaptation: The architecture of an academic learning organization. *Higher Education*, 38(2), Changes in Higher Education and Its Societal Context as a Challenge for Future Research (II), 127-154.

Summary: The author reports on a European university case study of organizational learning. Dill concludes that although the pace of university adaptation is slowed by faculty specialization and autonomy, universities are adapting to external accountability and increased competition pressures. He explains that the degree to which departments embrace systematic, evidence-based organizational learning depends on the academic field. Such adaptation is not as prevalent in less structured fields (e.g. humanities) where faculty believe "that teaching is an 'art' rather than a 'science'" (p. 136) as it is in more structured fields (e.g. business and medicine) where scientific method is the norm.

Practical implications: Dill concludes that universities are adapting to external accountability and global competition pressures, and identifies patterns of adaptation that are consistent with organizational learning. Among these are a culture of evidence-based learning, increased cross-disciplinary coordination, and collection of external feedback.

Garvin, D. A. (1993). Building a learning organization. *Harvard Business Review*, 71(4), 78-91.

Summary: This often-cited article is indispensable for anyone seeking a practical understanding of the learning organization framework. The author first discusses the problems accompanying continuous improvement programs, including the rarity of successful outcomes compared to failures, fuzzy and variable definitions of a learning organization, and the idealistic, "near mystical" (p. 78) language found in much learning organization discourse. He moves beyond these abstractions to describe the difficult work required for successful application. Garvin provides a rigorous definition: "A learning organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights" (p. 80). Universities, he explains, do not meet these criteria (nor does GM). Several rare business successes, including Xerox, GE, and IBM, are identified to illustrate the characteristics and benefits of organizational learning.

Practical implications: Garvin outlines a pragmatic framework focusing not on what could be, but what has demonstrably led to business learning and improvement. This framework includes five activities inherent in successful learning organizations. These are: "systematic problem solving, experimentation with new approaches, learning from their own experience and past history, learning from the experiences and best practices of others, and transferring knowledge quickly and efficiently throughout the organization" (p. 81). The activities rely heavily on the use of scientific method, quantitative data analysis, and information sharing.

Gentle, P. (2001). Course cultures and learning organizations. *Active Learning In Higher Education*, 2(1), 8-30.

Summary: The author conducts an "ethnography" of two UK vocational programs' course cultures. He then discusses a model of course culture that is consistent with the learning organization framework and that emphasizes student-centered approaches. He also identifies some of the difficulties involved in adapting to this model, including "lack of appropriate educational management strategies"(p. 10) and lack of interest in a model emphasizing the role of students as co-learners.

Practical implications: The author echoes Senge's (2000) position that there can be no static set of recommendations for organizational transformation. However, Gentle refers readers to a number of "tool kits" found in organizational change literature he claims will help educators transform academic programs into learning organizations.

Harman, G. (2005). Australian social scientists and transition to a more commercial university environment. *Higher Education Research & Development*, 24(1), 79-94.

Summary: The author uses faculty survey data to investigate the effects of Australian government-mandated changes to a more "commercial, entrepreneurial, and managerial university environment" (p. 79). He concludes that although faculty resisted these changes as being detrimental to academic values, they remained highly productive and strongly committed to researching, teaching and addressing social problems after the changes were implemented. He then lists a number of contradictory findings, such as faculty involvement in commercial activities despite their resistance to commercialization and faculty's collaboration with external organizations (e.g. government agencies) to solve social problems despite their intrinsic, rather than utilitarian motivation.

Practical implications: This research investigates the effects of applying a business model to higher education. Results indicate that though faculty morale deteriorated when operating within this managerial model, their productivity did not. Harman concludes that these scholars were essentially making the best of a bad situation that was beyond their control because of their personal commitment to their work.

Hodgkinson, P. F. M., & Stewart, J. (1998). Towards universities as learning organisations. *The Learning Organization*, 5(5), 228.

Summary: The authors argue that universities are uniquely positioned to experiment with learning organization theory. This argument is premised on a postmodern understanding of learning organizations that emphasizes learning *processes*, which the authors contrast with a modernist view that emphasizes products and organizational structures. Potential obstacles to cultivating universities as learning organizations are also discussed, including the skepticism inherent in scientific method, jargon-influenced communicative barriers, and differing priorities for university work.

Practical implications: The authors discuss strategies that highlight the interaction between individual and collaborative learning. These strategies are premised on the idea that rather than implementing formal strategies for organizational learning, strategies should be viewed as "interventions" in the naturally occurring cycle of work, assessment and learning. Such strategies would make individual learning more visible to others and would promote discussion and collective learning. Several examples of these strategies that the authors observed in the UK are described, including teaching observation teams, task-centered teams, and mentoring relationships.

Kezar, A. J. (2006). Redesigning for collaboration in learning initiatives: An examination of four highly collaborative campuses. *The Journal of Higher Education*, 77(5), 804-838.

Summary: The author investigates organizational characteristics that promote collaboration in universities. Using case study methodology, Kezar analyzes four highly collaborative universities, and then compares organizational features to those presented in a business model. She finds that although university characteristics that enable collaboration are similar to those highlighted in the business model, university culture made other features of that model less applicable. For example, training was a significant feature in both models; however, the universities relied more on informal processes such as modeling and peer interaction while the business model emphasized formal training sessions. Kezar suggests these differences can be explained in part by motivation: university faculty are "likely motivated by people more than by goals, management, or rewards" (p. 830).

Practical implications: The author offers a model for university collaboration based on her findings, noting that it might not be applicable to smaller institutions such as community colleges. The model includes ten recommendations: 1) Review the university mission and communicate it across campus; 2) Build networks for collaboration; 3) Build formal structures such as cross-disciplinary centers; 4) Revamp campus computing and accounting systems to support collaboration; 5) Revise rewards structures such as tenure, but proceed with great caution in doing so; 6) Make sure senior staff support and model collaboration; 7) Disseminate and reiterate collaborative values in major campus documents; 8) Capitalize on external pressures such as professional organizations' emphases on collaborative work; 9) Promote collaborative values such as student-centered teaching and innovation; and 10) Ask faculty from across disciplines to lead sessions about the benefits of collaboration (p. 831).

Kuh, G. D. (1999). How are we doing? Tracking the quality of the undergraduate experience, 1960s to the present. *The Review of Higher Education*, 22(2), 99-120.

Summary: The author compares U.S. student survey data pre and post 1980s reform efforts. Results indicate that while some gains have been achieved following these efforts, students reported diminished effort in their studies, less appreciation for art, literature, and science, and less awareness of other cultures.

Practical implications: Kuh interprets these results as suggesting the need for 1) a "rethinking [of] what constitutes liberal education in the present context"; 2) increased faculty effort to cultivate deep intellectual skills (e.g. analysis and self-directed learning);

and 3) development of curricula that serve the learning purposes formerly addressed by eroding cultural norms (e.g. living on campus).

Kumar, N., & Idris, K. (2006). An examination of educational institutions' knowledge performance: Analysis, implications and outlines for future research. *The Learning Organization*, 13(1), 96.

Summary: This study investigates the relationships between 1) seven dimensions of learning organizations (Watkins & Marsick, 2003), 2) institutional characteristics, and 3) self-reported performance estimates among a sample of private Malaysian higher learning institutions. The authors find that three dimensions—leadership for learning, team learning, and embedded systems—are positively correlated to perception of performance. This finding gives rare empirical weight to the learning organization reform framework.

Practical implications: The authors emphasize learning organizations as a way to survive in a quickly changing, highly competitive environment. They suggest that private institutions of higher learning can maintain a competitive edge by investing in the development of learning organization dimensions.

Lucas, A. F. (2000). A collaborative model for leading academic change. In A. F. Lucas (Ed.), *Leading academic change: Essential roles for department chairs* (1st ed., pp. 33-53). San Francisco: Jossey-Bass.

Summary: Lucas identifies the department chair as a key figure in successful change efforts, and then suggests Kotter's (1996) eight-stage model as a comprehensive but flexible tool for implementing change. This model emphasizes the importance of team effort, communication and empowerment. The author illustrates the usefulness of Kotter's model with examples of successful and unsuccessful change efforts from her experience as a consultant.

Practical implications: The model's eight stages are: 1) "Establishing a sense of urgency," 2) "Creating the guiding coalition," 3) "Developing a vision and strategy," 4) "Communicating the change vision," 5) "Empowering broad-based action," 6) "Generating short-term wins," 7) "Consolidating gains and producing more change," and 8) "Anchoring new approaches in the culture" (p. 35). The author argues that change efforts will fail if change leaders neglect any one of these steps.

Patterson, G. (1999). The learning university. *The Learning Organization*, 6(1), 9.

Summary: The authors begin with the premise that universities must become learning organizations in order to respond to increasing competition and accelerated social change. One implication of this transformation is that boundaries between universities and other educational institutions, including vocational and secondary schools, are being blurred. Ten integration models are identified and discussed.

Practical implications: The authors provide examples of university partnerships for each model. In one of the more highly integrated models, universities merge vertically with educational institutions such as vocational schools and colleges into a single "tertiary university institution." The authors argue that this model benefits both the educational institutions, which reduce overlap and become more efficient, and students, who are able to transfer seamlessly between institutions.

PBS Frontline. *The 'business model'*. Retrieved 8/16, 2007, from

<http://www.pbs.org/wgbh/pages/frontline/shows/schools/standards/business.html>

Summary: This PBS link includes excerpts from *Frontline* interviews in which education reformers and journalists respond to the questions: "Has the business community played too big a role in the standards movement?" and "Is there a new 'business model' for education?"

Practical implications: The concept of learning organizations originated in and is frequently written about from the perspective of the business community. The idea that universities can become learning organizations is based in the assumption that educational institutions are analogous to businesses and can be transformed using business models. However, there is a good deal of disagreement over the plausibility of this analogy, even among learning organization proponents. These interview excerpts represent different perspectives on the business-education analogy.

Senge, P. M. (1990a). The leader's new work: Building learning organizations. *Sloan Management Review*, 32(1), 7.

Summary: This developer of the learning organization concept explains how the idea evolved from investigations into businesses' distressingly short life spans. The reason most businesses fail, he argues, is that they conceptualize management in individualistic, rather than systemic, terms. He outlines a new leadership approach based on systems thinking in which managers' primary responsibility is to facilitate organizational learning rather than to develop and implement problem-solving strategies. Because managers with the necessary skills to facilitate such learning are so rare, future managers need to be trained in these skills.

The three core skills, or disciplines, that managers must have to successfully transform businesses into learning organizations are: "the ability to build shared vision, to bring to the surface and challenge prevailing mental models, and to foster more systemic patterns of thinking" (p. 9).

Practical implications: The author describes specific strategies and tools for transformation, which he illustrates with examples of business successes. The strategies emphasize historical thinking, transparency, creativity, motivation, system complexity, experimentation, and collaboration. For example, the "left-hand column" strategy is designed to help make team members' implicit assumptions transparent to one another. In this exercise, participants make one column for what they have said on the right and one for their corresponding thoughts on the left. According to Senge, such exercises help team members move beyond defensiveness and toward shared learning.

Senge, P. M. (2000). The academy as learning community: Contradiction in terms or realizable future? In A. F. Lucas (Ed.), *Leading Academic Change: Essential Roles for Department Chairs* (1st ed., pp. 275-300). San Francisco: Jossey-Bass.

Summary: Senge, who is often credited with developing the learning organization concept, answers the titular question with a call for institutions of higher education to become learning organizations. He begins by discussing the conservative nature of universities and the need for them to change in response to increasing competition. He then discusses some of the lessons he took from his years as an organizational change consultant.

Practical applications: Because Senge assumes there can be no uniform model or set of practices for successful change efforts, he does not provide one. Rather, he emphasizes the need to change from traditional structures based on executive control to flexible organizational structures based on collaboration at multiple levels. This new model is structured around collaboration within and between teams, as well as collaboration between organizations. For institutions of higher learning, this means that department chairs, junior faculty, and students would play central roles as change agents. Nothing less than a "radical" change in the status quo is needed for organizations to become learning organizations, a transformation made necessary by an ever-accelerating pace of change.

Watkins, K. E. (2005). What would be different if higher educational institutions were learning organizations? *Advances in Developing Human Resources*, 7(3), 414.

Summary: Watkins, a developer of the seven dimensions of learning organizations (Watkins & Marsick, 1993), begins by noting the features of higher education institutions that make organizational change especially difficult. Chief among these is the culture of individual and departmental autonomy common to research universities. The author then answers the titular question by outlining nine implications for transforming institutions of higher learning into learning organizations that emphasize collaboration, transparency, capacity building and pro-activity.

Practical Implications: The nine practical implications identified by the author are: 1) goals for change would be explicit from the start; 2) the "right people" would be found to lead the change efforts; 3) the change would include as many "voluntary elements" as possible; 4) the change would be both participatory and managed from the top down; 5) change leaders would work collaboratively; 6) change leaders would maintain momentum; 7) change leaders would expect and manage turbulence; 8) change leaders would expect and manage resistance; and 9) change leaders would provide the support necessary to bring about the change.

White, J., & Weathersby, R. (2005). Can universities become true learning organizations? *The Learning Organization*, 12(3), 292.

Summary: The authors begin with the premise that "few of the underlying values that serve as the underpinnings of the learning organizations are actually honored in the university" (p. 292) and outline several strategies for overcoming "institutional obstacles." These obstacles include the conservative goals of the university, faculty autonomy and competition, and academic skepticism. The authors emphasize the power of individual contributions at all levels of the university in bringing about change.

Practical implications: Obstacles to universities becoming learning organizations can be overcome if individuals commit themselves to leading by example and to focusing on small, incremental changes. For example, university players interested in transforming their programs can volunteer to participate in a task force and can model student-centered teaching practices.

Further Reading

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